പതിനാലാം കേരള നിയമസഭ

ഏഴാം സമ്മേളനം

നക്ഷത്ര ചിഹ്നമിടാത്ത ചോദ്യം : 591 — 08.08.2017 ൽ മറുപടിക്ക്

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(എ)കെ എസ് ഇ ബി യിലെ വിവിധ പരിഷ്കരണങ്ങളുമായി ബന്ധപ്പെട്ട് ഏതൊക്കെ ഏജൻസികൾ / സ്ഥാപനങ്ങൾ പഠനങ്ങൾ നടത്തിയിട്ടുണ്ട്; അവയുടെ റിപ്പോർട്ടുകൾ സർക്കാരിന് സമർപ്പിച്ചിട്ടുണ്ടോ; എങ്കിൽ പകർപ്പ് ലഭ്യമാക്കാമോ;	(എ) കേരള സ്റ്റേറ്റ് ഇലക്ട്രിസിറ്റി ബോർഡ് ലിമിറ്റഡിലെ പരിഷ്കരണവുമായി ബന്ധപ്പെട്ട് മാനവ വിഭവ ശേഷി നിർവഹണ കാര്യാലയം മുഖേന ഐ.ഐ.എം., കോഴിക്കോട് ഒരു പഠനം നടത്തിയിട്ടുണ്ട്. പഠനത്തിന്റെ ആദ്യ റിപ്പോർട്ട് സർക്കാരിന് സമർപ്പിച്ചിട്ടുണ്ട്. ആദ്യ റിപ്പോർട്ടി- ന്റെയും അതിനു ശേഷം സമർപ്പിച്ച അന്തിമ റിപ്പോർട്ടിന്റെയും പകർപ്പ് അടങ്ങിയ CD അനുബന്ധമായി ചേർത്തിരിക്കുന്നു.
(ബി) ഓരോ റിപ്പോർട്ടിന്മേലും എന്തൊക്കെ നടപടികൾ സ്വീകരിച്ചു എന്ന് വ്യക്തമാക്കാമോ;	(ബി) ഐ.ഐ.എം., കോഴിക്കോട് സമർപ്പിച്ച ആദ്യ റിപ്പോർട്ട് നടപ്പിലാക്കുന്നതിന് വേണ്ട നിർദ്ദേശങ്ങൾ സമർപ്പിക്കുന്നതിന് ഡയറക്ടർ (ഫിനാൻസ്) അദ്ധ്യക്ഷനായ കമ്മിറ്റിയെ കേരള സ്റ്റേറ്റ് ഇലക്ട്രിസിറ്റി ബോർഡ് ലിമിറ്റഡ് ബോർഡ് ചുമതലപ്പെടുത്തി. ഇതേ തുടർന്ന് ഡയറക്ടർ (ഫിനാൻസ്) ഈ റിപ്പോർട്ടിന്മേൽ ചില വിശദീ- കരണങ്ങൾ ഐ.ഐ.എം., കോഴിക്കോടിനോട് ആരായുകയും അതെ തുടർന്ന് ചില വിഷയങ്ങൾ കൂടി ഉൾപ്പെടുത്തി തുടർപഠനം നടത്തിയതിനു ശേഷം ഐ.ഐ.എം., കോഴിക്കോട് ബോർഡിന് ഒരു അന്തിമ റിപ്പോർട്ട് 07.06.2017-ന് സമർപ്പിച്ചു. ടി റിപ്പോർട്ടിന്മേൽ തുടർനടപടികൾ സ്വീകരിക്കുന്നതിനായി ഡയറക്ടർ (ഫിനാൻസ്) അദ്ധ്യക്ഷനായും, ചീഫ് എഞ്ചിനീയർ (എച്ച്.ആർ.എം.) കൺവീനറായും, ഫുൾ ടൈം ഡയറക്ടേഴ്സ് അംഗങ്ങളുമായിട്ടുള്ള ഒരു ഉന്നതതല സമിതിയെ കേരള സ്റ്റേറ്റ് ഇലക്ട്രിസിറ്റി ബോർഡ് ലിമിറ്റഡ് ചുമതലപ്പെടുത്തിയിട്ടുണ്ട്.
(സി)ഓരോ പഠന റിപ്പോർട്ടിനായും ചെലവഴിച്ച തുക പട്ടിക തിരിച്ച് കണക്ക് ലഭ്യമാക്കുമോ;	(സി) ഐ.ഐ.എം., കോഴിക്കോട് നടത്തുന്ന പഠനത്തിനായി 13.03.2014-ൽ മൊത്തം 57,57,326/- തുകയ്ക്കാണ് കേരള സ്റ്റേറ്റ് ഇലക്ട്രിസിറ്റി ബോർഡിൽ കരാറിലേർപ്പെട്ടിട്ടുള്ളത്. ഇതിൽ ആദ്യ ഗഡുവായി 25,90,663/- രൂപ മുൻകൂറായി നൽകിയിട്ടുണ്ട്.

(ഡി) ഈ പഠന റിപ്പോർട്ടുകളിൽ ഏതെല്ലാം തസ്തികകളുടെ എണ്ണം പരിഷ്കരിക്കുന്നതിന് നിർദേശിച്ചിട്ടുള്ളതെന്ന് പട്ടിക തിരിച്ച് വ്യക്തമാക്കുമോ?	(ഡി) പഠന റിപ്പോർട്ടുകളിൽ പരിഷ്കരിക്കുന്നതിന് നിർദ്ദേശിച്ചിട്ടുള്ള തസ്തികകളുടെ എണ്ണം ചുവടെ ചേർക്കുന്നു.

1	ഡെപ്യൂട്ടി ചീഫ് എഞ്ചിനീയർ
2	എക്സിക്യൂട്ടീവ് എഞ്ചിനീയർ
3	അസിസ്റ്റന്റ് എക്സിക്യൂട്ടീവ് എഞ്ചിനീയർ
4	അസിസ്റ്റന്റ് എഞ്ചിനീയർ
5	സീനിയർ സൂപ്രണ്ട്
6	സീനിയർ അസിസ്റ്റന്റ്
7	കോൺഫിഡൻഷ്യൽ അസിസ്റ്റന്റ്
8	ഫെയർ കോപ്പി അസിസ്റ്റന്റ്
9	മീറ്റർ റീഡർ
10	ഡ്രൈവർ
11	മസ്ദൂർ/ഇലക്ട്രിസിറ്റി വർക്കർ
12	ഓഫീസ് അറ്റൻഡന്റ്
13	സ്വീപ്പർ

സെക്ഷൻ ഓഫീസർ

A REPORT ON

ENHANCING SERVICE QUALITY AND ORGANIZATIONAL EFFECTIVENESS

IN

KERALA STATE ELECTRICITY BOARD LTD

PREPARED BY

INDIAN INSTITUTE OF MANAGEMENT KOZHIKODE

2015

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About This Report

Kerala, with its 33 million people, faces numerous challenges to meet its energy requirements in a sustainable manner. Current production of electricity is far too insufficient to meet the growing demand of the consumers. The Kerala State Electricity Board (KSEB) is in the business of generation, transmission and distribution of electricity and aims to provide quality electricity at affordable cost to all classes of consumers in the state of Kerala. It has an installed capacity of 2445 MW of generation, and transmission and distribution network of over 10,404 and 272,480 circuit kilometres respectively. It caters to the need of over 9 million consumers spread over urban and rural areas of the state.

With substantial changes in the power generation, management and regulation in the country, it is becoming imperative that the power utilities in the country have to be highly professional to meet expectations of multiple stakeholders and remain competitive. With the likely implementation of open access policy over time, the quality of service and efficiency of service delivery becomes extremely critical for survival and growth for power utilities in India. Even though KSEB is considered as one of the best power utilities in the country, on skimming further it could be seen that much of the efficiency is due to low cost of generation and comparatively low aggregate technical and commercial losses. In the absence of these two parameters, KSEB's performance is way farther from the frontier.

As KSEB is slowly transforming to a Govt. owned company, the management of KSEB is planning to embark on a major innovative journey to transform itself as the best power utility of the world by adopting state of the art technologies, retraining its quality manpower resources and developing innovative and sustainable schemes to excel in service delivery. KSEB has requested consultancy assistance from IIM Kozhikode to support the entity in this transformation with the aim to make it the best power utility in the world.

As depicted in Figure, the entire project involves 5 sub projects.

Project A: Benchmarking KSEB manpower performance with the best power utilities in the world.

Project B: Conducting a customer study to assess the current quality of service of the company as well as to assess customer perceptions.

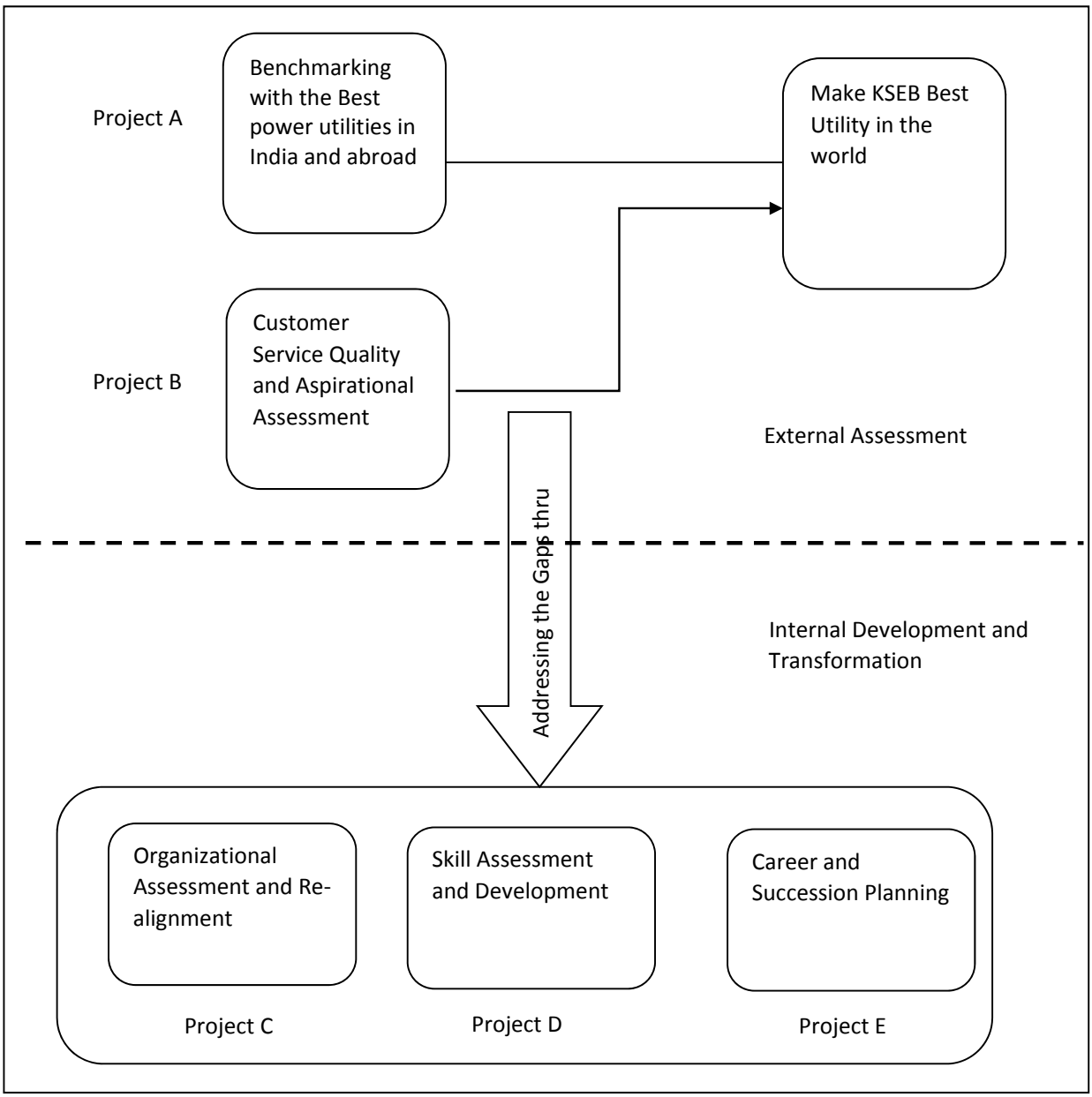
The objective of Project A and B is to assess the gaps existing as well as expected in the level of operation of the KSEB. The three remaining projects intend to bridge this gap by focusing on internal strengthening as follows:

Project C: Organizational assessment of the company, given the inducement of technology to meet the gaps and challenges identified in Project A and B above. Based on the assessment, if required a restructuring exercise will be undertaken to enhance effectiveness of operations. This will also address the manpower issues like stagnation and growth, if any, arising out of such transformation

Project D: Define necessary skills and conduct competency assessment for different positions in the organization so that the skill matching could be better achieved for effective deployment across the three divisions of generation, transmission, and distribution. Conduct training need analysis (TNA) at different levels and create a lifelong learning program to enhance professionalism in the company.

Project E: Develop career and succession planning at KSEB

FIGURE A: SCHEMATIC OF TRANSFORMATION PROJECT OF KSEB



The report is organised in four chapters. Chapter 1 benchmarks KSEB performance in relation to 43 DISCOMS And 29 GENCOS in the country. In chapter 2 the findings and recommendation of a customer survey undertaken to understand customer perceptions and expectations of the service offered by KSEB is presented. Findings and recommendations of the study on organisational assessment and realignment related to structure, human resource competencies and skills is dealt in chapter 3. An overview of key summary and findings is presented in Chapter 4 titled as “The roadmap”.

CHAPTER 1 BENCHMARKING PERFORMANCE OF KSEB

1.1 INTRODUCTION

"India's power sector is a leaking bucket; the holes deliberately crafted and the leaks carefully collected as economic rents by various stakeholders that control the system. The logical thing to do would be to fix the bucket rather than to persistently emphasize shortages of power and forever make exaggerated estimates of future demands for power. Most initiatives in the power sector (IPPs and mega power projects) are nothing but ways of pouring more water into the bucket so that the consistency and quantity of leaks are assured..."

- Deepak S. Parekh, Chairman, Infrastructure Development Finance Corporation, September 2004.

With an aim to plug the loopholes in India's power sector, major reforms were initiated in the Electricity Act, 2003. Few keywords to summarize the act would be: Privatization, Competition, Unbundling, Efficiency, Reduced Uncertainty and Open Access. While the main objective is to incentivize efficiency through competition and unbundling, the enablers to this process are Private participation, Multi Year Tariff Principle, Open Access and Independent regulator. For the objectives to be attained the eco system has to be created and hence it is necessary to put the enablers in place.

(i) **Competition:** Based on the premise that firms in competitive industries are more likely to be efficient, world over starting with UK started allowing private investment in utilities, previously considered as natural monopolies. The basic premise being competition led efficiency.

(ii) **Unbundling:** While privatizing utilities, it is important to create a structure that encourages efficient operations. Unbundling a power utility dis allows for cross subsidization of inefficiency.

(iii) **Efficiency:** Like most network industries, power too enjoys positive network externalities. Hence, there would be scale and scope efficiencies which should be passed on to the consumer.

(iv) **Open Access:** The spirit of competition is dampened if competition is localized. Open access, ensures that consumers get access to the most efficient operator. Hence, it is an important cog in the wheel to ensure competition leads to efficiency.

(v) **MYTP:** Multi Year Tariff principles ensure that the efficient operations are incentivized and these efficiencies are passed on to the consumers in advance through appropriate regulatory pricing mechanisms.

While the main objective is to incentivise efficiency through competition and unbundling, the enablers to this process are private participation, Multi Year Tariff Principle, Open Access and independent regulator. For the objectives to be attained it is necessary to check all the boxes listed above. However, it can be seen that none of the Indian power utilities have followed EA 2003 in letter and spirit. There have been efforts to privatize state utilities without ensuring competition (diminishing monopoly power) in each line of business (generation, transmission and distribution). If there is competition, there is no incentive to enhance efficiency in the pricing mechanism and in many cases open access is also constrained. Hence, although basic reform measures are in place the reforms are yet to culminate into efficient operations and consumer welfare. KSEB put into structure much of the reforms conforming to EA 2003. With an aim to identify areas of improvement as well as to stay competitive, KSEB wanted to benchmark its performance vis-a-vis its peers.

Further, the benchmarking exercise would also help KSEB in following MYTP by incentivizing efficiency and ensuring welfare of consumers. Currently, utilities file their tariff petitions based on an Aggregate revenue requirement, which is nothing but a cost plus mechanism. Under a cost plus pricing regime, there is no incentive to be efficient. In this study, we benchmark the performance of KSEB as a Generating company and a distribution company following Data Envelopment Analysis. We further estimate the possible changes in efficiency that can be passed on to consumers in advance. The change in efficiency is estimated through the *Malmquist Index*. This efficiency can be passed on to the consumers by setting tariffs based on the (RPI-X) formula as prescribed by the Forum of Regulators. If this can be done, then KSEB might be the first utility to have followed the MYTP in letter and spirit.

Multiple prior studies have inevitably found KSEB to be on the frontier. However, most of these studies follow crude single index measures of efficiency. In the present study, we benchmark the performance of KSEB as a DISCOM and a GENCO. We use eight input and two output variables while analysing KSEB's performance as a DISCOM and seven input and two output variables while analysing KSEB's performance as a GENCO. The results of the study reveal that although on considering all the variables together KSEB is efficient and on the frontier, when each variable is considered separately, there are lessons to be learnt. It is seen that KSEB's performance as an efficient DISCOM is primarily due to its low cost of power purchase and low technical and commercial losses. It still has scope for improvement when considering employee costs, administrative and general expenses and operating and maintenance expenses. Similarly, as a GENCO, KSEB needs to improve on its employee costs as well as operating costs. Among other things, these objectives would be achieved through the subsequent phases of this study (Phase 2 is on Customer Service Quality and Aspirational Assessment and Phase 3 is on Organizational Assessment and Re-alignment. Phase 4 is on Skill Assessment and Development and Phase 5 is on Career and Succession Planning).

Finally, we estimate the changes in efficiency that can be passed on to the consumer while filing the multi-year tariff petition. In the case of a DISCOM, we find that KSEB could transfer anywhere between 2-4% of its generated efficiencies to its consumers. As a GENCO, we narrow down to a 1% efficiency factor. As suggested by the forum of regulators, the first regulatory period could be kept at three years. This report is classified in the following sections: Section II gives a historical background to electricity reforms in India; Section III gives the regulatory background to this study; Section IV provides a background note on KSEB, Section V covers the benchmarking of KSEB with 43 other Distribution companies (DISCOMS) and 29 Generating Companies (GENCOS), details the Methodology and Section VI reports the estimation of X-Factor and a illustrative computation of how X-factor can be built into tariff filing following MYTP.

1.1.1 INDIAN POWER SECTOR

Power sector in India has made rapid progress both in the installed generating capacity and transmission and distributions system since independence. The total generating capacity has increased from meagre 1362MW in 1947 to 223344 MW at the end of March 2013. The growth in demand has overtaken the supply of power resulting in power shortages, despite the manifold growth in power generation over the years (Central Electricity Authority,Ministry of Power, Government of India., 2013).

With enhanced economic activity and higher standard of living the per capita consumption of energy has increased from 16.3Kwh in 1947 to 917.2 kWh in 2013. Government of India lays special emphasis on enhancing the supply of power, reduction of transmission and distribution losses and demand side management to optimally utilize the limited resources. The number of villages electrified in India has also increased from 3061 in 1950 to 5, 92,732 in 2013.

TABLE 1.1: CATEGORY-WISE FORECAST OF ENERGY CONSUMPTION IN INDIA BY THE END OF 12TH & 13TH PLAN

Category	**Year 2016-17 End of 12th plan**	**Year 2021-22 End of 13th plan**
Domestic	289924	426148
Commercial	116535	185722
Irrigation	210611	287926
Industrial	393306	585819
Others	88619	126193
Total	1098995	1611808

The Central Electricity Authority (CEA) has forecasted the aggregate requirement of energy by the end of 12th& 13th plan as shown below.(Central Electricity Authority,Ministry of Power, Government of India., 2013). It may be observed that the total consumption is expected to double in the ten years between 2011 and 2021.

TABLE 1.2: PROJECTED CONSUMPTION OF ELECTRICAL ENERGY IN INDIA (2011-12, 2016-17 AND 2021-22)

Year	**Total Consumption (In GWh)**
2011-12	755847
2016-17	1133749
2021-22	1593266

*(SOURCE: **HTTP://WWW.INDIASTAT.COM/POWER/26/CONSUMPTIONANDSALE/70/STATS.ASPX**)*

1.2 REGULATORY BACKGROUND TO THE STUDY

During the last decade, the Indian power Sector has gone through a lot of changes. The regulatory foundation of electricity industry in India was laid mainly by three major acts: ***the Indian Electricity Act, 1910 (IE-1910)***, ***the Electricity (Supply) Act, 1948 (ESA-1948)*** **and** ***the Electricity Regulatory Commissions Act, 1998 (ERCA-1998).*** With the changing environment, many of the acts had become outmoded. Today, the Indian Electricity Act, 2003 is in place, which has repealed all these old electricity laws.

The IE-1910 introduced the licensing system and promoted safety standards in the electricity industry while ESA-1948 was responsible for greater state involvement in the industry. The ESA-1948 promoted a state-owned, vertically integrated structure of electricity industry through the creation of the State Electricity Boards (SEBs). The Electricity Supply Act, 1948 was enacted by the Government since it was felt that the pace of electrification was much below the desired pace and that electricity was only available in major towns/cities. It also envisaged constitution of the Central Electricity Authority (CEA)[1].

SEBs were solely responsible for generation, transmission and distribution of electricity within the geographical limits of a state. While the electricity supply industry made significant progresses under the SEB regime, *a number of problems*[2] appeared due to poor financial health[2] of SEBs, these problems were addressed through amendments to the ESA-1948 & IE-1910 to bring incremental changes to the system. In 1970s, the ESA-1948 was amended to allow participation of the central government in the power generation[3] through large-scale projects that serve more than one states (Bhattacharyya, 2003).

The efforts to restructure the power sector in India formally commenced in the year 1991. Through the amendment of the Electricity Laws (Amendment Act) of 1991, the Central Government opened up the generation segment to private investment – domestic as well as foreign- but only through long term PPAs with SEBs (Bhattacharyya, 2003). In mid-1990s, some states[4] took the initiative to *restructure their electricity supply industry* through promulgation of reform acts[5]. These reform acts chartered restructuring of the state's electricity industry by de-integrating the SEBs into separate generation, transmission and distribution companies, *popularly known as 'Unbundling'*[6].

Key features of the reforms undertaken were: (Haldea, 2011)

a. Enabling private investment in generation through long term Power Purchase Agreements (PPAs) with state-owned entities;
b. Setting up '*independent regulatory commissions'*[7] for fixing tariffs; *(*Electricity Regulatory Commissions Act 1998*)*
c. Unbundling and corporatizing SEBs based on 'single buyer'[8] model (Orissa Model)
d. Privatizing distribution in a monopolistic mode[9]. (Orissa is the first state to undertake this)

[1] The CEA advises the government on matters relating to the National Electricity Policy and formulates short-term and perspective plans for the development of electricity systems. The mandate for the CEA (in the Electricity Supply Act of 1948) is to develop national plans and help formulate national power policy, to report the progress of the electricity supply industry, to provide technical assistance, to advise Central Government/ State Government/Boards/generating company, act as arbitrator between State or Board or licensees, to train personnel in the sector, to promote research and, in general, to facilitate efficient power supply.

[2]Virtually bankrupt due to irrational tariffs, increasing pilferage and declining efficiencies. Transmission & Distribution (T & D) losses, Aggregate Technical & Commercial (AT&C) losses, Absence of competition etc.

[3]Government of India created the National Hydroelectric Power Corporation (NHPC) and the National Thermal Power Corporation (NTPC) in 1975, to give a boost to power generation.

[4] Orissa was the first state to enact their own reforms act, it was followed by other states like Haryana (1997), Andhra Pradesh (1998), Uttar Pradesh (1999), Karnataka (1999), Rajasthan (1999), Delhi (2000), Madhya Pradesh (2000) and Gujarat (2003).

[5]The Orissa Electricity Reform Act (Supported by both the World Bank and DFID ***(DEPARTMENT FOR INTERNATIONAL DEVELOPMENT)***, it went in for the full package: unbundling, corporatization, and privatization) first initiated. Later each of these states passed their reforms act, unbundled their SEBs into separate entities of generation, transmission and distribution. Also, the enactment of Electricity Regulatory Commissions Act, 1998 by the Central Government.

[6]Unbundling of risk, return, assets and liabilities of Genco, Transco & Discom. A part of power sector reforms, unbundling was made mandatory as most state electricity boards were functioning as loss-making entities with high outstanding dues, owing to basic inefficiencies in their functioning. Restructuring these boards is aimed at promoting greater efficiency by streamlining operations of distribution, transmission, generation and trading, while also promoting transparency and accountability. (Power boards: unbundled, sorted out, 2009)

[7]The expected functions of the state level regulators are: (1) to determine and regulate tariff; (2) to determine the wheeling charge for transmission facility; (3) to regulate power purchase and procurement process of transmission and distribution utilities; and (4) to promote competition, efficiency and economy in the activities of electricity industry

[8] '*Single buyer model' means absence of a market where competing producers can set up capacity and sell to multiple buyers.* It consists of interconnected chain of monopolies where all power producers must sell to a state owned Transmission Company. (Haldea, 2011)

[9]**Monopolistic** competition is a type of imperfect competition such that many producers sell products that are differentiated from one another (e.g. by branding or quality) and hence are not perfect substitutes.

Private producers favored PPAs with state-owned entities in order to secure assured 'cost plus' [10] tariffs. These were regulated by the regulatory Commission. Also transmission & distribution are regulated by the same regulator. The regulators were government undertaking bodies such as *Central Electricity Regulation Commission (CERC) & State Electricity Regulation Commission (SERC)*[11] which was set up through the enactment of *Electricity Regulatory Commissions Act, 1998*.

The story of private investment in transmission was not different. Further amendments were carried out in 1998 when the transmission sector was also opened for private investments subject to the approval of the Central Transmission Utility (CTU).

1.2.1 REFORM MEASURES IN THE NEW MILLENNIUM

The first draft of the electricity Bill was made in 2000 though there were some other steps taken by the Government during this time period to improve the functioning of the distribution sector. Three major steps were undertaken by the Government for improving the performance of the power sector.

1) In 2000-01, the Accelerated Power Development Program (APDP) was initiated. (This focused on giving a composite loan/grant for improving the infrastructure of the electricity utilities.). In 2002-03, the scheme was changed to the Accelerated Power Development and Reforms Program (APDRP). *(Under the recommendations of the Deepak Parekh Committee)*
2) The constitution of the Expert Committee for making recommendations for one-time settlement of outstanding dues of all SEBs towards central public sector undertakings and for suggesting a strategy for capital restructuring of the SEBs. (Committee was chaired by Sh. Montek Singh Ahluwalia, the then Member (Energy), Planning Commission)
3) The third initiative taken by the Government was to sign Memorandum of Understanding (MOU) with the State governments with the intention of accelerating the process of reforms. (By 2005, the Central Government had signed MOUs with all of India's 28 states.)

Figure 1.2: Structure before Electricity Act 2003[12]

[10]**Cost-plus** pricing is a pricing strategy that is used to maximize the rates of return of companies. This approach sets prices that cover the cost of production and provide sufficient profit margin for the firm to reach its target rate of return. It also provides a way for companies to calculate how much profit they will make .*Cost-plus pricing is often used on government contracts*.

[11]Set up with the objective of protecting consumers, introducing competition and facilitating the orderly growth of power sector

[12] The Genco's includes the CPSUs (Central Power Sector Undertakings), Independent Power Producers (IPPs), Private licensees, who can sell their produce to state owned utilities (Transco's) like Power Grid Corporation of India Limited (PGCIL). Discom's can buy from these Transco alone.

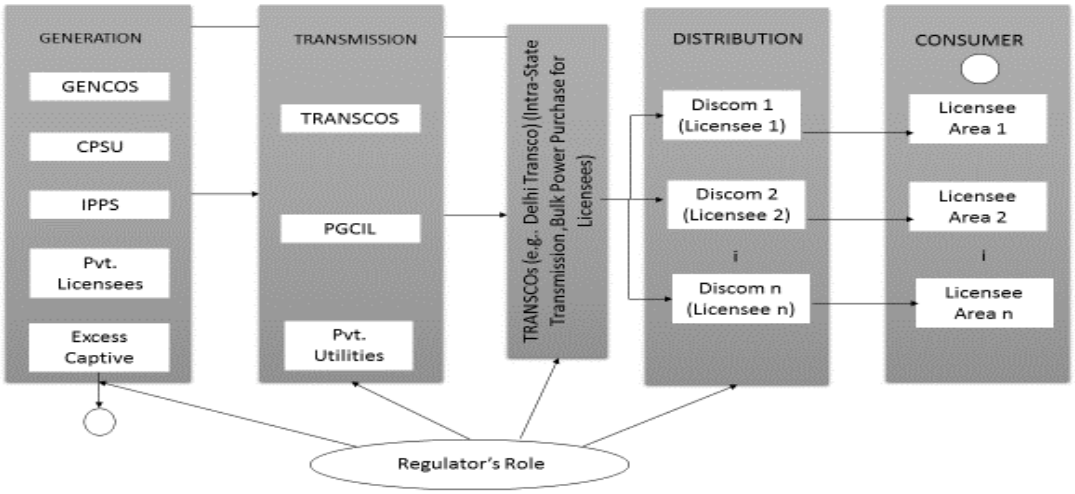


Figure 1.2 represents the pre-Electricity Act, 2003 structure, which exhibit *no choice*[13] to generating companies or consumers and there is limited scope for competition and thus improvement in efficiency. It is similar to the 'Orissa model' which represents 'single buyer model' where all generating companies (GENCOs) must sell their produce to a state-owned transmission company (TRANSCO), distribution companies (DISCOM) can buy from the TRANSCO alone and the consumers must source all his requirements from the DISCOM of his area. The industry structure is in the '*command-and-control mode*'. *(In the Orissa model, in the chain of monopolies, public as well as private, all prices are determined on a 'cost plus' basis either through negotiations or by the regulator, and this constitutes a perfect recipe for delivering high-cost power to the consumer.* (Haldea, 2011)*)*

Though incremental changes happened, it did not help in managing, regulating and coordinating the developments of the electricity industry in India. In 2000, a first attempt was made to consolidate the existing acts and to prepare a new legislative framework to simulate further growth.

It was under these circumstances that **the Electricity Act, 2003** was envisaged. The Electricity Act 2003, enacted by the Parliament of India, received the President's assent on 26th May 2003 and came into force on June 10, 2003. The Act brings together laws on generation, transmission, distribution, trading and use of electricity, liberalizing generation, transmission and distribution and providing for penal action for theft of power or default on payment for power consumed.

1.2.2 THE ELECTRICITY ACT, 2003

An Act to consolidate the laws relating to generation, transmission, distribution, trading and use of electricity and generally for taking measures conducive to development of electricity industry, promoting competition therein, protecting interest of consumers and supply of electricity to all areas, rationalization of electricity tariff, ensuring transparent policies regarding subsidies, promotion of efficient and environmentally benign policies constitution of Central Electricity Authority, Regulatory Commissions and establishment of Appellate Tribunal and for matters connected therewith or incidental thereto.[14] (The Gazette of India, Extraordinary, 2003)

[13]Direct Access. Localized monopoly. In UK, you can choose 15 service providers(Discoms)

[14]Ministry of Power , Government of India accessed from

http://powermin.nic.in/acts_notification/electricity_act2003/pdf/The%20Electricity%20Act_2003.pdf

The bedrock of reforms – **competition and open access**[15]- was simply kept out until the Electricity Act 2003, came into force. The Act aims to provide the paradigm shift by progressive introduction to competition and choice. The intent of the Act is to provide complete commercial autonomy to buy and sell power (Haldea, 2011).

The Act is a move towards creating a market-based regime in the Indian power sector and consolidates the laws relating to generation, transmission, distribution, trading and use of electricity. Provisions in the Act will finally change the present Single-Buyer model to Multi-Buyer model. There would be several players operating at all the different stages of the power industry: generation, transmission and distribution. Open access to transmission and distribution system will create market for power. This will provide tremendous potential for investment in generation, transmission and distribution segments resulting in strengthening infrastructure, which is critical for the Indian power sector (Thakur, T., Deshmukh, S. G., Kaushik, S. C., & Kulshrestha, M., 2005).

In general, Electricity Act 2003 aims to:

- Break monopoly of State Electricity Boards and promote competition /trading
- Create economic imperative for fundamental changes
- Attract new investment
- Reduce cross-subsidy
- Enhance competition for increasing efficiency (mostly in generation)

KEY PROVISIONS OF ELECTRICITY ACT 2003

- Defines institutional and policy framework for the whole country
- De-license Generation
- Open Access in Transmission, Distribution
- Promote trading and markets
- De-license rural distribution
- Establishes norms for transparency and public participation
- Re-defined role and mandate of State Governments, Regulators and Licensees
- Establishment of Consumer Grievance Redressal Forums

MYTP (MULTI-YEAR TARIFF PRINCIPLES)

Section 61 of the Act states that the Appropriate Commission, for determining the terms and conditions for the determination of tariff, shall be guided inter-alia, by multi-year tariff principles. The MYT framework is to be adopted for any tariffs to be determined from April 1, 2006.

While unbundling and competition are necessary conditions to generate efficiency, MYTP is the regulatory mechanism which is the sufficiency condition. Unbundling without private players would not generate competition and privatization without appropriate regulatory pricing mechanism would not ensure welfare. MYTP is aimed at: (i) Incentivizing Efficiency which was the main intention behind unbundling and (ii) Reducing uncertainty for all service provider as well as user. Internationally, MYTP is implemented for a control period following the RPI-X formula. Under this mechanism, first the demand for each year in the regulatory period is forecasted. Accordingly, the operating costs (inclusive of taxes and depreciation) plus a fair rate of return (as per regulation) on a Regulated Asset Base (Decided consultatively by the regulator) is determined for each year (in the control period). Further a permissible yield per unit of electricity and finally the current price (P_0) of a unit of electricity is estimated in such a manner that the reduction in cost generated by the positive network externalities and efficient operations is passed on to the consumers in

[15]Open Access implies that a number of licensees can reach a consumer through a network operated by a DISCOM. The access charges (called the wheeling charges) to be paid by the licensee shall be determined by the regulatory commission. Such non-discriminatory open access is a prerequisite to competition.

advance. Such a pricing would ensure that the utility (whether private or public), if it wants to earn higher profits, would have to enhance operating efficiency (reduce costs) by more than X%. Thus, RPI-X incentivizes consumers by ensuring that the utility service provider enhances efficiency (by at least X %). However, not all facets of operations are in control of the private utility operator and hence disallowing any possibility of cost escalation along with expecting an X% reduction in operating costs would prove to be draconian on the operator. Hence, the Forum of Regulators have differentiated controllable (distribution loss, Capex, Operating and Maintenance expenses, normative working capital, collection efficiency, provision for bad loans etc.) and uncontrollable (sales forecast, power purchase costs, interest rates, force majeure, past unfunded pension liabilities etc.) factors for each utility.

The X factor is the expected enhancement in productivity/efficiency. A normal DEA would only benchmark performance of a DMU Vis a Vis peers, it would not tell much about the enhancement of productivity. An increase in productivity may come through changes in the quality of inputs or via through such changes like improvements in marketing, increased managerial efficiency etc. Shifts of production frontier are attributed to technical change. Thus, failure to accommodate new technology is reflected in the lack of frontier shift over time. The total factor productivity index as suggested by *Malmquist* is expressed in terms of output distance functions evaluated under the technologies of two consecutive time points. The Malmquist TFP change is decomposed into the product of technical change and efficiency change. In this, the TFP change and TC are one and the same provided that the DMU is 100 percent output technical efficient. Further, output technical efficiency is decomposed into output pure and scale efficiencies. Therefore, the efficiency change is expressed as product of pure technical and scale efficiency changes (more details in appendix on Malmquist index).

The framework should feature a five-year control period. The initial control period may however be of 3 year duration for transmission and distribution if deemed necessary by the Regulatory Commission on account of data uncertainties and other practical considerations. Section 61 of the Electricity Act 2003 states that the electricity regulatory commissions, while determining tariffs, shall be guided by the multi-year tariff (MYT) principles in addition to the other guidelines, such as, determination of tariff so as to encourage competition, efficiency, economical use of resources, recovery of cost of electricity in a reasonable manner, rewarding efficiency in performance, etc.

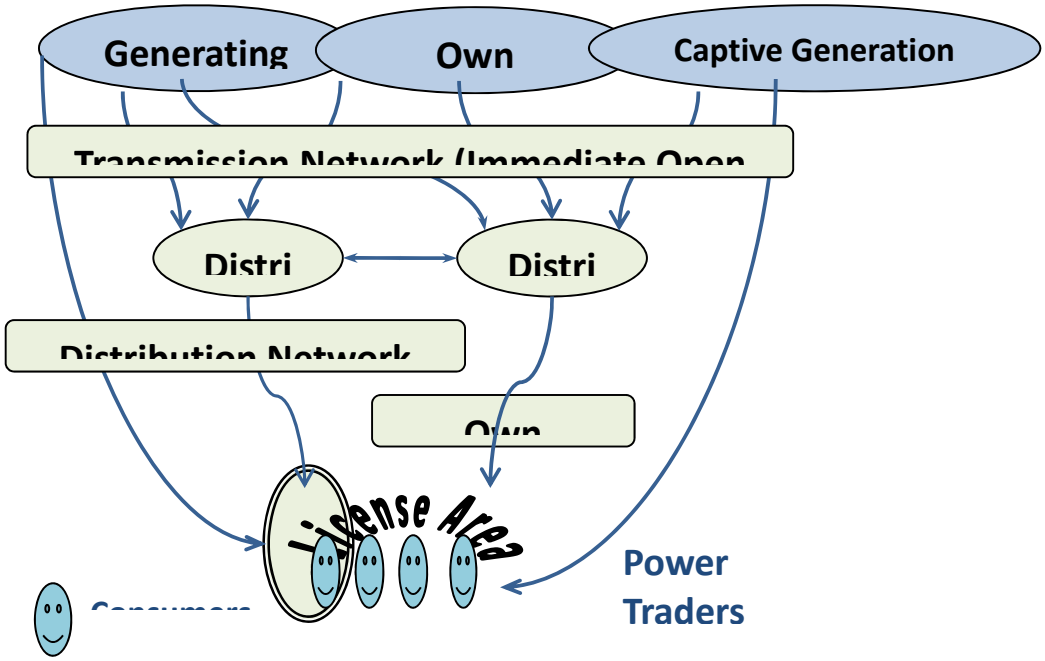
Separately, the National Tariff Policy 2006 announced by the government of India in January 2006 states that the multi-year framework is to be adopted for any tariff determined from April 1, 2006.

1.2.3 POST-2003 MODEL

The Electricity act 2003 promotes competition, protecting interest of consumers and supply of electricity to all areas, rationalization of electricity tariff, ensuring transparent policies regarding subsidies, promotion of efficient and environmentally benign policies, constitution of Central Electricity Authority (CEA), Regulatory Commission and establishment of Appellate Tribunal.

Figure 1.3 represents post EA, 2003 structure of power sector with flexible structure of the sector and enabling choice to the consumers and providing better competitive environment. The Electricity Act 2003, which replaced the earlier acts, also envisaged the development of independent regulatory commissions, open access in transmission, private investment in transmission, open access in distribution for large consumers and provision for multiple distribution licenses in the same area.

FIGURE 1.3: STRUCTURE AFTER ELECTRICITY ACT-2003



The scenario in India is different compared to the pre- EA 2003 structure. The post EA, 2003 model brings competition in the market and benefits the end consumer. The Gencos comprises central and state utilities, IPPs and even the captive generation facilities. Non-discriminatory open access across all the networks in transmission and distribution is possible, which paves way for competition and real reform. Many distribution licensees can reach the consumer through the open network, leaving choices to the consumers. The current Indian power market structure is shown in Figure 1.4.

FIGURE 1.4: STRUCTURE OF INDIAN POWER MARKET POST EA 2003

Concurrent Policy Making	Central Government	29 State Governments	
Regulations	Central Electricity Regulatory Commission	State Electricity Regulatory Commissions	
System Operators	National Load Dispatch Center	5 Regional Load Dispatch Centers	29 State Load Dispatch Centers
Generation	Central Generating Stations	State Generating Stations	IPPs
Transmission	Central Transmission Utility	State Transmission Utilities	IPTC
Distribution	State Distribution Companies	Private Distribution Companies*	
Markets	Power Exchanges	Bilateral Markets	

*(*Private distribution companies are few in number. Tata Power-Mumbai and Tata Power- Delhi are amongst the best performing distribution companies)*

The current policy making in the Indian power sector is under the purview of Central and State government (29 states). Central Electricity Regulatory Commissions (CERC) and the respective, State Electricity Regulatory Commissions (CERC) are the key regulators of power sector in India .The Load Dispatch Centres (LDC) at national, regional and state level coordinates the integrated operation of power system like scheduling and dispatch of electricity in a particular region. State Load Dispatch Centre (SLDCs) are carrying out the optimum

scheduling of the state generating Units. Further, the state allocates the total power received from Regional Load Dispatch Centre (RLDC) to various DISCOs & bulk consumer according to their respective requirements. In addition to the *central and state*, power generating producers, transmission utilities & discom's, Independent and private power players too have a role in the market. India has progressed fast in the development of Electricity Market[16] in a short span of four years - from an almost no organized market situation prior to 2004 to implementation of Multiple Power Exchanges in 2008.

1.2.4 SEGREGATION OF ACCOUNTS FOR GENERATION, TRANSMISSION, DISTRIBUTION AND SUPPLY

The unbundling of vertically integrated utilities in the country into the distinct functions of generation, transmission and distribution is called for in the Electricity Act 2003. The reason for this is that these three functional areas are distinct in the electricity supply activity chain, and each calls for a different set of competencies, which when developed will ensure efficient and effective operations leading to quality of service improvements, identification of areas of deficiency and focused activity to drive efficiency gains resulting in benefits to consumers and sustainable, profitable operations of the utilities. The Commission has directed the Board to provide segregated accounts for each function of the Board to enable the Commission to determine separate tariffs for each business (Sreekumar, 2011). In the present report we look at only three unbundled entities Genco, Transco & Disco. Further, we believe thus to begin with privatization & regulatory pricing need to focus on building competition in GENCO and DISCO. This is under the assumption that a competitive wheeling charge for Transco can ensure their efficient operation.

1.3 ABOUT KSEB (KERALA STATE ELECTRICITY BOARD)

The Kerala State Electricity Board is the single statutory body in the state responsible for generation, transmission and distribution of electricity in the state of Kerala. It was constituted by the Government of Kerala in March 1957, under the Electricity (Supply) Act, 1948. It strives to provide quality electricity at affordable cost to all classes of consumers in the state of Kerala. As per *section 172 (a) of the Electricity Act 2003* and as mutually decided by the Government of India and Government of Kerala, KSEB has been continuing all the functions as a Generator, State Transmission Utility and a Distribution Licensee in the State till September 24th 2008. Accordingly, with effect from September 25th2008, all the functions, properties and all interests, rights in properties, all rights and liabilities of the Board are vested in the State Government. All these functions and undertakings of the Board as vested in Government shall be re-vested in a company to be incorporated as a fully owned Government company under the Companies Act, 1956 (Kerala State Electricity Board, 2011-12).

The primary mission of KSEB is to provide quality power at affordable cost on demand to the consumers of the State and to act as a catalyst for total development. Board is also undertaking activities *for improving its efficiency in various fields such as technical, financial, operational and ensuring quality service effectiveness etc.* (Kerala State Electricity Board, 2011-12).

In consistence with the State Power Policy, the Board has been functionally organized into *'three business entities' namely,*

1. Generation Profit Centre,
2. Transmission Profit Centre

[16] At present, two power exchanges are operational in India, namely Indian Energy Exchange (IEX) and Power Exchange of India Ltd. (PXIL). PTC (**POWER TRADING COMPANY** Ltd.) is among the most credible player in bilateral market as well as on the power exchange.

3. *Distribution Profit Centre*, with a Corporate Office for co-ordination.

At present, the Board caters to consumer base of *about 1.06 crore* (as on March 31, 2012). The installed power generation capacity of KSEB was 2,820 MW as on March 31, 2012, of which hydel constituted the major portion with generation capacity of 1,949 MW as on March 31, 2012. The total energy consumption within the state was 15,981 Million units during FY 2012. Over the years, the consumption of *heavily subsidized domestic sector has been increasing* and now, it accounts for approximately 49% of the total energy consumed[17]. As a consequence, the peak demand in the state has increased to almost twice the off-peak demand.

The Board had been supplying electricity at lowest price in the country for several decades (As of 2011-12, average tariff per unit of Kerala is Rs. 3.49 /Kwh which is comparatively less than that of average of all SEBs, which is Rs. 3.80 /Kwh [18]). Because of this the Board had to resort to heavy borrowings to meet the expenses. The increase in cost of generation in all thermal projects due to dependence on imported coal as well as phenomenal rise in price of crude oil is adversely affecting the finances of the Board. The upward revision of tariff norms for all central generating stations by CERC as well as the new regulations for sharing of inter-state transmission charges has also resulted in adverse financial impact on KSEB (Kerala State Electricity Board, 2011-12). Though the Board was statutorily enjoined to function as a commercial institution, it continued to function mainly with service orientation providing infrastructure facility, reliefs and concessions to other sectors like industry, agriculture and so on.

The electricity demand in the State has been increasing by 7 to 8% annually and the demand for the ensuing year 2013-14 cannot be met with the energy availability from hydel and allocation from Central Generating Stations alone. A substantial part of the electricity requirement of the State has been met through procuring power from short-term market. However, due to the transmission constraints in the 'Southern grid', there is limitation in procuring power from traders and energy exchanges from outside the State. This has forced KSEB to depend heavily on the liquid fuel stations- RGCCPP Kayamkulam, BDPP and KDPP.

The ARR for the year 2012-13 submitted before the Commission *showed a revenue gap of Rs 3240.25 Crores and projected revenue gap for the financial year 2013-14 is Rs 2758.67 Crores.* If the entire estimated revenue gap is bridged through tariff revision, it may result in an average increase in tariff for all categories of consumers by 34.40%. *T&D losses*[19]are the biggest challenge in the power sector. Technical and non-technical losses together have contributed to high level of T&D losses in the country. Inefficient use of electricity, power theft, unauthorized connections, political interference and lack of consumer awareness are the main causes of T&D losses. T&D losses in India are among the highest in the world. Inadequate investment in the transmission and distribution network is one of the main reasons for high T&D losses in the country. The T&D losses for the whole of India during 1995-96 were about 22 percent, which has increased to about 25.6 percent by 2009-10. As far as figures for 2009-10 are concerned, the States that have relatively high T&D losses are Jammu & Kashmir (63%), Bihar (38%), Chhattisgarh (38%), Jharkhand (38%) and Madhya Pradesh (35%). *The losses in Kerala are about (19.2%) in 2009-10 and (15.6%) in 2011-12. KSEB targets to reduce the T&D loss to 15.23% during the year 2012-13 and 14.91% during the year 2013-14.* (Kerala State Electricity Board, 2011-12). T & D losses in Kerala have decreased from in 20.02% in 2007-8 to 15.65% in 2011-12.

[17] WWF-India & WISE 2013

[18] (Planning Commission, 2011-12)

[19] "T&D losses are the power losses that are caused in the process of transmission of electricity from the generation end to the consumers. A large part of the losses are technical in nature, however, faulty meters and power thefts have also resulted in commercial losses. Together, the losses have been termed as Aggregate Technical and Commercial (AT&C) losses. AT&C losses provide a realistic picture of the actual energy loss at the distribution end. The technical losses depend on the type of conductors used, transformer capacity, and other equipment's used for transmission and distribution of electricity. These losses are intrinsic to *power transmission system and all the countries report some percentage of technical losses. The Commercial losses are caused due to illegal consumption of electricity. These are caused due to discrepancy in meter reading, faulty meters, and power theft and collection inefficiency*."

TABLE 1.5. IMPACT OF T& D LOSS REDUCTION

Year	Energy sold (MU)	Total energy input to KSEB system	T & D Loss %	Extend of reduction (%)		Impact of loss reduction (estimate)	
				Year	cumulative	Savings(MU)	Amount (in cr)
2003-04	8910.80	12280.87	27.44				
2004-05	9384.40	12504.79	24.95	2.49	2.49	311.37	108.98
2005-06	10269.80	13331.09	22.96	1.99	4.48	597.23	209.03
2006-07	11331.00	14427.97	21.47	1.49	5.97	861.35	301.47
2007-08	12049.90	15065.15	20.02	1.45	7.42	1117.83	391.24
2008-09	12414.32	15293.51	18.83	1.19	8.61	1316.77	460.87
2009-10	13971.09	16978.03	17.71	1.12	9.73	1651.96	578.19
2010-11	14547.90	17337.78	16.09	1.62	11.35	1967.84	688.74
2011-12	15980.53	18946.29	15.65	.44	11.79	2233.77	781.82

SOURCE: (KERALA STATE ELECTRICITY BOARD, 2011-12)

The distortions caused by failures (in techno-economic factors, policies, planning and on governance) led the sector into a crisis in the beginning of the 1990s. The crisis in the electricity sector has three important components: (Sreekumar, 2011)

a) Performance crisis – Low efficiencies and lethargic administration

b) Financial crisis – Stagnant revenues, increasing expenditure, increasing arrears, increasing losses, lack of capital

c) Credibility crisis – Loss of credibility in the eyes of consumers, common citizens and funding agencies.

Many studies have been made to estimate the inefficiencies (in terms of financial, performance and operational parameters) of State Owned Electric Utilities in India .The literature review below shows the relevance of different studies conducted to identify the efficient or inefficient state utilities based on multiple sources (input or output variables.)

1.3.1 PRIOR STUDIES ON BENCHMARKING PERFORMANCE OF KSEB

Previous studies attempted to evaluate the relative efficiency like cost efficiency, operational efficiency, and managerial efficiency of the state owned electricity utilities of the Indian Power Sector. Many of these studies have used DEA (Data Envelopment Analysis) to evaluate the efficiency of the electric utilities considering relative input and output variables. Thakur(2005)**,** assessed the comparative cost efficiencies of Indian State Owned Energy utilities using DEA analysis, indicating their performances as well suggesting the potential for significant cost reductions. Kamaraj et.al. (2008)[11] used DEA model to assess the operational efficiencies of 29 state utilities for the year 2005 and has also reviewed similar studies in this paper. Their work emphasizes on benchmarking based on comparing the operation of similar state utilities and analysing their inefficiencies in the policy context of making them efficient. It considered three input factors (Installed Capacity, Circuit km and % T&D losses) and two output factors (number of consumers and quantity of energy supplied). Jainet al(2010)[14], aimed to measure the efficiencies of 30 state owned utilities for the year 2007-08 by applying DEA models with single input (total cost) and two outputs (units of energy generated and total energy sold or consumed). In this, cost benchmarking has been carried out so that cost controls can be

implemented. (Thakuret al. (2010) [19], used DEA Malmquist approach to include the various sources (multiple outputs and inputs used in the production) of productivity changes (Total Factor Productivity (TFP) analysis).

Based on the above review, it can be seen that the efficiencies of different state utilities can be effectively evaluated depending upon the selection of input and output variables .In the present study of benchmarking (using Data Envelopment Analysis) KSEB with other state utilities, various input variables are minimized to get maximized output variables. Input variables like power purchase, employee cost, operation and maintenance, depreciation, administration and general expenses, AT& C losses are considered with the output variables like units sold, collection efficiency etc.

1.3.2 MAJOR STRENGTHS AND CONCERNS OF KSEB

- Analysed by the Integrated Rating methodology for State Power Distribution Utilities (Source: (Ministry of Power, State Distribution Utilities First Annual Integrated Rating, 2013)

Key Strengths

- Satisfactory level of AT&C losses which has substantially declined during the past decade
- Relatively better financial risk profile attributable to accessibility to low cost hydel power which forms the major portion of power generated, though quantum of generation is susceptible to rainfall
- Implementation of 100% metering and effective collective mechanism in place

Key Concerns

- Increasing dependence on power purchases with negligible capacity addition in the past leading to increase in cost of supply
- Cross subsidy of more than 20% and higher share of subsidized segment (primarily domestic) in total power consumption
- Significant build-up of regulatory asset in the past three years ended March 2012
- SEB continues to function and unbundling process is yet to be implemented
- Ability to maintain financial risk profile in absence of major capacity additions and increasing consumption of heavily subsidized segment.

1.3.3 WORLD BANK REPORT LAUDS KSEB PERFORMANCE[20]

Despite political reasons that delayed its corporatizing as mandated by the Electricity Act of 2003, the Kerala State Electricity Board (KSEB) is one of the best performing power utilities in the country, according to a World Bank study, which reviewed the performance of the Indian power sector during the period 2003 to 2011.

The report, titled 'More Power to India', authored by Sheoli Pargal and Sudeshna Ghosh Banerjee, senior economists with the World Bank, published in June, said the KSEB had the highest accumulated profits in 2011 among the power utilities directly serving the consumers in the country. "*But since 2011, the KSEB's finances have been constrained due to the State's declining hydro generation, forcing the utility to purchase power from external sources and draw down surpluses earned in earlier years. Inadequate planning for power procurement to address demand growth has exacerbated the change in fortunes of the utility, which remains well managed but is now suffering in the face of external shocks,*" it said.

[20] (World Bank report lauds KSEB performance, 2014)

In 2011, Delhi, Kerala and West Bengal were the only States where the revenue from sale of power covered the cost of supply without infusion of subsidies.

Kerala—A successful state Electricity Board

-Reported by World Bank Study[21]

Kerala is considered to have one of India's best performing electricity sectors. According to Power Finance Corporation data for 2003–11 on utilities directly serving consumers, the Kerala State Electricity Board (KSEB) consistently ranks among the top utilities in India. In 2011 the KSEB had the highest accumulated profits and ranked third on profit after tax. Aggregate technical and commercial (AT&C) losses were 14 percent, which is the seventh lowest among all distribution utilities. And transmission and distribution losses declined consistently every year after 2001. All connections are metered and theft of electricity is practically non-existent. In 2010 Kerala received the National Energy Conservation Award for its efforts in this field.

[21] (Sheoli Pargal , Sudeshna Ghosh Banerjee, 2014)

1.4 BENCHMARKING THE PERFORMANCE OF KSEB

Benchmarking enables companies to see their positions relative to their competitors in order to explore the opportunities to improve their market position. The response to how benchmarking deals with this problem is disguised in its definition:

"Benchmarking is the process of continuously measuring and comparing one's business processes against comparable processes in leading organizations to obtain information that will help the organization identify and implement improvements" (Andersen & Jordan, 1998).

Dimensions typically measured are quality, time and cost. Various fields of science including computer science, management and operations research, apply alternative methods of benchmarking, such as information visualization (e.g. Self-Organizing Maps, SOM), financial ratios (provided that the data is appropriate for financial benchmarking), and analytical methods (e.g. Data Envelopment Analysis, DEA, Stochastic Frontier Analysis (SFA) etc.)

Electricity sector reforms are transforming the structure and operating environment of the electricity industries across many countries. The main feature of many power sector reforms is the market-orientation of their approaches to achieve the efficiency objective by using the discipline of the product and capital markets to achieve allocative and internal efficiency through competition, privatization, and the price mechanism. (Vickers, J.;Yarrow, G., 1988.)

These reforms generally involve

- Introduction of competition into electricity generation,
- Design of organized power markets, and
- Unbundling of the electricity generation, transmission, distribution, and supply (or retailing) activities.

Other power sector reforms have also involved ownership transfers and privatization of existing assets (Joskow, 1998).

Recent regulatory reforms have tended to move away from traditional rate-of-return regulation towards incentive-based regulation models. *A number of regulators have adopted price and revenue cap regulation based on the* ***RPI-X formula.*** A central issue is how the efficiency requirements or X-factors are to be set. A widely favored approach is through benchmarking of utilities based on their relative efficiency. Countries such as The Netherlands, United Kingdom, and Norway have adopted benchmarking as part of the process of setting the X-factors (Jamasb and Pollitt, 2002).

Benchmarking identifies the most efficient firms in the sector and measures the relative performance of less efficient firms against these. Individual X-factors are then assigned to utilities based on their relative inefficiency. Generally, the more inefficient a utility is, the higher is the X-factor assigned to that firm. The aim is to provide the firms with an incentive to close their efficiency gap with the frontier firms (Jamasb and Pollitt, 2002).

However, the number of utilities in many countries is limited and does not lend itself to the data requirements of some of the widely used benchmarking techniques. Also, due to electricity market liberalization and privatization policies, power markets and ownership of the utilities are becoming increasingly international, and mergers and acquisitions tend to reduce the domestic information base. Regulators can use cross country benchmarking in order to evaluate the performance of national utilities within the larger context of international practice. The addition of international comparators to a sample can improve the validity of the analysis as utilities are more likely to be benchmarked against similar firms. Further, international comparisons enable the regulators to measure efficiency of the utilities relative to international best practice. The advantage of using international best practice is that the measured

efficiencies are more likely to reflect technical possibilities rather than the degree of comprehensiveness of the sample used.

While international utility benchmarking has clear advantages, the methodological and practical aspects, as well as possible implications of this approach, need careful consideration. Empirical studies can be a useful instrument to identify and shed light on some of the main issues arising in international benchmarking. There are a number of single-country and a few cross-country studies of relative efficiency of electricity distribution utilities. However, most of these either do not have an explicit regulatory focus or use physical measures of inputs as proxies for the operating and capital costs.

Benchmarking with the use of physical quantities of inputs measures the potential for efficiency improvements in terms of reductions in physical units. However, *the primary aim of regulators when using benchmarking is to promote cost savings in the utilities that result in lower prices for the end-users.* Relative performance measured in terms of units of physical inputs bears an indirect relationship with cost savings potential as the basis for setting X-factors. It should be noted that this study uses an empirical analysis of selected electricity distribution utilities to highlight and discuss the main issues in international benchmarking and the results have not been intended for direct use in an actual regulatory process.

In this paper we examine some methodological and applied aspects of cost-based international benchmarking in electric utility regulation. We apply the widely used benchmarking techniques of Data Envelopment Analysis (DEA), Corrected Ordinary Least Square (COLS), and Stochastic Frontier Analysis (SFA) to an international sample of utilities and compare the results. We then examine the significance of the choice of method for currency conversion for the DEA results. We also compare the DEA results with a model specification that uses measures of physical units as a proxy for capital costs. We finally outline the regulatory implications of international benchmarking and draw some conclusions.

1.4.1 BENCHMARKING TECHNIQUES

There are several different approaches to the measurement of the relative efficiency of firms in relation to an efficient frontier[22] of a sample. These approaches can be placed into two broad categories of

(i) Programming (non-parametric) or
(ii) Statistical (parametric) techniques.

Data Envelopment Analysis (DEA) is a programming approach, while Corrected Ordinary Least Squares (COLS) and Stochastic Frontier Analysis (SFA) are statistical techniques (Jamasb and Pollitt, 2002).

1.4.1.1 DATA ENVELOPMENT ANALYSIS (DEA)

DEA occasionally called frontier analysis was first place ahead by Charnes, Cooper and Rhodes in 1978.It is a performance measurement technique which, can be used for evaluating the relative efficiency of decision making units in organizations.[23] It is a linear programming procedure for a frontier analysis of inputs (minimize) and outputs (maximize). DEA assigns a score of one to a unit only when comparisons with other relevant units do not provide evidence of inefficiency in the use of any input or output. DEA assigns an efficiency score less than one to (relatively) inefficient units. A score less than one means that a linear combination of other units from the sample could produce the same vector of outputs by using a smaller vector of inputs. The score reflects the radial distance from the estimated production frontier to the DMU

[22]The frontier-based benchmarking methods identify or estimate the efficient performance frontier from best practice in an industry or a sample of firms. The efficient frontier is the benchmark against which the relative performance of firms is measured. The main frontier benchmarking methods are Data Envelopment Analysis (DEA), Corrected Ordinary Least Square (COLS), and Stochastic Frontier Analysis (SFA).

[23]DMU is a distinct unit within an organization that has flexibility w.r.t. some of the decisions it makes, but not necessarily completes freedom w.r.t. to these decisions. Banks, police stations, hospitals, defense bases, schools and university departments are examples of such units to which DEA has been applied.

under consideration. One of the critical inputs to a distribution company is the cost of power which is not in the control of the Discom. Based on the conjecture that a Discom has more control over the output since it can source the power from difference generation companies, the paper specifies an output oriented DEA model. An eight input and two output DEA model is specified for a sample of 43 DISCOMs resulting in 430 variables and 44 constraints.

DEA model may be either input-oriented or output-oriented. Both output-oriented and input-oriented DEA models produce the same technical efficiency estimate for a DMU under the assumption of constant returns to scale in production. Under the variable returns to scale, the estimates of technical efficiency will differ. However, Ocelli (1995) claims that since linear programming does not suffer from statistical problems such as simultaneous equation bias, the choice of a measure does not affect the efficiency estimates significantly. In deciding on the orientation of a DEA model one should also consider over which variables decision-making units (DMUs) have most control. If DMUs have more control over output variables than input variables, the DEA model should be output-oriented; otherwise, the model should be input-oriented.

The input-oriented, non-parametric and deterministic DEA frontier characterised by constant returns to scale is specified as:

$$\underset{\lambda_i, \mathbf{z}}{\text{Minimise}} \quad \lambda_i \qquad (1)$$

$$\text{Subject to} \quad \begin{aligned} & y_i \le \mathbf{Y}\mathbf{z} \\ & \mathbf{X}\mathbf{z} \le \lambda_i \mathbf{x}_i \\ & \mathbf{z} \in R_+^N \end{aligned}$$

In specifying the above linear programming model it is assumed that there are *N* DMUs. Each DMU produces two outputs *y* using six inputs. Therefore, y_{ij} is the output produced and $\mathbf{x}_i$ is the (6×1) vector of inputs used by the i[th] DMU. Other variables can be defined as follows: **Y** is a ($2\times N$) output matrix with element y_{ij} representing the *jth* output of utility *i*, **X** is a $(6\times N)$ input matrix with element x_{ki} representing input *k* used by DMU *i* and $\mathbf{z}$ is an ($N\times1$) vector, the non-zero elements of which identify the fully efficient DMU and indicate their importance to the i[th] DMU. These fully efficient utilities are the peers of the i[th] DMU. These peers may be different for different utilities. The scalar λ_i measures the technical efficiency of the i[th] utility and by construction $(1-\lambda_i)$ measures the technical inefficiency of the utility. λ_i can have any value between zero and one; a value of one indicating that the utility is on the frontier and 100 percent technically efficient, and a value of less than one indicating that the utility is technically inefficient and it can reduce all inputs by at least $(1-\lambda_i)\times100$ percent without affecting output.

In order to incorporate the assumption of variable returns to scale in production into the DEA model, an additional constraint has to be included in the set of constraints of the above model, namely:

$$\mathbf{l}\mathbf{z} = 1 \qquad (2)$$

Where **l** is a $(1\times N)$ vector of ones and **z** is as defined above.

1.4.1.2 CORRECTED ORDINARY LEAST SQUARES (COLS)

The statistical deterministic production frontier representing Cobb-Douglas production technology characterised by variable returns to scale is specified as:

$$\ln Y_i = \beta_0 + \sum_{k=1}^{6} \beta_k \ln X_{ki} - \varepsilon_i \qquad i = 1, 2, \ldots, n \qquad (3)$$

In equation (3), Y_i represents i[th] output and X_{ki} is the amount of the k[th] input used by the i[th] output. Constant returns to scale in production is imposed via the following restriction on the parameters:

$$\sum_{k=1}^{6} \beta_k = 1 \qquad (4)$$

The production frontier in equation (3) is deterministic because it includes a one-sided non-negative error term ε_i, which is assumed to be independently and identically distributed and has a non-negative mean and constant variance. There are problems in using ordinary least squares (OLS) to estimate this production frontier. According to Greene (1980), while OLS provides best linear unbiased estimates of the slope parameters and appropriately computed standard errors, it does not provide an unbiased estimate of the intercept parameter β_0. The OLS estimator of β_0 is biased downward. Due to this problem, it is possible for the estimated OLS residuals of the model to have the incorrect signs. Since the calculation of technical efficiency relies on these residuals being non-positive, Greene (1980) suggests a correction for this biasedness by shifting $\hat{\beta}_0$, the OLS estimator of β_0, upward by the largest positive OLS residual (e^*). This two-step procedure is known as the corrected ordinary least squares (COLS) method. The unbiased estimator of the intercept parameter is given by:

$$\hat{\beta}_0^* = \hat{\beta}_0 + e^* \qquad (5)$$

This correction makes all the OLS residuals non-positive, implying that the estimates of ε_i are non-negative and none of the DMU is more than 100 percent efficient. Technical efficiency (*TE*) of the i[th] output is calculated by using the following equation:

$$TE_i = \exp(-\varepsilon_i) = \exp(e_i - e^*) \qquad (6)$$

where e_i is the OLS residual for the i[th] output and e^* is as defined above.

1.4.1.3 STOCHASTIC FRONTIER ANALYSIS (SFA)

The SFA representing Cobb-Douglas production technology characterised by variable returns to scale is specified as:

$$\ln Y_i = \beta_0 + \sum_{k=1}^{6} \beta_k \ln X_{ki} + \phi_i \qquad i = 1, 2, \ldots, n \qquad (7)$$

The variables in this equation are the same as in equation (3). The production frontier can be made to represent constant returns to scale production technology by imposing the restriction defined by equation (4). What differentiates this frontier from the deterministic production frontier in equation (3) is a two-sided stochastic component embedded in the disturbance term ϕ_i. The error term in equation (7) is made up of two components:

$$\phi_i = v_i - u_i \qquad (8)$$

The first component, v_i, is a two-sided conventional random error term that is independent of u_i, and is assumed to be distributed as $N(0, \sigma_v^2)$. This component is supposed to capture statistical noise (i.e. measurement error) and random exogenous shocks such as bad weather and machine breakdowns, etc. that disrupt production. The second component u_i is also a random variable, but unlike v_i, it is only a one-sided variable taking non-negative values. This term captures technical inefficiency of an electricity utility in producing output. As discussed earlier, one of the disadvantages of the SFA method is that its estimation requires explicit specification of the distribution of the inefficiency term u_i. There is no consensus among econometricians as to what specific distribution u_i should have.

In the present study, we have chosen to follow the DEA approach to benchmarking performance since it allows us to sidestep the need to specify a production function as well as a probability distribution for efficiency (as is required by COLS and SFA). Further, since electricity Utilities usually have more control over their inputs than their outputs. Considering this fact and Coelli's (1995) assertion, it was decided to use an input-oriented DEA model in the present study. We further extend the benchmarking study to estimate the efficiency so as to enable KSEB file tariffs as per Multi Year Tariff Principles. For this we estimate the change in efficiency based on Malmquist Index.

DEA assumes that the inputs and outputs have been correctly identified. Usually, as the number of inputs and outputs increase, more DMUs tend to get an efficiency rating of 1 as they become too specialized to be evaluated with respect to other units. On the other hand, if there are too few inputs and outputs, more DMUs tend to be comparable. In any study, it is important to focus on correctly specifying inputs and outputs.

1.4.2 RESULTS AND DISCUSSION OF THE DEA MODELS

The enablers of efficient operations in DISCOMS and GENCOS would be different. Hence, there is a felt need to benchmark KSEB's performance as a DISCOM as well as a GENCO separately. Accordingly, we run a DEA first with 43 DISCOMs and then with 29 GENCOs. Since the data on reliability of service (output variable) was available only for thirteen DISCOMs, we have further estimated an efficiency frontier including reliability as an output variable based on these thirteen DISCOMs. We also conducted the analysis with different combinations of input and output variables.

1.4.2.1 INPUT AND OUTPUT VARIABLES ANALYZED WHILE BENCHMARKING KSEB AS A DISCOM

Initially, we analysed an eight input and two output model. The DEA model for DISCOMs had 430 variables and 44 constraints. Similarly, the DEA model for GENCOs had 261 variables and 30 constraints. The following variables were treated as input variables that would be minimized (all variables unless otherwise mentioned are measured in Rs.):

(i) Power Purchased

(ii) Employee Cost

(iii) Operations and Maintenance Cost

(iv) Interest Cost

(v) Depreciation

(vi) Administrative and General Expenses

(vii) Other Expenses

(viii) Aggregate Technical and Commercial Losses (in %)

The output variables analysed are:

(i) Units Sold (MKwH)

(ii) Collection Efficiency (%)

As in prior studies (Thakur, 2009; Meenakumari and Kamaraj, 2008) on inclusion of all the (input and output) variables, it is seen that KSEB is on the frontier. In other words, KSEB is in the efficient set of utilities as a distribution company.

However, this outcome may also be because of cross subsidisation of inefficient use of one input through super-efficient use of another. In order to identify the sources of inefficiency, this paper analyses the marginal contribution to (in) efficiency of each input variable. Hence, we analyse the performance of KSEB with respect to different combinations of inputs (output remains the same units sold and collection efficiency) as follows:

(i) Only employee cost is taken as input : It can be seen that KSEB has the worst efficiency score among all the 43 DMUs analysed **(Fig A1.1)**

(ii) We next introduce Administrative and General Expenses along with Employee cost as a input: It can be seen that KSEB is still at the bottom of the 43 DMUs analysed **(Fig A1.2)**

(iii) We next introduce Operating and Maintenance Expenses: The result still remains the same, KSEB is still at the bottom of all the 43 DMUs **(Fig A1.3)**

(iv) We next introduce Interest cost, Other Expenses and Depreciation: The result is still the same, KSEB is still at the bottom of all the 43 DMUs **(Fig A1.4)**

(v) Next Introduce Aggregate Technical and Commercial Losses and Power Purchase independently into our system of equations:

   a. Introduce AT& C Losses: KSEB fares very well on AT&C loses, Introduction of AT&C losses pushes KSEB to the 37th position among 48 DMUs **(Fig A1.5)**

   b. Introduce Power Purchase: This catapults KSEB to the 18th position among 48 DMUs **(Fig A1.6)**

(vi) On introduction of all eight input variables KSEB is on the frontier **(Fig A1.7)**

It can be seen that, as a DISCOM, .KSEB is on the frontier primarily because of low input costs and low aggregate technical and commercial losses. Above average performance on these two dimensions cross subsidizes less efficient performance parameters.

An issue with the above specifications is that distribution companies are maximising only the power distributed and their revenues from this operation. However, an important concern to the consumer is also the service quality. Delivering reliable power supply to consumers is also of primary concern. Along with improving financial viability, reduction of T&D losses and improving customer satisfaction; increasing reliability and quality of power supply is very important. This point was highlighted during the presentation of the preliminary results to KSEB; we attempted to include reliability of as yet another input variable.

1.4.2.2 RELIABILITY OF POWER SUPPLY AND CONSUMER SATISFACTION[24]

Reliability of service is a very important performance parameter for any electric utility system. Consumer is least interested about the sources of power generation or grid conditions etc. but he must be ensured a power supply, which is most reliable and qualitative. Reliability to a consumer means that power made available to him is fault free and the outage or interruptions are tolerable and do not disturb his normal life.

Reliability and quality of supply were rarely an issue till recent past and little or no attention was paid to the reliability and quality of power supply. But a change in attitude has been observed in the supplier as well as takers of energy and a customer friendly definition of reliability and benchmarking of performance has been laid down.

1.4.2.3 RELIABILITY EVALUATION CRITERIA

Every customer is connected to a feeder. A feeder is the connection from a sub-station through wires, transformers etc. to a customer. It is fairly common practice in the electric utility industry to use the standard IEEE reliability indices like CAIDI, SAIFI, SAIDI to track and benchmark reliability performance.

i. SAIFI (System Average Interruption Frequency Index) for 11 KV feeders:

SAIFI is the System Average Interruption Frequency Index. It is a measure of how often the 11 KV feeders lose supply during one year. A SAIFI of 3 means that the feeder lost supply 3 times during the consideration year.

$$\text{SAIFI} = \frac{\text{(Total Number of feeder interruptions in a year)}}{\text{(No. of feeders)}}$$

ii. SAIDI (System Average Interruption Duration Index)

- SAIDI (System Average Interruption Duration Index) for Feeders

SAIDI is the measure of average feeder interruption duration of power supply in a year. It is the total interruption durations in minutes per feeder per year for both planned and unplanned interruptions. A SAIDI of 200 minutes means that feeders of the area experience an average 200 minutes off supply in the consideration year.

SAIDI (feeders) = Total Duration of outages of feeders in Minutes/No. of feeders (n)

Reliability Index for Feeders

Reliability index (yearly) **=** $1 - \frac{\text{SAIDI for Feeder}}{[24\text{x (no.of days in year) x60}]} \times 100$

- SAIDI (System Average Interruption Duration Index) for consumers

SAIDI is the measure of average customer interruption duration of power supply in a year. It is the total interruption durations in minutes per customer per year for both planned and unplanned interruptions. A SAIDI of 200 minutes means that the customers experience an average 200 minutes off supply in the consideration year.

$$\text{SAIDI (consumers)} = \frac{\text{Total Duration of consumers interruption in Minutes}}{\text{No.of Consumers}}$$

[24] http://www.cea.nic.in/reports/yearly/reliability_indices/rel_ind_2012_13.pdf

Reliability Index for Consumer

Reliability index (yearly) **=** **1-** $\frac{\text{SAIDI for consumers}}{[24x(\text{no.of days in year})x60]}$ X 100

iii. Consumer Average Interruption Duration Index (CAIDI)

CAIDI is the average duration of an interruption, calculated based on the total number of sustained interruptions in a year. It is the ratio of the total duration of interruptions to the total number of interruptions during the year.

$$\text{CAIDI} = \frac{\text{Total duration of sustained interruptions in a year}}{\text{total number of interruptions.}}$$

It can also be seen that CAIDI = $\frac{\text{SAIDI}}{\text{SAIFI}}$

The Reliability index at consumer level and feeder level were available for thirteen DISCOMs. These were incorporated as output variables to be maximized.

As discussed in earlier, while distribution companies are concerned about maximising the power distributed and their revenues from this operation consumers are concerned with the service quality and cost. Thus, the efficiency of KSEB has to be emphasized or is of concern w.r.t DISCOMs with reliability indices. Among the 13 DISCOM analysed using DEA analysis, KSEB still projects as one among the frontiers (Refer Figure A1.8). The results as reported in Fig. A1.8 shows that on parameters of reliability, most discoms except APNDCL and MPPVVCL are on the frontier. This can also be a sampling bias since we have got reliability information only in the case of efficient DMUs and data only at feeder level

Further, we do a similar exercise to benchmark KSEB's performance as a GENCO. We analysed a seven input two output DEA model. The input and output variables considered in the study are:

Input Variables:

(i) Generation Cost
(ii) Employee Cost
(iii) O&M Cost
(iv) Interest Cost
(v) Depreciation
(vi) Administrative and General Exp
(vii) Other Exp
(viii) Debtors

Output Variables

a) Total Generation (MKwH)
b) Total Income before Subsidy

As in the case of Discom, on including all the variables, KSEB is on the frontier. We once again introduce inputs one by one so as to benchmark KSEB on each input parameter.

a) Only employees cost taken as input: As in discoms, in this case too, KSEB ranks 20th out of 28 Gencos analysed.

b) Introducing Operating Cost also as a input: Even now its relative efficiency remains the same

c) Introducing Interest Cost: This vaults KSEB to the 14th position

d) Introducing Depreciation: Does not change much

e) Introducing Debtors: Vaults KSEB onto the frontier.

It is observed that an above average performance on financing cost, commercial losses and input costs cross subsidizes less than efficient performance on other parameters.

1.5 IMPROVEMENT IN EFFICIENCY (X-FACTOR): A ROAD MAP TO FILING TARIFF PETITION FOLLOWING MYTP

As stated in the introduction the MYTP was devised to reduce the uncertainty regarding prices to the private producer as well as the consumer. Firstly, a benchmarking of the performance of the utility and the historic change in total efficiency (operational and technical) is conducted by estimating the Malmquist index. Malmquist index is the product of the Efficiency change and the technical change over two time periods. In other words, *change in total efficiency due to operational decisions and due to change in technology.* The X-Factor is the geometric mean of the Malmquist index over the year's analysed (if over two years, then square root, over three years then cube root and so on). As discussed earlier, the X-factor for KSEB as a DISCOM and for KSEB as a GENCO is estimated separately. The results are reported in Tables A3 and A4. The X-factors so arrived at are set as the minimum increase in efficiency per annum that would be expected out of the utility[25]. An X-factor above 1 indicates an efficient DMU and vice versa, an X-factor below 1 indicates an inefficient unit. A tariff petition would not fulfil the MYT principles in spirit if it does not provide for incentivising efficiency and ensuring user welfare.

Using data on all the eight input variables (listed in previous section) and the two output variables for the years 2009-10 to 2011-12 (three years) we estimate the MI for KSEB as a DISCOM. Then using seven input and two output variables, we estimate the MI of KSEB as a GENCO. Finally, we provide an illustrative application of the X-factor in filing tariff petitions (Detailed coverage in the section on MYTP and Appendix D).

X-Factor for DISCOM (without considering reliability of services)

Table A3 reports the MI for the years 2009- 2012 (three years). As can be seen that KSEB is ranked 20th out of 43 DISCOMS analysed. The choice of a larger time frame is better since it gives an efficiency estimate which can be generalised over a longer forecasted time. KSEB has a MI value of 1.1238. This boils down to an X-factor of about 4%. On a conservative note, in the first control period, in order to avoid the known problem of ratcheting, we suggest an X-factor of 2% for the first control period.

X-Factor for DISCOM (With reliability as one of the output parameter)

Table A5.A, A5.B, A5.C highlights the MI for those 8 DISCOMs with RI for the year 2010-12, 2010-11, and 2011-12. The analysis shows that for KSEB as discom, the MI for the year 2010-12, 2010-11 and 2011-12 is of 1.038, 1.086 and 0.99 respectively. The estimated X factor for the year 2010-12 and 2011-12 for DISCOM with and without RI is shown in Table A6, which concludes that the X-factor for KSEB as a Discom is about 2%.

X-Factor for GENCO

Table A4.A, A4.B and A4.C reports the MI for three time periods 2009-12, 2009-11, and 2010-12. This is done because for the longer time horizon of 2009-12, we find an X-factor less than one which indicates an inefficient GENCO. With a MI of 0.84 it is ranked 20th out of the 29 GENCOS analysed. Similarly, while analysing the data for 2010-12, we compute a MI of 0.85 thus indicating a decrease in efficiency over time. A

[25] There are known issues of Ratcheting with respect to RPI-X model (Laffont and Tirole, 1993). But these are well known and one can provide for these issues at the beginning of a control period. Despite its limitations, RPI-X is the most widely used regulatory pricing mechanism.

MI of 0.85 ranks KSEB as the 23rd among 29 GENCO analysed. Finally, we analyse the data for 2009-11 which gives a MI estimate of 1.0262 thus classifying KSEB as an efficient GENCO. With a MI of 1.0262 KSEB ranked 15th among the 29 Gencos analysed. Thus, the X-factor for KSEB as a Genco is about 1%.

As stated earlier, the X-factor is the minimum efficiency (reduction in controllable cost) expected per annum. We now illustrate the use of X-factor in deciding the tariff under the following assumptions:

(i) A control period of three years

(ii) Fair Rate of Return (FRR) of 15.5%

(iii) Regulated Asset Base (RAB), Depreciation (Dep), Operating and Maintenance (O&M), Power Purchase cost (PP), Employee Cost (Emp Cost), Interest, Other Expenses , Taxes and units sold are as in Table 1.4 given below.

(iv) All costs are controllable and the X-factor is 2% and Inflation rate is 7%.

The tariffs for the three years can be estimated as:

TABLE 1.6: ILLUSTRATIVE TARIFF FIXATION FOR THE FIRST CONTROL PERIOD FOLLOWING RPI-X METHODOLOGY

	Years in the first control period		
Particulars	**T**	**T+1**	**T+2**
RAB	1227.51	1599.09	2208.31
FRR (15.5%)	190.26405	247.859	342.2881
Dep	451	473	466
O&M	600	1100	1400
Gen Cost	364	237	282
Emp Cost	2450	2890	3180
Interest	241	257	310
Other Exp	6171	6684	7737
Tax	4.3	4.69	5.39
Units Sold	6500	7500	8000
Total Costs	10471.5641	11893.55	13722.68
PVCosts	₹ 36,012.49		
Total Units sold	22000		
Tariff	1.63693148	1.718778	1.804717

1.6 CONCLUSION

The Benchmarking study covers aspects of evaluating the performance of KSEB with other state utilities to see its position relative to its competitors. It would also help KSEB in following MYTP by incentivizing efficiency and ensuring welfare of consumers.

The benchmarking is done by considering KSEB separately as a DISCOM and as a GENCOM using Data Envelopment Analysis (DEA) methodology. As discussed earlier, when all input and output variables are included, the benchmarking study done depicts KSEB on a frontier However, one analysing the marginal contribution of each parameter to KSEB's efficient performance, it can be seen that KSEB is on the frontier primarily because of low aggregate and technical losses and low power purchase cost[26]. Thus, in order to improve efficiency, among other things, KSEB needs to focus on employee cost, administrative and general cost and operating and maintenance cost. Subsequently, a Malmquist index of efficiency is constructed and the expected change in efficiency is estimated to be about 3.8%. This is the X factor in the RPI-X pricing mechanism. As stated earlier, the X-factor is the minimum efficiency (reduction in controllable cost) expected per annum. In other words, first, the total cost would need to be broken into controllable (employee and other operating costs) and uncontrollable (fuel expenses etc.), then for a given control period the price can be ascertained. The actual prices will reflect both the efficient controllable costs, the uncontrollable costs and a fair rate of return. If a utility has to earn profits beyond the permissible fair rate of return it would have to improve its efficiency beyond X% p.a. The study recommends an efficiency improvement target of 2 percent for KSEB as a DISCOM and 1% for KSEB as a Genco.

Using the cost data in ARR 2012-13 and classifying the costs as controllable and uncontrollable factors, we estimate that the annual efficiency improvement for the DISCOM would be about Rs. 25 crore and for the GENCOM Rs. 4 crore (Table A. 7). About 19 crore of this cost reduction has to come in the form of employee cost. We have also illustrated the use of X-factor in pricing of electricity (Table 1.4). In this illustration we use an X-factor of 2% for KSEB.

Further, the scope of benchmarking can be extended to analyse how the possible changes in efficiency (operating and technical) of KSEB, specifically as DISCOM, can be passed on to consumers as well as forecasting its performance to remain an efficient power utility. Accordingly, we can think about ways on how to enhance the revenues of KSEB to the extent of 2% annually, which assures KSEB to be the best power utility. (DISCOM). Thus, it can put into action suitable strategies for working efficiently, to provide better services to the consumers and in return enhance its revenue.

This brings us to relate the essence of benchmarking study with other subparts of the project as discussed in the beginning. The other subparts include Customer Perceptions and Expectations Study (CPES), Organizational Assessment and Realignment (OAR), Skill Assessment, Career and Succession Planning (SACSP). CPES aims at enhancing service quality. In addition aspirational assessment is done so as to enable KSEB augment revenue streams with the help of high margin products. OAR and SACSP would enable KSEB to bring in efficiency where it matters most. It would help KSEB improve its performance in terms of employee cost as well as other operational expenses.

[26] More than half the power being generated through hydel power stations

TABLE A1: BENCHMARKING KSEBS PERFORMANCE AS A DISCOM

Sr. No.	DMU	Total Efficiency	Technical Efficiency	Scale Efficiency	Benchmarks	Input Slacks							
						Power Purchased	Employee Cost	Operation & Maintenance	Interest Cost	Depre-ciation	Administrative and General Expenses	Other Expenses	Aggregate Technical and Commercial Losses (in%)
1	Bihar State Electricity Board	0.4543	0.4593	0.9890	6, 26, 38, 40	0	15.6022	1.8138433	396.074	0	2.622467335	124.7013	0
2	Jharkhand State Electricity Board	0.7208	1.0000	0.7208	6, 26, 37, 38, 40	0	0	6.9735956	225.833	0	17.5106559	61.70117	0
3	Central Electricity Supply Company of Orissa Ltd.	0.7543	0.8100	0.9313	26, 37, 38	0	0	10.216354	10.2913	0	76.6896701	8.221446	20.68505374
4	Northern Electricity Supply Company of Orissa Ltd.	0.9960	0.9962	0.9998	6, 7, 11, 26, 37, 40	0	0	0.9935255	0	0	13.80210637	24.93411	0
5	Southern Electricity Supply Company of Orissa Ltd.	1.0000	1.0000	1.0000	5	0	0	0	0	0	0	0	0
6	Western Electricity Supply Company of Orissa Ltd.	1.0000	1.0000	1.0000	6	0	0	0	0	0	0	0	0
7	Sikkim Power Distribution	1.0000	1.0000	1.0000	7	0	0	0	0	0	0	0	0
8	West Bengal State Electricity Distribution Co. Ltd.	0.7264	0.7638	0.9510	36, 37, 39, 40, 44	0	1.382337	16.480401	0	0	0	72.11589	0
9	Assam Power Distribution Company Ltd.	0.4960	0.5039	0.9843	7, 37, 38, 40	0	73.14157	0	0	1.8538059	6.986350561	42.12186	0
10	Manipur Power Distribution	1.0000	1.0000	1.0000	10	0	0	0	0	0	0	0	0
11	Mizoram Power Distribution	1.0000	1.0000	1.0000	11	0	0	0	0	0	0	0	0
12	Nagaland Power Distribution	0.6594	0.9722	0.6782	7, 11, 13,37	0	13.46629	0	12.4324	0	0	0	0
	DMU				Benchmarks	Input Slacks							

Sr. No.		Total Efficiency	Technical Efficiency	Scale Efficiency		Power Purchased	Employee Cost	Operation & Maintenance	Interest Cost	Depre-ciation	Administrative and General Expenses	Other Expenses	Aggregate Technical and Commercial Losses (in%)
13	Tripura State Electricity Corporation Ltd.	1.0000	1.0000	1.0000	13	0	0	0	0	0	0	0	0
14	Bombay Suburban Electric Supply Rajdhani	1.0000	1.0000	1.0000	14	0	0	0	0	0	0	0	0
15	Bombay Suburban Electric Supply Yamuna	0.6217	0.6578	0.9452	37, 40, 44	0	0	14.87229	124.322	1.8409898	59.39280408	2.349408	0
16	North Delhi Power Limited	0.7797	0.8160	0.9555	40, 44	0	18.13639	48.265789	89.5849	42.515013	23.14094094	8.458987	0
17	Dakshin Haryana Bijli Vitran Nigam Ltd.	1.0000	1.0000	1.0000	17	0	0	0	0	0	0	0	0
18	Uttar Haryana Bijli Vitran Nigam Ltd.	0.8630	0.8643	0.9985	6, 17, 26, 31, 37, 38	0	0	0	351.098	0	8.729406409	54.50488	0
19	Jammu and Kashmir Power Development Department	1.0000	1.0000	1.0000	19	0	0	0	0	0	0	0	0
20	Ajmer Vidyut Vitran Nigam Ltd.	0.4767	0.5110	0.9330	37, 38, 40, 44	0	0	6.7875989	405.607	10.051723	9.481681565	1841.026	0
21	Jodhpur Vidyut Vitran Nigam Ltd.	0.5758	0.5821	0.9893	26, 31, 37, 38, 40, 44	0	0	0	500.742	0	18.33774224	1942.218	0
22	Jaipur Vidyut Vitran Nigam Ltd.	0.6495	0.6497	0.9997	28, 31, 37, 38, 41	0	247.9814	0	509.982	46.252343	0	2453.375	0
23	Dakshinanchal Vidyut Vittran Nigam Ltd.	0.9599	0.9632	0.9966	26, 37	0	0	139.23299	96.3286	112.92178	23.32623873	50.32443	21.93413794
24	Kanpur Electricity Supply Co.Ltd.	0.9162	1.0000	0.9162	7, 11, 37, 40	278.18623	0	1.1223748	30.2686	0	31.15164065	0	0
25	Madhyanchal Vidyut Vitran Nigam Ltd.	0.8234	0.8983	0.9166	37, 38, 39, 44	0	0	88.029641	0	12.215395	0.783531583	22.00205	0
26	Poorvanchal Vidyut Vitran Nigam Ltd.	1.0000	1.0000	1.0000	26	0	0	0	0	0	0	0	0
	DMU				Benchmarks	Input Slacks							

Sr. No.		Total Efficiency	Technical Efficiency	Scale Efficiency		Power Purchased	Employee Cost	Operation & Maintenance	Interest Cost	Depre-ciation	Administrative and General Expenses	Other Expenses	Aggregate Technical and Commercial Losses (in%)
27	Andhra Pradesh Central Power Distribution Company Ltd.	0.9739	1.0000	0.9739	37, 38, 44	0	0	40.226403	229.981	53.866938	17.2507621	58.50968	0
28	Andhra Pradesh Eastern Power Distribution Company Ltd.	1.0000	1.0000	1.0000	28	0	0	0	0	0	0	0	0
29	Andhra Pradesh Northern Power Distribution Company Ltd.	0.7738	0.7738	1.0000	36, 37, 38, 39, 44	0	19.98162	0	0	40.271464	10.09661305	12.5632	0
30	Andhra Pradesh Southern Power Distribution Company Ltd.	0.7734	0.7926	0.9757	28, 38, 40, 44	0	138.302	0	0.5625	134.13123	22.06355934	31.41781	0
31	Bangalore Electricity Supply Company Ltd.	1.0000	1.0000	1.0000	31	0	0	0	0	0	0	0	0
32	Chamundeshwari Electricity Supply Company Ltd.	0.6484	0.6661	0.9734	5, 6, 7, 37, 38, 40	0	0	0	14.9565	0	12.05090567	95.82286	0
33	Gulbarga Electricity Supply Company Ltd.	0.6706	0.6726	0.9971	37, 38, 44	0	0	3.9730444	47.0879	2.4892116	19.6897755	31.6911	0
34	Hubli Electricity Supply Company Ltd.	0.6866	0.6881	0.9978	28, 31, 37, 38	0	7.531297	0	72.2099	0	20.3520288	13.92378	3.525874606
35	Mangalore Electricity Supply Company Ltd.	0.9179	0.9950	0.9225	37, 40, 41, 44	0	58.27443	0	74.5124	19.957942	25.06710199	22.18111	0
36	Kerala State Electricity Board	1.0000	1.0000	1.0000	36	0	0	0	0	0	0	0	0
37	Puducherry Power Distribution	1.0000	1.0000	1.0000	37	0	0	0	0	0	0	0	0
38	Tamil Nadu Electricity Board	1.0000	1.0000	1.0000	38	0	0	0	0	0	0	0	0
39	Chhatisgarh State Power Distribution Co	1.0000	1.0000	1.0000	39	0	0	0	0	0	0	0	0
	DMU				Benchmarks	Input Slacks							

Sr. No.		Total Efficiency	Technical Efficiency	Scale Efficiency		Power Purchased	Employee Cost	Operation & Maintenance	Interest Cost	Depre-ciation	Administrative and General Expenses	Other Expenses	Aggregate Technical and Commercial Losses (in%)
40	Goa Power Distribution	1.0000	1.0000	1.0000	40	0	0	0	0	0	0	0	0
41	Dakshin Gujarat Vij. Co. Ltd.	1.0000	1.0000	1.0000	41	0	0	0	0	0	0	0	0
42	Madhya Gujarat Vij Co. Ltd.	0.8946	0.8965	0.9979	14, 28, 37, 40, 44	373.16038	0	9.4807896	0	14.017081	11.39552922	0	0
43	Paschim Gujarat Vij Co. Ltd.	0.9031	1.0000	0.9031	26, 37, 44	0	0	7.3674456	15.2259	76.046873	13.74525244	60.82359	0
44	Uttar Gujarat Vij Co. Ltd.	1.0000	1.0000	1.0000	44	0	0	0	0	0	0	0	0
45	MP Madhya Kshetra Vidyut Vitran Co. Ltd.	0.7190	0.7213	0.9968	28, 31, 37, 38	0	118.251	0	111.173	0	38.78605547	0.888077	17.2351428
46	MP Paschim Kshetra Vidyut Vitran Co. Ltd.	0.7656	0.7768	0.9856	6, 17, 26, 38, 40	0	3.642493	0	76.4497	0	41.14990841	220.9709	0
47	MP Purv Kshetra Vidyut Vitran Co. Ltd.	0.6113	0.6158	0.9926	6, 31, 37, 38	0	118.322	0	47.8939	0	32.20008614	205.0832	7.2607595
48	Maharashtra State Electricity Distribution Co. Ltd.	1.0000	1.0000	1.0000	48	0	0	0	0	0	0	0	0

TABLE A2: BENCHMARKING KSEBS PERFORMANCE AS A GENCO

DMU	Total Efficiency	Technical Efficiency	Scale Efficiency	Benchmarks	Input Slacks							
					Generation Cost	Employee Cost	Operating and Maintenance Cost	Interest Cost	Depreciation	Administrative and General Expenses	Other Expenses	Debtors
jseb	78.34%	88.86%	88.16%	5,8,10,11,18	0	0	0	267.3944	19.66168	0	1759.235	317.8385
ohpc	100.00%	100.00%	100.00%	2	0	0	0	0	0	0	0	0
opgcl	100.00%	100.00%	100.00%	3	0	0	0	0	0	0	0	0
wbpdcl	100.00%	100.00%	100.00%	4	0	0	0	0	0	0	0	0
wbsedcl	100.00%	100.00%	100.00%	5	0	0	0	0	0	0	0	0
arunachal pd	100.00%	100.00%	100.00%	6	0	0	0	0	0	0	0	0
apgcl	100.00%	100.00%	100.00%	7	0	0	0	0	0	0	0	0
meseb	100.00%	100.00%	100.00%	8	0	0	0	0	0	0	0	0
mizoram pd	100.00%	100.00%	100.00%	9	0	0	0	0	0	0	0	0
nagaland pd	100.00%	100.00%	100.00%	10	0	0	0	0	0	0	0	0
tsecl	100.00%	100.00%	100.00%	11	0	0	0	0	0	0	0	0
indraprastha	100.00%	100.00%	100.00%	12	0	0	0	0	0	0	0	0
pragati	100.00%	100.00%	100.00%	13	0	0	0	0	0	0	0	0
hpgcl	100.00%	100.00%	100.00%	14	0	0	0	0	0	0	0	0
hpseb	100.00%	100.00%	100.00%	15	0	0	0	0	0	0	0	0
j&k pdcl	100.00%	100.00%	100.00%	16	0	0	0	0	0	0	0	0
pseb	100.00%	100.00%	100.00%	17	0	0	0	0	0	0	0	0
upjvnl	100.00%	100.00%	100.00%	18	0	0	0	0	0	0	0	0
uprvunl	100.00%	100.96%	99.05%	19	0	0	0	0	0	0	0	0
ujvnl	100.00%	100.00%	100.00%	20	0	0	0	0	0	0	0	0
ap genco	100.00%	100.00%	100.00%	21	0	0	0	0	0	0	0	0
kpcl	100.00%	100.00%	100.00%	22	0	0	0	0	0	0	0	0
kseb	100.00%	100.00%	100.00%	23	0	0	0	0	0	0	0	0
tneb	100.00%	100.00%	100.00%	24	0	0	0	0	0	0	0	0
cspgcl	100.00%	100.00%	100.00%	25	0	0	0	0	0	0	0	0
gsecl	100.00%	100.00%	100.00%	26	0	0	0	0	0	0	0	0
mppgcl	100.00%	100.00%	100.00%	27	0	0	0	0	0	0	0	0
mspgcl	100.00%	100.00%	100.00%	28	0	0	0	0	0	0	0	0

TABLE A3.A: MALMQUIST INDEX (2009-12) FOR DISCOMS

Discom	EC	PEC	SEC	TC	MI
Bihar State Electricity Board	0.70	0.76	0.93	0.87	0.61
Jharkhand State Electricity Board	0.59	0.77	0.77	0.77	0.45
Central Electricity Supply Company of Orissa Ltd.	0.78	0.86	0.92	1.31	1.02
Northern Electricity Supply Company of Orissa Ltd.	0.75	0.87	0.86	1.31	0.98
Southern Electricity Supply Company of Orissa Ltd.	1.00	1.00	1.00	0.93	0.93
Western Electricity Supply Company of Orissa Ltd.	0.66	0.79	0.83	1.44	0.94
Sikkim Power Distribution	1.00	1.00	1.00	3.15	3.15
West Bengal State Electricity Distribution Co. Ltd.	0.96	0.97	0.99	1.49	1.43
Assam Power Distribution Company Ltd.	2.37	1.84	1.29	2.39	5.65
Manipur Power Distribution	1.00	1.00	1.00	0.68	0.68
Mizoram Power Distribution	1.00	1.00	1.00	large no.	large no.
Nagaland Power Distribution	1.00	1.00	1.00	large no.	large no.
Tripura State Electricity Corporation Ltd.	1.00	1.00	1.00	0.48	0.48
North Delhi Power Limited	1.00	1.00	1.00	1.40	1.40
Dakshin Haryana Bijli Vitran Nigam Ltd.	0.95	1.00	0.95	1.17	1.11
Uttar Haryana Bijli Vitran Nigam Ltd.	0.95	1.00	0.95	1.17	1.12
Jammu and Kashmir Power Development Department	4.34	1.41	3.08	0.78	3.37
Ajmer Vidyut Vitran Nigam Ltd.	1.24	1.07	1.16	0.97	1.21
Jodhpur Vidyut Vitran Nigam Ltd.	1.30	1.12	1.15	1.07	1.38
Jaipur Vidyut Vitran Nigam Ltd.	0.92	0.98	0.94	1.23	1.13
Dakshinanchal Vidyut Vittran Nigam Ltd.	0.82	0.92	0.88	0.97	0.80
Kanpur Electricity Supply Co.Ltd.	1.00	1.00	1.00	large no.	large no.
Poorvanchal Vidyut Vitran Nigam Ltd.	1.01	1.04	0.97	1.18	1.19
Andhra Pradesh Central Power Distribution Company Ltd.	1.00	1.00	1.00	1.26	1.26
Andhra Pradesh Eastern Power Distribution Company Ltd.	0.93	0.97	0.96	0.83	0.77
Andhra Pradesh Northern Power Distribution Company Ltd.	1.13	1.09	1.04	0.96	1.08
Andhra Pradesh Southern Power Distribution Company Ltd.	0.98	1.02	0.96	1.20	1.17
Bangalore Electricity Supply Company Ltd.	0.83	1.00	0.83	1.40	1.16
Chamundeshwari Electricity Supply Company Ltd.	0.86	1.01	0.85	0.97	0.83
Gulbarga Electricity Supply Company Ltd.	1.21	1.06	1.14	0.90	1.09
Hubli Electricity Supply Company Ltd.	1.00	1.10	0.90	1.03	1.02
Mangalore Electricity Supply Company Ltd.	1.11	1.10	1.01	1.00	1.11
Kerala State Electricity Board	0.99	0.99	1.00	1.14	1.12
Puducherry Power Distribution	1.00	1.00	1.00	0.97	0.97
Goa Power Distribution	1.00	1.00	1.00	0.88	0.88
Dakshin Gujarat Vij. Co. Ltd.	1.05	1.03	1.02	1.06	1.12
Madhya Gujarat Vij Co. Ltd.	1.46	1.10	1.33	0.72	1.06
Paschim Gujarat Vij Co. Ltd.	1.00	1.02	0.98	1.35	1.35
Uttar Gujarat Vij Co. Ltd.	1.30	1.03	1.26	1.43	1.86
MP Madhya Kshetra Vidyut Vitran Co. Ltd.	0.83	1.01	0.82	1.13	0.94
MP Paschim Kshetra Vidyut Vitran Co. Ltd.	1.13	1.06	1.06	1.09	1.22
MP Purv Kshetra Vidyut Vitran Co. Ltd.	1.09	1.12	0.97	1.03	1.12
Maharashtra State Electricity Distribution Co. Ltd.	1.00	1.00	1.00	1.18	1.18

Note:
EC –Efficiency Change [PEC*SEC]
PEC-Pure Efficiency Change
SEC-Scale Efficiency
TC=Technological Change
MI=Malmquist Index [EC*TC]

TABLE A3.B.: MALMQUIST INDEX (2010-11) FOR DISCOMS

Discom	EC	PEC	SEC	TC	MI
Bihar State Electricity Board	1.660	1.239	1.339	0.518	0.860
Jharkhand State Electricity Board	1.036	1.000	1.036	0.601	0.622
Central Electricity Supply Company of Orissa Ltd.	1.422	1.134	1.253	0.614	0.873
Northern Electricity Supply Company of Orissa Ltd.	1.092	1.102	0.991	0.753	0.823
Southern Electricity Supply Company of Orissa Ltd.	1.000	1.000	1.000	0.777	0.777
Western Electricity Supply Company of Orissa Ltd.	1.000	1.000	1.000	0.908	0.908
Sikkim Power Distribution	1.000	1.000	1.000	0.895	0.895
West Bengal State Electricity Distribution Co. Ltd.	1.448	1.000	1.448	0.753	1.090
Assam Power Distribution Company Ltd.	2.368	1.841	1.286	1.634	3.868
Manipur Power Distribution	1.000	1.000	1.000	0.721	0.721
Mizoram Power Distribution	1.000	1.000	1.000	Large No.	Large No.
Nagaland Power Distribution	1.000	1.000	1.000	Large No.	Large No.
Tripura State Electricity Corporation Ltd.	1.000	1.000	1.000	0.634	0.634
North Delhi Power Limited	1.000	1.000	1.000	0.988	0.988
Dakshin Haryana Bijli Vitran Nigam Ltd.	1.747	1.109	1.576	0.616	1.076
Uttar Haryana Bijli Vitran Nigam Ltd.	1.657	1.053	1.574	0.636	1.053
Jammu and Kashmir Power Development Department	5.189	1.410	3.679	0.480	2.489
Ajmer Vidyut Vitran Nigam Ltd.	2.116	1.156	1.831	0.598	1.266
Jodhpur Vidyut Vitran Nigam Ltd.	1.982	1.200	1.652	0.629	1.246
Jaipur Vidyut Vitran Nigam Ltd.	1.614	1.072	1.505	0.711	1.147
Dakshinanchal Vidyut Vittran Nigam Ltd.	2.825	1.179	2.396	0.287	0.812
Kanpur Electricity Supply Co.Ltd.	1.000	1.000	1.000	Large No.	Large No.
Poorvanchal Vidyut Vitran Nigam Ltd.	2.288	1.157	1.977	0.526	1.202
Andhra Pradesh Central Power Distribution Company Ltd.	1.000	1.000	1.000	0.913	0.913
Andhra Pradesh Eastern Power Distribution Company Ltd.	1.000	1.000	1.000	0.684	0.684
Andhra Pradesh Northern Power Distribution Company Ltd.	1.400	1.079	1.297	0.682	0.955
Andhra Pradesh Southern Power Distribution Company Ltd.	1.019	1.019	1.000	0.908	0.925
Bangalore Electricity Supply Company Ltd.	1.102	1.000	1.102	0.859	0.946
Chamundeshwari Electricity Supply Company Ltd.	1.599	1.135	1.409	0.561	0.897
Gulbarga Electricity Supply Company Ltd.	2.132	1.229	1.734	0.502	1.070
Hubli Electricity Supply Company Ltd.	1.775	1.166	1.523	0.538	0.956
Mangalore Electricity Supply Company Ltd.	1.137	1.080	1.052	0.946	1.076
Kerala State Electricity Board	1.000	1.000	1.000	1.179	1.179
Puducherry Power Distribution	1.000	1.000	1.000	0.402	0.402
Goa Power Distribution	1.000	1.000	1.000	0.826	0.826
Dakshin Gujarat Vij. Co. Ltd.	1.051	1.028	1.022	0.929	0.977
Madhya Gujarat Vij Co. Ltd.	1.563	1.122	1.393	0.704	1.101
Paschim Gujarat Vij Co. Ltd.	1.979	1.064	1.860	0.563	1.114
Uttar Gujarat Vij Co. Ltd.	1.296	1.029	1.260	1.089	1.412
MP Madhya Kshetra Vidyut Vitran Co. Ltd.	2.435	1.112	2.190	0.404	0.984
MP Paschim Kshetra Vidyut Vitran Co. Ltd.	2.659	1.197	2.221	0.435	1.157
MP Purv Kshetra Vidyut Vitran Co. Ltd.	2.637	1.229	2.146	0.435	1.146
Maharashtra State Electricity Distribution Co. Ltd.	1.000	1.000	1.000	1.121	1.121

Note:
EC –Efficiency Change [PEC*SEC]
PEC-Pure Efficiency Change
SEC-Scale Efficiency
TC=Technological Change
MI=Malmquist Index [EC*TC]

TABLE A3.C.: MALMQUIST INDEX (2011-12) FOR DISCOMS

Discom	EC	PEC	SEC	TC	MI
Bihar State Electricity Board	0.421	0.610	0.691	1.785	0.752
Jharkhand State Electricity Board	0.570	0.765	0.745	1.685	0.960
Central Electricity Supply Company of Orissa Ltd.	0.552	0.754	0.731	1.757	0.969
Northern Electricity Supply Company of Orissa Ltd.	0.685	0.789	0.869	1.459	1.000
Southern Electricity Supply Company of Orissa Ltd.	1.000	1.000	1.000	1.093	1.093
Western Electricity Supply Company of Orissa Ltd.	0.656	0.786	0.834	1.473	0.966
Sikkim Power Distribution	1.000	1.000	1.000	3.254	3.254
West Bengal State Electricity Distribution Co. Ltd.	0.663	0.973	0.681	1.734	1.150
Assam Power Distribution Company Ltd.	1.000	1.000	1.000	0.921	0.921
Manipur Power Distribution	1.000	1.000	1.000	0.782	0.782
Mizoram Power Distribution	1.000	1.000	1.000	Large No.	Large No.
Nagaland Power Distribution	1.000	1.000	1.000	1.172	1.172
Tripura State Electricity Corporation Ltd.	1.000	1.000	1.000	0.772	0.772
North Delhi Power Limited	1.000	1.000	1.000	1.408	1.408
Dakshin Haryana Bijli Vitran Nigam Ltd.	0.546	0.903	0.605	1.751	0.955
Uttar Haryana Bijli Vitran Nigam Ltd.	0.575	0.954	0.603	1.924	1.107
Jammu and Kashmir Power Development Department	0.837	1.000	0.837	1.256	1.051
Ajmer Vidyut Vitran Nigam Ltd.	0.586	0.922	0.636	1.600	0.938
Jodhpur Vidyut Vitran Nigam Ltd.	0.654	0.937	0.698	1.523	0.996
Jaipur Vidyut Vitran Nigam Ltd.	0.568	0.911	0.623	1.718	0.976
Dakshinanchal Vidyut Vittran Nigam Ltd.	0.290	0.785	0.369	3.588	1.039
Kanpur Electricity Supply Co.Ltd.	1.000	1.000	1.000	1.817	1.817
Poorvanchal Vidyut Vitran Nigam Ltd.	0.442	0.901	0.490	2.504	1.106
Andhra Pradesh Central Power Distribution Company Ltd.	1.000	1.000	1.000	1.403	1.403
Andhra Pradesh Eastern Power Distribution Company Ltd.	0.934	0.968	0.964	1.212	1.132
Andhra Pradesh Northern Power Distribution Company Ltd.	0.805	1.006	0.800	1.171	0.943
Andhra Pradesh Southern Power Distribution Company Ltd.	0.958	1.000	0.958	1.265	1.212
Bangalore Electricity Supply Company Ltd.	0.751	1.000	0.751	1.619	1.216
Chamundeshwari Electricity Supply Company Ltd.	0.538	0.892	0.603	1.768	0.950
Gulbarga Electricity Supply Company Ltd.	0.566	0.864	0.655	1.742	0.986
Hubli Electricity Supply Company Ltd.	0.562	0.945	0.594	1.736	0.975
Mangalore Electricity Supply Company Ltd.	0.973	1.014	0.959	0.978	0.952
Kerala State Electricity Board	0.986	0.989	0.997	1.004	0.990
Puducherry Power Distribution	1.000	1.000	1.000	2.350	2.350
Goa Power Distribution	1.000	1.000	1.000	1.017	1.017
Dakshin Gujarat Vij. Co. Ltd.	1.000	1.000	1.000	1.249	1.249
Madhya Gujarat Vij Co. Ltd.	0.936	0.981	0.954	1.172	1.096
Paschim Gujarat Vij Co. Ltd.	0.506	0.957	0.529	2.395	1.212
Uttar Gujarat Vij Co. Ltd.	1.000	1.000	1.000	0.923	0.923
MP Madhya Kshetra Vidyut Vitran Co. Ltd.	0.340	0.909	0.374	2.698	0.917
MP Paschim Kshetra Vidyut Vitran Co. Ltd.	0.424	0.889	0.476	2.257	0.956
MP Purv Kshetra Vidyut Vitran Co. Ltd.	0.413	0.913	0.453	2.180	0.900
Maharashtra State Electricity Distribution Co. Ltd.	1.000	1.000	1.000	1.029	1.029

Note:
EC –Efficiency Change [PEC*SEC]
PEC-Pure Efficiency Change
SEC-Scale Efficiency
TC=Technological Change
MI=Malmquist Index [EC*TC]

TABLE A4.A.: MALMQUIST INDEX (2010-12) FOR GENCOS

Genco	EC	PEC	SEC	TC	MI
Jharkhand State Electricity Board	0.69	0.72	0.97	1.19	0.82
Orissa Hydro Power Corporation Ltd.	1.00	1.00	1.00	0.87	0.87
Orissa Power Generation Corporation Ltd.	1.00	1.00	1.00	2.65	2.65
West Bengal Power Development Corporation Ltd.	1.00	1.00	1.00	1.13	1.13
West Bengal State Electricity Distribution Co. Ltd.	1.00	1.00	1.00	1.57	1.57
Arunachal Power Development	1.00	1.00	1.00	1.27	1.27
Assam Power Generation Corporation Ltd.	1.00	1.00	1.00	0.10	0.10
Meghalaya State Electricity Board	1.00	1.00	1.00	large No.	large No.
Mizoram Power Development	1.00	1.00	1.00	large No.	large No.
Nagaland Power Development	1.00	1.00	1.00	large No.	large No.
Tripura State Electricity Corporation Ltd.	1.00	1.00	1.00	0.66	0.66
Indraprastha Power Corporation Limited	1.00	1.00	1.00	1.05	1.05
Pragati Power Corporation Limited	1.00	1.00	1.00	0.76	0.76
Haryana Power Generation Corporation Ltd.	1.00	1.00	1.00	0.79	0.79
Himachal Pradesh Electricity Board	1.00	1.00	1.00	0.74	0.74
Jammu and Kashmir Power Development Corporation Ltd.	1.00	1.00	1.00	2.67	2.67
Punjab State Electricity Board	1.13	1.00	1.13	0.86	0.97
Uttrakhand Jal Vidyut Nigam Limited	1.00	1.00	1.00	large No.	large No.
Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd.	1.04	1.00	1.04	1.02	1.07
Uttrakhand Jal Vidyut Nigam Limited	1.00	1.00	1.00	1.11	1.11
Andhra Pradesh Generation Corporation Ltd.	1.00	1.00	1.00	1.17	1.17
Karnataka Power Corporation Ltd.	1.00	1.00	1.00	0.81	0.81
Kerala State Electricity Board	1.00	1.00	1.00	0.84	0.84
Puducherry pcl	1.00	1.00	1.00	1.49	1.49
Tamil Nadu Electricity Board	1.11	1.00	1.11	1.02	1.14
Chhatisgarh State Power Generation Co. Ltd.	1.00	1.00	1.00	0.09	0.09
Gujarat State Electricity Corporation Ltd.	1.00	1.00	1.00	0.90	0.90
Madhya Pradesh Power Generation Co. Ltd.	1.00	1.00	1.00	0.08	0.08
Maharashtra State Power Generation Co. Ltd.	1.00	1.00	1.00	1.45	1.45

Note:
EC –Efficiency Change [PEC*SEC]
PEC-Pure Efficiency Change
SEC-Scale Efficiency
TC=Technological Change
MI=Malmquist Index [EC*TC]

TABLE A4.B.: MALMQUIST INDEX (2010-11) FOR GENCOS

Genco	EC	PEC	SEC	TC	MI
Jharkhand State Electricity Board	1.00	1.00	1.00	1.10	1.10
Orissa Hydro Power Corporation Ltd.	1.00	1.00	1.00	2.91	2.91
Orissa Power Generation Corporation Ltd.	1.00	1.00	1.00	1.67	1.67
West Bengal Power Development Corporation Ltd.	1.00	1.00	1.00	1.06	1.06
West Bengal State Electricity Distribution Co. Ltd.	1.00	1.00	1.00	0.86	0.86
Arunachal Power Development	1.00	1.00	1.00	1.25	1.25
Assam Power Generation Corporation Ltd.	1.00	1.00	1.00	0.10	0.10
Meghalaya State Electricity Board	1.00	1.00	1.00	1.20	1.20
Mizoram Power Development	1.00	1.00	1.00	0.58	0.58
Nagaland Power Development	1.00	1.00	1.00	Large No.	Large No.
Tripura State Electricity Corporation Ltd.	1.00	1.00	1.00	0.72	0.72
Indraprastha Power Corporation Limited	1.00	1.00	1.00	0.85	0.85
Pragati Power Corporation Limited	1.00	1.00	1.00	0.44	0.44
Haryana Power Generation Corporation Ltd.	1.00	1.00	1.00	0.69	0.69
Himachal Pradesh Electricity Board	1.00	1.00	1.00	1.04	1.04
Jammu and Kashmir Power Development Corporation Ltd.	1.00	1.00	1.00	1.94	1.94
Punjab State Electricity Board	1.13	1.00	1.13	1.00	1.13
Uttrakhand Jal Vidyut Nigam Limited	1.00	1.00	1.00	Large No.	Large No.
Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd.	1.06	1.00	1.06	1.05	1.11
Uttrakhand Jal Vidyut Nigam Limited	1.00	1.00	1.00	0.94	0.94
Andhra Pradesh Generation Corporation Ltd.	1.00	1.00	1.00	0.93	0.93
Karnataka Power Corporation Ltd.	1.00	1.00	1.00	0.71	0.71
Kerala State Electricity Board	1.00	1.00	1.00	1.03	1.03
Puducherry pcl	1.00	1.00	1.00	0.83	0.83
Tamil Nadu Electricity Board	1.11	1.00	1.11	1.22	1.36
Chhatisgarh State Power Generation Co. Ltd.	1.00	1.00	1.00	0.72	0.72
Gujarat State Electricity Corporation Ltd.	1.00	1.00	1.00	0.91	0.91
Madhya Pradesh Power Generation Co. Ltd.	1.00	1.00	1.00	1.06	1.06
Maharashtra State Power Generation Co. Ltd.	1.00	1.00	1.00	0.89	0.89

Note:
EC –Efficiecy Change [PEC*SEC]
PEC-Pure Efficiency Change
SEC-Scale Efficiency
TC=Technological Change
MI=Malmquist Index [EC*TC]

TABLE A4.C.: MALMQUIST INDEX (2011-2012) FOR GENCOS

Genco	EC	PEC	SEC	TC	MI
Jharkhand State Electricity Board	0.69	0.72	0.97	1.06	0.73
Orissa Hydro Power Corporation Ltd.	1.00	1.00	1.00	0.42	0.42
Orissa Power Generation Corporation Ltd.	1.00	1.00	1.00	2.54	2.54
West Bengal Power Development Corporation Ltd.	1.00	1.00	1.00	1.34	1.34
West Bengal State Electricity Distribution Co. Ltd.	1.00	1.00	1.00	1.64	1.64
Arunachal Power Development	1.00	1.00	1.00	1.17	1.17
Assam Power Generation Corporation Ltd.	1.00	1.00	1.00	0.77	0.77
Meghalaya State Electricity Board	1.00	1.00	1.00	1.61	1.61
Mizoram Power Development	1.00	1.00	1.00	Large No.	Large No.
Nagaland Power Development	1.00	1.00	1.00	1.32	1.32
Tripura State Electricity Corporation Ltd.	1.00	1.00	1.00	0.85	0.85
Indraprastha Power Corporation Limited	1.00	1.00	1.00	1.36	1.36
Pragati Power Corporation Limited	1.00	1.00	1.00	1.23	1.23
Haryana Power Generation Corporation Ltd.	1.00	1.00	1.00	1.11	1.11
Himachal Pradesh Electricity Board	1.00	1.00	1.00	1.06	1.06
Jammu and Kashmir Power Development Corporation Ltd.	1.00	1.00	1.00	1.51	1.51
Punjab State Electricity Board	1.00	1.00	1.00	0.92	0.92
Uttrakhand Jal Vidyut Nigam Limited	1.00	1.00	1.00	1.35	1.35
Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd.	0.99	1.00	0.99	1.09	1.07
Uttrakhand Jal Vidyut Nigam Limited	1.00	1.00	1.00	1.15	1.15
Andhra Pradesh Generation Corporation Ltd.	1.00	1.00	1.00	1.26	1.26
Karnataka Power Corporation Ltd.	1.00	1.00	1.00	1.04	1.04
Kerala State Electricity Board	1.00	1.00	1.00	0.86	0.86
Puducherry pcl	1.00	1.00	1.00	1.79	1.79
Tamil Nadu Electricity Board	1.00	1.00	1.00	1.02	1.02
Chhatisgarh State Power Generation Co. Ltd.	1.00	1.00	1.00	0.75	0.75
Gujarat State Electricity Corporation Ltd.	1.00	1.00	1.00	1.03	1.03
Madhya Pradesh Power Generation Co. Ltd.	1.00	1.00	1.00	0.08	0.08
Maharashtra State Power Generation Co. Ltd.	1.00	1.00	1.00	2.00	2.00

Note:
EC –Efficiecy Change [PEC*SEC]
PEC-Pure Efficiency Change
SEC-Scale Efficiency
TC=Technological Change
MI=Malmquist Index [EC*TC

TABLE A5.A: MALMQUIST INDEX (2010-2012) FOR THOSE DISCOMS WITH RI

Discom	EC	PEC	SEC	TC	MI
Bangalore Electricity Supply Company Ltd.	1.000	1.000	1.000	0.878	0.878
Chamundeshwari Electricity Supply Company Ltd.	1.000	1.000	1.000	0.908	0.908
Gulbarga Electricity Supply Company Ltd.	1.000	1.000	1.000	0.831	0.831
Hubli Electricity Supply Company Ltd.	1.000	1.000	1.000	1.284	1.284
Mangalore Electricity Supply Company Ltd.	1.000	1.000	1.000	0.944	0.944
Kerala State Electricity Board	1.000	1.000	1.000	0.815	0.815
MP Madhya Kshetra Vidyut Vitran Co. Ltd.	0.914	1.000	0.914	0.874	0.798
MP Purv Kshetra Vidyut Vitran Co. Ltd.	1.146	1.143	1.002	0.859	0.984

TABLE A5.B: MALMQUIST INDEX (2010-2011) FOR THOSE DISCOMS WITH RI

Discom	EC	PEC	SEC	TC	MI
Bangalore Electricity Supply Company Ltd.	1.000	1.000	1.000	0.696	0.696
Chamundeshwari Electricity Supply Company Ltd.	1.000	1.000	1.000	0.794	0.794
Gulbarga Electricity Supply Company Ltd.	1.000	1.000	1.000	0.577	0.577
Hubli Electricity Supply Company Ltd.	1.000	1.000	1.000	0.802	0.802
Mangalore Electricity Supply Company Ltd.	1.000	1.000	1.000	0.967	0.967
Kerala State Electricity Board	1.000	1.000	1.000	1.051	1.051
MP Madhya Kshetra Vidyut Vitran Co. Ltd.	1.000	1.000	1.000	0.879	0.879
MP Purv Kshetra Vidyut Vitran Co. Ltd.	1.094	1.104	0.991	0.884	0.966

TABLE A5.C: MALMQUIST INDEX (2011-2012) FOR THOSE DISCOMS WITH RI

Discom	EC	PEC	SEC	TC	MI
Bangalore Electricity Supply Company Ltd.	1.000	1.000	1.000	0.890	0.890
Chamundeshwari Electricity Supply Company Ltd.	1.000	1.000	1.000	1.167	1.167
Gulbarga Electricity Supply Company Ltd.	1.000	1.000	1.000	1.012	1.012
Hubli Electricity Supply Company Ltd.	1.000	1.000	1.000	1.721	1.721
Mangalore Electricity Supply Company Ltd.	1.000	1.000	1.000	1.269	1.269
Kerala State Electricity Board	1.000	1.000	1.000	0.711	0.711
MP Madhya Kshetra Vidyut Vitran Co. Ltd.	0.914	1.000	0.914	1.000	0.914
MP Purv Kshetra Vidyut Vitran Co. Ltd.	1.048	1.036	1.011	1.031	1.080

TABLE A6: ESTIMATION OF X FACTOR[27]

Year	GENCO*	DISCO*	DISCO with RI*
2010-12	0.944	1.038	0.934
2010-11	1.015	1.086	1.025
2011-12	0.927	0.999	0.843

Table A.7. Illustrative Target for efficiency improvement using costs in ARR 2012-13

[27] * Geometric Average Annual Growth Rate for GENCOs and DISCOMs (along with RI) is shown in Table 6.The growth rate value makes sense , for value greater than 1.

** X factor is calculated as (Geometric Average Annual Growth Rate – 1).A X-factor above 1 indicates an efficient DMU and vice versa a X-factor below 1 indicates an inefficient unit

Summary of the function wise details of ARR for the year 2012-13							Improvements	
Sl No.	Particulars	Generation (Rs. Cr)	Transmission (Rs. Cr)	Distribution (Rs. Cr)	Total (Rs. Cr)	Controlable / Uncontrolable	Genco	Disco
1	Generation of Power (Fuel cost of BDPP & KDPP)	378.1			378.10	U		
2	Purchase of power			5281.09	5281.09	U		
3	Interest & Finance Charge	128.74	125.88	266.6	521.22	C	1.2874	2.666
4	Depreciation	169.94	207.19	230.29	607.42	U		
5	Employee Cost	134.18	233.76	1863.52	2231.46	C	1.3418	18.6352
6	Repair & Maintenance	25.08	74.5	226.49	326.07	C	0.2508	2.2649
7	Administration & General Expenses	14.41	47.47	153.36	215.24	C	0.1441	1.5336
8	Other Expenses	1.5	0	17	18.5	U		
9	**Gross Expenditure (A)**	851.95	688.8	8038.35	9579.1		3.0241	25.0997

FIGURE A6: DISCOM DEA WITH DIFFERENT INPUT COMBINATIONS

Fig: A1.1: DEA with only Employee Cost

	Efficiency	Graph
bseb	16.6 %	17%
jseb	42.9 %	43%
cesco	51.2 %	51%
nesco	45.4 %	45%
sesco	26.1 %	26%
wesco	39.4 %	39%
sikkim pd	100 %	100%
wbsedcl	26.4 %	26%
apdcl	14.4 %	14%
manipur pd	54.9 %	55%
mizoram pd	57.1 %	57%
nagaland pd	27.3 %	27%
tsecl	38.5 %	38%
bses rajdhani	52 %	52%
bses yamuna	40 %	40%
ndpl	40.9 %	41%
dhbvnl	34.5 %	34%
uhbvnl	32.8 %	33%
j&k pdd	19 %	19%
avvnl	18.3 %	18%
jdvvnl	27.3 %	27%
jvvnl	17.5 %	18%
dvvn	81.8 %	82%
kesco	62.6 %	63%
mvvn	34.8 %	35%
poorv vvn	100 %	100%
apcpdcl	61.9 %	62%
apepdcl	34.9 %	35%
apnpdcl	34.3 %	34%
apspdcl	25.9 %	26%
bescom	46.2 %	46%
chescom	30.1 %	30%
gescom	38.9 %	39%
hescom	32.3 %	32%
mescom	36.3 %	36%
kseb	12.5 %	13%
puducherry pd	99.1 %	99%
tneb	36.8 %	37%
cspdcl	29.6 %	30%
goa pd	45.1 %	45%
dgvcl	97 %	97%
mgvcl	52.4 %	52%
pgvcl	65.2 %	65%

Fig: A1.2: DEA with only Employee Cost & Administrative and General Expenses

Efficiency	Graph ✓
bseb	18.1 % 18%
jseb	42.9 % 43%
cesco	51.2 % 51%
nesco	45.4 % 45%
sesco	26.1 % 26%
wesco	39.4 % 39%
sikkim pd	100 % 100%
wbsedcl	30.6 % 31%
apdcl	17 % 17%
manipur pd	54.9 % 55%
mizoram pd	57.1 % 57%
nagaland pd	27.3 % 27%
tsecl	38.5 % 38%
bses rajdhani	52 % 52%
bses yamuna	40 % 40%
ndpl	40.9 % 41%
dhbvnl	43 % 43%
uhbvnl	37 % 37%
j&k pdd	26.6 % 27%
avvnl	22.6 % 23%
jdvvnl	28.8 % 29%
jvvnl	24.9 % 25%
dvvn	81.8 % 82%
kesco	62.6 % 63%
mvvn	34.8 % 35%
poorv vvn	100 % 100%
apcpdcl	63.6 % 64%
apepdcl	36.9 % 37%
apnpdcl	37 % 37%
apspdcl	31.3 % 31%
bescom	51.6 % 52%
chescom	30.1 % 30%
gescom	38.9 % 39%
hescom	32.3 % 32%
mescom	36.3 % 36%
kseb	14.3 % 14%
puducherry pd	100 % 100%
tneb	52.8 % 53%
cspdcl	29.6 % 30%
goa pd	45.7 % 46%
dgvcl	97 % 97%
mgvcl	52.4 % 52%
pgvcl	65.2 % 65%

Fig. A1.3: DEA with Employee Cost, Administrative and General Expenses and Operating and Maintenance Expenses

	Efficiency	Graph ✓
bseb	23.2 %	23%
jseb	43.5 %	44%
cesco	51.8 %	52%
nesco	46.1 %	46%
sesco	46.2 %	46%
wesco	55.2 %	55%
sikkim pd	100 %	100%
wbseddcl	34.4 %	34%
apddcl	24.5 %	25%
manipur pd	86.9 %	87%
mizoram pd	57.1 %	57%
nagaland pd	37.7 %	38%
tsecl	56.1 %	56%
bses rajdhani	52.6 %	53%
bses yamuna	40.4 %	40%
ndpl	41.1 %	41%
dhbvnl	69.6 %	70%
uhbvnl	62.6 %	63%
j&k pdd	26.6 %	27%
avvnl	26 %	26%
jdvvnl	39.3 %	39%
jvvnl	57.7 %	58%
dvvn	81.8 %	82%
kesco	63 %	63%
mvvn	35.2 %	35%
poorv vvn	100 %	100%
apcpdcl	72.2 %	72%
apepdcl	100 %	100%
apnpdcl	46.2 %	46%
apspdcl	48.9 %	49%
bescom	100 %	100%
chescom	36.6 %	37%
gescom	42 %	42%
hescom	55.2 %	55%
mescom	50.5 %	51%
kseb	16.3 %	16%
puducherry pd	100 %	100%
tneb	83 %	83%
cspdcl	31.6 %	32%
goa pd	45.7 %	46%
dgvcl	100 %	100%
mgvcl	53.6 %	54%

Fig. A1.4: DEA with Employee Cost, Administrative and General Expenses, Operating and Maintenance Expenses, Interest Cost, Other Expenses and Depreciation

Efficiency	Graph ✓	
bseb	38.3 %	38%
jseb	63.4 %	63%
cesco	59 %	59%
nesco	95.7 %	96%
sesco	92.5 %	92%
wesco	100 %	100%
sikkim pd	100 %	100%
wbseddcl	46.5 %	46%
apddcl	39 %	39%
manipur pd	86.9 %	87%
mizoram pd	57.1 %	57%
nagaland pd	44.6 %	45%
tsecl	56.1 %	56%
bses rajdhani	85.1 %	85%
bses yamuna	40.4 %	40%
ndpl	41.1 %	41%
dhbvnl	100 %	100%
uhbvnl	83.1 %	83%
j&k pdd	40.6 %	41%
avvnl	36.1 %	36%
jdvvnl	49.4 %	49%
jvvnl	57.7 %	58%
dvvn	81.8 %	82%
kesco	77.2 %	77%
mvvn	49.7 %	50%
poorv vvn	100 %	100%
apcpdcl	74.5 %	75%
apepdcl	100 %	100%
apnpdcl	52 %	52%
apspdcl	51.9 %	52%
bescom	100 %	100%
chescom	52.6 %	53%
gescom	54 %	54%
hescom	63.6 %	64%
mescom	53.7 %	54%
kseb	24.7 %	25%
puducherry pd	100 %	100%
tneb	100 %	100%
cspdcl	71.1 %	71%
goa pd	100 %	100%
dgvcl	100 %	100%
mgvcl	67.2 %	67%
pgvcl	80.9 %	81%

Fig. A1.5: DEA with Employee Cost, Administrative and General Expenses, Operating and Maintenance Expenses, Interest Cost, Other Expenses, Depreciation and Aggregate Technical and Commercial Losses

Efficiency	Graph
bseb	38.9 %
jseb	65.9 %
cesco	59 %
nesco	99.1 %
sesco	92.5 %
wesco	100 %
sikkim pd	100 %
wbsedcl	54.4 %
apdcl	39 %
manipur pd	86.9 %
mizoram pd	100 %
nagaland pd	48.5 %
tsecl	59.5 %
bses rajdhani	100 %
bses yamuna	62.1 %
ndpl	73.3 %
dhbvnl	100 %
uhbvnl	83.7 %
j&k pdd	100 %
avvnl	42.4 %
jdvvnl	55.4 %
jvvnl	64 %
dvvn	81.8 %
kesco	91.6 %
mvvn	63.2 %
poorv vvn	100 %
apcpdcl	84.2 %
apepdcl	100 %
apnpdcl	63.5 %
apspdcl	70.2 %
bescom	100 %
chescom	55.3 %
gescom	55 %
hescom	63.6 %
mescom	91.7 %
kseb	60.4 %
puducherry pd	100 %
tneb	100 %
cspdcl	96.5 %
goa pd	100 %
dgvcl	100 %
mgvcl	89.5 %
pgvcl	84.5 %

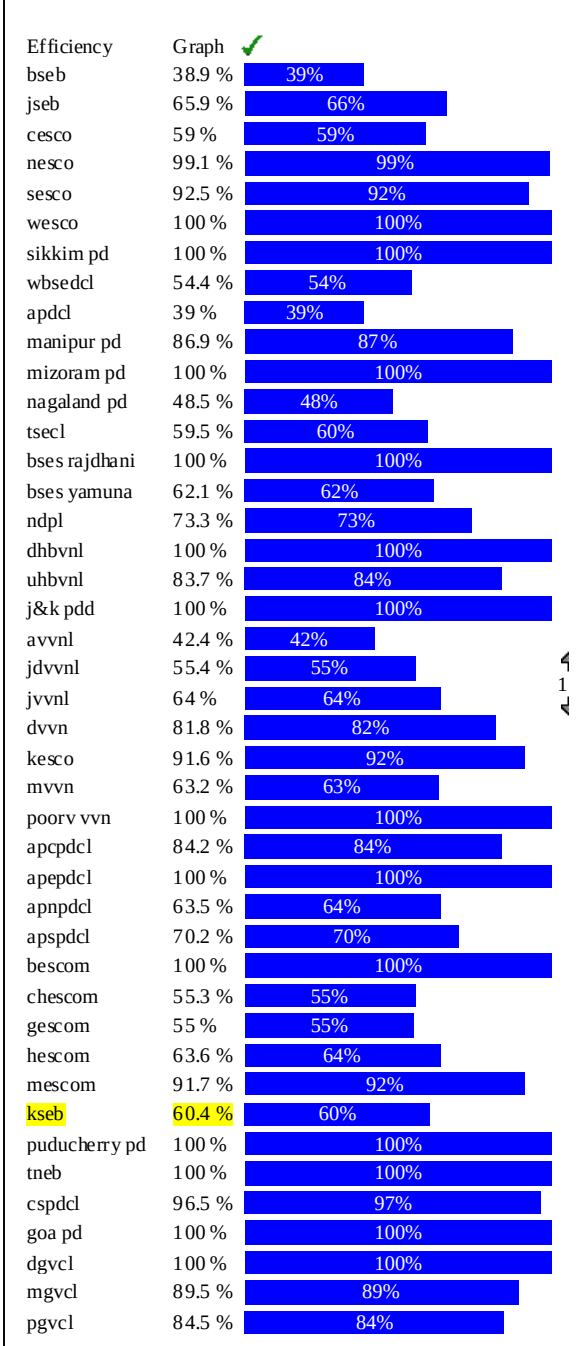


Fig. A1.6: DEA with Employee Cost, Administrative and General Expenses, Operating and Maintenance Expenses, Interest Cost, Other Expenses, Depreciation and Cost of Power Purchased

Efficiency	Graph
bseb	44.3 %
jseb	70.1 %
cesco	75.4 %
nesco	97 %
sesco	100 %
wesco	100 %
sikkim pd	100 %
wbsedcl	60.9 %
apdcl	49 %
manipur pd	100 %
mizoram pd	96.2 %
nagaland pd	57.2 %
tsecl	100 %
bses rajdhani	85.1 %
bses yamuna	48.2 %
ndpl	60.9 %
dhbvnl	100 %
uhbvnl	84.8 %
j&k pdd	43.2 %
avvnl	43.4 %
jdvvnl	56.9 %
jvvnl	63.6 %
dvvn	96 %
kesco	77.2 %
mvvn	72.2 %
poorv vvn	100 %
apcpdcl	95.7 %
apepdcl	100 %
apnpdcl	68.9 %
apspdcl	67.7 %
bescom	100 %
chescom	63.9 %
gescom	67 %
hescom	68.7 %
mescom	71.5 %
kseb	85.5 %
puducherry pd	100 %
tneb	100 %
cspdcl	85.1 %
goa pd	100 %
dgvcl	100 %
mgvcl	70.7 %
pgvcl	90.1 %

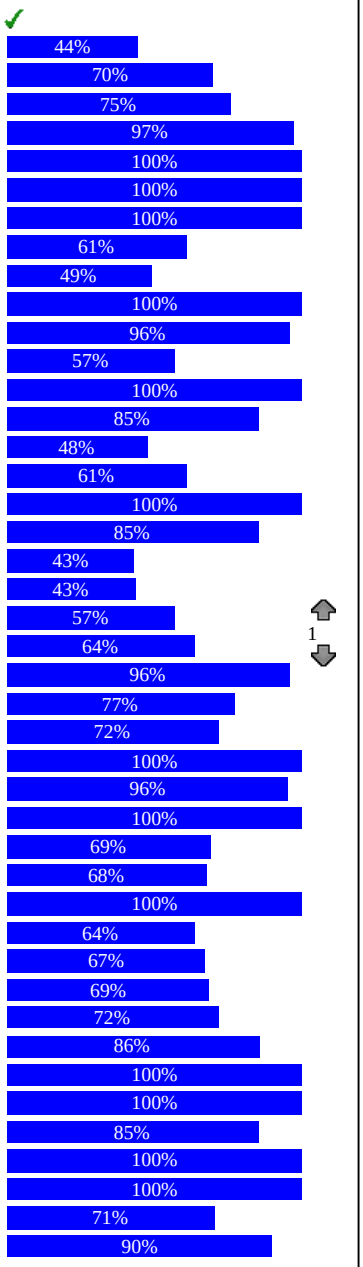


Fig A1.7: All Inputs except reliability

Efficiency	Graph	✓
bseb	45.4 %	45%
jseb	72.1 %	72%
cesco	75.4 %	75%
nesco	99.6 %	100%
sesco	100 %	100%
wesco	100 %	100%
sikkim pd	100 %	100%
wbsedcl	72.6 %	73%
apdcl	49.6 %	50%
manipur pd	100 %	100%
mizoram pd	100 %	100%
nagaland pd	65.9 %	66%
tsecl	100 %	100%
bses rajdhani	100 %	100%
bses yamuna	62.2 %	62%
ndpl	78 %	78%
dhbvnl	100 %	100%
uhbvnl	86.3 %	86%
j&k pdd	100 %	100%
avvnl	47.7 %	48%
jdvvnl	57.6 %	58%
jvvnl	65 %	65%
dvvn	96 %	96%
kesco	91.6 %	92%
mvvn	82.3 %	82%
poorv vvn	100 %	100%
apcpdcl	97.4 %	97%
apepdcl	100 %	100%
apnpdcl	77.4 %	77%
apspdcl	77.3 %	77%
bescom	100 %	100%
chescom	64.8 %	65%
gescom	67.1 %	67%
hescom	68.7 %	69%
mescom	91.8 %	92%
kseb	100 %	100%
puducherry pd	100 %	100%
tneb	100 %	100%
cspdcl	100 %	100%
goa pd	100 %	100%
dgvcl	100 %	100%
mgvcl	89.5 %	89%
pgvcl	90.3 %	90%
ugvcl	100 %	100%
mp madhya vvcl	71.9 %	72%
mp paschim vvcl	76.6 %	77%

Fig A1.8 All inputs plus RI

Efficiency	Graph	✓
bses rajdhani	100 %	100%
apcpdcl	100 %	100%
apepdcl	100 %	100%
apnpdcl	87.5 %	88%
apspdcl	100 %	100%
bescom	100 %	100%
chescom	100 %	100%
gescom	100 %	100%
hescom	100 %	100%
mescom	100 %	100%
kseb	100 %	100%
mp madhya vvcl	100 %	100%
mp purv vvcl	93.5 %	93%

FIGURE A7: GENCO DEA WITH DIFFERENT INPUT COMBINATIONS

Fig. A2.1: DEA with only Employee Cost

Efficiency	Graph	✓
jseb	24.4 %	24%
ohpc	36.1 %	36%
opgcl	100 %	100%
wbpdcl	81.3 %	81%
wbsedcl	37 %	37%
arunachal pd	2.5 %	3%
apgcl	28.3 %	28%
meseb	9.8 %	10%
mizoram pd	5 %	5%
nagaland pd	5.8 %	6%
tsecl	10.4 %	10%
indraprastha	42.8 %	43%
pragati	94.5 %	95%
hpgcl	100 %	100%
hpseb	11 %	11%
j&k pdcl	41.4 %	41%
pseb	9.5 %	10%
upjvnl	47 %	47%
uprvunl	43.2 %	43%
ujvnl	40.1 %	40%
ap genco	57.9 %	58%
kpcl	47.1 %	47%
kseb	12.8 %	13%
tneb	15.8 %	16%
cspgcl	23.6 %	24%
gsecl	70.8 %	71%
mppgcl	52.6 %	53%
mspgcl	63.3 %	63%

Fig. A2.2: DEA with Employee Cost and Operating Cost

Efficiency	Graph	✓
jseb	69 %	69%
ohpc	57.1 %	57%
opgcl	100 %	100%
wbpdcl	81.6 %	82%
wbsedcl	100 %	100%
arunachal pd	6 %	6%
apgcl	37.8 %	38%
meseb	35.6 %	36%
mizoram pd	5.2 %	5%
nagaland pd	11.4 %	11%
tsecl	29 %	29%
indraprastha	50.3 %	50%
pragati	100 %	100%
hpgcl	100 %	100%
hpseb	62.8 %	63%
j&k pdcl	61.6 %	62%
pseb	38 %	38%
upjvnl	100 %	100%
uprvunl	49.6 %	50%
ujvnl	42.4 %	42%
ap genco	90.2 %	90%
kpcl	66.5 %	67%
kseb	43.1 %	43%
tneb	75.2 %	75%
cspgcl	35.3 %	35%
gsecl	76.6 %	77%
mppgcl	55.8 %	56%
mspgcl	66.3 %	66%

Fig. A2.3: DEA with Employee Cost, Operating Cost and Interest Cost

	Efficiency	Graph
jseb	69 %	69%
ohpc	100 %	100%
opgcl	100 %	100%
wbpdcl	83.8 %	84%
wbsedcl	100 %	100%
arunachal pd	14.3 %	14%
apgcl	55.9 %	56%
meseb	38.9 %	39%
mizoram pd	17.2 %	17%
nagaland pd	18.6 %	19%
tsecl	100 %	100%
indraprastha	78.6 %	79%
pragati	100 %	100%
hpgcl	100 %	100%
hpseb	97.1 %	97%
j&k pdcl	61.6 %	62%
pseb	40 %	40%
upjvnl	100 %	100%
uprvunl	62.9 %	63%
ujvnl	45.8 %	46%
ap genco	90.2 %	90%
kpcl	66.5 %	67%
kseb	76.9 %	77%
tneb	75.2 %	75%
cspgcl	50.7 %	51%
gsecl	78.6 %	79%
mppgcl	64.6 %	65%
mspgcl	67.8 %	68%

Fig. A2.4: DEA with Employee Cost, Operating Cost, Interest Cost and Depreciation

	Efficiency	Graph	✓
jseb	69 %	69%	
ohpc	100 %	100%	✓
opgcl	100 %	100%	✓
wbpdcl	96.5 %	96%	
wbsedcl	100 %	100%	✓
arunachal pd	100 %	100%	✓
apgcl	67.6 %	68%	
meseb	49.5 %	50%	
mizoram pd	100 %	100%	✓
nagaland pd	22.7 %	23%	
tsecl	100 %	100%	✓
indraprastha	100 %	100%	✓
pragati	100 %	100%	✓
hpgcl	100 %	100%	✓
hpseb	97.1 %	97%	
j&k pdcl	61.6 %	62%	
pseb	51.5 %	52%	
upjvnl	100 %	100%	✓
uprvunl	79.7 %	80%	
ujvnl	54.6 %	55%	
ap genco	90.2 %	90%	
kpcl	77.2 %	77%	
kseb	86.1 %	86%	
tneb	95.2 %	95%	
cspgcl	60 %	60%	
gsecl	86.9 %	87%	
mppgcl	72.4 %	72%	
mspgcl	100 %	100%	✓

Fig. A2.5: DEA with Employee Cost, Operating Cost, Interest Cost , Depreciation, Administrative and General expenses and other expenses

	Efficiency	Graph	✓
jseb	69.1 %	69%	
ohpc	100 %	100%	✓
opgcl	100 %	100%	✓
wbpdcl	100 %	100%	✓
wbsedcl	100 %	100%	✓
arunachal pd	100 %	100%	✓
apgcl	82.9 %	83%	
meseb	100 %	100%	✓
mizoram pd	100 %	100%	✓
nagaland pd	75.6 %	76%	
tsecl	100 %	100%	✓
indraprastha	100 %	100%	✓
pragati	100 %	100%	✓
hpgcl	100 %	100%	✓
hpseb	100 %	100%	✓
j&k pdcl	76.5 %	76%	
pseb	89.8 %	90%	
upjvnl	100 %	100%	✓
uprvunl	99 %	99%	
ujvnl	66.6 %	67%	
ap genco	100 %	100%	✓
kpcl	100 %	100%	✓
kseb	86.2 %	86%	
tneb	100 %	100%	✓
cspgcl	100 %	100%	✓
gsecl	100 %	100%	✓
mppgcl	100 %	100%	✓
mspgcl	100 %	100%	✓

Fig 2.6: With all inputs

Efficiency	Graph	✓
jseb	88.2 %	88%
ohpc	100 %	100%
opgcl	100 %	100%
wbpdcl	100 %	100%
wbsedcl	100 %	100%
arunachal	100 %	100%
apgcl	100 %	100%
meseb	100 %	100%
mizoram pd	100 %	100%
nagaland pd	100 %	100%
tsecl	100 %	100%
indraprastha	100 %	100%
pragati	100 %	100%
hpgcl	100 %	100%
hpseb	100 %	100%
j&k pdcl	100 %	100%
pseb	100 %	100%
upjvnl	100 %	100%
uprvunl	99 %	99%
ujvnl	100 %	100%
ap genco	100 %	100%
kpcl	100 %	100%
kseb	100 %	100%
tneb	100 %	100%
cspgcl	100 %	100%
gsecl	100 %	100%
mppgcl	100 %	100%
mspgcl	100 %	100%

CHAPTER 2 SERVICE QUALITY: CUSTOMER PERCEPTIONS AND EXPECTATIONS

2.1 INTRODUCTION

This chapter focuses on Customer Perceptions and Expectations Study (CPES) as part of external assessment to address overall objectives of the project. As indicated in 'About the Project' section in the beginning, it is important to not just benchmark KSEB with the other utility companies but also examine electricity consumption among customers, their perceptions about the current levels of service and expected level of service.

KSEB organizational realignment for better effectiveness and efficiency need to take into account the consumption patterns, perceived service quality and desired service quality. The study primarily focused on field data collected from customers in addition to service quality standards, processes and mechanisms followed by KSEB. The study revolved around a popular model called service quality model (Parasuraman, et. Al., 1985) which follows the principle of 'Quality is a princviple between expectations and perceptions' and that 'consumer evaluation of service quality involves outcomes and process'. The model revolves around 5 Gaps as illustrated in the figure 2.1. Gap 5, which is a difference between the perceived service quality and expected service quality, and defines the service quality levels as evaluated by the customers. The model provides actionable insights to bridge the gap as it implies that the Gap5 is a resultant of other 4 Gaps namely, Gap 1 as difference between customer expectations and Management understanding of those expectations, Gap 2 as the difference between service quality design specifications and management understanding of the customer expectations, Gap 3 which is a difference between the specified service and actual service and finally Gap 4, the difference between actual service and communicated service which results into customer perceived quality. On the other hand, an expected service quality is a resultant of company communications along with customer needs, their past experiences and word-of-mouth (customer-to-customer communications).

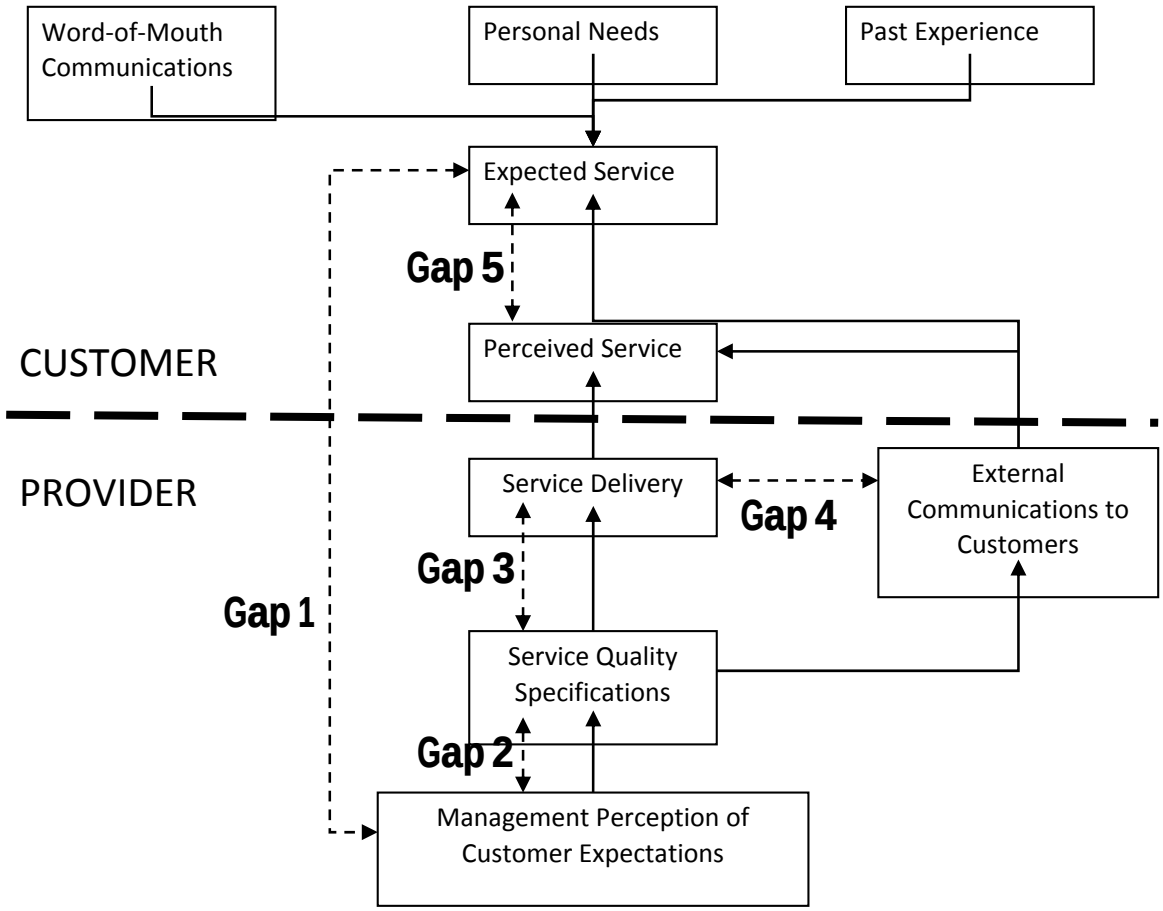
2.1.1 OBJECTIVES

Objective of the study is to conduct a customer study to assess the current quality of service of the company as well as to assess customer perceptions about KESB as an organization and as a brand.

- To study the current level of customer service at KSEB through:
  - Collection and analysis of customer expectations and customer perceptions of services offered by KSEB.
  - Study and audit KSEB customer service efforts and service delivery processes including staff awareness, service technology used, billing system and its presentation as paper bills and online, bill payment systems, and promotional efforts.
- To identify gaps in customer service and experience delivery and suggest actions to enhance the level of customer service

- To develop and institutionalize systems for monitoring customer feedback on service for continuous improvements and better understanding the evolution of customer preferences.
- Based on the study create new need based customer segmentation strategies to develop value added services that will enhance loyalty of the customers

FIGURE 2.1 SERVICE QUALITY MODEL



(Service Quality Model, Parshuraman, et. al, Journal of Marketing, 1985)

As detailed in the following section the Customer Perception and Expectations study attempts to make recommendations which has implications on not just customer management issues but also on organization structure and skills, competencies detailed in subsequent chapter 3.

2.1.2 METHDOLOGY

Keeping in mind the objectives and core model described above in mind, the methodology involved a mix of qualitative and quantitative, exploratory and descriptive, secondary and primary data based research methods.

Following Figure summarizes the methodology used for the study in 3 stages.

FIGURE 2.2 METHDOLOGY FOR CUSTOMER SERVICE QUALITY STUDY

Understanding Context	**Desk Research & Qualitative Research**	**Expectation and Satisfaction Survey of customers**
•Process audit – observations, document analysis •Study of Customer Grievance Redressal Forums (CGRF) Operations at Calicut, Ernakulam and Kottarakara •Attending the Public Hearing Sessions on proposed Tariff revisions organized by KSERC at Calicut, Ernakulam and Trivandrum	•JD Power Customer Satisfaction framework. •Focused Group Discussions with Customers •Households (June 21, 2014) •Commercial (June 29, 2014) •HT (March 04, 2015)	•Total # of Sample:s 4249 •3235 Domestic and 1014 Commercial customers across 42 sections in each circle •Instruments •Analysis

The study results need to be interpreted keeping in mind the description of methodology provided below in necessary depth:

2.1.2.1 UNDERSTANDING THE CONTEXT

The study began with desk research by identifying and analysing secondary data and published information through various reports – both on Power utility service context in India and measurement of service quality of utility systems across other part of the world. Although this continued throughout the study, large part of desk research and internal secondary data collection was carried out between April-July 2014.

First of all, it was important to understand the context of the organization – both internal and external. Inputs from the benchmarking study (described in chapter 1) helped get broader idea of power utility context and the overall role of customer service quality assessment. Secondary sources ARR reports, past study reports of KSEB, JD Power customer satisfaction reports, scholarly publications on service quality measurements were studied and analysed. Desk research provided insights into customer base, segments,

their revenue and profitability profiles among other ways in which their requirements may be grouped. This helped in developing representative sampling approach and primary data collection designs.

Interviews and interactions with KSEB top management and key stakeholders. Observation of section office service delivery operations and interviews with managers and officers helped in doing process audit and helped understand existing service quality standards and delivery mechanisms – including people involved.

In order to have better understanding of customer grievances, KSEB approach and orientation in handling them as well as concerns of customers with regard to their requirements of electricity, observational visits to Customer Grievance Redressal Forums (CGRF) Operations at Calicut, Ernakulum and Kottarakara was made. Public Hearing Sessions on proposed Tariff revisions organized by KSERC at Calicut, Ernakulum and Trivandrum were also attended.

2.1.2.2 QUALITATIVE RESEARCH

In order to identify variables that define KSEB customer's service quality, an exploratory research was essential. JD Power survey approach was studied to understand electricity utility customer satisfaction parameters used in developed market such as United States. Qualitative research such as depth interviews and focus group research was used to validate service quality criteria arrived based on desk research and adapt them for KSEB customer base. In-depth Interviews and Focus Group Discussion with Domestic and Commercial customers with Domestic Consumers and Commercial Customers were carried out in the month of June 2014. Focus group interviews with HT customers were held in March 2015 as there were large customers and survey was not felt required among them as each large customer may have specific issue.

The focus group discussions were video recorded to help analyse the customer reactions to various service issues. This helped in identifying key parameters to measure service quality perceptions and expectations and contributed in developing structured instruments (questionnaires) for field study described in the following section.

2.1.2.3 SURVEY

KSEB customer quality satisfaction survey was conducted to assess the domestic and commercial consumer awareness, perception and satisfaction regarding the KSEB service. It included the opinion total 4249 consumers, 3235 randomly selected domestic consumers and 1014 randomly selected commercial consumers. The surveys were conducted between 26th August and 25th September 2014.

Samples were selected randomly from each circles of three zones (North, Central, and South). One Urban, one Rural and one Commercial section from each circle was identified for the data collection. The sample size was determined proportionate to the population of the consumers in each section.

Detailed plan of the survey (See Appendix E) including the Sampling Plan, Data Collection Plan and Field Operations plan was discussed with KSEB and was finalized.

2.2 KSEB CUSTOMER BASE CATEGORIZATION: CONSUMPTION, REVENUE, PROFITABILITIES, REQUIREMENTS

As the perceptions and expectations of service quality are likely to vary by consumption needs and requirements, it is important to know the current customer base and analyse it from the point of view of consumption, revenues and profitability to study the various groups/ segments appropriately and provide recommendations as the recommendations on service quality improvement may vary by customer segments and their consumption needs/ motives.

Based on the data collected from the secondary sources, following analysis is worth looking at.

2.2.1 EVOLUTION OF KERALA POWER GENERATION, DISTRIBUTION & CONSUMPTION

Following table provides details of installed capacity, consumer strength, per capita consumption and distribution network over last more than 50 years.

TABLE 2.3 KERALA POWER GENERATION, DISTRIBUTION AND CONSUMPTION – EVOLUTION SNAPSHOT

Year	Installed Capacity in MW				Annual Sales in MU	Consumer strength (in Lakhs)	Per Capita Conspn. (kWh)	EHT lines (ckt.kms)	S/s (Nos)	HT lines (ckt .km)	LT lines (ckt. Km)	Dist Trfrs (Nos)
	Hydro	Thermal (Incl. IPPs)	Wind	Total								
57-58	109	0	0	109	363	1.1	19	1600	15	3851	4980	1862
60-61	133	0	0	133	518	2	30	1900	22	5449	8899	2898
73-74	622	0	0	622	2121	8	79	3378	59	9645	25968	8285
80-81	1012	0	0	1012	4499	16	109	4638	92	14189	55963	11656
90-91	1477	0	0	1477	5331	35	185	5885	140	20221	101834	17838
99-00	1743	594	2	2339	9812	60	300	7599	179	28672	180499	29551
00-01	1793	615	2	2410	10319	65	312	8395	181	29334	189917	30511
05-06	1850	592	2	2444	10906	83	314	9581	254	34596	217899	37573
06-07	1850	592	2	2444	11331	87	345	9770	268	36419	226128	39697
08-09	1887	592	24	2503	12414	94	375	10130	306	41283	241849	46359
09-10	1889	609	28	2526	13971	97	420	10402	335	44682	249687	52149
10-11	1995	617	36	2648	14548	101	436	10500	348	48342	256449	57954
11-12	2001	617	36	2654	15981	105	478	10582	358	51328	260554	62329
12-13	2053	791	36	2880	16838	108	501	10706	369	52907	263620	64972

Source: ARR Report 2014-15

Based on ARR Report 2014-15, Interesting characteristics need to be understood with regard to power generation, distribution and consumption in Kerala for further understanding on consumption and expectations of customers.

Kerala Power System differs from other States in many respects. The main features of the Kerala power system are detailed below.

- **Lack of energy resources**: The State does not have fossil fuel resources (coal, oil etc.) and has only hydro power sources. Even the hydro capacity addition is greatly hampered after the enactment of Forest conservation Act, 1980.

- **Vagaries of monsoon**: At present about 55% of the peak demand and 30% of the energy requirement is being met from hydro power plants owned and operated by KSEB. The energy availability from these hydro plants is being projected expecting normal monsoon. However, any failure of monsoon and the resultant increase in power purchase will severely affect the financial stability of KSEB. The failure of monsoon during the year 2012-13 alone has resulted in additional liability of Rs 2500 Cr on account of power purchase costs.

- **High dependence on costlier power:** Due to lack of energy resources, to meet the increase in energy demand, KSEBL has been depending heavily on the short-term market and energy exchanges. At present about 15 to 20% of the energy requirement of the State is being met from short-term markets.

- **Adverse consumer mix:** About **51% of the total energy is consumed by subsidized consumers in domestic, agricultural categories etc.** But, considering the socio-economic reasons, providing subsidized electricity to these categories may have to continue for few more years.

- **Skewed 'peak' and 'off-peak demand' in the state:** Due to high consumption of the domestic and other LT categories, the peak demand in the State is about 50% higher than that of off-peak periods. This has resulted in power procurement at excessive rates during peak hours.

- **HT-LT ratio:** Considering the geographic and demographic features, KSEB has to develop more LT lines to provide the power supply to the consumers. The HT-LT ratio in the State is about 1:4 against the ideal level of 1:1. This contributes more technical losses in the LT distribution system.

- **Exposure to global oil prices:** The efforts of the state to overcome the primary energy resource deficit have resulted in heavy dependence on crude oil products such as Naphtha and LSHS. In fact, Kerala is presently having the highest proportion of liquid fuel based generation capacity in the country with 771 MW liquid fuel based installed capacity. This is exposing the state and KSEB to the speculative fluctuations of global oil prices. For procuring just 6% of the energy requirement from liquid fuel power stations, KSEB has been spending more than 25% of its total power purchase cost.

- **Transmission constraints to import power from outside the State:** The transmission capability to import power through the interstate feeders of KSEB too is limited to 2000 MW only including the share from CGS. Further, due to the transmission corridor constraints, open access is being denied by SRLDC for importing power from outside the State. This has been hampering the possibility for procuring power through traders from outside the State at competitive rates, which in turn also resulted in increase in power procurement costs.

2.2.2 KSEB CUSTOMER BASE

KSEB has been providing power supply to more than 108 lakh consumers spread over the urban and rural areas of the State. Following figure shows the distribution of various categories of consumers.

Below table shows the profile of KSEB's consumers as on 31-03-2013.

TABLE 2.4 KSEB CONSUMERS AND CONSUMPTION

Category	Consumer Strength (no's)		Consumption (MU)		Revenue (Rs. Cr.)	
	Number of consumers as on 31.3.2013	% of total	Total for the year	% of total	Total for the year	% of total
Domestic	8573938	79.34	8313.36	49.37	2154.16	29.83
Commercial	1633689	15.12	2224.06	13.21	1855.38	25.69
LT Industrial	131583	1.22	1101.96	6.54	587.12	8.13
LT Others	463768	4.29	619.28	3.68	141.6	1.96
HT & EHT & Bulk licensees	3912	0.04	4579.58	27.2	2484.2	34.4
Total	**10806890**		**16838.24**		**7222.46**	

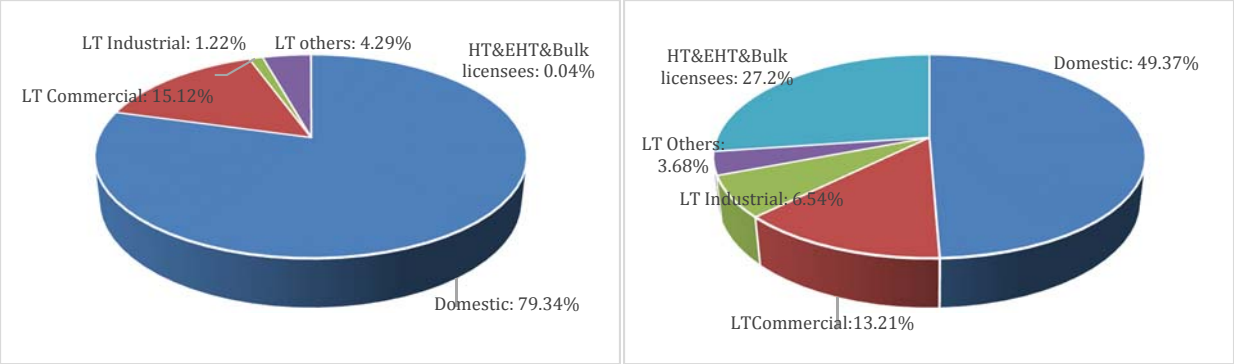
(Source: KSEB ARR&ERC petition for the year 2014-15)

Considering the consumer strength, highest number of consumers are belong to the Domestic category (79.34%, 85 lakhs), followed by LT Commercial (15%, 16lakhs). Then comes the other categories such as LT Industrial (1.22%), LT Others (4.29%) and HT & EHT & Bulk licensees (0.04%).

Regarding the energy consumption, Domestic group consumes almost half of the total consumption (49.37%), then comes the HT-EHT &Bulk licensees (27.2%) followed by LT Commercial(13.21%). Other categories such as LT Industrial (6.54%) and LT Others (3.68%) consumes only a negligible portion of the total consumption.

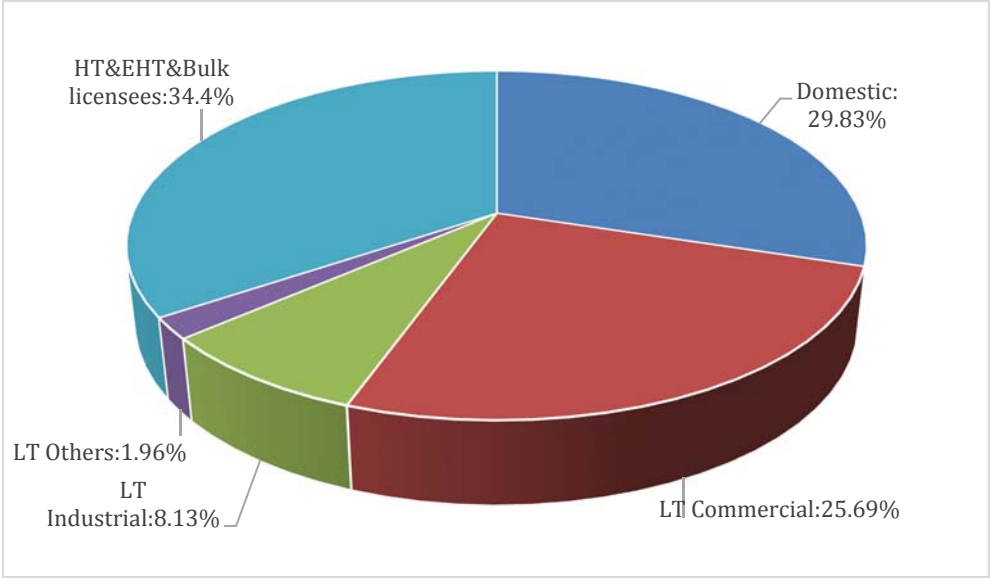
Following charts show Customer strength and electricity consumption by various categories as described above.

FIGURE 2.5 CUSTOMER CATEGORIES: SIZE & POWER CONSUMPTION



However, as can be seen in the following chart, when comes to the Revenue, the highest revenue providing group is the HT-EHT &Bulk licensees (34.4%), second revenue providing group is the Domestic(29.83%),followed by LT Commercial category(25.69%). Only a small portion of the revenue is provided by LT Others (1.96%) and LT Industrial (8.13%).

FIGURE 2.6 CUSTOMER CATEGORIES: REVENUE



Following table further analyses domestic consumers in various monthly tariff slabs in 2012-13 and estimates profitability levels based on average unit cost as Rs. 5.92. This helps in understanding revenue gap in each consumer group providing opportunity to examine alternative revenue sources such as 'in-bill advertising', 'premium service packages' and/ or mechanisms to reduce of consumption to minimize gross revenue gaps as tariff is regulated.

TABLE 2.7 PROFITABILITY ANALYSIS OF KSEBL

Monthly Consumption slab	Consumer strength		Monthly Slab amount (in Rs.)	Consumption		Slab rate	Revenue at existing tariff	Average tariff	Total cost=(Average unit cost of KSEB*Energy consumption in MU)(Cr.)	Revenue gap (Rs. Cr)
	Number	**% of total**		**in MU**	**% of total**	**(Rs/kWh)**	**(Rs. Cr)**	**(Rs/kWh)**		
0-40	2545755	29.3	0-60	745	8.2	1.5	111.78	1.5	421.67	-309.89
41-80	2542281	29.3	62.4-156	1896	20.9	2.4	345.26	1.82	1073.136	-727.876
81-120	1713673	19.7	159-275	2085	23	2.9	448.37	2.15	1180.11	-731.74
121-150	776494	8.9	279-387	1282	14.1	3.6	312.32	2.44	725.612	-413.292
151-200	624496	7.2	391-627	1294	14.3	4.8	366.52	2.83	732.404	-365.884
201-300	353505	4.1	633-1227	1020	11.2	6	366.12	3.59	577.32	-211.2
301-500	104314	1.2	1234-2727	463	5.1	7.5	218.27	4.71	262.058	-43.788
Above 500	25188	0.3	> 3257	291	3.2	6.5	189.39	6.5	164.706	24.684
Total	**8685619**	**100**		**9077**	**100**		**2358.04**	**2.6**	**5137.016**	**-2778.986**

Domestic consumers (2012-13). *Average unit cost of KSEB: Rs.5.92*

2.3 FINDINGS: CUSTOMER PERCEPTION AND EXPECTATIONS SURVEY

The survey was carried out among the consumers from the three zones, which is North (Kozhikode), Central (Ernakulum) and South (Thiruvananthapuram) regions. It is important to read these results keeping in mind the instruments (Appendix F) used for the survey. The details of the sample size is provided in methodology section. However, the sample profile and its representativeness is discussed in the following sections before the discussions on the core findings.

2.3.1 RESPONDENT/SAMPLE PROFILE

The Survey was conducted on two different samples of customers using two different instruments. While the basic information and data collected were similar, the instruments sought to collect data that could help specific service expectations of these two distinct customer groups from the point of view of their usage of electricity.

2.3.1.1 SAMPLE PROFILE-DOMESTIC CUSTOMERS

The survey was carried out among the consumers from the three zones, which is North (Kozhikode), Central (Ernakulum) and South (Thiruvananthapuram) regions. Respondents were from the North, central and south zones were 43%, 28%and 28% respectively. More than half (57 %, 1940nos) of the survey participants belongs to urban category and rest (43%, 1485nos) belongs to rural category. In domestic category out of 3425 respondents 84% (2861) are Male and only 16% are the female respondents.

Table below provides demographic profile of the respondents of the survey which indicates fair representation of sample across demographic parameters relevant to the study parameters.

TABLE 2.8 DEMOGRAPHIC PROFILE OF SAMPLE RESPONDENTS

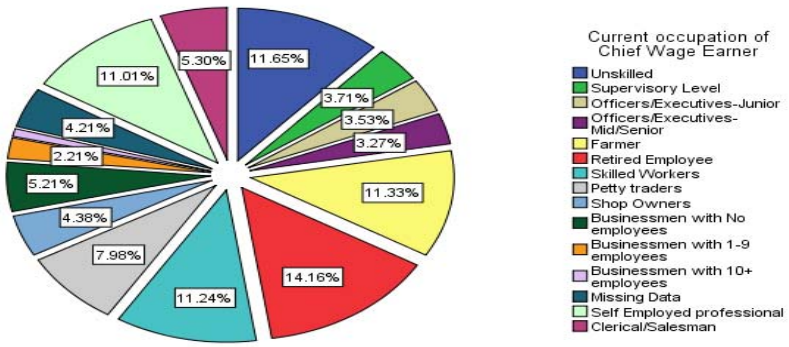
Geography by Population density	Urban-57 % (1940 no's) Rural-43% (1485nos)
Gender	Male - 84% (2861)Female -16%
Span of Residence	More than 5 years:79% • More than 15 years: 57% • For 5-15 years : 22% 2-5 years : 12% less than two years: 8%
Zone-wise sample distribution	North: Kozhikode (43%) Central: Ernakulum (28%) South: Thiruvananthapuram (28%)
Respondent-Payment	Yourself :74% Family Member:14.5% Landlord :10% Employer: 0.4%

	Any External Agency, please specify:0.2%
Age	Below 30: 4% 30-40: 20% 41-60: 52% 61-80: 21% Above 80: 1.2%

The response to the question "how long they have been living at the present residence" great portion of the sample (79%) reported that they have been living at their present residence for more than 5 years. Among them, for more than half of the respondents (57%) said it is more than 15 years they are living at the current residence. 22% are living at their current residence for 5-15 years, 12% are at the present residence for 2-5 years and only 8% reported that they are at their present home for less than two years. Large part of the respondents (52%) are aged between 41 to 60, 21% between 61 and 80, 20% of them are aged between 30 and 40, 4% falls below 30 and only 1% above 80. Among the respondents 35 %(1212nos) having four members in their family. 20% having family size as five. Among the rest, 20% have family size as either two or three, 11% having family size as six.

The following chart describes the current occupation of the Chief Wage Earner.

FIGURE 2.9 RESPONDENT PROFILE BY OCCUPATION OF CWE



Among the survey participants, higher portion of the samples (14.16%) are the retired employees, then comes the unskilled workers (11.65%), farmers (11.33%), skilled workers (11.24%), self-employed professionals, petty traders (7.98%) etc.

Survey covered participants from all the slabs of tariff and monthly bill. Based on the data available through secondary sources, this was mapped to population distribution to get an idea of representation of the sample. Majority of the respondents are from the second and third slab. However the participants from the higher slabs are very few.

TABLE 2.10 RESPONDENT PROFILE BY BILL AMOUNT

Slab	Bimonthly electricity bill	Sample Size	Sample %	Population Percentage
1	Below Rs.120	200	5.8	29.3
2	Rs. 121-400	1207	35.2	29.3
3	Rs. 401-700	804	23.5	19.7
4	Rs.701-900	395	11.5	8.9
5	Rs.901-1500	476	13.9	7.2
6	Rs.1501-3000	235	6.9	4.1
7	Rs.3001-4900	56	1.6	1.2
8	Rs.4901-6650	18	0.5	.3
9	Above Rs.6650	14	0.4	

TABLE 2.11 RESPONDENT PROFILE BY TARIFF SLAB

Tariff slab	Sample Size	Sample Percent	Population Size	Population percentage
0-80 units	238	7.4	2545755	29.3
81-160 units	926	28.6	2542281	29.3
161-240 units	930	28.7	1713673	19.7
241-300 units	543	16.8	776494	8.9
301-400 units	353	10.9	624496	7.2
401-600 units	187	5.8	353505	4.1
601-1000 units	44	1.4	104314	1.2
Above 1000 units	14	.4	25188	.3
Total	3235	100.0	8685706.0	100.0

Further, Sample profile is also examined based on the appliances owned. This data can also be used to explore recommendations pertaining to bridging the service quality gaps and also revenue gaps.

Great portion of the consumers possess the appliances such as Ceiling Fan, Colour TV, LPG Stove, Refrigerator etc. Only 16% of the participants having inverter at their home (In Line Inverter (14%) & Solar Inverter (2%)) and 12% having an Air conditioner at their home.

TABLE 2.12 RESPONDENT PROFILE BY APPLIANCES OWNERSHIP

	Number	Percent
Ceiling Fan	3243	95%
Color TV	3181	93%
LPG Stove	2898	85%
Refrigerator	2586	76%

Two Wheeler	1982	58%
Washing Machine	1538	45%
Personal Computer/ Laptop	1104	32%
Car/Jeep/Van	1029	30%
Induction cooker	836	24%
Agricultural Land	765	22%
In Line Inverter	488	14%
Air Conditioner	413	12%
Solar Inverter	70	2%

Majority of the consumers from the higher slabs (Slab 6, 7, 8 & 9) possess AC at their home.93% are from slab 9, 72% belongs to slab 8.Nearly 49% (of the consumers having AC) each, from *slab 6 (Rs 1501-300)* and *slab 7 (Rs 3001-4900*). Similarly, of the consumers having Induction cooker, 41 % are from slab 7 *(Rs 3001-4900*) and 50% from slab 9 *(Above Rs 6650) and about 39% are from slab 6. Also, 32% each form slab 5 (Rs 901-1500) and slab 8 (Rs 4901-6650),* category uses Induction cooker at their home. I.e. it constitutes about *23.3 % of the total respondents surveyed*.

2.3.1.2 SAMPLE PROFILE – COMMERCIAL CUSTOMERS

Commercial Consumers

The commercial consumers surveyed belongs to the following category (business/organization)

- *Shop / Retail Establishment,*
  - Under which the survey respondents Includes:
  - Agri tools, manufacturing, agro shop, auto showroom, Ayurveda pharmacy, Bajaj showroom, Bakery, Book stall, Photostat shop , business, CD fancy & Electricals , Chemicals , Chicken cloth mart , cold storage , computer education, Computer sales, Cool Bar, Curtain works, Distribution agency, Duty paid shop, Electrical and plumbing
- *Manufacturing organization,*
  - Includes Aluminium Company, Arya Vaidya Salaa, Chappal Making, Coffee Processing Unit, Flour Mill, Footwear Manufacturing, Grind Grill Production, Manufacturing Of Paving Brick, Paper Glass Production, Plastic Injection Moulding Unit, Soda Factory, Software Development, Steel Furniture Manufacturing, Welding
- *Other Service Organization,* comprises automobile servicing, bank SBT, barbershop, binding press, cable TV network, cinema theatre, college, diagnostic services, educational institution, homoeo clinic, hotel, industrial, newspaper office, printing press, milk collection and sale, X RAY and E.C.G
- *Restaurant / Hotel*
- *Others*

Table below shows the distribution of different categories of commercial consumers:

TABLE 2.13 FIRMOGRAPHIC PROFILE OF SAMPLE RESPONDENTS

Average monthly turn over (in Rupees)	Less than one lakhs (59.7%) 1-10 lakhs (26.8%) 11-50lakhs (5.6%) More than 50 lakhs (4.1%)
Zone wise sample Distribution	North:Kozhikode(44%) Central:Eranakulam(29%) South:Thiruvanathapuram(28%)
Office or retail space belongs to	Own/ company owned space : 35% On monthly rental basis : 60% On long term lease : 4%
No.of employees	1-9 employees : 76.6% 10-19 employees : 9.6% 20-50 employees : 4.4% More than 50 employees : 1.4%
Span of operation at the current premises	Less than 2 years : 10.81% 2-5 years : 26.72% 5-15 years : 27.5% Greater than 15 years : 34.68%

More than half of the respondents (62.04 %) have an average turn over as less than 1 lakh and 27% of commercial consumers have turn over between 1 to 10 lakhs.

About 80% of commercial establishments have consumers between 1-9 employees. About 10% consumers have 10-19 employees. Only 2% of commercials have 20 to 50 and more than 50 employees.

About 35% of respondents, has been operating in the same premises for more than 15 years. 27% has been operating in the premises for 5 to 15 years.

Almost 60 % of commercial consumers owns the retail space on monthly rental basis & 35 % of the commercial consumers have company owned space.

TABLE 2.14 SAMPLE PROFILE -AMOUNT OF MTHLY ELECTRICITY BILL

Monthly electricity bill	**% Respondents**
Below 700	25.4
701- 1200	16.6
1201- 1500	8.3
1501- 2500	12.8
2501- 5000	9.7
5001- 7000	4.8
Above 7000	22.0

Nearly 25 % have average monthly bill Below Rs700 .Nearly 27% of commercial consumers have monthly average bill above Rs 5000 ,16% have the monthly bill between Rs 701-1200, 21% have between Rs 1200-2500.

TABLE 2.15 SAMPLE PROFILE – UNITS OF ELECTRICITY CONSUMED

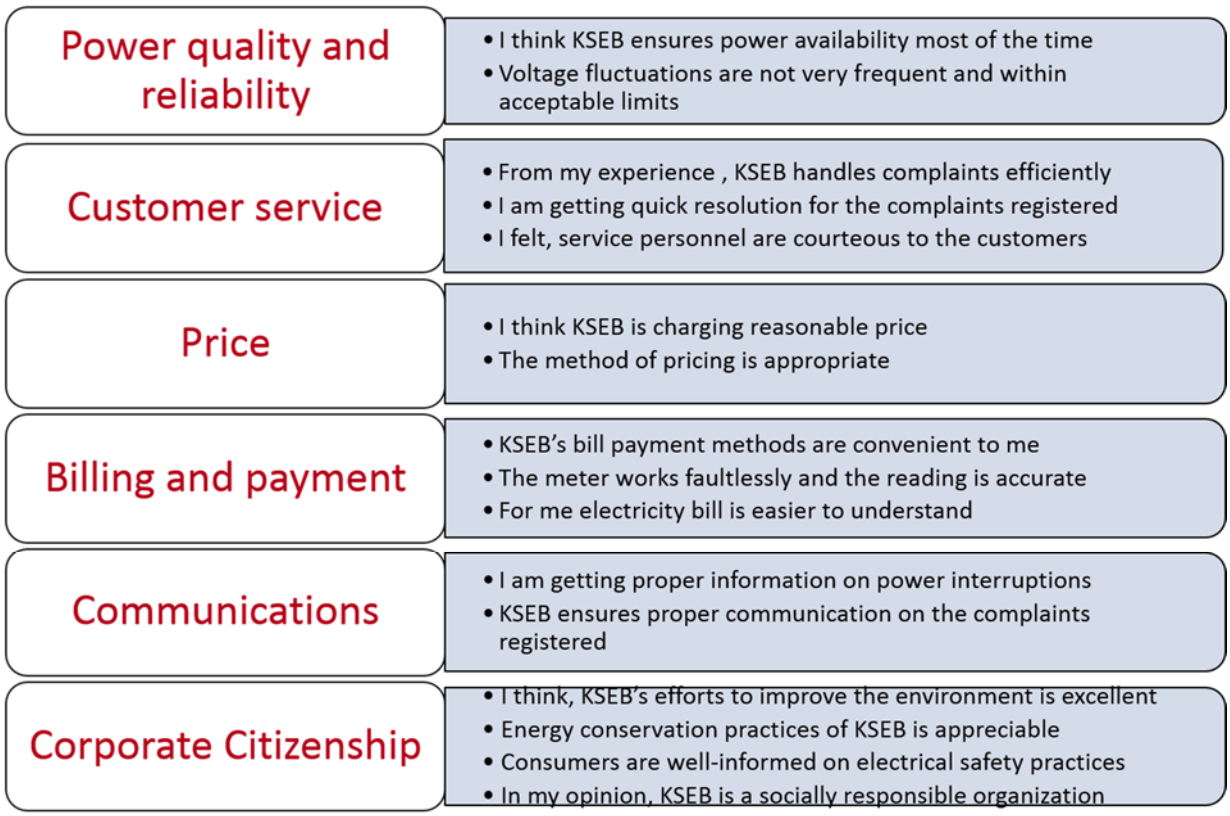
Units of Electricity consumed	% respondents
Upto 100 units	31.2
Upto 200 units	15.8
Upto 300 units	11.0
Upto 500 units	7.9
Above 500 units	9.8
Above 1000 units	15.9

2.3.2 PERCEIVED QUALITY AND CUSTOMER SATISFACTION

Customer Satisfaction is an indicator of service quality assessment. Based on the quality characteristics/ parameters identified based on desk research, JD Power customer satisfaction parameters were adapted/ validated using the qualitative research approaches for KSEB customers. JD Power Customer satisfaction survey of 90 utility services in the US has identified 6 attributes of service value in context of utility services. The attributes were validated and adapted using the qualitative analysis using secondary data, observation, focus group discussions and depth-interviews to arrive at the final attributes and the easement items. These attributes and their easement items describing the definition of each of the attributes is indicated in the following figure.

On a 10 point scale, respondents were asked to rate their perceived quality (implied satisfaction) on all the above items pertaining to 6 quality attributes. The data were analysed for commercial and domestic customers differently. Within the domestic customer group, Data are analysed by rural and urban customers. It is found that rural and urban customers had different satisfaction levels and not just domestic and commercial. Further, scores on each attribute varies across these 3 groups.

FIGURE 2.16 SERVICE QUALITY ATTRIBUTES



Validated and Adapted from the framework used by JD Power Satisfaction Survey of 90 Utility Brands in the US

Following figure depict radar chart of these perceptions/ satisfaction scores on service quality attributes. It can be seen that domestic urban customers (orange line) have lowest quality perceptions implying lower satisfaction on all counts. This followed by commercial customers (Blue line) who are understandable most concerned about the price. Rural households are likely to have less expectations and hence their perceptions of service quality are higher comparatively.

The radar below provide overall picture of service quality perceptions across all three key groups on 6 service quality attributes. Following sections provide details.

FIGURE 2. 17 PERCEIVED SERVICE QUALITY RADAR CHART

2.3.2.1 PERCEIVED SERVICE QUALITY – DOMESTIC CUSTOMERS

From the analysis, it clear that among the six above mentioned parameters **Billing and Payment** got the highest satisfaction rating by the three categories of consumers(**Domestic Urban, Domestic Rural and Commercial)** which is **6.6, 7.7 and 7.5** correspondingly. Three categories of consumers expressed the next rating for the **Customer service** (**6.2, 7.2, and 7**).

Power Quality and Reliability got the following satisfaction rating by the Urban and Commercial consumers (5.8, 6.4) while the Rural Consumers expressed the next most satisfied factor as **Price (6.7).**

Urban consumers expressed the same satisfaction level for the parameters **Price** and **Corporate Citizenship** which is **5.6**. **Commercial consumers** also indicated the same level of satisfaction rating for these two parameters (**6**). Whereas Domestic Rural consumers shows same satisfaction rating for **Power quality and Reliability** and for **Corporate Citizenship** which is **6.5.**

Communication is the least satisfied parameter for all the categories of consumers. Average Satisfaction rating for communication is Domestic Urban (**5.4**), Domestic Rural (**6.3**) and Commercial (**6**).

Also it is evident from the above table that the **average satisfaction value** is highest for the Domestic Rural (**6.88**) category, then comes the commercial (**6.56**) and least value is for Domestic Urban consumers (**5.92**). So comparatively, Domestic Rural consumers are the most satisfied, following the Commercial and Urban consumers. Domestic Urban are the most dissatisfied group of consumers.

TABLE 2.18 PERCEPTION RATINGS ON SERVICE ATTRIBUTES – DOMESTIC CUSTOMERS

Attributes	Items	Urban	Rural	Urban Average	Rural Average
Power quality and Reliability	*I think KSEB ensures power availability most of the time*	5.5	6.1	5.8	6.5
	Voltage fluctuations are not very frequent and within acceptable limits	5.9	6.6		
	I am satisfied with the overall reliability and quality of power supply	6.0	6.8		
Price	*I think KSEB is charging reasonable price*	5.2	6.4	5.6	6.7
	The method of pricing is appropriate	6.0	7.1		
	I am comfortable with the overall pricing system	5.6	6.7		
Billing & Payment	*KSEB's bill payment methods are convenient to me*	6.9	7.8	6.6	7.7
	The meter works faultlessly and the reading is accurate	6.3	7.4		
	For me electricity bill is easier to understand	6.4	7.6		
	I am happy with the overall billing and payment facility	6.8	7.9		
Communications	*I am getting proper information on power interruptions*	4.6	5.1	5.4	6.3
	KSEB ensures proper communication on the complaints registered	5.7	6.7		
	Overall, I am satisfied with KSEB's dealings with me	6.0	7.0		
Customer Service	*From my experience , KSEB handles complaints efficiently*	6.0	7.0	6.2	7.2
	I am getting quick resolution for the complaints registered	6.0	7.0		
	I felt, service personnel are courteous to the customers	6.3	7.3		
	I am satisfied with the overall customer service	6.3	7.3		
Corporate Citizenship	*I think, KSEB's efforts to improve the environment is excellent*	5.4	6.2	5.6	6.5
	Energy conservation practices of KSEB is appreciable	5.6	6.6		
	Consumers are well-informed on electrical safety practices	5.4	6.2		
	In my opinion, KSEB is a socially responsible organization	6.1	7.1		
Total				**5.92**	**6.88**

2.3.2.2 PERCEIVED SERVICE QUALITY – COMMERCIAL CUSTOMERS

The commercial customers have provide highest ratings to Billing & Payment (7.5) followed by Customer Service (7). Price, communication and corporate responsibilities are attributes which are rated low. Overall on all aspects commercial customers have rated better than domestic urban customers but poorer than domestic rural customers.

TABLE 2.19 PERCEPTION RATINGS ON SERVICE ATTRIBUTES – COMMERIAL CUSTOMERS

Dimensions	Parameters	Commercial Average	
Power quality and Reliability	*I think KSEB ensures power availability most of the time*	6.1	6.4
	Voltage fluctuations are not very frequent and within acceptable limits	6.6	
	I am satisfied with the overall reliability and quality of power supply	6.6	
Price	*I think KSEB is charging reasonable price*	5.6	6.1
	The method of pricing is appropriate	6.6	
	I am comfortable with the overall pricing system	6.0	
Billing & Payment	*KSEB's bill payment methods are convenient to me*	7.9	7.5
	The meter works faultlessly and the reading is accurate	7.2	
	For me electricity bill is easier to understand	7.2	
	I am happy with the overall billing and payment facility	7.7	
Communications	*I am getting proper information on power interruptions*	5.0	6.0
	KSEB ensures proper communication on the complaints registered	6.3	
	Overall, I am satisfied with KSEB's dealings with me	6.6	
Customer Service	*From my experience , KSEB handles complaints efficiently*	6.7	7
	I am getting quick resolution for the complaints registered	6.7	
	I felt, service personnel are courteous to the customers	7.0	
	I am satisfied with the overall customer service	6.9	
Corporate Citizenship	*I think, KSEB's efforts to improve the environment is excellent*	5.9	6
	Energy conservation practices of KSEB is appreciable	6.0	

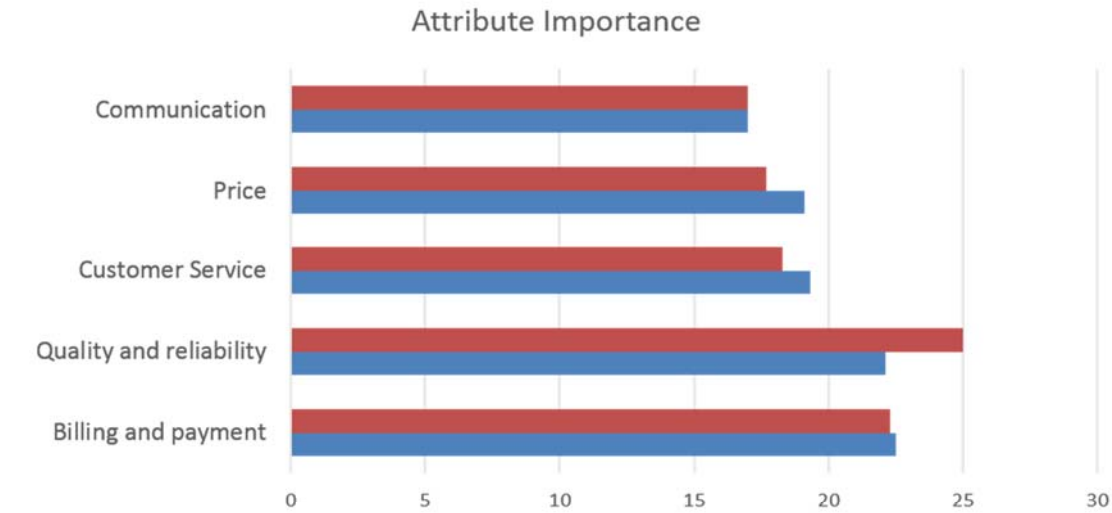
	Consumers are well-informed on electrical safety practices	5.8	
	In my opinion, KSEB is a socially responsible organization	6.5	
Total	**6.56**		

2.3.2.3 ATTRIBUTE IMPORTANCE

Apart from perceptions on service quality attributes, it is important to know which attribute is more important or less important. For example, if customer rates better service quality on attribute that less important for him to develop overall perceptions and rates lower quality for an attribute that is more important to evaluate overall service, the entire perception and hence implied satisfaction of current services can be different in interpretation.

Attribute importance on its own also provide information on provide strategic priorities for various dimensions of the service quality.

Following chart provides attribute importance of 5 key attributes for both domestic and commercial customer groups. As can be seen, quality and reliability of power is significantly more important to commercial customers whereas Price and Customer Service is more important for domestic customers. Communication is not perceived to be very important attribute but that is equally important to both the customer groups – domestic and commercial.

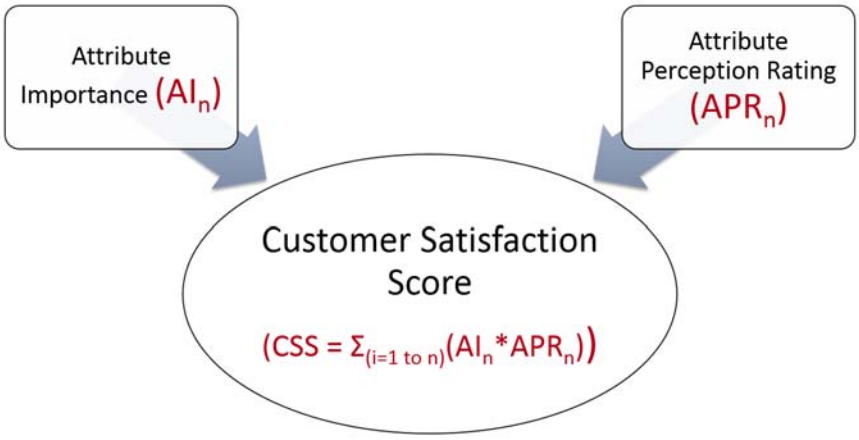


	Billing and payment	Quality and reliability	Customer Service	Price	Communication
Commercial Customers Importance (/100)	22.3	25	18.3	17.7	17
Domestic Customers Importance (/100)	22.5	22.13	19.3	19.1	17

2.3.2.4 CUSTOMER SATISFACTION INDEX

Customer Satisfaction Index model was created and based on the primary data collected through the quantitative survey, the Customer Satisfaction Index (CSI) was planned to be created. CSI was planned to be calculated using the average attribute importance and the average satisfaction scores of the each attribute as illustrated in the model in the figure below:

Figure 2.11 CSI calculation Model



Based on data of perceived quality ratings for the 5 attributes (corporate citizenship was not considered to calculate the scores of customer satisfaction but it could be useful to develop various campaigns in future as discussed in the following sections.) and their importance. Above model was used to calculate total scores.

The scores need to be interpreted as overall customer perception (on a low-high quality for various attributes) multiplied by the attribute importance out of 100. As the attribute importance was a constant sum scale, the best quality service i.e. highest level of customer satisfaction can yield 10*100 = 1000 score. Thus, for tracking of customer satisfaction score, it is important to consistently follow the model used in this study and map the scores with goal to reach as close to 1000 as possible.

Following tables show customer satisfaction scores for Domestic and Commercial customers. While the scores for domestic customers are lower indicating relatively less satisfaction on service quality compared to commercial customers, there doesn't seem to be very high difference in terms of overall satisfaction scores for these two groups. Further, the overall satisfaction is above average as it falls in the range of 600-700.

TABLE 2.20 CUSTOMER SATISFACTION INDEX – DOMESTIC V COMMERCIAL CUSTOMERS

Parameters	Attribute Perception Rating (APR_n)	Attribute Importance (AI_n)	Customer Satisfaction Score : Domestic(CSS_D)	Attribute Perception Rating (APR_n)	Attribute Importance (AI_n)	Customer Satisfaction Score: Commercial (CSS_C)
Communication	5.8	17	98.6	6	17	102
Price	6.1	19.1	116.51	6.1	17.7	107.97
Customer service	6.6	19.3	127.38	6.8	18.3	124.4 4
Quality and Reliability	6.1	22.1	134.81	6.4	25	160
Billing n Payment	7.1	22.5	159.75	7.5	22	165
Total		**100**	**637.05**		**100**	**659.41**

For the Domestic consumers, including the Urban and Rural categories, they consider **Billing and Payment** as the most important parameter, then comes the **Quality and Reliability, Customer service, Price** and **Communication.** While for the Commercial consumers**, Quality and Reliability** is the most important parameter, following to that Billing **and Payment, Customer service, Price** and **Communication.**

The overall **Satisfaction Index** for the Domestic Consumers is **637.05** and for the commercial it is **659.41**. From the value it is clear that commercial consumers are more satisfied compared to the domestic consumers.

Considering the Urban and Rural consumers separately, Satisfaction Index of the Domestic Urban consumers is **595.8** and for Rural it is **691.15**. So, it is clear that satisfaction level of Domestic Rural is highest among the three.

For the domestic customers, if one looks at overall satisfaction index for rural and compares it with urban customer's satisfaction index, it is evident that there exists significant difference in how these two groups of customers perceive quality of KSEB service. Once can see almost 100 point difference with Urban customers indicating poor satisfaction as they have rated the service quality lower on a rating scale. This is primarily due to higher expectations of the urban customer group.

TABLE 2.21 CUSTOMER SATISFACTION INDEX – RURAL V URBAN CUSTOMERS

Parameters	Attribute Importance (AI_n)	Attribute Perception Rating (APR_n)	Customer Satisfaction Score : Urban CSS_{UD})	Attribute Importance (AI_n)	Attribute Perception Rating (APR_n)	Customer Satisfaction Score: Rural (CSS_{RC})
Communication	5.4	18	97.2	6.3	17	107.1
Price	5.6	17	95.2	6.7	19	127.3
Customer service	6.2	20	124	7.2	19.3	138.96
Quality and Reliability	5.8	22	127.6	6.5	22	143
Billing n Payment	6.6	23	151.8	7.7	22.7	174.79
Total			**595.8**			**691.15**

2.3.3 CUSTOMER PERCEPTIONS AND EXPECTATIONS – DOMESTIC CUSTOMERS

As indicated in earlier sections, 6 service quality attributes were identified to examine various perceptions and expectations of domestic consumers in addition to customer satisfaction. The 6 attributes were:

1. Power Quality and Reliability
2. Customer Serve
3. Price
4. Billing and Payment
5. Communications
6. Corporate Citizenship

Following sections report interesting findings of the survey grouped under the 6 service quality attributes.

2.3.2.1 POWER QUALITY AND RELIABILITY

This parameter reflects the frequency, duration of power failures, power outages. Frequency of voltage fluctuations etc.

TABLE 2.22 PERCEIVED FREQUENCY OF POWER FAILURE

Frequency of Power Failure	Percentage
Many times daily	23
1-2 times in a day	21
More than 5 times in a week	12
3-5 times per week	8.7
1-2 times per week	9.14
Rarely	22.07
Only scheduled failures informed through news papers	0.96

From the domestic category 23% of them reported that they face Power failure many times daily. However almost similar percent (22%) said that they have rarely faced the power failure. 21% have the experience of power failure 1-2 times in a day. However from the table it is clear that most of them facing power failures other than scheduled failures informed through newspapers.

TABLE 2.23 PERCEIVED FREQUENCY OF POWER FAILURE – URBAN V. RURAL

Frequency of Power Failure	Urban	% (Urban)	Rural	% (Rural)	Total
Many times daily	405	21	384	26	789
1-2 times in a day	350	18	374	26	724
More than 5 times in a week	244	13	180	12	424
3-5 times per week	195	10	103	7	298
1-2 times per week	205	11	108	7	313
Rarely	467	24	289	20	756
Only scheduled failures informed through news papers	46	2	18	1	64
Total	1912	100	1456	100	3368

From the table above it is clear that rural consumers facing more power failure compared to Urban. 26% of the Rural and 21% of the Urban consumers reported that they face power failure *'Many times daily'* and 26% of the Rural and 18% of the Urban reported that they have been experiencing power failure *'1-2 times in a day'* .

Compared Rural (20%), more Urban consumers (24%) reported that they face power failure 'rarely'. From the above data, it is quite clear that the frequency of power failure is more in rural region than Urban.

When asked about the typical duration of the power outages, when they happen, more than half of them (53.14%) reported that it is '**Less than 30 minutes**' and for 44% of them it is **'30 minutes to 2 hours'.** Interestingly, only few percentage reported it is more than two hours.

TABLE 2. 24 PERCEIVED DURATION OF POWER FAILURE

Duration of Power Failure	Percentage
Less than 30 minutes	53.14%
30 minutes to 2 hours	40.12%
2-6 hours	4%
Greater than 6 hours	1.3%

So far as quality of power is concerned, the respondents were asked to respond on frequency of voltage fluctuations or low voltage power. Most of the domestic consumers (61.9%) reported that they rarely faced voltage fluctuations or low voltage power. Following table provide the percentage data. 83% of the respondents hadn't faced any appliance failure due to low voltage or fluctuations in the last few years. 15% reported that some of their appliances got damaged due to these issues. The major appliances got damaged reported by the respondents are: bulb, CFL, motor, computer, cooker, fan, fridge, iron box, stabilizer, TV, washing machine etc.

TABLE 2.25 QUALITY OF POWER

Frequency of voltage fluctuations or low voltage power	Percentage
Almost everyday	9.5
Few times weekly	10.3
Few times monthly	10
Rarely	61.9
Not at all	7.3

For the domestic consumers, they consider the time span between **6:00pm-10:00pm** as the most critical time they require power. Followed by **6:00am-10:00am, 10:00pm-6:00am, and 10:00am -2:00pm.** The least important time is **2:00pm-6:00pm.**

TABLE 2.26 MOST CRITICAL TIME FOR POWER AVAILABILITY

Time	Rank1	Rank2	Rank3	Rank4	Rank5
6:00am-10:00am	21%	**31%**	18%	6%	6%
10:00am-2:00pm	2%	6%	17%	**35%**	19%
2:00pm-6:00pm	2%	5%	13%	26%	**34%**
6:00pm-10:00pm	**48%**	19%	6%	4%	5%
10:00pm-6:00am	8%	20%	**26%**	8%	19%

2.3.2.2 BILLING AND PAYMENT

About 87.5% of the Domestic respondents are satisfied with the no. of days available for bill payment. Majority of the Domestic consumers (94.3%) use the 'Direct payment at KSEB Offices' option for paying their bill. Only minor portion (2.5% domestic) go for the payment option using 'Online through website'.

Compared to domestic more percent of commercial consumers opt for payment using Banking facilities. While regarding the Akshaya / Friends Centre, domestic consumers prefer than the commercial consumers.

Also, as can be seen, the Chief Wage Earner pays the bill in most cases (almost 74%).

TABLE 2.27 CURRENT PAYMENT MODE

Payment Mode			**Percentage**	
Direct payment at KSEB Offices			94.3	
Online through website			2.5	
Through Banking facilities			1	
Akshaya / Friends Centre			5	
Other			0.4	
	Those who are not using online facility for bill payment		Those who pay their electricity bill online through website	
Bimonthly Units of Electricity Consumed	Number	%	Number	%
0-80	233	7	4	5
81-160	909	29	14	18
161-240	907	29	19	24
241-300	526	17	15	19
301-400	339	11	14	18
401-600	178	6	9	11
601-1000	39	1	4	5
Above 1000	14	0	0	0
Total	3145	100	79	100

TABLE 2.28 BILL PAYEE

Who pays electricity bill for your residence	**% Respondents**
Yourself	74
Family Member	14.5
Landlord	10
Employer	0.4
Any External Agency, please specify	0.2

For the question 'Which is the most Preferred Mode of Bill Payment?' 70% of the domestic consumers and 68.2% of the commercial consumers opted **'Section Office payment counter'** as the first option, second preference go for the banking facilities (4.1% Domestic and 9.2% Commercial),then comes the **Online payment through KSEB website**(4% Domestic and 5.7% Commercial).Interestingly equal percent of the domestic as well as commercial prefer the options such as **Through Mobile phone applications**(3.4% Domestic & 3% Commercial) and **Mobile Vans at nearby area on specific days**(5% Domestic & 5.2% Commercial).

TABLE 2.29 PREFERRED MODE FOR BILL PAYMENT

Most Preferred Mode of Bill Payment	% Respondents
Section Office payment counter	70
Online payment through KSEB website	4
Through Banking facilities	4.1
Through Mobile phone applications	3.4
Mobile Vans at nearby area on specific days	5

Preferred Mode of bill Payment	% Respondents in Slab 0-80	% Respondents in Slab 81-160	% Respondents in Slab 161-240	% Respondents in Slab 241-300	% Respondents in Slab 301-400	% Resp. in Slab 401-600	% Resp. in Slab 600-1000	% Resp. in Slab above 1000	Total Number of Respondents
Section Office payment counter	82	83	82	82	78	73	68	73	2821
Online payment through KSEB website	2	3	4	4	7	9	3	0	153
Through Banking facilities	1	4	5	4	9	8	13	18	182
Through Mobile phone applications	4	4	3	3	4	6	13	9	149
Mobile Vans at nearby area on specific days	9	6	5	7	2	4	3	0	191

2.3.2.3 PRICE

Interesting thing about this service attribute that was required to be understood was the awareness about the subsidized rates of electricity.

37% of the domestic respondents are aware that KSEB supplying electricity for their domestic use at subsidized rates. 58% of them are not aware about it.

What is also interesting is to know if awareness that there is a subsidized rate creates any difference in how satisfied customers are with regard to price relative to other service parameters. As can be seen below, the satisfaction ratings of those who are aware about the subsidies are consistently higher than those who are not.

TABLE 2.30 SUBSIDY AWARNESS AND SATISFACTION WITH PRICE/ TARRIF RATES

	Satisfaction Rating of those who are aware on subsidy	Satisfaction Rating of those who are not aware on subsidy
I think KSEB is charging reasonable price	6.2	5.5
The method of pricing is appropriate	6.8	6.3
I am comfortable with the overall pricing system	6.3	5.9
Total Average	6.4	5.9

This suggests that subsidy awareness, any change attitude of customers towards subsidized tariff and customers who are in higher income may be inclined to change their attitude. The results as can be seen, indicate that suitable campaigns may result in people's willingness to forgo subsidized tariff, particularly those in higher income bracket.

TABLE 2.31 ATTITUDE TOWARDS SUBSIDY AND WILLINGNESS TO GIVE-IT-UP

Attitude Statements	**Average Rating**
I am aware that KSEB provides electricity at subsidized rate but I am willing to say 'no to subsidy'	2.6
If I have sufficient income, I am willing to adopt a poor house and pay for their electricity subsidy	2.8
I believe that electricity subsidy should be ONLY for the needy and poor	3.3
I am willing to pay higher rate if I get better service and less power failures	3
Total Average	3

2.3.2.4 CUSTOMER SERVICE

About 45% of Domestic respondents stated that there is significant improvement in the services offered by KSEB in the last 3-5 years and 39% of the Domestic respondents responded that there is slight improvement for the same.

On expectations of newer services, 38% of Domestic consumers are willing to pay extra money for the **Exclusive helpline services for power failure, billing, et**c. 30% of the commercial consumers are ready to pay premium for **Exclusive Periodic electricity home audits – safety, savings.**

TABLE 2.32 ADDITIONAL SERVICES EXPECTED AT PREMIUM

Services	% Respondents
Exclusive helpline services for power failure, billing, etc.	38%
Exclusive Periodic electricity home audits. Safety, savings	36%
Access to personalized website for monitoring of electricity consumption	7%
Membership of a club with Special, exclusive offers on lighting and household electrical Appliances	11%
None of the above	18%

2.3.2.5 COMMUNICATION

69% of the domestic respondents said that they need to have more information and clarity about electricity consumption charges and other consumer services offered.

TABLE 2.33 INFORMATION OF SCHEDULED POWER OUTAGES

How useful it is for you to receive information on scheduled power outages?	% of Respondents
Not at all useful	2.7
Sometimes useful	9.9
Useful	33.5
Very useful	27.9
Extremely useful	17.9

17.9% of Domestic consumers reported that it's extremely useful as getting prior information on scheduled power outages and 27.9% said that it is very useful for them to get prior information on scheduled power outages.

Majority of the Domestic and Commercial consumers (77.6% and 78%) are using phone call to the section office in order to contact KSEB during power failure. Very few opt for other options.

TABLE 2.34 CONTACTING KSEB IN CASE OF POWER FAILURE

Mode used to contact KSEB during power failure	% Respondents
Walk-in to the section office	8.1
Phone call to section office	77.6
Phone call to service personnel personally known to me	8.8
SMS to KSEB service number	0.2
Online Complaint	0.3
Others	0.3

More than half of the Domestic (81%) and Commercial consumers (57.2%) preferred to receive information on scheduled power outages Through Newspapers/ TV channels, second preference go for 'Through SMS' option, 35.2% of the Domestic consumers and 26.2% Commercial consumers opt this option. Third preference go for the option 'Through Mobile Application'.

TABLE 2.35 CONTACTING KSEB IN CASE OF POWER FAILURE

Preferred Mode to Receive Info during Scheduled Power Outages	% Resp.
Through Newspapers/ TV channels:	81 %
Through KSEB Website:	4 %
Through emails:	4 %
Through SMS:	35.2 %
Through Mobile Application:	16.5%

In the bill major portion of the Domestic Consumers (81%) and commercial consumers (86.9%) noted the **Last date of bill payment/ Disconnection date.** 82% of the domestic and 86.5% of the commercial noted the **charged amount shown in the bill.** Almost 70% of the domestic and commercial consumers pay attention to the **Units of electricity consumed.** Very few (18% Domestic & 14% Commercial) pay attention to the information for consumers on the backside of the bill.

TABLE 2.36 INFORMATION NOTED BY THE CONSUMERS IN THE BILL

Info Noted by Consumers in the Bill	% Resp.
Last date of bill payment/ Disconnection date	81 %
Charged amount shown in the bill	82 %
Units of electricity consumed	70 %
Information for consumers on the backside of the bill	18 %
Other	2.5 %

Electricity bill is one of the key communication with certain periodicity done by KSEB to the Customer. It can carry several kind of information beyond the billing information and can serve important purpose in building customer relationship and deliver superior customer experience. The following table includes the details of additional information consumers like to receive on their bill.

TABLE 2.37 ADDITIONAL INFORMATION LIKE TO RECEIVE ON THE BILLS

Type of Pattern	% Resp.
Measurement – what is measured, unit conversion, accuracy, etc.	62%
Price – How I am charged, Tariff Structure, etc.	70%
Consumption Pattern – Past consumption, high/low consumption, trend of consumption	41%
Commercial Information – Products which can reduce bill, Special Offers, etc.	30%
Educational Information – Safety tips, How to save electricity tips, etc.	27%

The survey also collected data about additional information that customers may like to have. This may be included in the bill suitably to communicate at no additional cost.

TABLE 2.38 ADDITIONAL INFORMATION EXPECTED BY CUSTOMERS

Type of Info	Percent
Price and billing information	56%
Prior information on power failure	45%
Information on new schemes	23%
Other (Information regarding power failure and maximum usage)	2%

Customer Feedback is another piece of communication which can serve the purpose of not just understanding the customers but also strengthening relationship. Following results may provide insights into using feedback as communication tool.

TABLE 2.39 PREFERRED MODE OF CUSTOMER FEEDBACK

Mode of Feedback	% of Resp.
Through KSEB Section office	68 %

Through Service Staff who reads meter and delivers the bill	20 %
Through Periodic Survey	20 %
Through SMS/ Call center	19 %
Through Mobile Application/ Website	13 %

Apart from the bill, which is pushed to customers, KSEB website (or a specific microsite for customer information) could be a useful tool to pull customers for communication, information, relationship building and education.

The survey collected website visit related information pertaining to the KSEB website. More than half of the domestic (78%) and commercial (73%) respondents never visited the KSEB website. Only 19% of the domestic consumers visited KSEB website for fulfilling variety of needs which are listed as below.

TABLE 2.40 FREQUENCY OF THE CUSTOMERS WHO HAS VISITED KSEB WEBSITE

Purpose of Visiting Website	% Resp.
Bill payment	11%
Downloading different forms	4%
Complaint registration	3%
To know about recent schemes	6%
Others	1%

2.3.2.5 CORPORATE CITIZENSHIP

A good corporate citizen serves the business goals in a suitable fashion taking into consideration its responsibility to society and natural environment. Utility companies in energy business need to be extremely responsible to environment as customers are increasingly concerned about environmental issues. Survey attempted to measure relevant perceptions of KSEB customers on a rating scale. On statements reflecting attitudes/ beliefs of customers on a 5 point scale. The data reflect customer awareness and sensitivity to these issues.

TABLE 2.41 CONSUMER PERCEPTIONS AND ATTITUDE TOWARDS ENVIRONMENTAL RESPONSIBILITY

Statements	Average Rating
Large power plants are hazardous to the environment	3.1
I intend to use more of alternative energy sources such as solar, bio-gas, wind etc.	4.0
I actively try to find and consider electricity consumption (star rating) when I buy an electrical appliance.	4.2
I prefer to use more CFL, LED lighting compared to standard bulbs and tubes	4.5
I believe in reducing electricity consumption in order to save environmental resources even if it causes a little bit of inconvenience to me.	4.2
I would describe myself as environmentally responsible	4.3

2.3.4 CUSTOMER PERCEPTIONS AND EXPECTATIONS – COMMERCIAL CUSTOMERS

Similar to domestic customers, commercial customers were also surveyed to collect data on their perceptions and expectations around the service quality attributes described in above sections.

Following sections provide key results on various relevant issues concerning the 6 service attributes for commercial customers. These are used to provide actionable recommendations in last section.

2.3.4.1 POWER QUALITY AND RELIABILITY

This parameter reflects the frequency, duration of power failures, power outages. Frequency of voltage fluctuations etc.

TABLE 2.42 FREQUENCY OF POWER FAILURE

Frequency of Power Failure (bet. 8am-8pm) per day	% of Respondents
1-3 times	37.6
4-6 times	27.5
7-10 times.	6.2
No failures	2.0
Rarely	22.4
Others	1.5

Among the commercial consumers, majority of them (37.6%) faced power failure 1-3 times between 8am-8pm in a day and 27.5 % face it 4-6 times. 22.4 percent reported that they rarely faced power failures during their business time.

Regarding the duration of power failure, 46% of them reported that it is for 'Less than 30 minutes' and for 44% it is '30 minutes to 2 hours'. Only few percentage reported that it is above two hours.

TABLE 2.43 FREQUENCY OF POWER FAILURE

Typical Duration of the Power Failure	% of Respondents
Less than 30 minutes	46
30 minutes to 2 hours	44
2-6 hours	5.6
Greater than 6 hours	0.9

For the Commercial consumers, they consider **10:00am-2:00pm** as the most critical time for power availability followed by **2:00pm-6:00pm, 6:00pm-10:00pm, and 6:00am-10:00am.** The least significant time for them is **10:00pm-6:00am.**

TABLE 2.44 FREQUENCY OF POWER FAILURE

Time	Rank1	Rank2	Rank3	Rank4	Rank5
6:00am-10:00am	12%	12%	13%	24%	11%
10:00am-2:00pm	35%	15%	15%	8%	4%
2:00pm-6:00pm	10%	35%	18%	9%	6%
6:00pm-10:00pm	25%	10%	21%	15%	4%
10:00pm-6:00am	4%	5%	6%	13%	43%

More than half of the Commercial consumers reported that that they rarely faced voltage fluctuations or low voltage power.

TABLE 2.45 QUALITY OF POWER

Frequency of voltage fluctuations or low voltage	% of Respondents
Almost everyday	6.88
Few times weekly	17
Few times monthly	12.38
Rarely	55.21
Not at all	6.78

2.3.4.2 BILLING AND PAYMENT

About 90% of the commercial consumers are satisfied with the no. of days available for bill payment.

Majority of the Commercial consumers (92.1%) use the 'Direct payment at KSEB Offices' option for paying their bill. Only minor portion (2.8% commercial) go for the payment option using 'Online through website'.

TABLE 2.46 QUALITY OF MODE OF BILL PAYMENT

Mode of Pay	% of Resp.
Direct payment at KSEB Offices	92.1
Online through website	2.8
Through Banking facilities	3.0
Akshaya Centre	1.3
Others	0.6

Compared to domestic more percent of commercial consumers opt for payment using Banking facilities. While regarding the Akshaya / Friends Centre, domestic consumers prefer than the commercial consumers.

For the question 'Which is the most Preferred Mode of Bill Payment?' 70% of the domestic consumers and 68.2% of the commercial consumers opted 'Section Office payment counter' as the first option, second preference go for the banking facilities (4.1% Domestic and 9.2% Commercial),then comes the Online payment through KSEB website(4% Domestic and 5.7% Commercial).Interestingly equal percent of the domestic as well as commercial prefer the options such as Through Mobile phone applications(3.4% Domestic & 3% Commercial) and Mobile Vans at nearby area on specific days(5% Domestic & 5.2% Commercial).

TABLE 2.47 PREFERRED MODE OF BILL PAYMENT

Most preferred mode of bill payment	% of Resp.
Section Office payment counter	68.2
Online payment through KSEB website	5.7
Different Banking facilities (Online, ATMs, other money transfer modes, etc.)	9.2
Through Mobile phone	3
Mobile Vans at nearby area on specific days	5.2

TABLE 2.48 PREFERRED MODE OF BILL PAYMENT – BY SIZE OF THE FIRM

Most preferred mode of bill payment	% Respondents			
	Less than one lakhs (Base: 559)	1-10 lakhs (Base 249)	11-50lakhs (Base:51)	More than 50 lakhs (Base:36)
Section Office payment counter	80	72	59	31
Online payment through KSEB website	4	6	16	19
Different Banking facilities (Online, ATMs, other money transfer modes, etc.)	5	14	22	44
Through Mobile phone	4	3	0	0
Mobile Vans at nearby area on specific days	7	4	4	6
	100	100	100	100

2.3.4.5 PRICE

While the customer perceptions of KSEB price is measured and reported in previous section, additional information on the commercial establishment's fuel expenses was collected to get an idea how many firms spend significant on fuel for DG set. This may provide information on lost revenue and also the estimated costs to the commercial enterprises during power failures.

TABLE 2.49 AVERAGE MONTHLY FUEL EXPENDITURE IN RUPEES FOR THOSE WHO ARE USING DG SET

	% Respondents
Below 2000	39.0
2000-5000	36.2
5000-10000	12.9
Above 10000	11.9
Total	100.0

2.3.4.6 CUSTOMER SERVICE

About 42.5% of commercial consumers stated that there is significant improvement in the services offered by KSEB in the last 3-5 years and 42.2 % of commercial consumers responded that there is slight improvement for the same.

Majority of the commercial consumers having the opinion that the time taken to resolve complaints by KSEB is reasonable.

TABLE 2.50 AVERAGE MONTHLY FUEL EXPENDITURE IN RUPEES FOR THOSE WHO ARE USING DG SET

The time taken to address the complaints is:	**% of Respondents**
Too long	13.16
Reasonable	73.28
Surprisingly less	10.81

TABLE 2.51 AVERAGE MONTHLY FUEL EXPENDITURE IN RUPEES FOR THOSE WHO ARE USING DG SET

Opinion	**% Respondents**
Significantly Improved	42.5
Slightly Improved	42.2
Not much improvement	13.3
Worse than before	0.0

40% of commercial consumers are willing to pay extra money for the **Exclusive helpline services for power failure, billing, et**c. 30% of the commercial consumers are ready to pay premium for **Exclusive Periodic electricity home audits – safety, savings.**

TABLE 2.52 SERVICES WHICH COMMERCIAL CONSUMERS ARE WILLING TO PAY PREMIUM (EXTRA MONEY)

	% of Respondents
Exclusive helpline services for power failure, billing, etc.	40
Exclusive Periodic electricity home audits – safety, savings	30
Access to personalized website for monitoring of electricity consumption	9.5
Special, exclusive offers on lighting and household electrical appliances	11.3
None of the above	16

2.3.4.6 COMMUNICATION

71% of commercial consumers said that they need to have more information and clarity about electricity consumption charges and other consumer services offered.

TABLE 2.53 MODE OF COMMUNICATION TO KSEB DURING POWER FAILURE

Mode	% of Respondents
Walk-in to the section office	11
Phone call to section office	78
Phone call to service personnel personally known to me	6.1
SMS to KSEB service number	0.1
Online Complaint	0.0
Others	0.3

69% of the domestic respondents and 71% of commercial consumers said that they need to have more information and clarity about electricity consumption charges and other consumer services offered.

27.5% reported that it's extremely useful as getting prior information on scheduled power outages. Nearly 59 % of the respondents reported that it's useful for them to get prior information on scheduled power outages.

TABLE 2.54 USEFULNESS OF PRIOR INFORMATION ON SCHEDULED POWER OUTAGES

	% of Respondents
Not at all useful	3.93
Sometimes useful	7.86

Useful	29.17
Very useful	29.37
Extremely useful	27.5

Bill being a most frequent communication between KSEB and the customers, survey attempted to find out what additional information commercial customers would like to have. Information on how the amount is arrived at – calculation, the pricing policy, consumption pattern, commercial information, education, etc. were given as option. As can be seen, there is a significant appetite for new information through the bill.

67% respondents would like to know how are they charged and 40% would like to know their consumption pattern and trend. Table below provides this information.

TABLE 2.55 ADDITIONAL INFORMATION LIKE TO RECEIVE ON THE BILLS

	% Respondents
Measurement – what is measured, unit conversion, accuracy, etc.	63.4
Price – How I am charged, Tariff Structure, etc.	67
Consumption Pattern – Past consumption, high/low consumption, trend of consumption	40
Commercial Information – Products which can reduce bill, Special Offers, etc.	36
Educational Information – Safety tips, How to save electricity tips, etc.	23.1

Commercial customers find prior information on power cuts and failures to be the most important followed by price and payment related information. As much as 20% customers would like to receive information on new schemes and promotions, etc.

TABLE 2.56 ADDITIONAL INFORMATION EXPCTATION

Additional useful information requested by the consumers	**% Respondents**
Price and billing information	51%
Prior information on power failure	53%
Information on new schemes	20%
Others	4.3%

Commercial customers would be interested to provide their feedback on services of KSEB at the branch office. About 11% can give feedback through SMS or call centres. Close to 5% customers have shown willingness to take survey to provide feedback.

TABLE 2.57 FEEDBACK ON SERVICE – PREFERRED MODE

Preferred Mode of feedback	% of Respondents
Through KSEB branch office	58.64
Through Service Staff who reads meter and delivers the bill	6.58
Through Periodic Survey	4.91
Through SMS/ Call center	11.59
Through Mobile Application/ Website	6.09

Apart from the kind of information that the customers find useful, it is important to examine other channels which can pull customers to share more information like the website. Which mode commercial customers prefer to find out about power failures could be interesting information.

Following table shows that apart from mass media, SMS is preferred mode to know information on power cuts and scheduled outages. Mobile App also shows promise as it is more preferred compared to the website of email.

TABLE 2.58 MODES PREFERRED TO RECEIVE INFORMATION ON SCHEDULED POWER OUTAGES

Modes preferred to receive information on scheduled power outages	% Respondents
Through Newspapers/ TV channels	57.2
Through KSEB Website	1.8
Through emails	1.6
Through SMS	26.2
Through Mobile Application	6.6

When asked on the frequency of KSEB website visitation, of the 308 wh responded to this question, 12% visited for bill payment followed by 8.6% for knowing recent schemes. More than half of the commercial (73%) respondents never visited the KSEB website. Only 22.8 % of the commercial consumers visited KSEB website for fulfilling variety of needs which are listed as below.

TABLE 2.59 FREQUENCY OF THE CUSTOMERS WHO HAS VISITED KSEB WEBSITE

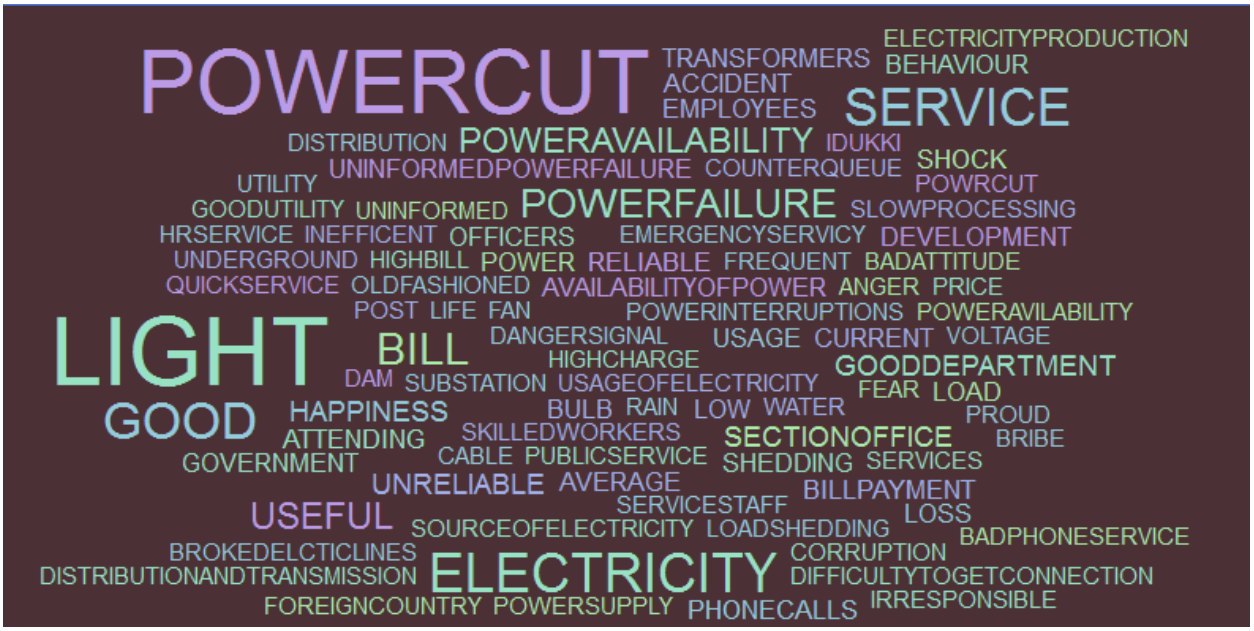
	% Respondents Base: 308
Bill payment	12
Downloading different forms	5
Complaint registration	2.6
To know about recent schemes	8.6
Others (like bill checking, bill printing)	2.3

2.3.5 CUSTOMER PERCEPTIONS ABOUT KSEB BRAND

Apart from perceptions on service quality and expectations, the survey also attempted to collect data on customer perceptions on the overall brand of KSEB. Open ended questions such as what comes to your mind when you think of KSEB provide key associations that the brand has in the minds of the consumers. Question such as 3 things you like and 3 things you do not like provide information on positive and negative associations.

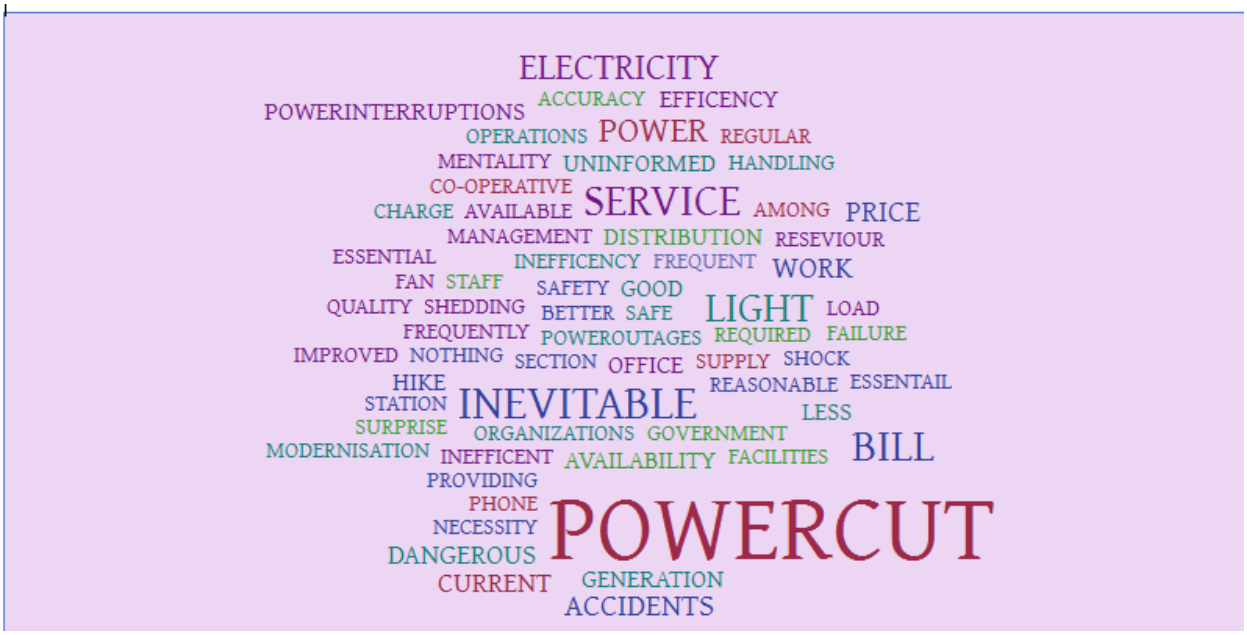
The response to the question: *'When you think of KSEB, what are the things that comes to your mind?'* varies among the respondents. One noticeable common feeling is that when the consumers think about KSEB '*power cut'* comes to their mind which implies the perception of consumers on KSEB. A major portion of the Domestic and Commercial consumers have this same feelings. However a good portion of the consumers considers KSEB as an inevitable part in their life as 'light' is that much important to them and KSEBL is the one and only one provider to the great part of the consumers.

FIGURE 2.60 DOMESTIC CUSTOMERS: TOP-OF-THE-MIND ASSOCIATIONS KSEB BRAND WORD CLOUD



KSEB employees play a major role in creating different perception among consumers, as *'services' is one* of the major fact come to their mind when they think about the company. Those who receive positive and valuable services from the staffs seems to be have positive feeling regarding the company and vice versa.

FIGURE 2.61 COMMERCIAL CUSTOMERS: TOP-OF-THE-MIND ASSOCIATIONS KSEB BRAND WORD CLOUD



The major things customers don't like are the power cut or any other forms of power failures, interruptions etc. Another important thing customer don't like to have is the additional bill amount than the usual bill. Response of some employees to them especially while calling to report the power failure or any other complaints through phone and the long time taken to resolve the complaints are some of the things customers don't like.

Majorly consumers expect uninterrupted power supply for them from KSEBL. They also wish to implement new technologies and to avoid the overhead cables and implement the underground cables.

2.4 IMPLICATIONS AND RECOMMENDATIONS

This section provides summary of findings presented above, draws out implications and makes recommendations. Recommendations for domestic customers (households), commercial customers and strategic recommendations are made in different subsections.

The strategic recommendation is to create a customer custodian within the organization – a new function called customer management.

2.4.1 SUMMARY OF KEY FINDINGS – DOMESTIC CUSTOMERS

The summary findings of the customer survey organised along the five dimensions of customer satisfaction namely power quality and reliability, customer service, price, billing and payment, communications and corporate citizenship are given below

- **Customer Satisfaction dimension and Overall Index:** The importance of the five dimensions of customer satisfaction (viz. power quality and reliability, customer service, billing and payment, price and communication) was not very different; the importance between 17 and 22.5 (out of a scale of 100) only. The dimensions were important in the following order –1. Billing and payment (22.5) 2. Quality and reliability- 22.1 3. Customer Service- 19.3, 4. Price – 19.1 and 5. Communication 17.
- Customer satisfaction index of the rural consumers (595.8/1000) were found higher than urban consumers (691.15/1000) by almost one point in scale of ten.
- Although customer responses show that power failures are more in the rural areas than in urban areas customers in rural areas expressed more satisfaction than in urban areas. From this we could infer that customer expectations in urban areas are higher than in rural areas

- **Power Quality and Availability:** Voltage fluctuation were not experienced/recognized by 69% of the consumers; however 10% claimed that they experience fluctuations almost every day. 15% of the respondents mentioned that some of their appliances got damaged due to voltage fluctuations (frequently cited equipment include TV, CFL, fan, washing machine.)

- **Customer Service:** Duration of power failure for domestic consumers is less than 30 minutes for 53.14% of consumers and 30 minute to 2 hours for 40.12 % consumers. 45% of the responded that there is significant improvement in the services offered in the last 3-5 years and 39% of the respondents mentioned that there is a slight improvement.
- Customers willing to pay premium for additional services. 38% customer respondents have shown interest in Exclusive helpline services for power failure, billing, etc. . 36% respondents show interest in Exclusive Periodic electricity home audits. Safety, savings.

- **Billing and Payment:** 95.4% customers make direct payment at KSEB Offices, 2.5% through website (12% of the consumers in in the consumer slabs consuming 601-1000 units); 19% of the visited confirmed that they have visited KSFE website for some purpose. 5% make payment through Akshaya and 1% through banking facilities
- 12.5% respondents found no of days available for payment not sufficient

- **Pricing:** 37% of the domestic respondents are aware that KSEB supplying electricity for their domestic use at subsidized rates; 58% are not aware
- Customer satisfaction index of customers who are aware of subsidy being provided were found to be relatively higher (6.4 versus 5.9 on a 10 point scale)

- **Communications:** 87% of respondents agreed that information on scheduled power outages is useful (46% very useful or extremely useful). 35% preferred SMS as a mode to receive info on power outage
- Mode of communication with KSEB during power failure: 78% phone call to section office
- Additional information preferred on their monthly bill; measurement 62%, pricing information 70% and consumption pattern 41%. Additional information requested by customers are: Pricing and billing information: 56%; Prior information on prior failure- 45%; Information on new schemes – 23%

2.4.2 SUMMARY OF KEY FINDINGS – COMMERCIAL CUSTOMERS

- **Customer Satisfaction dimensions: Relative weights:** The importance of the five dimensions of customer satisfaction (viz. power quality and reliability, customer service, billing and payment, price and communication) varied between 17 and 25 (out of a scale of 100) only. The dimensions were important in the following order –1. Quality and reliability (25) 2. Billing and Payment – 22, 3. Customer Service- 18.3, 4. Price – 17.7 and 5. Communication 17

- **Power Quality and Availability:** 70% experienced power failures multiple times in a given day. Power failures with less than 30 minutes duration were 46% while failures which had a typical duration between 30 minutes and two hours was 44%.
- Voltage fluctuation were not experienced/recognized by 62% of the consumers; however 6.88% claimed that they experience fluctuations almost every day. 30% of the respondents mentioned that some of their appliances got damaged due to voltage fluctuations (frequently cited equipment included computer, motor, starter, Machine, compressor, motor.)

- **Customer Service:** Duration of power failure for domestic consumers is less than 30 minutes for 46% of consumers and 30 minute to 2 hours for 44 % consumers.
- 42.5% of the responded that there is significant improvement in the services offered in the last 3-5 years and 42.2% of the respondents mentioned that there is a slight improvement. Only 13 % of the respondents felt that the time taken to address the complaints is too long.
- Customers willing to pay premium for additional services such as: 40% show interest in Exclusive helpline services for power failure, billing, etc. 30% show interest in Exclusive Periodic electricity home audits. Safety, savings.

- **Billing and Payment:** 92.1% customers make direct payment at KSEB Offices. 2.8% through website (12% of the consumers in in the consumer slabs consuming 601-1000 units); 19% of the visited confirmed that they have visited KSFE website for some purpose, 1.3% through Akshaya and 3% through banking facilities
- Preferred modes of payment are: Section payment counter- 68%, Online payment/ Mobile - 8.7% and Banking facilities - 9.2%

- **Communications** 71% of commercial consumers said that they need to have more information and clarity about electricity consumption charges and other consumer services offered.
- 87% of respondents agreed that information on scheduled power outages is useful (47% very useful or extremely useful). 35% preferred SMS as a mode to receive info on power outage
- Additional information preferred on their monthly bill; measurement 63%, pricing information 67% and consumption pattern 40%
- Additional information requested by the consumers include: Pricing and billing information: 51%, Prior information on prior failure- 53% and Information on new schemes – 20%

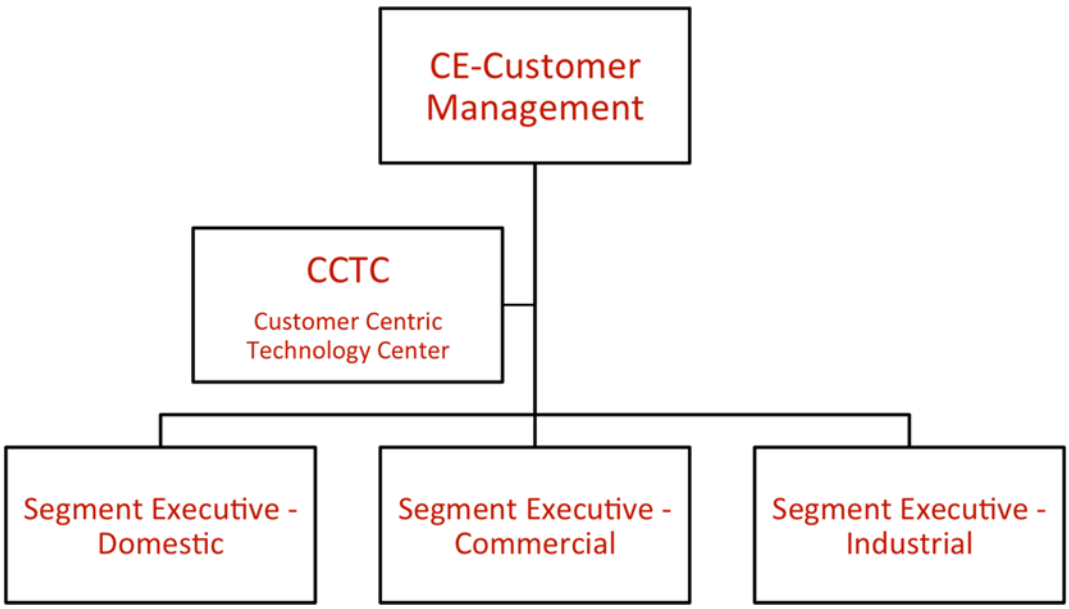
2.4.3 RECOMMENDATIONS

2.4.3.1 STRATEGIC RECOMMENDATIONS

INTRODUCE NEW FUNCTION: CUSTOMER MANAGEMENT

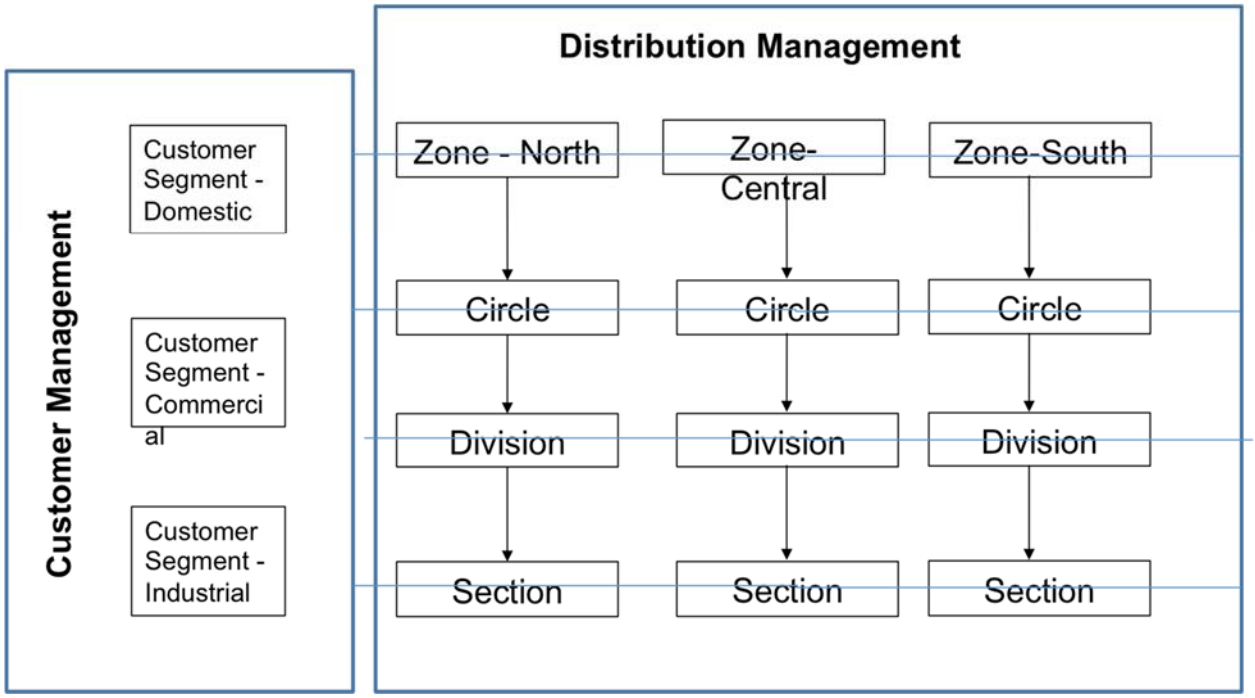
This is an important recommendation proposing structural change. It is clear that presently KSEB doesn't have dedicated customer management function. The new function would be a dedicated executive force with performance metrics pertaining to the customer management and customer service. Following figure suggest that there should be a CE level executive directly reporting to the chairman of the board to bring strategic orientation to the customer management and service.

FIGURE 2.62 CUSTOMER MANAGEMENT FUNCTION – BROAD PICTURE



Basically, the customer facing functions would have a matrix organization as shown in the figure below. The existing distribution management organization which has geographic hierarchy and divisions can be overlaid with the customer management function which would have hierarchy based on the market segments and customer groups as shown in the figure below.

FIGURE 2.63 CUSTOMER MANAGEMENT FUNCTION – MATRIX STRUCTURE



CUSTOMER CENTRIC TECHNOLOGY CENTER:

Customer Service Quality can largely be addressed by building interactive customer relationships. Today's technologies allow top management to look at large amount of data from customer's view point to develop strategic marketing campaigns to drive revenue, profitability, satisfaction and loyalty goals for KSEB. As of now these data are not collected as the customer touching and facing technologies either do not exist at a level it should nor are they integrated. A CRM solution in the long run and Website with mobile app in short run could be some of the tools that this centre may explore and implement. As indicated in the figure in previous section, this would be at the top level providing integrated approach to customer technology applications.

CCS TRACKING MECHANISM:

This study is the first step towards building customer service orientation. Customer Satisfaction Score model developed here may be used annually for tracking customer service. This can providing opportunities for service quality goal setting, on-going service quality gap bridging efforts, allocation of

resources and measurement of return on investments in customer management functions. If KSEB doesn't consider this to be part of its core activity but sees value in the information, it can make efforts at the industry level and motivate research agencies to iinstitutionalize syndicated research services for Discom across the country.

At another level, KSEB may explore the opportunity to create a Digital Community Platform which would feed on an ongoing basis a huge volume of qualitative data to make customer service tracking and decision making.

IMPROVE CUSTOMER COMMUNICAITONS

87% agreed that information on scheduled power outages is useful (47% very useful or extremely useful). 33% preferred SMS as a mode to receive info on power outage. **This necessitates providing information on power outages by SMS/ online as well as traditional media.**

Need for centralized IVR to handle customer calls. As many as 78% customers call to KSEB section office during power failure.

Electricity bill as a tool to change perception, attitude and behaviour. It should reflect information such as consumption pattern, Calculation of charges and also help in generating revenue by provide commercial information. Appendix G provides sample/ illustrative Bills for finalizing Bill design.

Measuring Customer Feedback is another important element of customer communication which go a long way in building relationships. This has to be coupled with Online Complaints registration, tracking and monitoring, Centralized Customer Complaint Records and use of Feedback to enhance image

CUSTOMER MIGRATION TO ONLINE SERVICES

Currently only 2.5% customers pay through website although 11% has mentioned that they have visited KSEB website for some purpose. Hence **it is recommended to put in active efforts to migrate customers to online channels.** This improves data capture, retrieval and analytics. Reduced burden on the branch and hence improved efficiency and customer convenience contribute to improving perceived service quality. **Awareness and Incentive Campaigns to drive Channel migration can contribute to systematic migration that improves profitability and customer tracking abilities.**

INTRODUCE VALUE ADDED SERVICES

Results of the survey suggest that Customers are willing to pay a premium for additional service. 38% inclined to Exclusive helpline services for power failure, billing, etc. and 36% inclined to Exclusive periodic electricity home audits. Safety, savings.

A value added service package with premium pricing may be developed with illustrative services such as

- Exclusive Helpline service – for complaints, service requests.
- Home Electricity Audit – for power saving, safety
- Personalized Websites – mobile apps with online payment., consumption information and analytics, recommendations to reduce power bills,
- Special Offers on lighting & household equipment- alliances with consumer durable companies and create cooperative, co-creation of value.

PRIORITIZE TIME SLOTS FOR SCHEDULED POWER CUTS

Considering the importance of power availability required for domestic and commercial consumers, KSEB can either utilize the time slot of 6am-10am or 10pm-6am for shutting the lines for the maintenance work. As the time slot 6am-10am is the second priority for the domestic consumers KSEB can either utilize some portion of both slots.

TABLE 2.64 PRIORITY OF TIME NEEDED FOR THE CONSUMERS

RANK	DOMESTIC	COMMERCIAL
1	6PM-10PM	10AM-2PM
2	6AM-10AM	2PM-6PM
3	10PM-6AM	6PM-10PM
4	10AM-2PM	6AM-10AM
5	2PM-6PM	10PM-6AM

2.4.3.2 DOMESTIC CUSTOMERS – RECOMMENDATIONS

- **Substantially improve communication efforts using traditional media, redesigning monthly bills and using digital media**
  - Responses to multiple questions indicate that effective communications efforts could substantially improve customer satisfaction.
  - **Provide information on power outages by SMS/ online as well as traditional media:** 87% of respondents agreed that information on scheduled power outages is useful (46% very useful or extremely useful). 35% preferred SMS as a mode to receive info on power outage.
- **Need for centralized IVR to handle customer calls:** 78% call to KSEB section office during power failure. However people and facilities are not adequate to handle large no of calls during power failures.
- **Redesign the electricity bill**: Redesign bill to include information on pricing and consumption pattern and new services.
- **Inform about KSEB services:** Consumers who were aware about subsidy provided were relatively more satisfied than the consumers who were not aware about it. KSEB could educate its customers about electricity generation and transmission through making available videos on websites. A KSEB sponsored quiz on energy savings in schools could also generate awareness about electricity generation and distribution.
- **Use online media and mobile for facilitating consumer payment**
  - 2.5% customers pay through website although 11% has mentioned that they have visited KSEB website for some purpose. Consumers could be incentivized to pay online or in advance. This will enhance customer convenience and reduce billing work in the section office freeing staff for other value adding activities.
- **Explore the feasibility to offer additional services at a premium.**
  - Customers are willing to pay a premium for additional service
  - Exclusive helpline services for power failure, billing, etc. 38%

- Exclusive periodic electricity home audits. Safety, savings 36%

2.4.3.3 COMMERCIAL CUSTOMERS - RECOMMENDAITONS

- **Substantially improve communication efforts using traditional media, redesigning monthly bills and using digital media**
  - Responses to multiple questions indicate that effective communications efforts could substantially improve customer satisfaction.
  - **Provide information on power outages by SMS/ online as well as traditional media:** 87% of respondents agreed that information on scheduled power outages is useful (47% very useful or extremely useful). 33% preferred SMS as a mode to receive info on power outage.
  - **Need for centralized IVR to handle customer calls:** 78% call to KSEB section office during power failure. However people and facilities are not adequate to handle large no of calls during power failures.
  - **Redesign the electricity bill**: Redesign bill to include information on pricing and consumption pattern and new services.
- **Ensure uninterrupted service during daytime**
  - Availability of power during daytime is essential for commercial consumers while it is not that critical for domestic consumers. As maintenance of lines is carried out during daytime commercial firms lose valuable business or lose labour hours due to non-availability of power during day hours. Hence completing the maintenance time during 06:00 AM to 10:00 AM will benefit commercial customers to a great extent. This could be implemented in commercial centres right away.
- **Use online media and mobile for facilitating consumer payment**
  - 2.8% customers pay through website although 19% has mentioned that they have visited KSEB website for some purpose. Consumers could be incentivized to pay online or in advance. This will enhance customer convenience and reduce billing work in the section office freeing staff for other value adding activities.
- **Explore the feasibility to offer additional services at a premium.**
  - Customers are willing to pay a premium for additional service
  - Exclusive helpline services for power failure, billing, etc. 40%
  - Exclusive periodic electricity home audits. Safety, savings 30%

CHAPTER 3 ORGANIZATIONAL ASSESSMENT AND REALIGNMENT: STRUCTURE, HUMAN RESOURCE COMPETANCIES AND SKILLS

3.1 INTRODUCTION

The objectives of this module were to reassess and suggest modifications (wherever applicable) for the existing structure and HR system in KSEB, which can help it to be competitive, profitable, as well as attract, allot, and retain talent while simultaneously controlling and maintaining the staffing cost. Specifically, the project focuses on the following objectives:

a) Analyse the functional responsibilities and the current organizational structure of KSEB and suggest modifications in the structure, if required

We conducted interviews of KSEB stakeholders and employees as well as interviews of the employees and management of another electricity utility which is operated by a private player. We have interviewed union/association representatives of KSEB, past members of KSEB board, the honourable minister, present management representatives of KSEB and employees of KSEB from section, sub-division, division and circle levels as well as also from support functions of IT and Finance. Since a separate sub component deals with customer part we have not interacted with customers of KSEB in this part of the project. Also, in this part of the project we have not focused on elements such as environment in which KSEB operates as specific component of the project has looked at the same. We have taken liberty to draw upon from our understanding of phenomena as academicians while arriving at our understanding either in interpreting the problem statements or suggesting solutions. In the process of collecting information, we have interviewed more than 50 participants and conducted survey of 850 employees.

b) Identifying skills and competencies for all the above mentioned positions, as well as construct a Behaviourally Anchored Rating Scale (BARS).

Historically, most of the technologies in the area of HRM are grounded on the idea of individuals holding jobs. Primarily, most of the organizations begin the arrangement of their internal anatomy and processes by defining the jobs (job description), and then hiring individuals to fit them. Every other internal processes like training, selection, career development, and pay determination are contingent on the job description. Job descriptions are also used to group individuals to specific organizational units, and finally to rationalize the overall structure of the organization[28].

However, gradually the thinking on HRM has been shifting to people than jobs. While job descriptions are important, it is well appreciated in contemporary times that organizations are alive and thus can be adaptive to a rapidly changing environment, if people in it are ready to adapt. Thus visualizing

[28] Borrowed from Lawler III, E. E. (1993). From job based to competency based organizations. Center for Effective Organizations.

organizations as a store house of various competencies, skills, abilities and capabilities is more encouraging than envisioning it as a set of jobs[29].

Towards that it becomes imperative that we endeavour to identify the various competencies available with the employees of KSEB, as well as displayed by them in various positions. The following methodology was adopted to identify the competency and skill requirement.

i) The job holders[30] were explained about the concept of competency and its importance to organizations. Thereafter they were asked to brainstorm, discuss, define and note the various competencies which are required to perform the assigned tasks. The investigators gave repeated reminders to the participants towards viewing the assignment impersonally[31].
ii) Thereafter, participants also identified the observable and measurable behaviours to develop the Behaviourally Anchored Rating Scales (BARS)[32] for their position.

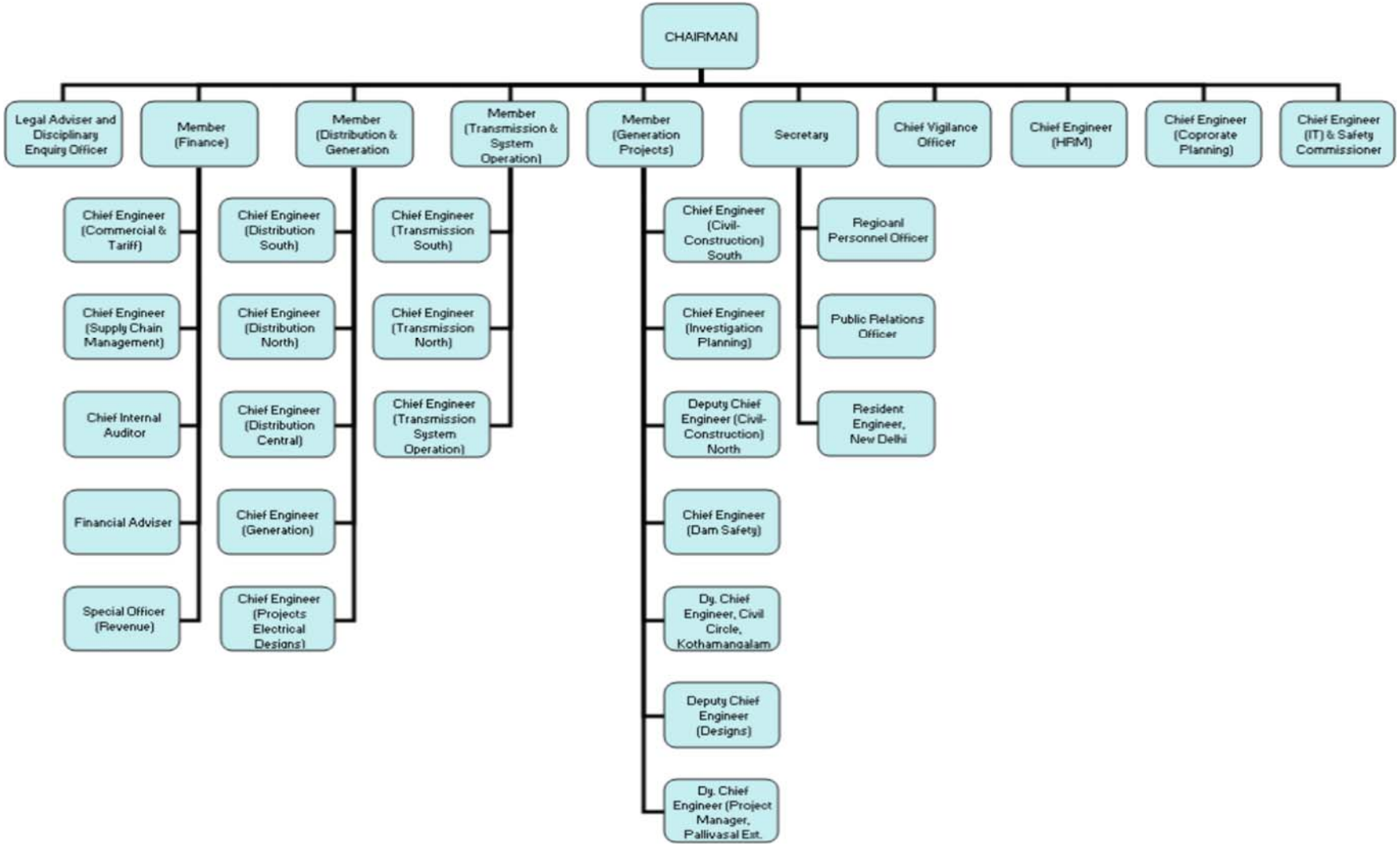
3.2 OBAERVATIONS, ANALYSIS AND RECOMMENDATIONS

The current structure of KSEB is explained based on the study and the corresponding changes are also suggested. A set of competencies for each position was identified, discussed and defined. Further a BARS was also developed for every position (provided in **Appendix G**). Depending the requirement of change, a set of recommendation is also presented by this study group in order to increase the effectiveness in the structure and functions of the organization.

The structure of KSEB at the top management level has been provided in the following figure.

[29] *Ibid*.
[30] Please note that development of job description and competency identification were done in a single sitting by the participants.
[31] It was important that the job holders identify the competencies impersonally, for the objective was to identify the competencies required for the job, not the competencies possessed by the participants. The later would have provided an inaccurate picture, resulting in either self-aggrandizement or self-belittlement.
[32] BARS is a variant of critical incident methodology that requires the appropriate organization personnel to consider in depth the components of competencies for the job being studied. The personnel also define anchors for the competencies in specific, relevant, and distinguishable behavioral terminology [Inspired from Ivancevich, J. M. (1977). A Multitrait-Multirater Analysis of a Behaviorally Anchored Rating Scale for Sales Personnel. Applied Psychological Measurement, 1(4): 523-531]. It must be noted that BARS has multiple usages, and thus can be employed for identifying training needs of personnel, for selection decisions, as well as for performance appraisal.

FIGURE 3.1: OVERALL ORGANIZATIONAL CHART OF KSEB



This section provides details of overall Organization Structure and Employee Profile.

The heads of technical activities of Generation, Transmission and Distribution wings report to the Chairman. Support functions heads of Finance, HRM and IT also report directly to the Chairman. In addition Corporate Planning head also reports directly to the Chairman. We observed that some of these activities as well as activities down the ladder are merged from time to time depending upon availability of appropriate resources (such as vacancy arising on account of retirement of an incumbent and someone therefore is given additional charge of the same), are broken into separate activities (based on perceived ability of the person to shoulder the responsibilities) as well as lead to creation of new wings or department based on need for change dictated by the environment (e.g., responding to government initiatives on innovation by creating an Innovation Team). It was also observed that as of now the frequency of shuffling in departments and positions is high and the changes are made at any time of the calendar year.

3.2.2 PRESENT STRUCTURE OF TECHNICAL WING OF DISTRIBUTION IN KSEB

The 14 districts of Kerala have been divided into three zones; North, Central and South. Operationally, there are at-present 24 circle offices, about 65 divisions, about 220 sub-divisions and about 750 sections in KSEB. The section offices headed by an Assistant Engineer (AE) report to sub-division offices and division offices. The sub-division offices headed by an Assistant Executive Engineer (AExE) report to division offices headed by an Executive Engineer (EE), while division offices report to circle offices headed by a Deputy Chief Engineer (DyCE).

3.2.2.1 SECTION OFFICES

The structure of the distribution wing of KSEB in terms of working units is broadly divided into four wings. At the lowermost level is the section office which takes care of the interaction with the consumers. Any breakdown or maintenance activity, billing or complaints, these all are taken care by this office. This office is generally under the supervision of an Assistant Engineer. The sections are classified based on population served. There are urban sections, semi-urban sections and rural sections. There are three broad set of activities. Activities related with breakdown and maintenance are technical activities while activities related with revenue relate with billing, connection etc. with respect to consumers. Maintenance takes care of planned activities while breakdown wing takes care of exigencies. Earlier there was a system of geographical area-wise responsibilities to the workers, which subsequently was changed to the AE being overall responsible and assigning works. Some employees maintain that while this arrangement has solved earlier problems, there are now difficulties on account of less ownership and less knowledge about localities and equipment on part of the workers. At each section one vehicle is allocated to take care of both breakdown and maintenance activities. However quite often it happens that employees have to wait for availability of the vehicle to serve the customers or to use their own vehicles. There is provision for paying conveyance charges but it is a low figure of up-to 8 kms. In case of dereliction of duties, disciplinary action can be taken at division level. Generally one sub engineers each are in-charge of breakdown and maintenance wings but revenue wing is headed by a senior superintendent. A sub-engineer reporting to senior superintendent looks after revenue part which includes meter readers (generally 3 employees) to note the readings, cashiers (generally 1 employees each for two shifts) to receive the consumer payments apart from senior assistant, linemen and workers. Maintenance wing generally consists of 2 overseers, 2 linemen and 4 workers in the same

order with respect to hierarchy. With respect to breakdown wing, 2 linemen each are allotted per shift (3 shifts) while 2 extra linemen are kept, provisioning for peak hours (generally 6pm to 11 pm), totalling to 10 linemen. 1 overseer each manages linemen for each shift apart from another one for holidays. The total comes out to be around 30-35 employees at each section office. The strength of employee headcount may vary depending on provisioning of working in shift for the workers. The meter reader is expected to take care of 80 readings in a day in urban areas which stand as 60 and 40 for rural and remote areas. The employees are also given the benefit of subsidized canteens. Computers have been provided for SEs, SSs, Cashiers, and SAs. However some of these are not being used either on account of space issues or on account of inability to map the usage to daily activities. Generally it is a familiar sight that scraps are lying unattended at the section offices.

One section office per 20000 consumer is the generally accepted ratio. Still many section offices are above 20000 consumers. Functions of Section offices are described below.

- Maintenance of existing LT, HT lines, Transformers etc.
- Effecting new Service connection, Tariff Change, Changing the ownership of the existing connection, Meter Shifting , Revising connected Load on request of the consumer, Approving temporary extension of the supply, Disconnection and Reconnection of the supply
- Issue Spot bill based on consumption and make sure the revenue from sale of power. This is achieving through timely disconnection of the supply of the defaulters.
- Providing for consumer's complaint
- Shifting of HT, LT lines Transformer structures on the basis of the application from public or consumer on work deposit basis.
- Break down work in HT, LT lines, Transformers, service connection etc.
- Capital works are executed in section offices are classified in to
- System Improvement work
- Voltage improvement work
- Capital work on deposit basis (Line Extension OYEC)
    - PPS (Public Participation Scheme)
    - MLA/MP LAD Scheme
    - System improvement and Voltage improvement are executing from Board's own fund, which includes HT line extension, HT Line interlinking, Transformer insertion, LT line Extension, Conversion of Single Phase Line to Three Phase, and Reconductoring existing old All Aluminium Conductor with new ACSR conductor.
    - PPS and MLA/MP lad Scheme works are executed using their funds. Line Extension OYEC is for a large commercial complex or industrial or other institutions etc. which are require large amount of power. Cost of the work has to be remitted by the applicant.
- Enforcement of unauthorized usage of electricity, power Theft etc.
- Demand Side Management activities for reducing the consumption, Safety awareness activities to staff and public
- Material Management for capital and maintenance work.
- Scarp Disposal
- Conduct Local Advisory meeting and resolve the issues in time.

3.2.2.2 SUB- DEPARTMENT OF SECTION AND THIR FUCTIONS

There are three Sub-Departments or wings functioning under each section office. Which are Revenue, Break Down, Maintenance and Capital Wing.

Revenue Wing:

This wing is headed by Senior Supdt. Under him One Sub Engineer, one Overseer, Two line men, Two Workers. This wing is always monitoring the revenue of the office. Revenue wing also deals with new connection, Tariff change, and enforcement of unauthorized usage and theft of power. Tariff Change, Changing the ownership of the existing connection, Meter Shifting, Revising connected Load on request of the consumer, Approving temporary extension of the supply, Disconnection and Reconnection of the supply. Replacing Faulty meter with healthy meter.

Maintenance and Capital Wing.

Headed by Sub Engineer. It has two overseers, two linemen, and four workers. This wing is responsible for all the maintenance activities, which includes HT line, LT line, transformer maintenance, removal touching and over hangings in HT, LT lines etc. Also this wing is engaging for small capital works such as constructing overhead line for service connection, reconductoring old conductors, renewal of HT/LT damaged poles etc. Sub engineer of this wing is duly responsible for the material control and store management of the section office. Overseers are responsible for phone duty and field supervision of maintenance and capital work done by dept. staff or contract staff.

Breakdown Wing

It is headed by a sub engineer. Three overseers and eight linemen are engaging in this wing. Main responsibility is to attend the breakdown in HT, LT, Transformers, Service connections etc. This group is generally divided into two or three groups for attending breakdown in different areas. Moreover all the three wings may arrange in different ways other than described above depending upon day to day needs. For example, on some occasions, most of the breakdown or revenue may be deployed to maintenance if maintenance work is a major work.

With respect to interaction with higher offices (Subdivision and Division), generally three to four section offices are functioning under each subdivision office. In present scenario section office have most of the power to execute or sanction consumer related issues, that is new service connection up to 20KW, faulty meter replacement, exciting maintenance work up to 20000/-, to issue technical sanction up to 10 lakh, to invite tender up to 10 lakh. That is Assistant Engineer have power to sanction connection up to 20kW (90% of the connection are coming in this category) in all tariff except industrial and agriculture. Other activities which require sub division sanction are deposit works above Rs. 20000/-, Administrative sanction above 150000/-, labour estimate sanction above 20000/-. Technical sanction above 10lakh, purchase up to 10000/- at time and annual limit of 1 lakh. Generally the sub divisional officer (AEE) are frequently visiting section offices and all the sanctions and registers are kept in section itself. That is, a subdivision office in practical terms may be considered as a floating office.

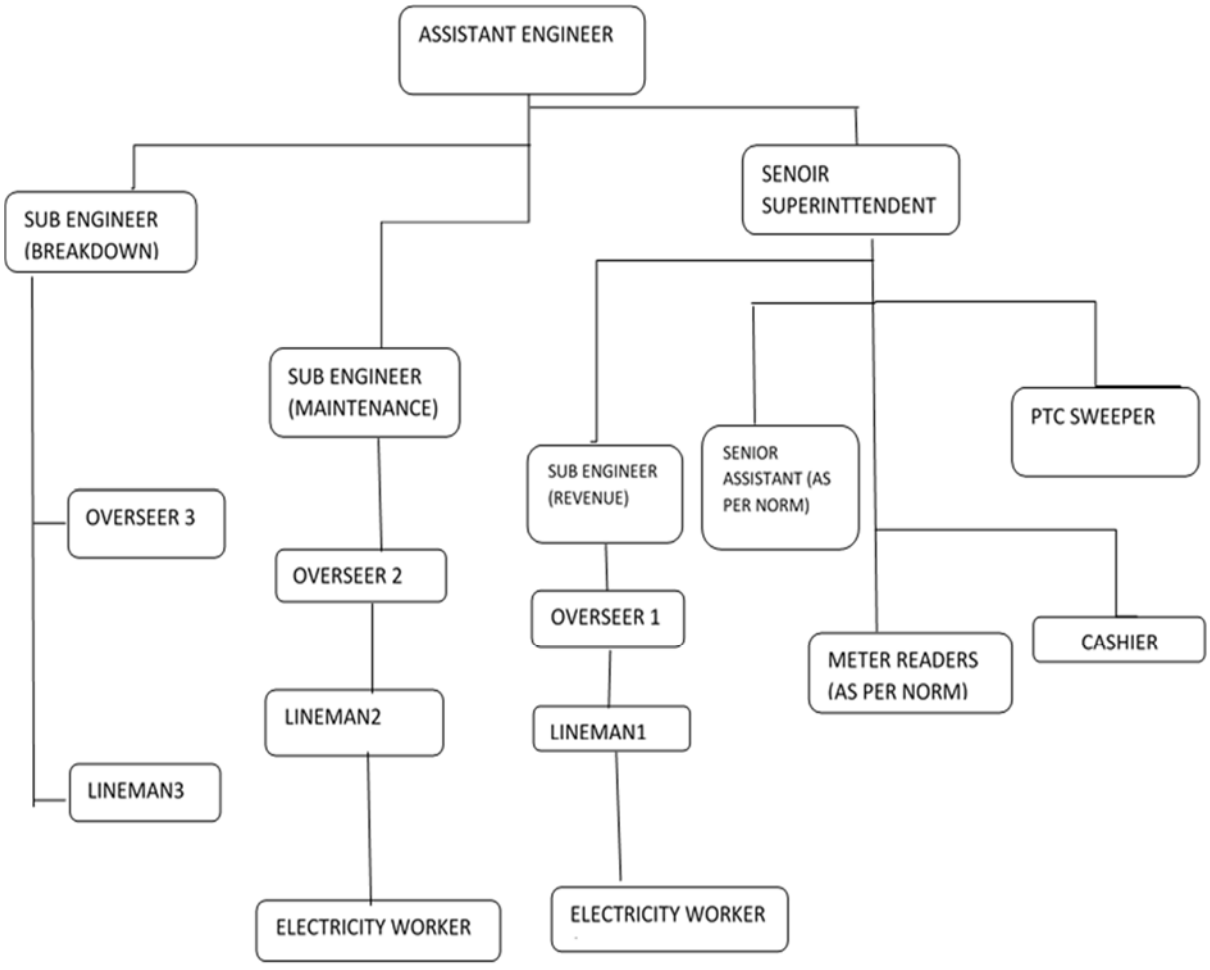
Division office is the accounting office and is account rendering unit (ARU). The division office is continuously monitoring the activities of the section and conducting divisional level conference every month. In the conference, section revenue performance and work performance is reviewed separately

and achievements are discussed in detail. Also new targets for capital and maintainable work and revenue related issues are also assigned to section offices. Division offices also take care of purchase of some materials winch are not available in sub-regional stores (SRS).

A section office is entirely different and unique in its function compared to sub division and division offices. A sub division office may be considered as an inspecting office and generally no direct execution of work or any other activities are carried out there. Division offices are generally accounting and monitoring office. Here all the accounting such as materials validation, asset validation, revenue accounting, establishment accounting, other O&M expenses, other miscellaneous expenses of all subordinate section offices are carried out.

But in the case of section office, it is a front line office to the consumers and its activities are O&M of existing line and construction of new line, new transformer and providing new connections, materials managements, preparing petty contract bills and measurements of work completed, accepting electricity charges and enforcement work for detecting unauthorized use of electricity etc.

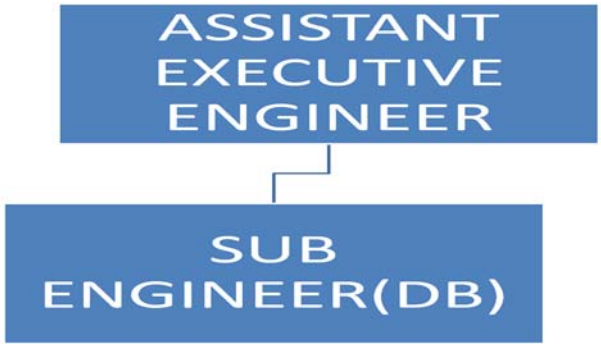
FIGURE 3.2: CHART OF AN ELECTRICAL SECTION OFFICE



3.2.2.3 SUB-DIVISION OFFICES

The sub-division office acts as interface between the division offices and section offices. This facility is generally attached to one of the section offices it supervises. Typically a sub-division office supervises 3-4 sections. This office typically has an officer of Assistant Executive Engineer (AExE) rank supported by SE. At some locations this support position is contracted and there is generally some uncertainty related with the continuity of the person. The AExEs activities generally involve safety inspections, cross checking of meter readings, etc. at section offices; telephonically consulting with Executive Engineer (EE) at division office about 2/3 times a day, communicating to the section offices documents such as Board decisions, attending monthly meetings on behalf of the sections at division and circle offices as AEs at sections are generally preoccupied with operational tasks. The activities of AExEs at sub-divisions also include 1-2 visits to each reporting section offices every week. At the time of the visit of the investigator to the premises, the AExEs were not allotted any computers. They generally manage with computers allotted to the section office they are attached to. At sub-division level the work activities becomes more managerial as compared to being technical at section offices. The job of sub-division office is also dependent on initiative of the incumbent as the present structure has looseness with respect to responsibilities of sections and sub-divisions. However pro-activeness sometimes might be seen by others as interfering in the activities of AEs.

FIGURE 3.3: CHART OF AN ELECTRICAL SUB DIVISION OFFICE



3.2.2.4 DIVISION OFFICES

The tasks at divisions can be divided into those of Establishment Branch, Drawing Branch and Account Branch. The establishment branch deals with salary, increment etc. of the employees in divisions as well as in sub-divisions and sections. Drawing Branch is the technical branch at division offices which looks at estimates, maintenance, and bill passing (technical aspects such as material) etc. and generally has an officer at AE level supported by a Sub Engineer (SE). Account Branch deals bills such as rates, taxes, bill payments etc. It is headed by an officer (Divisional Accountant) equivalent in level to a SS and is supported by 3 SAs and one cashier equivalent to a Junior Assistant. As of now travel allowances are not allowed in software and too many layers of employees are involved in verification. Although the billing and salary part of the employee works is now computerized in KSEB, the service books of employees are not yet computerized. Even the leave applications are manual as of now. As of now there are no standard times for changes such as start date of increments. In addition, there is more work pressure in some specific periods like around April month as service books have to be kept perfect. As many workers are less educated, additional effort of establishment employees are lost in helping such employees. An establishment wing in a division typically handles files of about 500 present and retired employees. Typically there would be about 5-6 SAs and 1-2 Office Assistants (OAs) to help in

establishment activities. The revenue wing generally deals with generation and compilation of revenue reports which with introduction of OrumaNET is likely to be defunct. This wing generally has a senior superintendent supported by a SA. Pension wing also is supported by an SA. It seems in some cases, responsibilities of revenue and pension offices have been clubbed and the responsibility has been given to one person as a management practice as an exchange for more appropriate amount of workload for not getting transferred. The EE also has a Technical Assistant of the rank of AExE attached with his office who mostly does the activities similar to personal assistant for the EE apart from handling some other activities like RTI applications etc. EE also has office support such as Office Assistant, Confidential Assistant, Fair Copy Assistant and a Driver. In total it generally comes around 20-25 employees in a division office.

Establishment Branch (EB)

The following works are generally carried out under establishment branch.

- Salary and allied works.
- Employee claims and payment.
- Upkeep of Service books.
- Reporting Incumbency details to head offices.
- Issuing various certificate to other departments.
- Transfer and posting works.
- Income Tax collections and related works.

General Branch (GB)

- Supply of stationary items to Section office.
- Handling of employee disciplinary cases.
- Fatal and non-fatal accident reporting.
- Payment of Telephone bill, Office rent etc.

Revenue Branch (RB)

- Compilation of revenue details of various Section offices and reporting to higher offices.

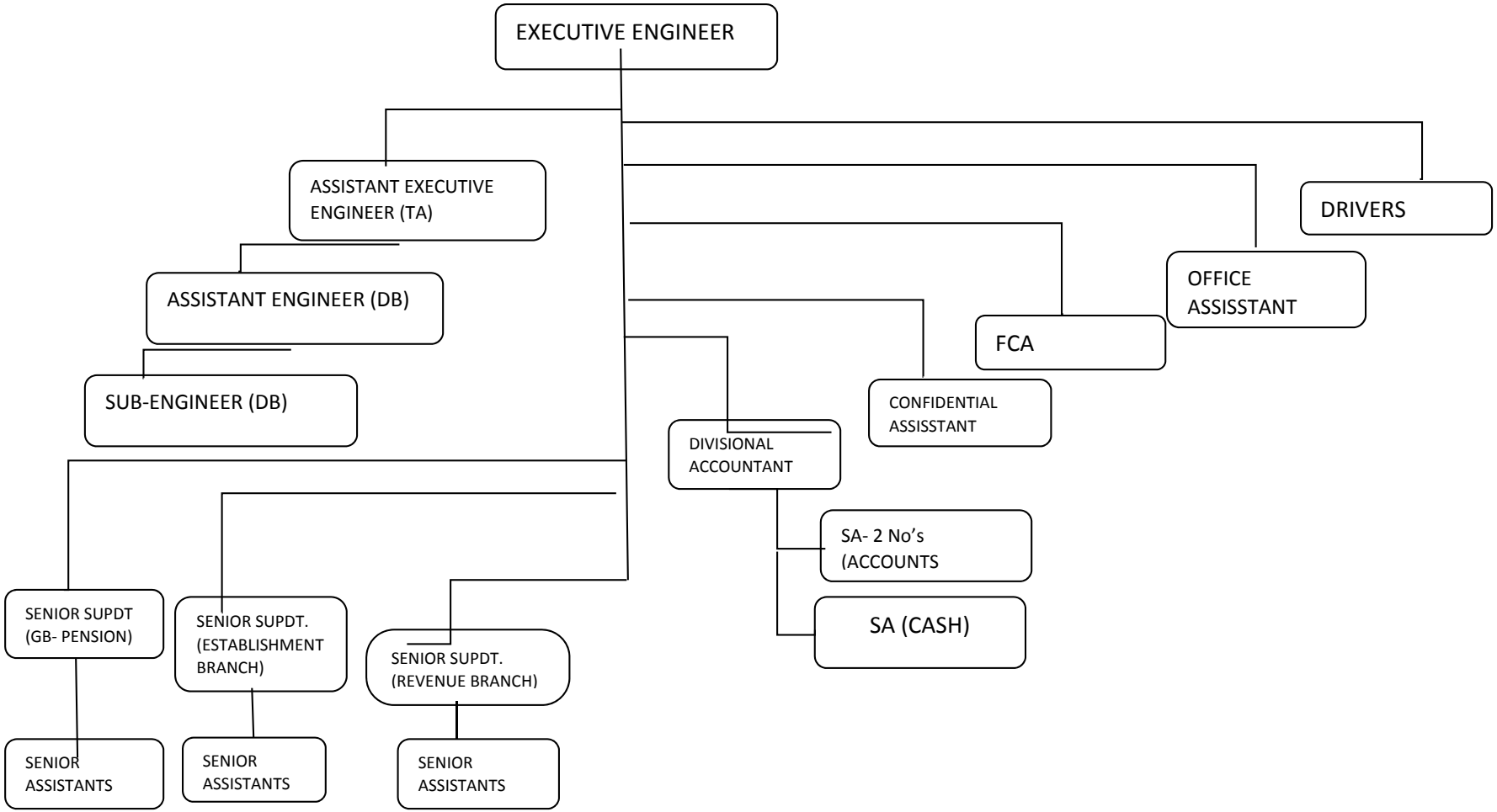
Account Branch (AB)

- Work Bill auditing.
- Vehicle log checking.
- Bill payment and ledger up keeping.
- Imprest handling
- Preparation of trial balance.
- Submission of monthly accounts.
- Material at site accounting.

Drawing Branch (DB)

- Auditing of Work Bill (Technical)
- Sanctioning of Estimates.
- Tendering of Works.
- Scrap Disposal.
- Progress Reports- Weekly, fortnightly, monthly and annually.
- Conferences and minutes.
- Annual Planning.
- Preparing, implementing & reporting Schemes (RGGVT, DDUGJY, DSM, SCM etc.)
- Purchase and Allocation of Materials.
- Complaints and replies.

FIGURE 3.4: CHART OF AN ELECTRICAL DIVISION OFFICE



3.2.2.5 CIRCLE OFFICES

Each circle office handles 2-3 division offices as well as also assists in some special projects (e.g., APDRP project, civil projects). Technical jobs at circle offices involve estimate sanctioning, purchase, vehicle hiring, and construction of small civil works (e.g., offices). For taking care of administrative activities of circle office as well as files coming from lower offices the Assistant Administrative Officer is supported by two SSs who have 4 SAs each reporting to them. An EE directly reports to DyCE and manages day to day activities of the circle office. For managing civil activities, at circle office one AE is assisted by 2 SEs. DyCE also has office support such as Office Assistant, Confidential Assistant, Senior Fair Copy Assistant and a Driver. In total circle office generally has around 20-25 employees.

Electrical Circle Office, Kozhikode headed by the Deputy Chief Engineer has 4 Division offices, 10 Sub Division offices and 38 Section offices under it. The following are the main functions of the Circle office.

- To report annual budgetary requirement of various capital and O&M works
- To issue administrative sanction and feasibility to all the HT Service connections under the circle.
- To allocate the materials required for the works
- To procure decentralized items for the works.
- To implement and plan all the scheme works
- To arrange hired vehicles for various offices under it.
- To arrange disposal of scrap items
- To carry out and monitor all the project works and report to higher offices of Chief Engineer and Director.
- To conduct periodical Inspection to improve the performance and efficiency of all the offices under it.
- Managing Sub Regional store and 11kV Control Room under it.
- To arrange speedy restoration supply during major interruptions.
- To conduct Inspection, Testing and allocation of PSC poles
- To conduct meetings for review of consumption, demand, collection and evaluate performance of each section under it.
- To take appropriate action to reduce AT & C losses along-with safe working atmosphere to avoid accidents.
- To approve drafts put up before CGRF cases.
- To carryout Transfer and Posting of personnel up to the rank of Assistant Engineer and Senior Superintendent.
- To take disciplinary action up to the level of AE and SS.
- To sanction reconnection of dismantled connections.
- To act as Appellate Authority for Right to Information.

The Sub Department under it are (1) TS-Technical Section, (2) EB- Establishment Branch, (3) AB-Accounts Branch, (4) GB-General Branch and (5) SB-stores Branch.

- TS: - The Technical section involves matters connected with technical, i.e., put up plan and proposal of various schemes of electricity board. Annual plan preparation. Implementation and monitoring the progress of various works. Conducting circle conferences to review the performance regarding works, revenue and consumption. Purchase of materials. Floating

tenders for vehicles. Issue Administrative Sanction to HT Service connections, Executing agreement with HT consumers. Enhancing and reducing contract demand of HT consumers. Disconnection and reconnection of HT supply. Scrap disposal and collection of revenue. Calculation of reliability index at feeder level and consumer level. Supply chain management-Fixed assets and other civil works. Assessment and disposal of scrap items. Up-keeping of land owned by KSEB. Maintenance of building. Maintenance and repair of Board vehicles. Allocation and testing of PSC poles. Natural calamity disaster management. Publication of tender in dailies. Cost data and labour data preparation.

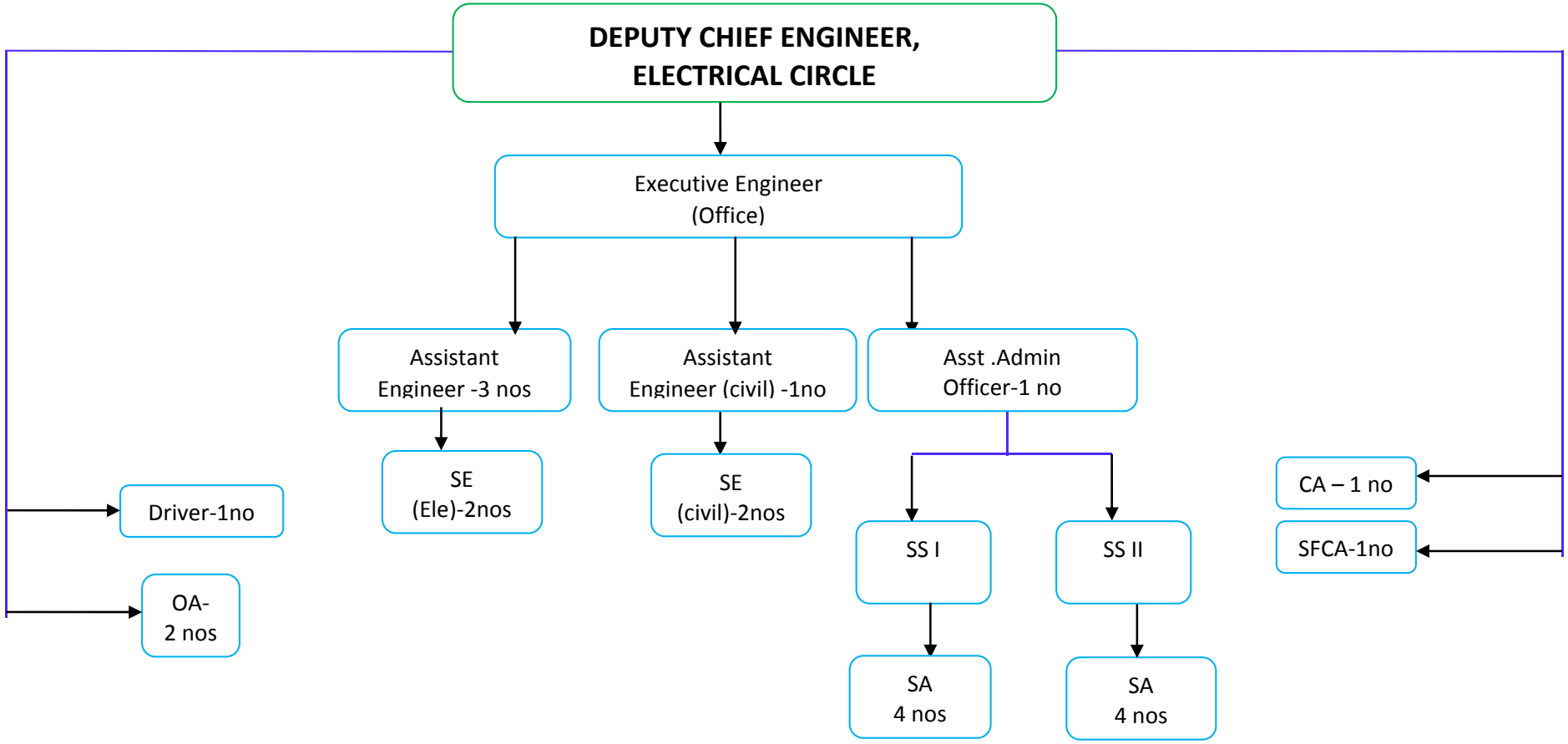
- EB: - Establishment wing executes duties relating to transfer and posting of all employees up to the rank of AE and SS. Disciplinary proceedings, Pay and allowances, tour sanction, medical reimbursement claims, Training and all service matters.
- AB: - Accounts Branch-Do audit and accounts, bill processing & Budget preparation, revenue arrears, remittance of taxes and duties. DCR bills. Performance report, Monthly report of revenue
- GB-General matters. Deals with complaints from public. All the general matters including public relation. Govt. schemes- Sutharya Keralam, upkeep of all case files. Appeal petitions.
- SB: - Deals with material accounting & store purchase accounting. Printing & stationery. IUTN Imprest etc. Issue of C form. Compilation of audit reports. Preparation of priced store ledger. Reconciliation of material with store ledger.

In addition to the above, there is a legal wing that assists Deputy CE regarding legal matters.

The higher office of Circle office is CE`s office and then Director's office and the subordinate office is Division office. Circle office reports to CE's office in all the matters. It forwards weekly and monthly reports to CE's office and Director Office including interactions through E-mail. This office interacts directly with its lower office such as Division, sub division and Section office and it is claimed these are mostly through e-mail and internet facility. If an immediate reply is needed the circle office can directly seek same from section offices without the intermediary offices.

Sub division and section offices have only technical and accounts branch, whereas division offices have EB and GB included. When it comes to circle office, additionally civil wing and legal wings are included. The matters with which the attention of civil engineering wing and legal officers are needed for the division and other sub offices, those will be dealt in circle offices.

FIGURE 3.5: CHART OF AN ELECTRICAL CIRCLE OFFICE



3.2.3 RECOMMENDATIONS ON ORGANIZATION STRUCTURE: TECHNICAL OFFICES IN DISTRIBUTION

3.2.3.1 CIRCLE AND HIGHER OFFICES

1. After analysing the structure, the study group proposes a change in the structure of the HR function. This study also proposes the creation of a new position of Dy. CE equivalent to head HR for distribution division directly reporting to Member (Distribution).
    a. Experienced EEs with MBA (HR) may be eligible for this post and may have to undergo a selection process. Please note at many places MBA degree/diploma in HR may be known with different names. Suitable adjustments to incorporate such nuances may have to be made.
        i. The details of the same may be decided after due deliberation by the Board. If needed, preference for those MBAs with engineering degree in relevant disciplines can also be considered.
    b. All Managers (HR) at circle offices will report to the office of Dy. CE (HR) apart from reporting to DyCEs at circle offices.
2. There will be an overall office of Director (HR) looking after all three wings (Generation, Transmission and Distribution). Experienced Dy. CEs with MBA (HR) may be eligible for this post. Dy. CE (HR) apart from reporting to Member (Distribution) will also report to Director (HR). These (this along-with arrangement in point 1) are matrix arrangement. Such arrangements are generally brought in when knowhow of two aspects (e.g., engineering knowhow and HR knowhow) are important for discharging one's responsibilities. This arrangement is however difficult to incorporate and needs maturity on part of both subordinates and supervisors.
3. Responsibilities of HR offices in the two points above would not only be to keep records and implement HR policies, but to proactively promote adoption of technology in serving and giving solutions to employees, use of employee data and analysis in taking decisions, monitoring employee outcomes, designing interventions to improve employee outcomes, measuring effectiveness of such interventions, and linking change in outcomes to change in productivity. It is desired that specific measures (e.g., training, consultancy, recruitment, etc.) be taken by Board to inculcate such competencies in these offices.
4. Although there are provision of computers in circle and division offices (DyCEs and EEs), our observation is that these offices were reluctant to use same. Most of these premises visited by us had computers turned off. Use of computer may help in speeding up decisions and reducing the amount of paperwork. Mandatory requirement to communicate through computers on a few such activities which do not need face to face interaction could be a way forward to bring in such behavioural changes.
5. At both circle and division offices, there is provision of TA to assist the head of the office to discharge his/her duties. In some of our observations, we felt that majority of works of office heads are being discharged by this individual and office head are spending significant amount of their time in attending meetings and communicating Board decisions to lower offices. In such a scenario, as of now most of the actions seem to be limited at Board and section office levels. Possible role of technology to reduce the amount of travel of division and circle heads to higher offices (e.g., exploring video conferencing facilities) so that more of their energy might be spent at strategizing for their offices.

3.2.3.2 DIVISION OFFICE

1. Establishment and general branch can be merged together to form HR department. Since both these wings are doing general administration activities, putting them separately may not make much sense. Further at present many activities being done by these departments are manually done as well as routine and therefore less value adding. It is therefore proposed to expand the scope of their work to also implement employee welfare and productivity enhancement activities.
    a. As an illustration, it was a concern expressed in some of establishment branches that significant amount of their time is lost in other activities. For example, many less educated employees find difficulty in filling forms. For such situations, alternative options such as creating/circulating videos with instructions for filling forms can be one of the mechanisms. Such creative ideas are more likely if heads of offices consider solving such problems of their subordinates as their jobs and are able to get time to spend for their and lower offices (please see point 5 above). Arranging for training in managing people might help the Board to get such orientations in heads of offices.
    b. Alongside, it is recommended to expedite the computerization of HR and accounting activities through use of technology
    c. The reporting relationship for the support functions of HR and Accounts at circle and division offices is proposed to be of matrix type
        i. These offices will be reporting to both local office as well as the support office heads in the corporate office
    d. Senior Assistant (SA): based on study of JDs, the role of SA needs to rationalized as the JD has overlap with other positions and has a higher scope of reduction in the volume of work with the introduction of technology.
        i. Maintenance of service book – overlap with FA
        ii. Tax related matter- overlap with FA as well as, it is an annual activity
        iii. Drafting of various correspondence – Overlap with FA
        iv. Meter Reading Entry – proposed to be automated. SA for data entry (converting the meter reading to Billing) – Introduction of PDA will eliminate this position as the data can be transferred to computer without any manual intervention.
        v. HRIS will reduce the workload including bill preparation, sanctioning and reimbursement
        vi. Increments – proposed to be an annual affairs

        The use of SA in KSEB was benchmarked with the North Delhi Power Ltd. (NDPL) which had undergone a similar restructuring process.[33] The number of SAs in KSEB particularly those employed in employee record maintenance can be reduced to one third (from 2950) with the aid of information technology and training SA for data entry (converting the meter reading to Billing) – Introduction of PDA will eliminate this position as the data can be transferred to computer without any manual intervention.

[33] Source: Saini, D.S., and Bhatnagar, J. (2005). North Delhi Power Ltd.: Dynamics of Change. Vikalpa, Vol. 30(4), 133-146.

e. Each circle and division office can be managed by a SS assisted by 2 SAs when Orumanet becomes operational as integrated HR solution and HR staff has been trained adequately
    i. An officer assisted by 2 subordinates should be sufficient to manage the activities at division and circle offices

This proposed rational of JD along with use of technology may lead to a surplus of 1967 SA across KSEB and a successful redeployment may yield a saving of 113, 299, 2000 /- rupees.

The job analysis workshops also revealed that many SAs are professionally qualified with degrees such as MBA. They may be given with additional responsibility such as HR activities like training and development in circle office. These surplus SA may be effectively utilized and redeployed in appropriate positions in distribution which has major customer interaction, but less use of engineering skills. The surplus employees of SA may also be redeployed in Hydel tourism projects.

2. Confidential Assistant (CA), Fair Copy Assistant (FCA) and Office Attender (OA) – There is a major overlap found in JDs of CAs and FCAs. The overlapping activities include attending meetings along with higher officials and preparing MOM, typing work in both English and Malayalam, checking email, record maintenance, and preparing letters. The OA role has a major non-value added activities which does not require full time employee. The activities performed by OA such as attending phone calls, handling files, photocopy, visiting bank can be attached to the existing position of CA and FCA. Effective use of information technology based communication by senior officials will also reduce the need of many such activities.
    a. A financial analysis obligations on the Board shows that KSEB spends about Rs. 127 crores monthly in direct employee salaries. About Rs. 4.5 crores (3.50%) monthly are spent on direct salaries of support staff. However, out of 32448 employees, the share of support staff in numbers is 1543 (4.75%). The support staff (CAs, OAs, FCAs, Sweepers and Drivers) earn on an average from Rs. 25309 (Sweepers) to Rs. 62803 (Confidential Assistants). Confidential Assistants (Rs. 62803) and Fair Copy Assistants (Rs. 55714) on an average earn more than Administrative Support Staff (cashier, Assistants, Superintendents together at Rs. 48032) which is contradictory to the roles and responsibility as per the JD.
    b. Hence, we recommend merging the positions of CA, FCA and OA. This may lead to a surplus of 475 employees against these positions (in total), but leading to a savings of 2, 36, 82,587 /- rupees. To keep the cost in control KSEB may consider future recruitment against these positions on contractual basis.
3. Senior Superintendent - each circle and division office can be managed by a SS assisted by 2 SAs when Orumanet becomes operational as integrated HR solution and HR staff has been trained adequately
4. An officer assisted by 2 subordinates should be sufficient to manage the activities at division and circle offices

3.2.3.3. SUB DIVISION (SD) OFFICE

1. The need for coordination and acting as interface among offices necessities SD offices being in division offices as that may facilitate closer coordination among various sub-division offices for uniformity and regular information exchange. Earlier difficulties of an AExE at SDs regarding dilemma of being seen as not interfering with section but then being termed as idle vs being proactive but then being termed as interfering may be addressed to some extent by this mechanism.
2. Further autonomy to section offices to carry out some of the activities of sub division offices might have to be given (e.g., sanctioning limit).
3. At present there is one vehicle provisioned for each section office. This vehicle is also used for transportation of AExEs from sub division offices upon availability. Many a times there is scarcity of vehicles at section offices to address multiple requests. For better customer service it is appropriate that no infrastructural constraints is faced by the employees. Undue limitations on availability of vehicles and limit on travel distance needs to go for better customer service. Board may consider either making provision of another vehicle at SD offices to be used for its reporting section offices or remove limits on travel distance. Exploring technological intervention to computerize and integrate customer requests and relating the same to vehicles, feeding route maps and work related distance travelled on employees' private vehicles or office vehicles could be some of the ways to address dilemma of cost reduction and customer service.

3.2.3.4 SECTION OFFICE

1. One of most unifying suggestions across hierarchy, which we felt as legitimate, is to enhance the minimum qualifications of workmen to at least ITI, following which they have the opportunity to receive a fair understanding of necessary specifics regarding electricity. Many officers lamented that the current policy of hiring workmen who were just 7th standard pass, severely compromises their safety and life. It is widely perceived by supervisors and many others that lack of basics of technical know-how as being the reason for many accidents. These workmen are intellectually ill-equipped to receive and appreciate the requisite training. We believe that hiring ITI qualified workmen shall also help reduce the training time and hence expenses of the organization.
    a. ITI as minimum qualification (against existing 8th Standard Fail) needs to be made for electrical workers. KSEB may ensure that the available workmen in its payroll may be also appropriately supported to get ITI trained and certified. Further, thanks to tenure-based promotion, most often they were found to do higher order work post promotion, without the necessary skills and competencies. This provision for training the existing employees may be arranged internally or externally, but making it as a prerequisite for promotion are recommended which will ensure competency at a higher level.
2. Electricity workers are also recruited into the organization based on 'Compassionate Employment Scheme'. Typically this group of workmen is 4th standard pass. They are subsequently promoted to linesman grade II, lines man grade – I, and 90% of them become eligible to become overseer without any additional technical qualification and only based on seniority. Not only it encourages inbreeding in the system, but also harbours incompetency. We would again like to reiterate that KSEB should not compromise in the minimum qualification for

electrical workers, i.e. ITI. This would also help KSEB to get competent employees sans any compromises, guided solely by the competency requirements.

a. Meter Reader – Introduction of PDA system (as suggested earlier) would enhance the productivity of meter readers. Currently the reading and calculation is being done manually. Use of technology will enhance the number of households visited by them which in turn will decrease the need of number of manpower. It will also significantly decrease the time of bill delivery. The promotion from Meter reader to Sub-engineer should be based on achievement of diploma engineering or equivalent training (as decided internally). It is essential as the subsequent move is to the position of AE. Hence it is necessary to up skill the employees.

FIGURE 3.6 CIRCLE OFFICE: SUGGESTED CHANGES IN CIRCLED PORTIONS

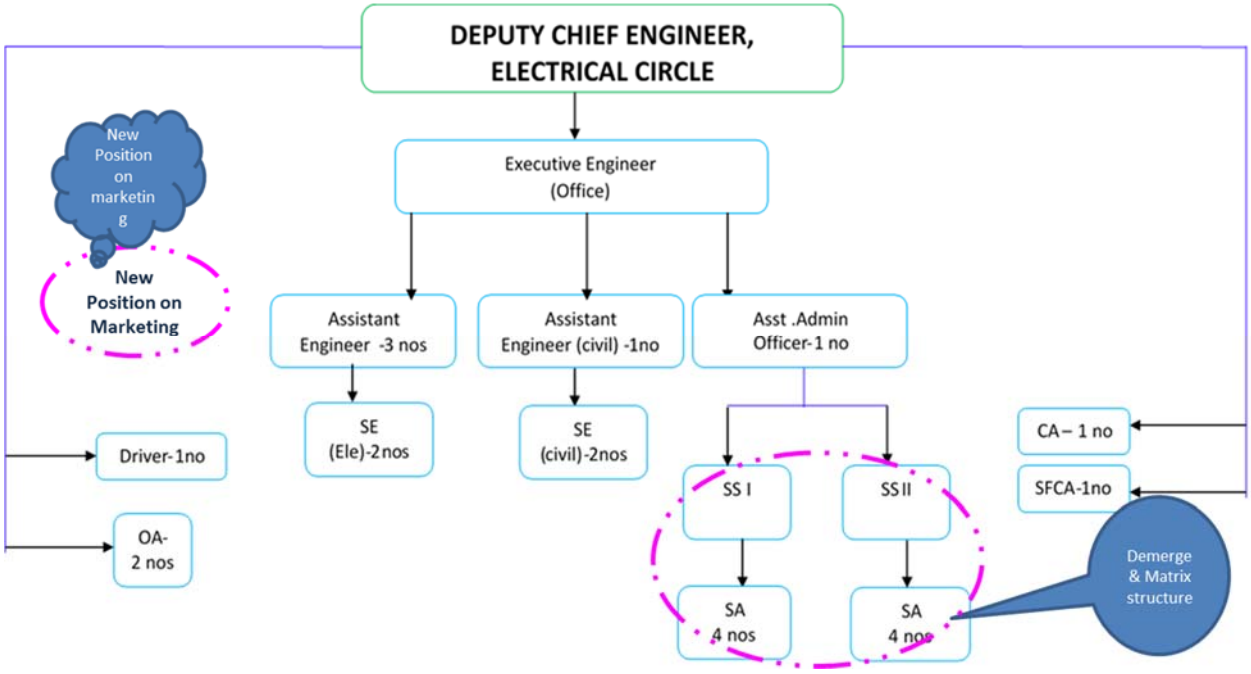


FIGURE 3.7 DIVISION OFFICE: SUGGESTED CHANGES IN CIRCLED PORTIONS

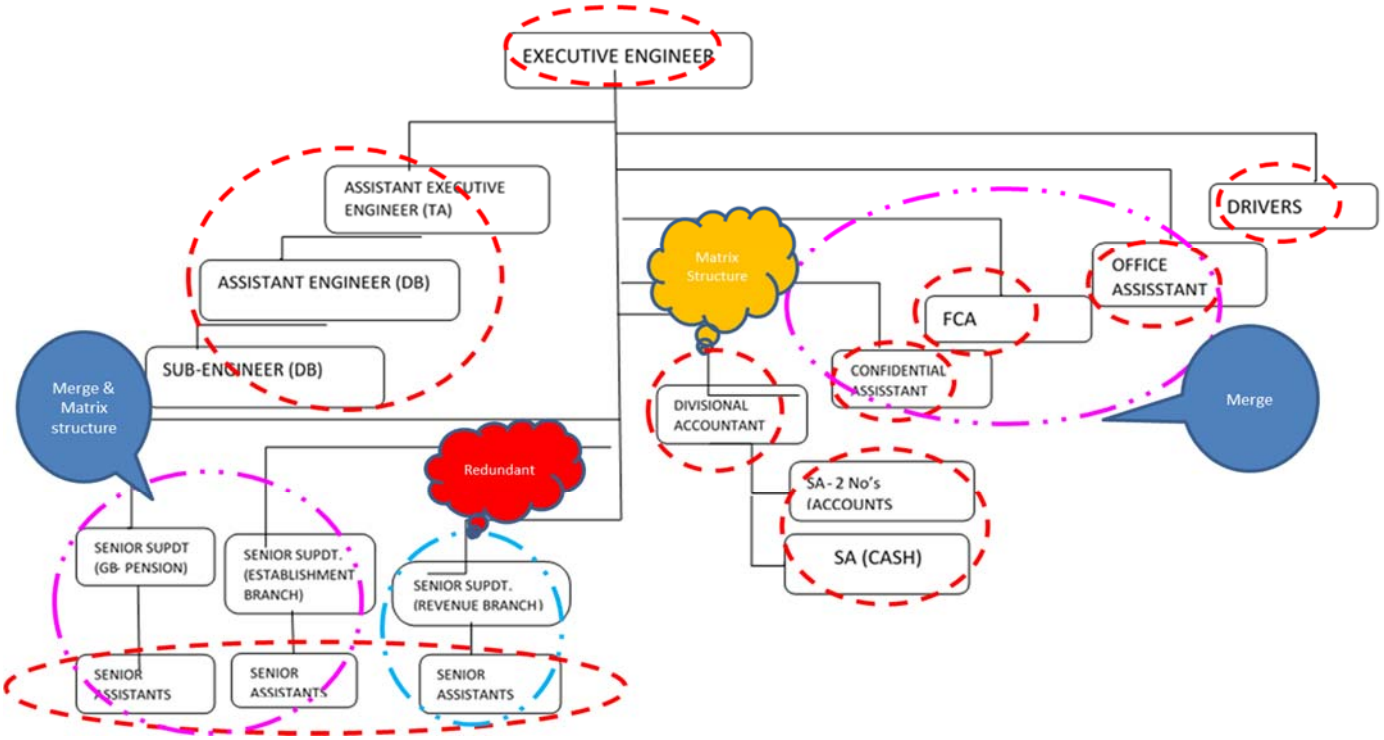


FIGURE 3.8 SECTION OFFICES: SUGGESTED CHANGES IN CIRCLED PORTIONS

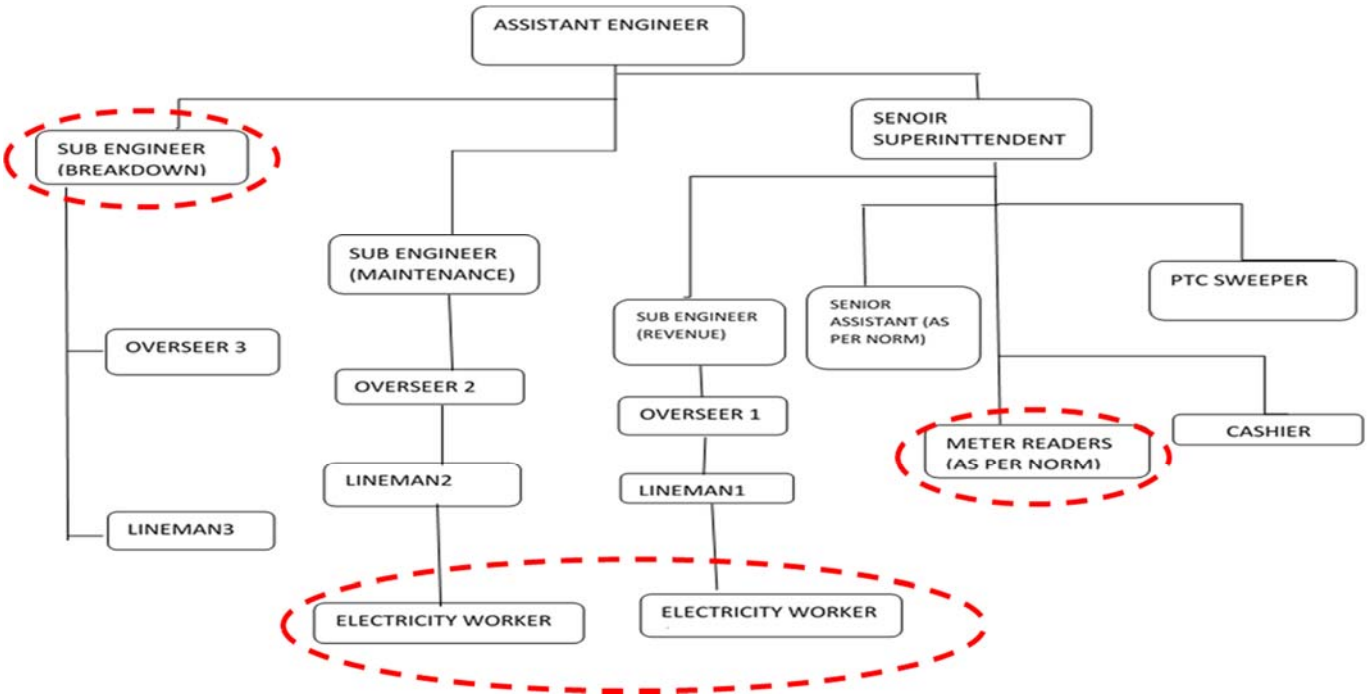
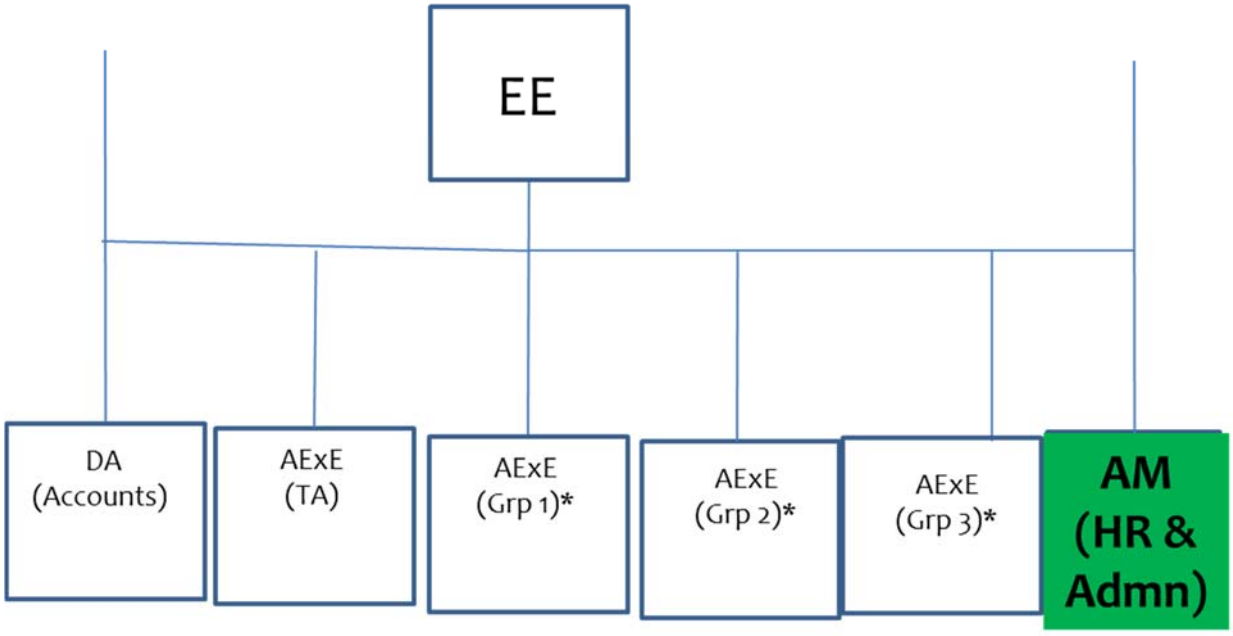


FIGURE 3.9 PROPOSED DIVISION OFFICE (SIMPLIFIED STRUCTURE)



* *Represents Sub Division Offices*

FIGURE 3.10 PROPOSED ACCOUNT OFFICE IN DIVISION OFFICE

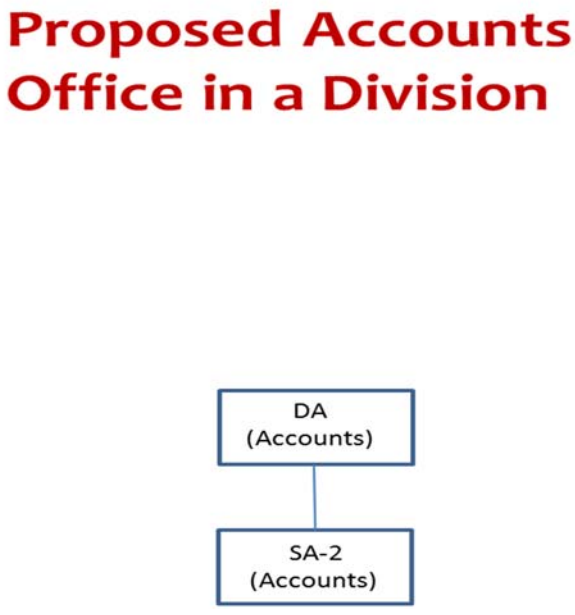


FIGURE 3.9 PROPOSED CIRCLE OFFICE (SIMPLIFIED STRUCTURE)

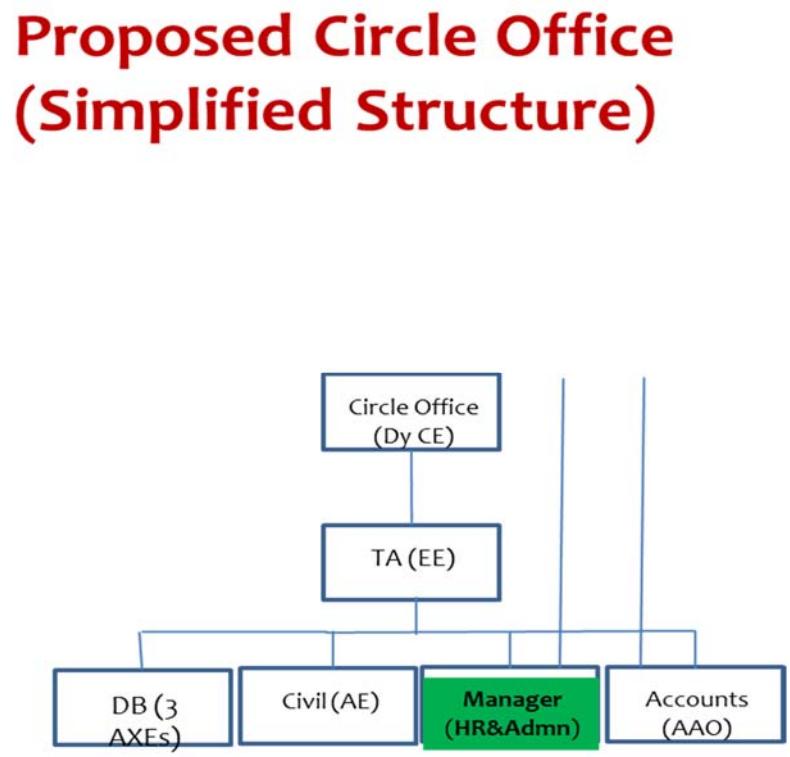
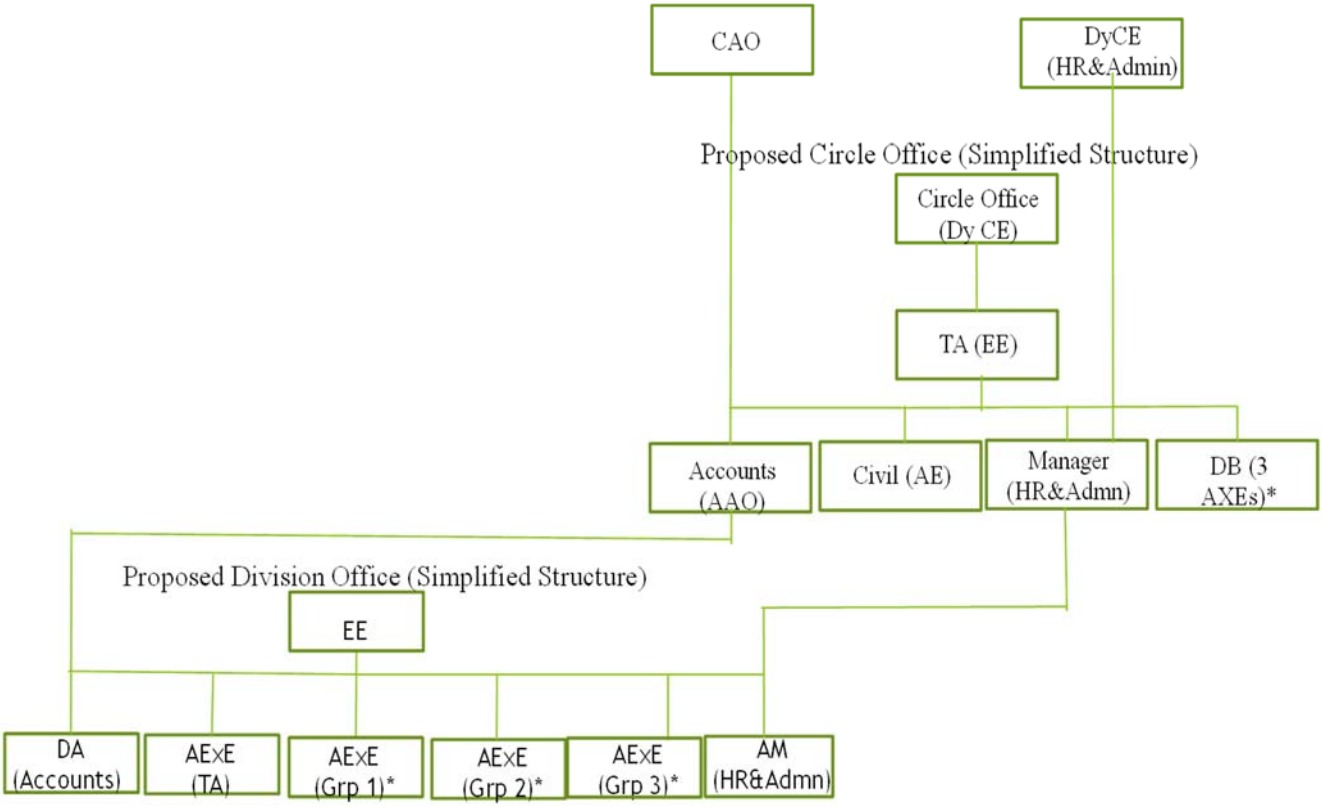


FIGURE 3.11 MATRIX STRUCTURE OF ACCOUNTS AND HR



3.2.4 EMPLOYEE PROFILE- ANALYSIS

Looking at Table below with designation wise details of KSEB employees gives a detailed overview of number of employees at each position. However for ease of drawing inference from this information, we have divided the employees into 'technical officers', 'technical workers', 'administrative support staff', 'finance support staff and officers' and 'support staff'. We have not included top management team and other designations with very less number of employees in this analysis.

TABLE 3.12 DESIGNATION- WISE EMPLOYEE DETAILS

Designation	No.
Accounts Officer	38
Assistant Accounts Officer	72
Assistant Engineer	2058
Assistant Executive Engineer	993
Assistant Finance Officer	15
Cashier	558
Chairman	1
Chief Co-ordinatior(Land Management)	1
Chief Engineer	16
Chief Internal Auditor	1
Chief Vigilance Officer	1
Civil Police Officer	8
Clerical Attender I	2
Confidential Assistant	42
Deputy Chief Accounts Officer	1
Deputy Chief Engineer	76
Deputy Secretary (Law)	1
Deputy Superintendent of Police	2
Director	3
Director - Public Relations	1
Divisional Accountant	31
Driver (Special Grade I)	50
Driver (Special Grade II)	51
Driver I	115
Driver II	103
Duplicate Operator I	1
Duplicate Operator II	2
Executive Engineer	273
Fair Copy Superintendent	2
Finance Officer	22
Fitter I	1
Joint Secretary (Law)	1

Junior Assistant	45
Junior Engineer	6
Junior Fair Copy Assistant	105
Legal Advisor and Disciplinary Enquiry Officer	1
Line Fitter I	1
Lineman I	5523
Lineman II	2921
Mazdoor	5090
Meter Reader	829
Mobile Crane Operator II	1
Office Attendant I	133
Office Attendant II	356
Overseer	5300
Pharmacist	1
Police Constable	1
PTC Sweeper	351
Regional Personal Officer	1
Resident Concurrent Audit Officer	1
Scavenger I	2
Scavenger II	2
Secretary	1
Senior Accounts Officer	3
Senior Assistant	2105
Senior Civil Police Officer	3
Senior Confidential Assistant	57
Senior Fair Copy Assistant	137
Senior Finance Officer	1
Senior Office Attendant	23
Senior Superintendent	1088
Skilled Technician Grade I	4
Skilled Technician Grade II	6
Sub Engineer	2927
Sub Inspector	1
Superintendent	865
Superintendent of Police	1
Sweeper I	1
Sweeper II	2
Sweeper III	11
Total	32448

Technical officer category has been considered starting with CEs up-to Overseers. As overseers also assist in managing workers, they have been put under officers' category. 11649 employees fall in this category. If overseers are removed then it consists of 6349 employees. Overseers consist of about 45% strength of this category, followed by 25% SEs, 18% AEs 9% AEEs. The ratio roughly seems to be in the range of about 3:5 at each hierarchy level (9:18:25:45 as 1:2:3:5 from AEEs downwards to overseers).

From DyCEs to EEs to AEEs the ration comes as about 2:7 at each hierarchy level (0.7:2.3:8.5 as 1:3.5:14 from DyCE to AEE to AE).

In worker category, we have put all employees who are mazdoors, linemen or meter readers. This category consists of 14363 employees. Linemen together constitute about 60% of the workers (L1 and L2 with 39% and 20% respectively) while mazdoors are 35% of the workers strength while meter readers constitute about 6% of the workers.

At administration level, support has been divided into two categories. One category helping in general administration termed as administrative support staff and other helping in finance and accounting activities as finance staff.

The administrative support staff consists of Cashiers, JAs, SAs, Superintendents and SSs. Out of a total strength of 4661 employees as administrative support staff, SAs constitute highest chunk at 45%, followed by SSs at 23%, Superintendents are however lower in number than SSs at 19% while Cashiers constitute 12% of administrative support staff.

TABLE 3.13 PRESENT EMPLOYEE BASE IN KSEB

Designation	No.
Chief Engineer	16
Deputy Chief Engineer	76
Executive Engineer	273
Assistant Executive Engineer	993
Assistant Engineer	2058
Junior Engineer	6
Sub Engineer	2927
Overseer	5300
Total	**11649**

FIGURE 3.14 TECHNICAL OFFICERS

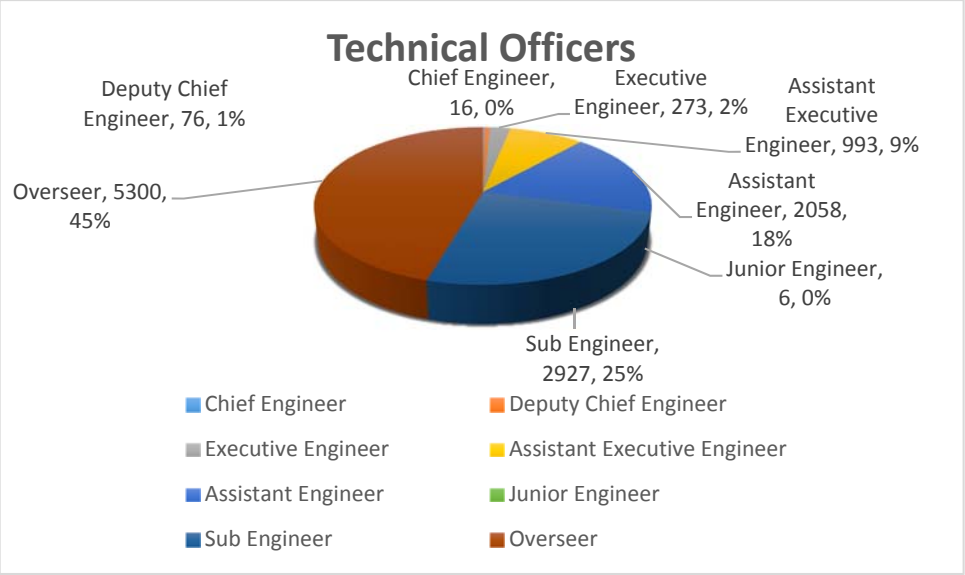


TABLE & FIGURE 3.15 TECHNICAL WORKERS

Designation	No.
Meter Reader	829
Lineman II	2921
Lineman I	5523
Mazdoor	5090
Total	**14363**

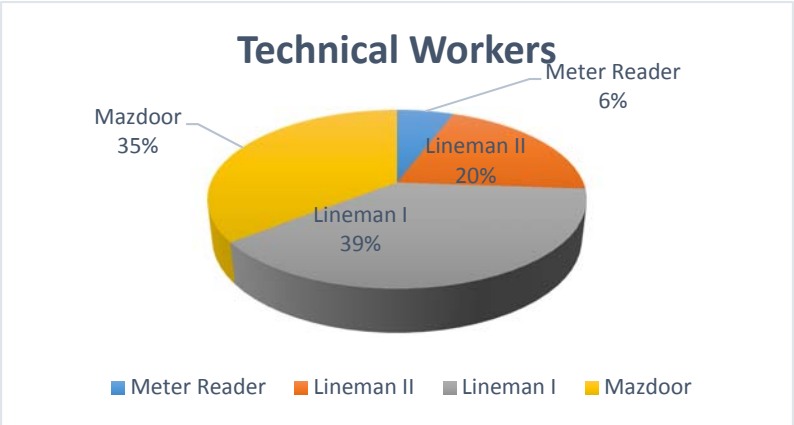
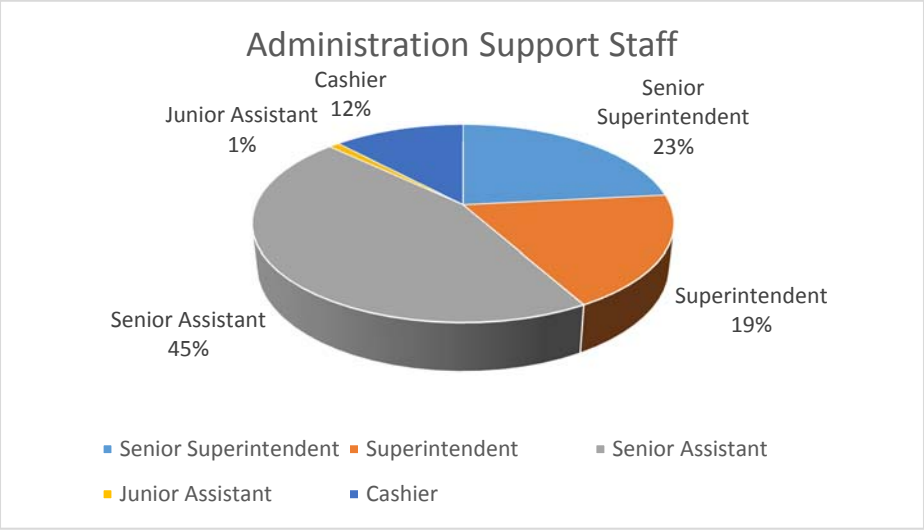


TABLE & FIGURE 3.16 ADMINISTRATION- SUPPORT STAFF

Designation	No.
Senior Superintendent	1088
Superintendent	865
Senior Assistant	2105
Junior Assistant	45
Cashier	558
Total	**4661**



With respect to finance staff, 183 employees are specialized in finance and accounting works. Out of these, AAOs constitute the largest chunk of 39% followed by AOs at 21%, while DAs constitute 17% of finance staff. AFOs consist of 8% while FOs are at 12% in strength of finance staff.

The category of support staff consists of drivers, confidential assistants, office attendants, fair copy assistants and sweepers and scavengers. Out of a total of 1543 permanent employees in this category, office attendants constitute the largest number at 512 (33%) followed by sweepers and scavengers at 369 (24%), followed by drivers at 319 (21%), fair copy assistants (16%) and confidential assistants at 99 (6%) employees.

TABLE & FIGURE 3.17 SUPPORT STAFF

Designation	No.
Confidential Assistant	42
Senior Confidential Assistant	57
Total	99

Designation	No.
Office Attendant I	133
Office Attendant II	356
Senior Office Attendant	23
Total	512

Designation	No.
Fair Copy Superintendent	2
Junior Fair Copy Assistant	105
Senior Fair Copy Assistant	137
Total	244

Designation	No.
PTC Sweeper	351
Scavenger I	2
Scavenger II	2
Sweeper I	1
Sweeper II	2
Sweeper III	11
Total	369

Designation	No.
Driver (Special Grade I)	50
Driver (Special Grade II)	51
Driver I	115
Driver II	103
Total	319

Out of total strength, technical workers are the biggest group with 14363 employees (44%); surprisingly not far away are the technical officers at 11649 employees (36%). It however may be noted that overseers constitute a significant chunk of this category. Administrative support staff consist of 4661 employees (14%) followed by support staff at 1543 (5%) and finance staff at 183 (less than 1%).

Designation	No.
Confidential Assistant	99
Fair Copy Staffs	244
Office Attendant	512
Driver	319
Sweeper	369
Total	1543

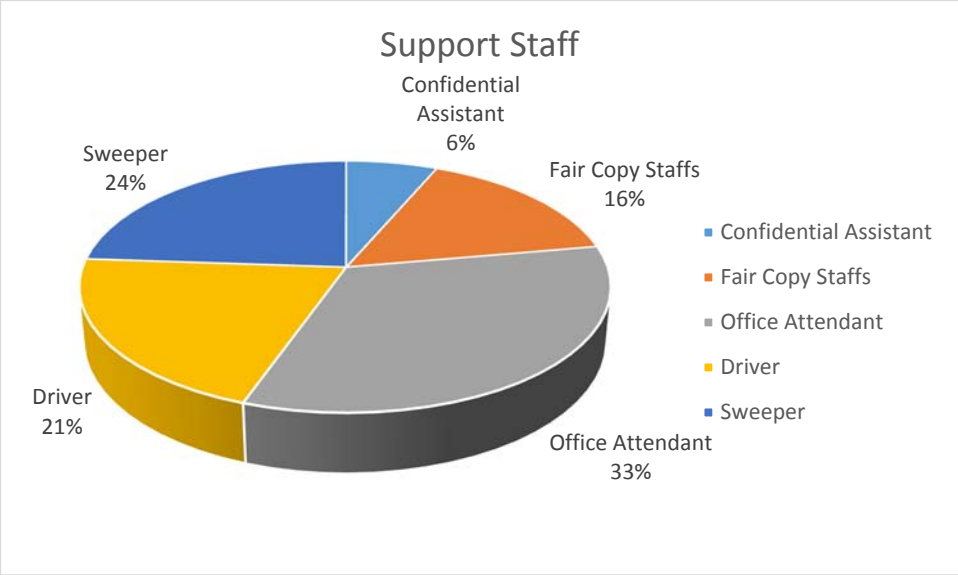
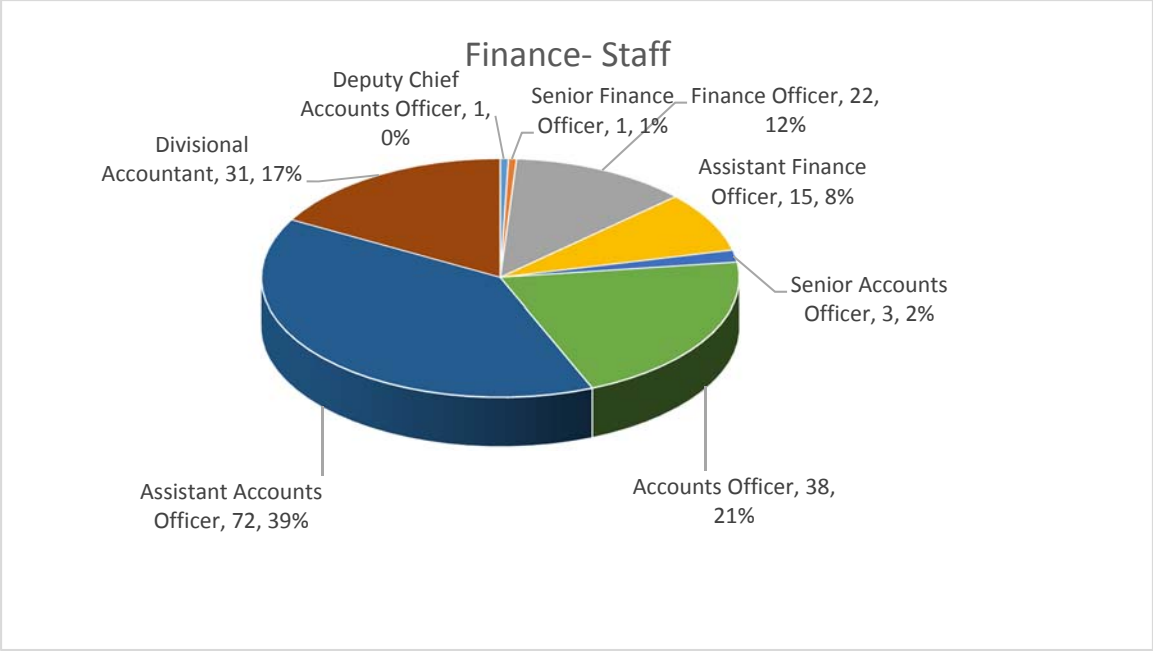


TABLE & FIGURE 3.18 FINANCE- STAFF

Designation	No.
Deputy Chief Accounts Officer	1
Senior Finance Officer	1
Finance Officer	22
Assistant Finance Officer	15
Senior Accounts Officer	3
Accounts Officer	38
Assistant Accounts Officer	72
Divisional Accountant	31
Total	**183**



With respect to age-group of KSEB employees, about half of the employees of the KSEB are in the age group of 40-50 years (49%) while age group of 30-40 years has next big chunk of employees at 30%. These two groups together contribute 80% of employee strength of KSEB. Employees of age 50 and above years contribute slightly above 17% workforce of KSEB. Employees of age 30 years and below contribute a very low percentage of 3% to the workforce of KSEB.

Regarding work experience of employees in KSEB, three work experience groups have percentages in 20s. Employees with 5 to 10 years of experience in KSEB form the largest chunk with 27%, closely followed by employees with 15 to 20 years of work experience in KSEB (at 24%), and then those having less than 5 years of experience forming the next highest chunk at 21%. Employees with 10 to 15 years of experience in KSEB form 18% of workforce while the last chunk of 10% workforce is formed by employees who have put in 20 and above years in KSEB.

TABLE & FIGURE 3.19 AGE-WISE: EMPLOYEES PROFILE

Age (In Years)	No. of Employees
Up-to 30	987
30-40	9795
40-50	15978
50 and above	5685
Total	32445

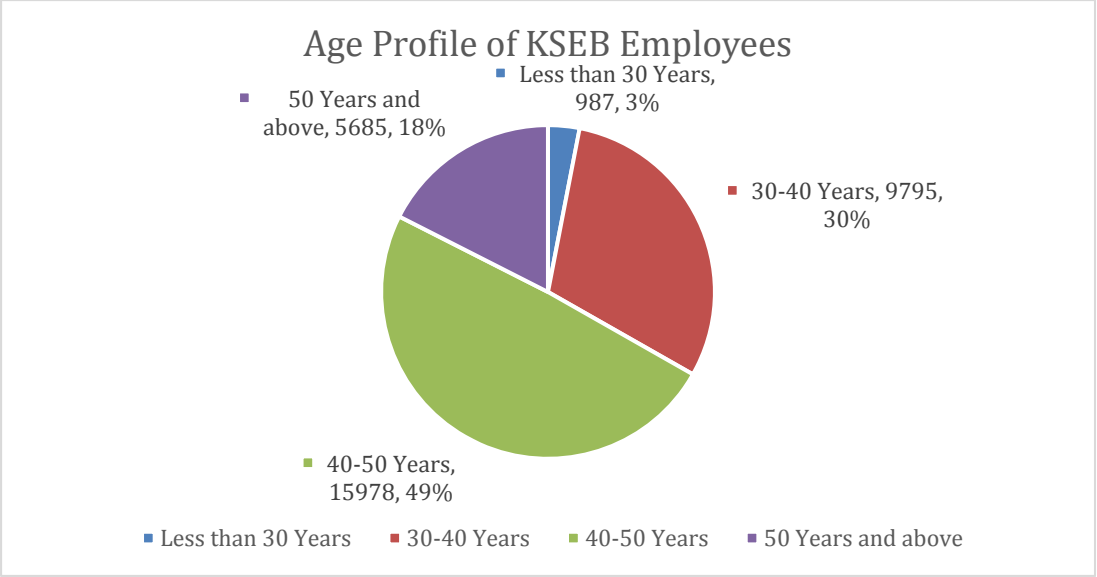
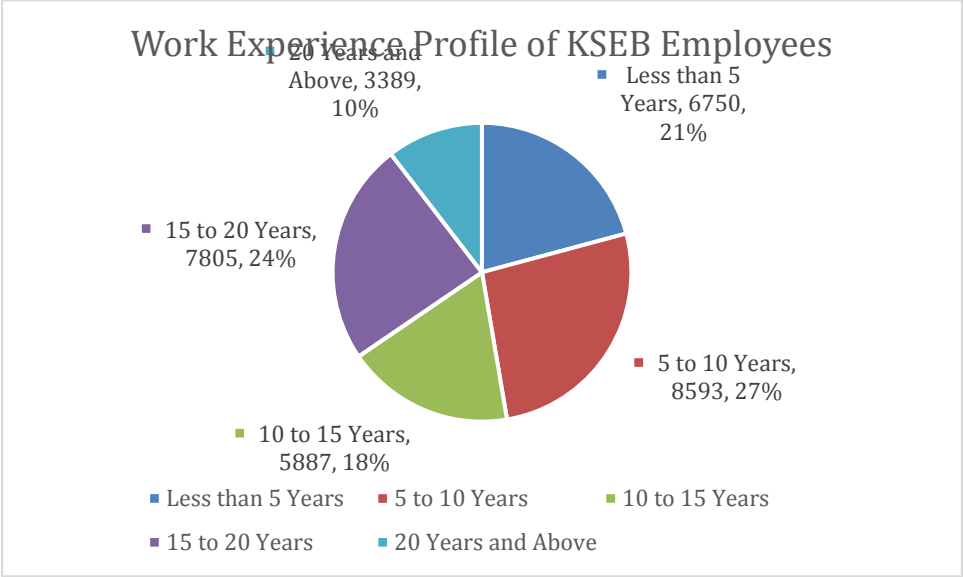


TABLE & FIGURE 3.20 WORK EXPERIENCE IN KSEB

Experience (In Years)	No. of Employees
Less than 5 Years	6750
5 to 10	8593
10 to 15	5887
15 to 20	7805
20 Years and Above	3389
Total	32424



The above results are slightly surprising as the age profile of employees does not match with work experience of employees in KSEB. In one hand employees above the age of 40 years constitute more

than 60% of the strength of KSEB, while those below 30 years of age constitute hardly 3% of workforce. While on other hand, employees with above 15 years of experience constitute only 24% of the strength but those having less than 5 years of work experience have 21% of the strength.

Further the technical work in organizations are generally looked after by lower management and technical workers. Assuming overseers, SEs and AEs to be part of lower management and merging their numbers with technical workers discussed above, their total numbers come around 24654 (about 76% of total strength) in KSEB. This set can be considered to be part of technical core of KSEB. Management (AXEs onwards to CEs) contribute 1358 employees (about 4% of total strength). Administrative support staff strength is 4661 (about 14% of total strength). Other support staff while constitute 1543 employees (about 5% of total strength).

3.2.4.1 KEY OBSERVATIONS

- The surprising but interesting result with respect to age and experience profile possibly points to age of entry in KSEB being on higher side. This may have a bearing on effectiveness of KSEB. For example, is it likely to affect creative idea generation, creating a common culture; does it have any relation with intellectual ability of candidate etc., are some of the questions which KSEB management may like to explore and if needed bring appropriate intervention.
- Looking at distribution of technical core, management, administrative support staff and other support staff, for KSEB to be competitive it makes sense to gradually start managing "other support staff" activities on contractual basis and try to bring down the number of "administrative support staff" to a more justifiable range of 5% of the total employee strength (from presently about 15%) in long run. Many organizations now manage 100s of employees per administrative support staff (if at all needed) with liberal aid of computers and technology.

3.2.5 OBSERVATIONS: PRESENT RECRUITMENT AND PROGRESSION: TECHNICAL WING

3.2.5.1 ELECTRICITY WORKER

- The lowest category in the Technical Stream.
- Theoretically expected to perform more of physical nature of work.
- But in practice, they do more of semi-skilled work.
    - ***Eligibility:*** Pass in 4th standard but fail in 10th standard with required physical fitness.
    - ***Mode of appointment:*** 95% through PSC District wise recruitment from male candidates and 5% from PTC with 3years experience
- Many unqualified electricity workers, in the present scenario, get 3 promotions and reach the post of Overseer within a time span of 8 years through a promotional channel of Lineman II and lineman I.
- Based on strict seniority he becomes a Lineman within 2 or 3 years of service as electricity worker. No minimum residence period as Electricity Worker / LM-I / LM-II is prescribed for these unqualified Electricity Workers.

3.2.5.2 LINEMAN I & II

- The backbone of this industry, handling the responsibility of carrying out the day to day fuse off calls, breakdown and planned maintenance of supply network.
- The work includes major break down and maintenance, post insertion works, line conversion works, Deposit works and execution of all kinds of LT works.
- Without any mandatory training this group is managing the said works. Often this type of trial and error approach attracts severe electrical accidents.
- No qualified technician with ITI Electrician qualification in Lineman category which demands high technical skills.

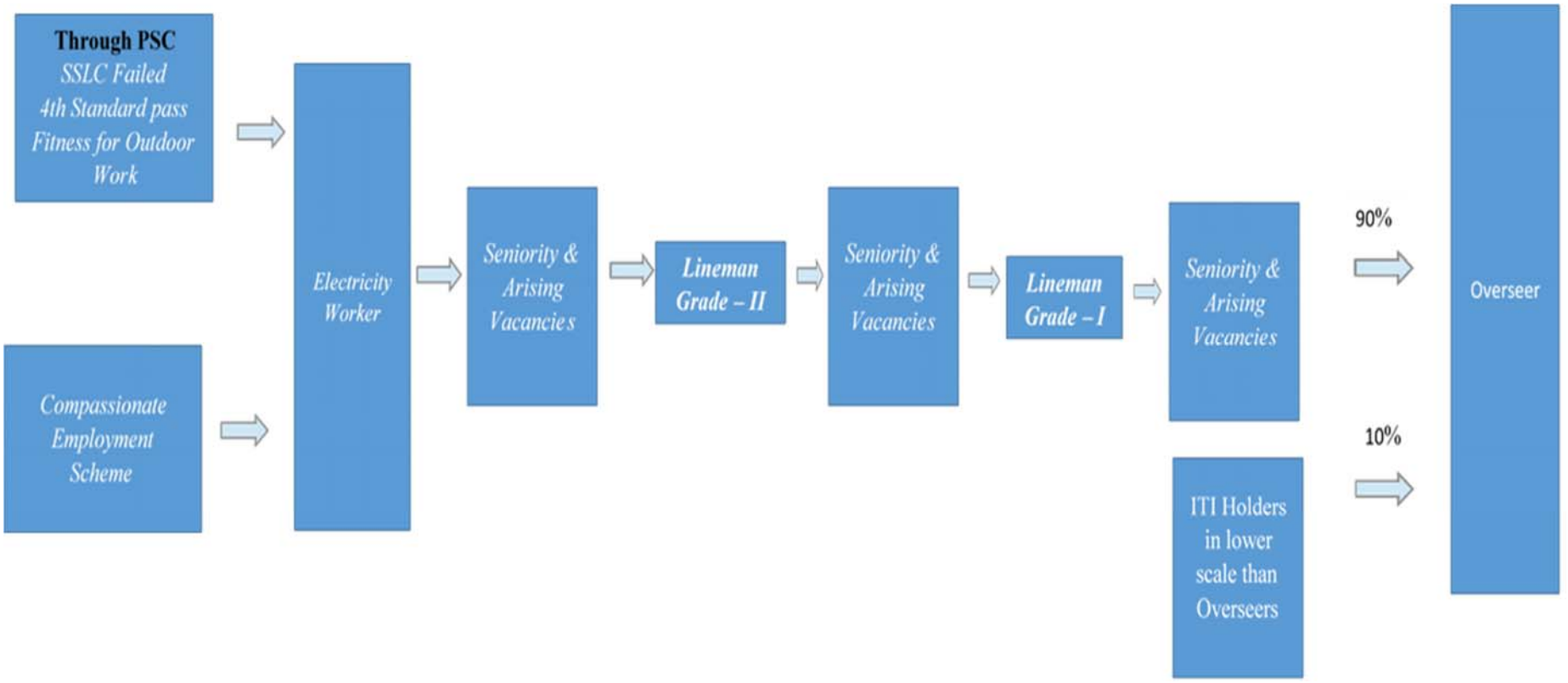
3.2.5.3 OVERSEER

- An overseer has got overall supervision of the work done by the Electricity worker and Lineman.
- 90% of the Overseers are promoted from Lineman based on seniority who in turn come from Electricity worker.
- Only 10% of the Overseers are having any ITI qualification and that too, in any trade.
- In the present scenario, even within 8 years of service an Electricity worker will become an Overseer but without acquiring any mandatory training. This issue of an under qualified reaching to the bottom line of a supervisory cadre is detrimental to the best interest of the Organization from the safety and quality perspective.

3.2.5.4 METER READER

- An endangered category in the organization.
- Meter readers have ITI qualification, but they get promoted to Sub Engineers (Supervisors) with expertise only in LT meter reading, but without any real field experience.

FIGURE 3.21 RECRUITMENT AND PROGRESSION OF ELECTRICITY WORKERS



3.2.5.5 SUB ENGINEER

- First level of supervisor and directly responsible for job execution.
- 30% is filled through PSC from Diploma holders. 20% from promotion from Overseers with ITI qualification +5years experience and the remaining 40% is promotion from Meter Reader +5 years' experience (Meter reader possess ITI qualification).
- 10% from qualified in-service candidates with Diploma qualification.
- The issue of career stagnation combined with seniority overlooking in the name of water -tight quota promotion is a major concern of diploma holding Sub Engineers.
- 30%+10% quota to be filled by PSC takes its own pace, though vacancy already reported against that quota.
- 40% quota is overfilled. The remaining 20% quota promotion is straggled by litigation.
- The stumbling block to open this promotion channel is the dispute with regard to the mode of acquiring of ITI qualification .i.e. One, acquired by attending regular classroom course and the other by an off-classroom course, whose credibility is often suspicious.

FIGURE 3.22: RECRUITMENT AND PROGRESSION OF METER READERS

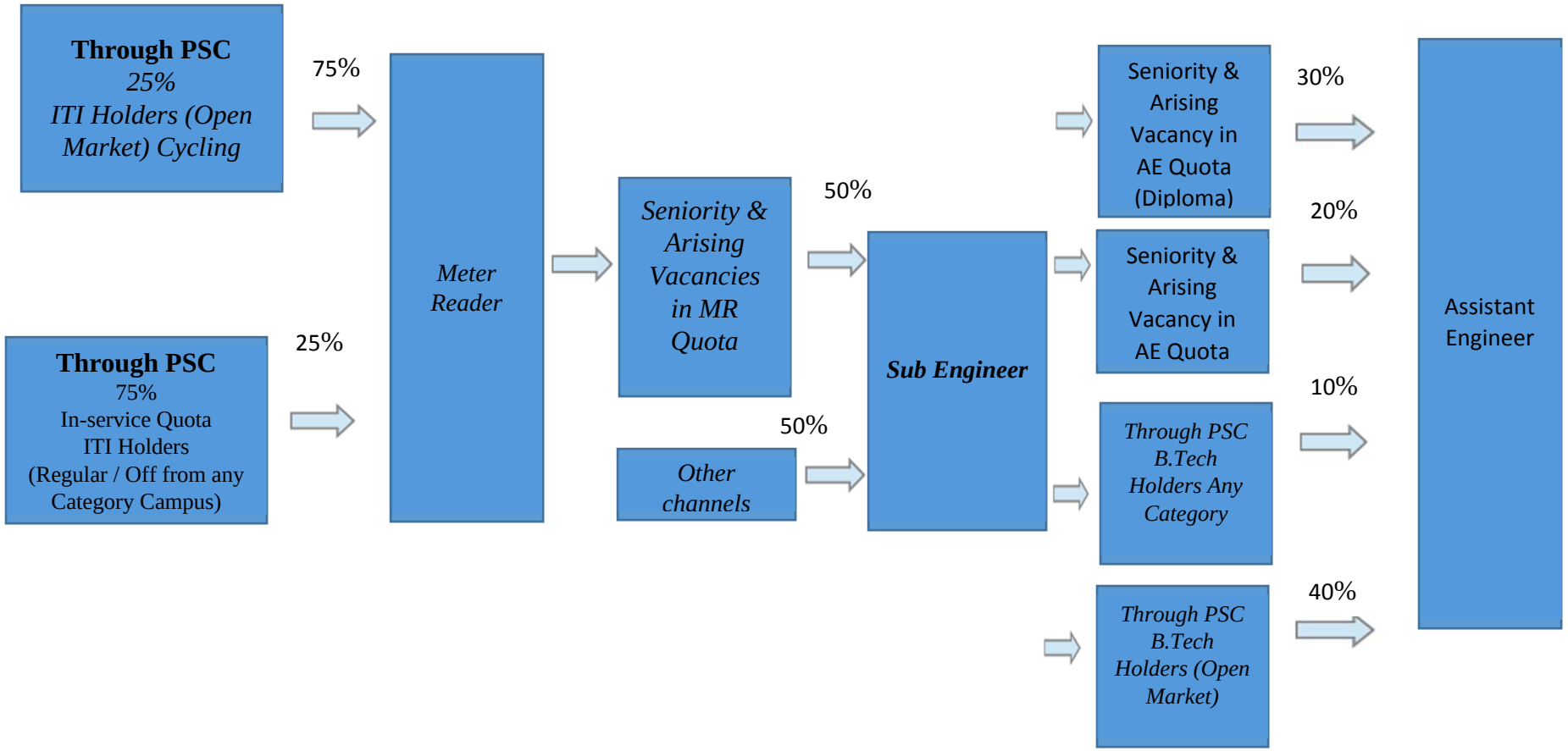
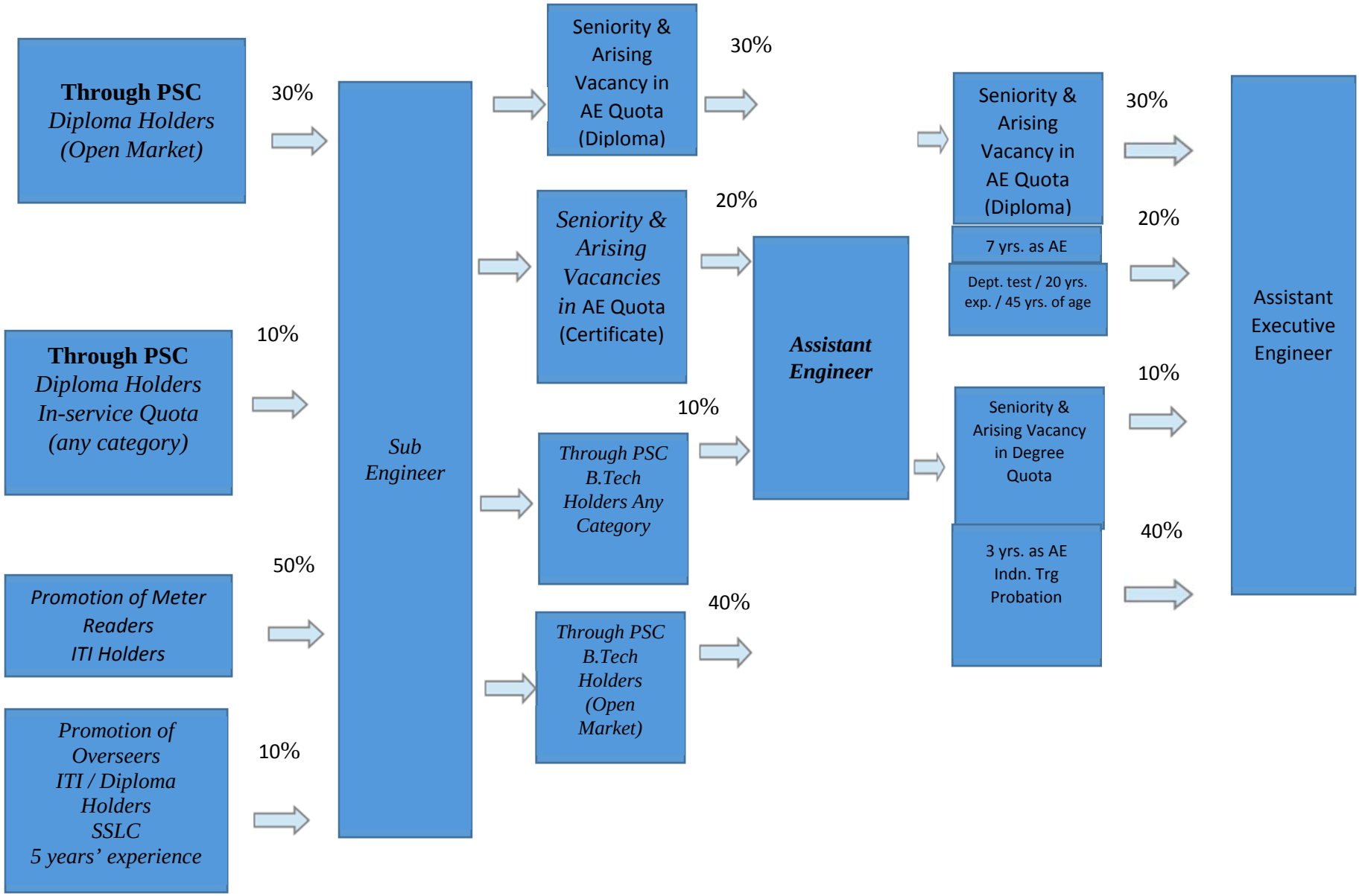


FIGURE 3.23: RECRUITMENT AND PROGRESSION OF SUB ENGINEER



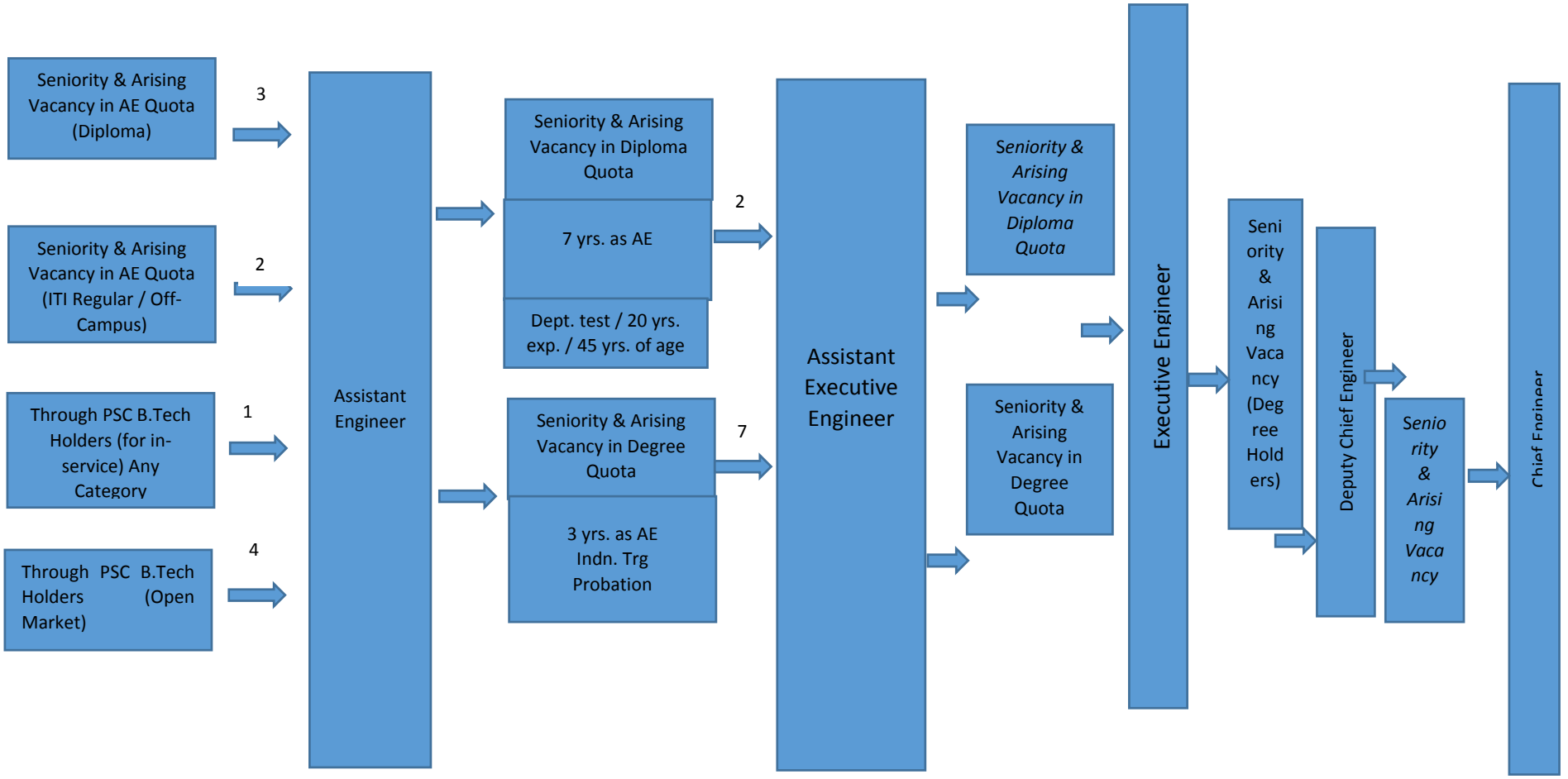
3.2.5.6 ASSISTANT ENGINEER

- Assistant Engineers form the technical and management hub of all activities in KSEB.
- Overall performance of utility is centered on the quality of Assistant Engineers.
- 40% of them are recruited from graduate Engineers from the open market and 10 % from in-service Engineering Graduates (both through PSC).
- The remaining 30% is meant for Diploma holding Sub Engineers and 20% for ITI certificate holders (regular & off-campus).
- No common gradation list for Assistant Engineers as of now.

3.2.5.7 ASSISTANT EXECUTIVE ENGINEER

- Assistant Engineers get promoted to Assistant Executive Engineers.
- 75% are degree holders and 25% diploma holders.
- Career stagnation is prevalent at this level and there exits only the seniority track to move up the ladder.
- No sufficient number of these places to provide for promotions to Graduate Engineers within a reasonable time frame.
- Career progression from this level is very low.

FIGURE 3.24: RECRUITMENT AND PROGRESSION OF ASSISTANT ENGINEER



3.2.5.8 EXECUTIVE ENGINEER

- Executive Engineers in KSEB are posted based on seniority of Assistant Executive Engineers.
- Since the recruitment of Assistant Engineers through PSC does not take place on a regular basis every year, many of the Degree holding Engineers retire before reaching this level.

3.2.5.9 DY. CHIEF ENGINEER

- On promotion based on seniority, Executive Engineers become Deputy Chief Engineers.

3.2.5.10 CHIEF ENGINEER

- The normal promotion channel for Graduate Engineers end here.
- Induction Level Training Programme at Assistant Engineer level is the only mandatory training for a person reaching this level.

3.2.6 OBSERVATIONS: PRESENT RECRUITMENT AND PROGRESSION: NON-TECHNICAL WING

3.2.6.1 OFFICE ATTENDANT

- No normal promotional avenues open for the Office Attendant category.
- The other mode of appointment in Office Attendant category is sports quota recruitment.
- Though the basic qualification for the post of Office Attendants is pass in 7th Standard, in recent years majority of Office Attendants appointed through both modes come with SSLC Pass.
- In which the sports quota recruits get promotion to the post of Junior Assistant/Cashier in the 20% quota earmarked for “by transfer appointment” without passing Suitability Test
-

3.2.6.2 CASHIER

- Entrusted with cash collection work.
- This is the entry cadre to the ministerial wing of the organization.
- Graduation in any subject is the requisite qualification. 80% of this quota is filled from open market and the rest 20% from in-service candidate with SSLC+ 5years or HSE+3 years’ experience.
- Unlike in technical wing there is no separate quota earmarked for these two modes of appointment in further promotion to the category of Senior Assistant.
- The higher post in the ministerial wing such as AAO and AO are mostly held by those appointed through this 20% quota since this quota is filled up by candidates from the lower category who entered into service on either compassionate ground or sports quota at a young age.
- An Overseer who entered into service as an Electricity worker with a qualification of 4th standard is placed in a higher pay scale than a cashier who entered into service with a Degree.

3.2.6.3 SENIOR ASSISTANTS

- The major chunk of the ministerial work in Board is executed by this category ranging from administrative, establishment work to accounting and legal affairs.
- A good number of ministerial employees who enter into service as Cashier retire as Senior Assistant.

3.2.6.4 SENIOR SUPERINTENDENTS

- First level of Supervisory post in the ministerial wing.
- A Degree / PG holder enters into board as a Cashier ends up his career as senior superintendent or to a maximum as Senior Administrative Officer.

3.2.6.5 ASSISTANT ADMINISTRATIVE OFFICER

- Promotion post to senior superintendent.

3.2.6.6 ADMINISTRATIVE OFFICER

- Promotion post to Assistant Administrative Officer.

3.2.6.7 SENIOR ADMINISTRATIVE OFFICER

- All the 3 places of Senior AOs are in Corporate Office. This is the highest post that a person who enters into service as Cashier can reach.

3.2.6.8 DIVISIONAL ACCOUNTANT

- Three methods of appointment are followed to fill this category in the ratio 1:1:1
    - Appointment of departmental candidates (by transfer) with qualification prescribed for Divisional Accountant from Open market.
    - Appointment of Departmental candidates (by promotion) from Senior Assistants having 10 years' service with qualification of Account test (higher)
    - Recruitment of candidates from open market (General Recruitment) with following Qualifications:
        - Graduation plus pass in CA (inter)/ICWA(Inter) OR
        - B.Com first class with 3 years' experience in Govt. Undertakings in Finance and Accounts Department. OR
        - Graduation plus a pass in the SAS (commercial) examination conducted by Indian Audit and

3.2.6.9 ASSISTANT FINANCE OFFICER

- This is the promotion post to DA. Though there are 3 methods of recruitment to DA, there is no separate promotion quota to the post of AFO

3.2.6.10 FINANCE OFFICER

- This is the promotion post to AFO.

3.2.6.11 DEPUTY CHIEF ACCOUNTS OFFICER

- This is the promotion post to FO.

FIGURE 3.25A: RECRUITMENT AND PROGRESSION OF DIVISIONAL ACCOUNTANT

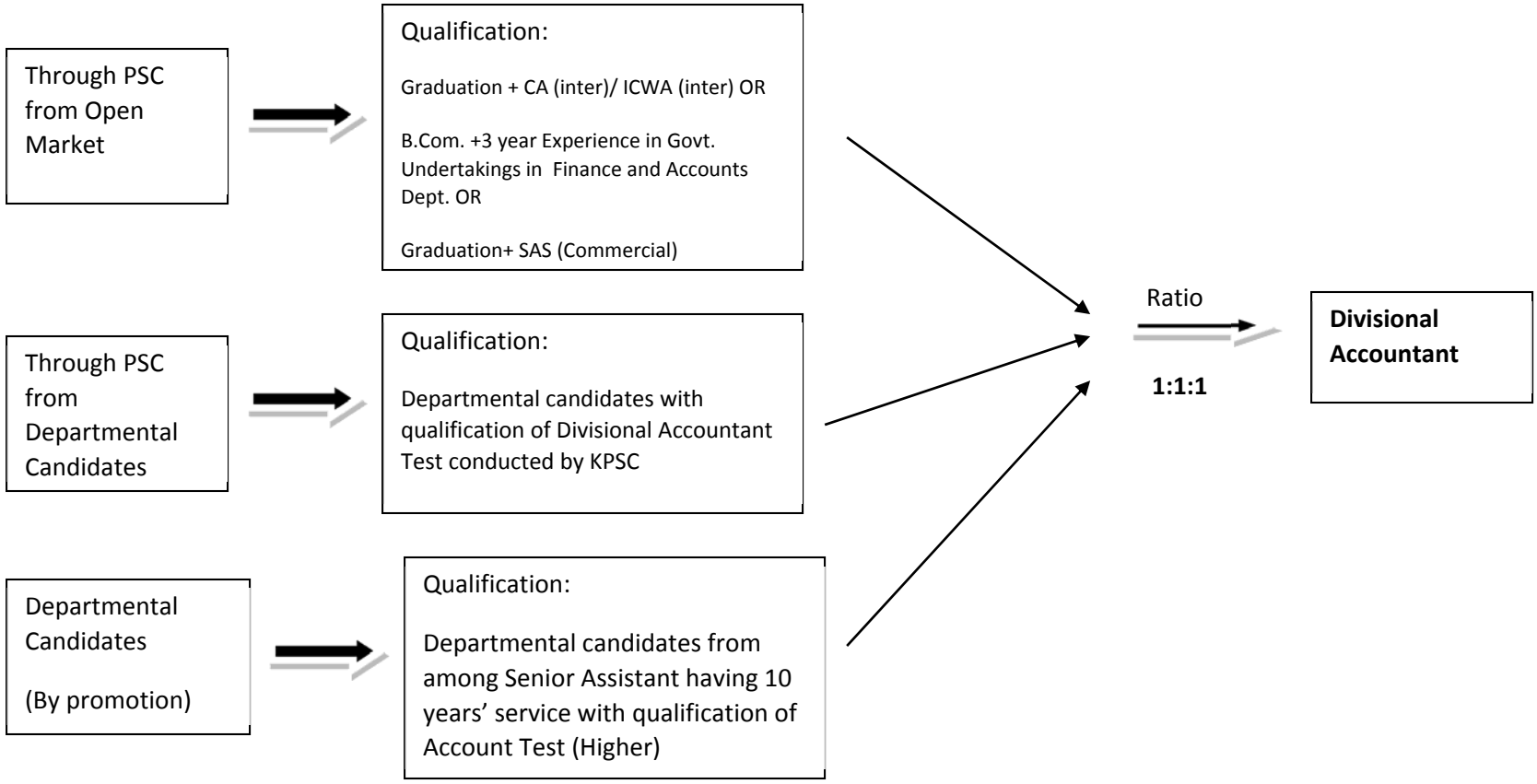
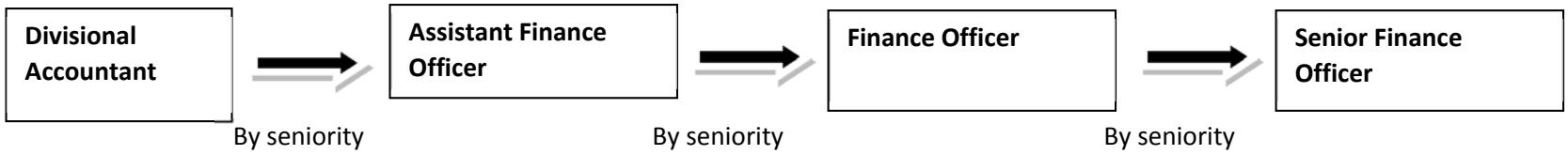


FIGURE 3.25B: RECRUITMENT AND PROGRESSION OF DIVISIONAL ACCOUNTANT



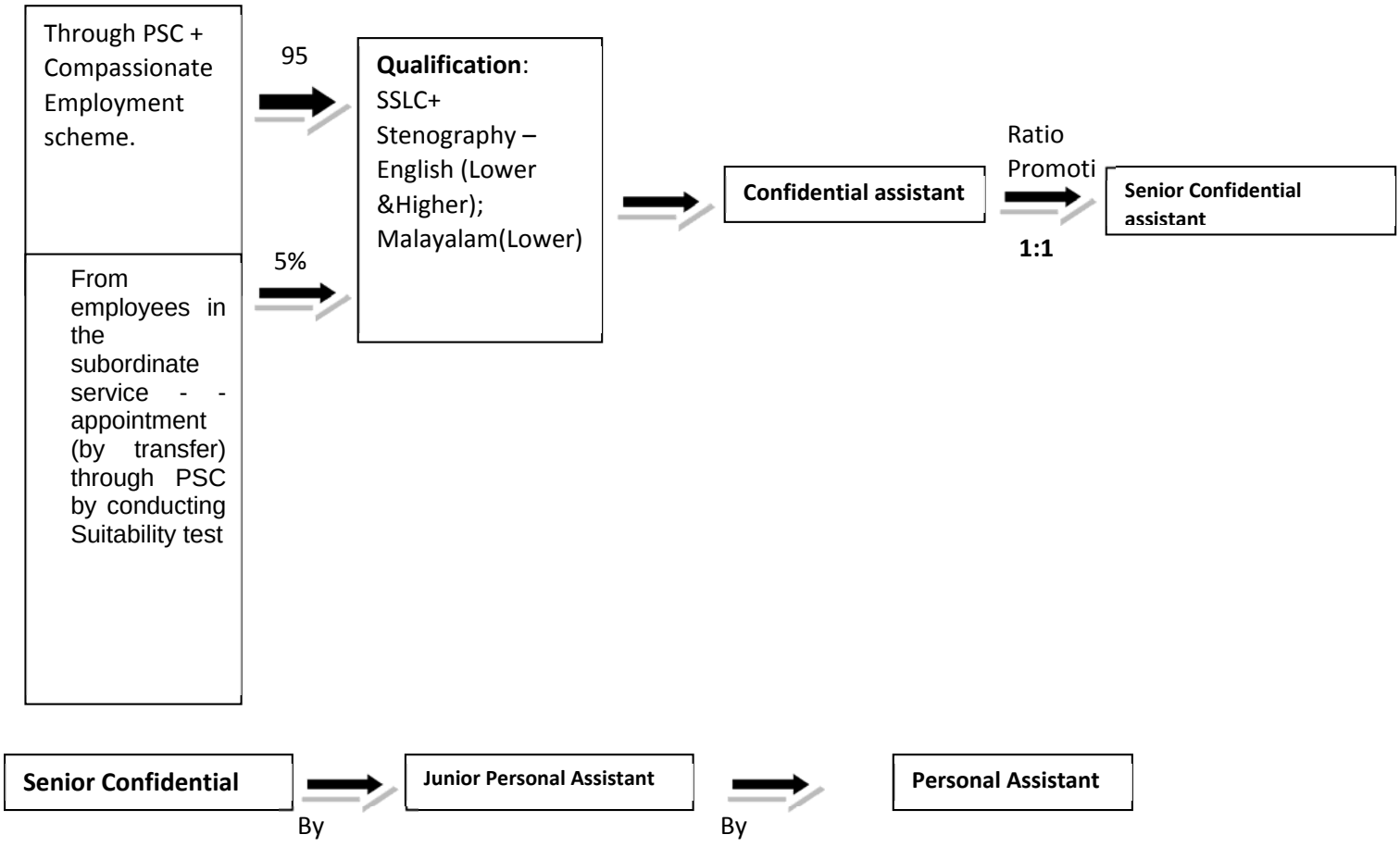
3.2.6.12 FAIR COPY WING

- Entry cadre is Junior Fair Copy Assistant and then they become Senior Fair Copy Assistant. These two categories are in workmen cadre.
- The next promotional stages are Fair Copy Superintendent and Senior Fair Copy Superintendent. These two are in officer cadre.

3.2.6.13 STENOGRAPHERS

- The entry cadre is Confidential Assistant.
- The promotional hierarchy is Senior Confidential Assistant, Junior Personal Assistant and Personal Assistant.
- Only compassionate employment candidates are admitted now.

FIGURE 3.26: RECRUITMENT AND PROGRESSION OF SENIOR CONFIDENTIAL ASSISTANT



3.2.7 RECOMMENDATIONS SPECIFIC TO POSITIONS

3.2.7.1 METER READERS (MR)

- Introduce PDA for meter readers to increase the productivity and reduce the errors in billing
- Freeze future recruitment - (don't fill 876 current vacancy)
    - This will lead to an approximate saving of 2,40,90,000/- rupees
- The promotion from Meter reader to Sub-engineer should be based on achievement of diploma engineering or equivalent training (internally).
    - It is essential as the subsequent move is to the position of AE.
- MRs becoming SEs merely on the basis of seniority without having relevant field experience
    - MRs should be mentored by existing SEs for say 1 year before taking charge as SE

3.2.7.2 THOSE PROGRESSING FROM AXE TO EE

- The provision for those with Seniority and arising vacancy in Diploma quota may be abolished
- Address the Skill Resource Mismatch –
- AXEs are trained in computer and need it for effective delivery of the duties, but no such facility is provided in sub divisions.

3.2.7.3 SA

- Many SAs are found to be professionally qualified with degrees such as MBA and since long waiting for promotions. We believe it's a waste of talent that not only goes unutilized, but also contributes to employee dissatisfaction and underperformance.
- They may be given with additional responsibility such as HR activities like training and development in circle office after adequate training and orientation
- As per the JD this position under the domain of distribution requires people handling acumen. Utilize and redeploy the SAs in appropriate positions in distribution where the JD requirement is major field level customer interaction, but less use of engineering skills
- The surplus employees of SA may also be redeployed in Hydel tourism projects

3.2.7.4 FOR RECRUITMENT OF DIVISIONAL ACCOUNTANTS

- The criteria of "Graduation with CA or ICWA" may be changed to "either CA or ICWA" without requirement of graduation
- Two other categories of MBA with finance specialization or BBA with finance experience may be added
- The quota ratios also may be changed to:
    1. 50% (Professional qualification)
    2. 30% (KPSC qualification)
    3. 20% (SAs with Account Test)
- For becoming Finance Officer and Senior Finance Officer, a professional qualification (CA/ICWA/MBA (Fin)) may be appropriate
- Recruitment to AFO and higher posts, may be considered purely on the merit of availability and performance

3.2.7.5 RECRUITMENT OF SES:

- The criteria of 10% reservation for overseers with ITI/Diploma or SSLC with 5 years' experience may be conditional on:
- Clearing an additional test specifically designed for the purpose for overseers who have SSLC and 5 years' experience

3.2.7.6 PROGRESSION OF SUB ENGINEERS TO ASSISTANT ENGINEERS, ON ACCOUNT OF CONCERNS OF OVERSUPPLY ON SOME CATEGORIES AND LITIGATIONS REGARDING SOME OTHERS:

- Quota for those with certificates may be changed to 10% (from earlier 20%)
- Quota for those through PSC with B.Tech. and employees in any category may be changed to 20% (from earlier 10%)
- Quota for those with PSC through open market may be changed to 50% (from earlier 40%)

3.2.7.7 PROMOTION TO THE POSITION OF EE AND ABOVE SHOULD BE BASED ON PERFORMANCE.

- Do away with promotion to the above positions based on PSC rank.
- Recruitment to posts of EE and above may be considered purely on the merit of availability and performance
- Officers need to be trained before transfer and promotion and must be based on competency particularly when employees are moving among Generation, Distribution and Transmission.

3.2.7.8 ASSISTANT ENGINEER (AE) –

- Although, selection of officers is done through PSC examinations, we strongly recommend that, deploying them to generation, transmission, and distribution, should be done based on their interest and skills. Based on our conversation and reflection, we inferred that distribution demands individuals to be proficient in management, customer orientation, and marketing, while generation demands an interest and proficiency in engineering. It would benefit KSEB immensely, if the competencies identified against each position is utilized for deployment of officers. Further, it shall also be beneficial, if personnel are trained in requisite competencies before their promotions and transfers.
- Promotions should not be decided based on PSC rank, which appears prima facie unfair. A suitable performance appraisal system may be designed and implemented, and promotions should be contingent on competencies and performance.
- The number of AEs in all RPTI as well as PETARC should be reduced to one in each location due to less avenues for utilization of skills. The volume of work as per the JD does not match the existing number of AEs employed in the RPTI as well as PETARC. The field observation reveals the engagement of AE – Electrical deployed in training centre and supervising housekeeping work is a gross mis-utilization of the talent by the organization.
- Further, efforts should be made to encourage lateral entry of MBAs into distribution. This shall also help rationalize the recruitment of engineers into KSEB, and employ them predominantly in transmission and generation

3.2.7.9 DRIVERS AND SWEEPERS

- These roles are non-core to the activity of KSEB and found to be costly also. While a senior driver in KSEB is noticed to draw salary of 60,000 rupees per month the average salary of a sweeper found to be 25309 rupees. In order to achieve competitive advantage KSEB may engage divers & sweepers on contract basis instead of full time support staff. These jobs can also be outsourced to agencies at a cheaper cost which also reduce the recurring liability of the organization.

3.2.7.10 ELECTRICAL WORKERS

- Apart from the recommendations of ensuring qualification of ITI and training system mentioned earlier, KSEB may consider the following as the future option for the job electrical workers.
  - Region-wise auctioning of multi-year contracts to manage maintenance and breakdown works
  - Supervision of the works may still continue by fulltime employees
  - Chance for such workers to become full time employees as Overseers
  - Such full time employment may however will be of shorter duration (e.g., 10 years)
  - Upon superannuation, such full time employees may be given preference for bidding for contracts for managing breakdown and maintenance works

3.2.8 RECOMMENDATIONS: PAY & PROMOTIONS

3.2.8.1 DETERMINATION OF WAGES

The wages are decided based on negotiation between management representatives and recognized union representatives. The Board had entered into a Long Term Settlement with the two recognized Trade Unions on 28.02.2007 revising the then existed wages and allowances and service conditions of all categories of workmen with effect from 01.08.2003. This settlement was executed for a period of five years and it expired on 31.07.2008.

Based on referendum conducted in the Kerala State Electricity Board, representative trade unions for wage negotiations are identified (as of now, Kerala State Electricity Board Workers' Association and Kerala Electricity Workers' Federation are recognized trade unions). These recognized trade unions generally demand revision of wages and submit their Charter of Demands to the Board after the expiry of the Long Term Settlement (done on 28.02.2007). Other registered Trade Unions functioning in the Board also participate in demanding revision of wages and allowances. The Board constitutes a Pay Revision Committee with representatives from Generation, Transmission, Distribution, Finance, and Civil etc. to negotiate with the recognized trade unions, which generally involves a series of discussions to arrive at a mutual decision.

3.2.8.2 ANALYSIS OF PAY & PROMOTION

2011 Revision of pay and allowance of officers of KSE Board- Fixation of Pay- Guidelines

Applicability: This revision of Pay and allowances ordered is applicable to Officers in the regular service of the Board as on 30.06.2008 and who were continuing in service on 01.07.2008, unless otherwise specified.

The existing master scale and the different scales of pay of officers were revised as follows: -

Master Scale

Existing	Revised
13215-600/2-14415-650/6-18315-780/3-20655-890/4-24215-950/5-28965-1050/6-35265 (26 Years)	20170-870/2-21910-945/6-27580-1130/6-34360-1290/5-40810-1380/5-47710-1520/5-55310 (29 Years)

Time Scales

SL NO	Designation	Existing Scales of pay	Revised Scales of Pay
(1)	(2)	(3)	(4)
1	Assistant Engineer/ Medical Officer / Senior Superintendent/ Divisional Accountant/ Senior	13215-600/2-14415-650/6-18315-780/3-20655 (11 years)	20170-870/2-21910-945/6-27580-1130/5-33230 (13Years)

	Confidential Assistant/ Fair Copy Superintendent		
2	Assistant Executive Engineer /Assistant Accounts Officer/Assistant Finance Officer /Junior Personal Assistant/Senior Fair Copy Superintendent/ Regional Personnel Officer/Public Relations **Officer**	17015-650/2-18315-780/3-20655-890/4-24215 (9 Years)	25690-945/2-27580-1130/6-34360-1290/4-39520 (12 Years)
3	Accounts Officer/ Finance Officer/ Personal Assistant	17665-650/1-18315-780/3-20655-890/4-24215-950/1-25165 (9Years)	26635-945/1-27580-1130/6-34360-1290/5-40810-1380/1-42190 (13 Years)
4	Executive Engineer/ Personnel Officer	19095-780/2-20655-890/4-24215-950/4-28015 (10 Years)	28710-1130/5-34360-1290/5-40810-1380/5-47710 (15 Years)
5	Senior Accounts Officer/ Senior Finance Officer/ Deputy Chief Accounts Officer	19875-780/1-20655-890/4-24215-950/5-28965 (10 Years)	29840-1130/4-34360-1290/5-40810-1380/5-47710-1520/1-49230 (15 Years)
6	Deputy Chief Engineer /Chief Personnel Officer/Chief Accounts Officer	23325-890/1-24215-950/5-28965-1050/2-31065 (8 Years)	34360-1290/5-40810-1380/5-47710-1520/2-50750 (12 Years)
7	Chief Engineer /Financial Adviser/Chief Internal Auditor	28015-950/1-28965-1050/6-35265 (7 Years)	40810-1380/5-47710-1520/5-55310 (10 Years)

Cadre Pay

The cadre pay of the officers was revised as below considering the qualifications, risk factor in the power sector, skill level and also the duties and nature of work. Cadre pay is reckoned as part of pay having eligibility for DA, HRA, other allowances and pensionary benefits. However, no junior / senior fixation is allowed on the basis of cadre pay.

Designation	Rate Per Month
Chief Engineer /Financial Adviser / Chief Internal Auditor	Rs1500/-
Deputy Chief Engineer /Chief Personnel Officer / Chief Accounts Officer, etc.	Rs1000/-
Accounts Officer / Finance Officer / Deputy Secretary / Executive Engineer /	Rs300/-

Personnel Officer / Personal Assistant / Sr. Accounts Officer / Senior Finance Officer / Deputy Chief Accounts Officer etc.	
Asst. Executive Engineer / Asst. Accounts Officer / Asst. Finance Officer/ Junior Personal Assistant / Regional Personnel Officer / Senior Fair Copy Supt etc.	Rs250/-
Asst. Engineer / Medical Officer / Sr. Superintendent / Divisional Accountant / Senior Confidential Assistant etc.	Rs200/-

Technical Officers

		Salary	
Designation	**No.**	**Total**	**Average**
Chief Engineer	16	1799408.75	112463.05
Deputy Chief Engineer	76	3428912.17	90234.531
Executive Engineer	273	26577152.72	97352.208
Assistant Executive Engineer	993	82223160.82	82802.78
Assistant Engineer	2058	124640293.71	60563.797
Junior Engineer	6	388642.35	64773.725
Sub Engineer	2927	140454786.24	47985.919
Overseer	5300	235959199.46	44520.604
Total	**11649**	615471556.22	52834.71

Finance

		Salary	
Designation	No.	**Total**	**Average**
Accounts Officer	38	3428912.17	90234.531
Senior Accounts Officer	3	301886.9947	100629
Assistant Accounts Officer	72	5880390.804	81672.095
Assistant Finance Officer	15	1092034.679	72802.312
Deputy Chief Accounts Officer	1	72540.9722	72540.972
Divisional Accountant	31	1863891.358	60125.528
Finance Officer	22	1550804.561	70491.116
Senior Finance Officer	1	104175.6649	104175.66
Total	183	14294637.2	78112.77

Workers

		Salary	
Designation	**No.**	**Total**	**Average**
Lineman I	5523	167214750.8	30276.073
Lineman II	2921	63906434.54	21878.273
Mazdoor	5090	85871916.56	16870.711
Meter Reader	829	22793068.24	27494.654
Line Fitter I	1	37786.6309	37786.631
Total	14364	339823956.7	23658.03

Administration- Support Staff

		Salary	
Designation	**No.**	**Total**	**Average**
Cashier	558	16727801.66	29978.139
Junior Assistant	45	1430328.5	31785.078
Senior Assistant	2105	99982194.32	47497.479
Senior Superintendent	1088	75640462.29	69522.484
Superintendent	865	53092127.32	61378.182
Total	4661	246872914.1	52965.65

Support Staffs

		Salary	
Designation	**No.**	**Total**	**Average**
Confidential Assistant	42	2227717	53040.88
Senior Confidential Assistant	57	4136208	72565.05
Total	99	6363925	64282.07

		Salary	
Designation	**No.**	**Total**	**Average**
Fair Copy Superintendent	2	167873	83936.5
Junior Fair Copy Assistant	105	2738076	26076.92
Senior Fair Copy Assistant	137	7826493	57127.68
Total	244	10732442	43985.42

		Salary	
Designation	No.	Total	Average
Office Attendant I	133	4148605	31192.52
Office Attendant II	356	7850702	22052.53
Senior Office Attendant	23	896815.8	38991.99
Total	512	12896122	25187.74

		Salary	
Designation	No.	Total	Average
PTC Sweeper	351	4209793	11993.71
Scavenger I	2	67457.42	33728.71
Scavenger II	2	59223.58	29611.79
Sweeper I	1	30260.79	30260.79
Sweeper II	2	58618.58	29309.29
Sweeper III	11	186473.2	16952.11
Total	369	4611826	12498.17

		Salary	
Designation	No.	Total	Average
Driver (Special Grade I)	50	2838900	56778.01
Driver (Special Grade II)	51	2732954	53587.34
Driver I	115	5079490	44169.47
Driver II	103	3537652	34346.13
Total	319	14188996	44479.61

Aggregate detail of Support staff

Category	No.	Total	Average
1	99	6363925	62802.9653
2	244	10732442	55713.6991
3	512	12896122	30745.6803
4	369	4611826	25309.4006
5	319	14188996	47220.2396
Total	**1543**	**48793312**	**31622.37**

Others

		Salary	
Others	No.	**Total**	**Average**
Chairman	1	114372	114372
Chief Co-ordinator(Land Management)	1	136894.1	136894.1
Chief Internal Auditor	1	94803.11	94803.11
Chief Vigilance Officer	1	39611.03	39611.03
Civil Police Officer	8	229825.6	28728.2
Clerical Attender I	2	80673.09	40336.54
Deputy Secretary (Law)	1	87599.32	87599.32
Deputy Superintendent of Police	2	136542.1	68271.04
Director	3	320844	106948
Director - Public Relations	1	89343.69	89343.69
Duplicate Operator I	1	37046.63	37046.63
Duplicate Operator II	2	36306.63	36306.63
Fitter I	1	42886.46	42886.46
Joint Secretary (Law)	1	93666.21	93666.21
Legal Advisor and Disciplinary Enquiry Officer	1	111779	111779
Mobile Crane Operator II	1	62857.28	62857.28
Pharmacist	1	39445.06	39445.06
Police Constable	1	22724.42	22724.42
Regional Personal Officer	1	75013.73	75013.73
Resident Concurrent Audit Officer	1	57045.73	57045.73
Secretary	1	89754.95	89754.95
Senior Civil Police Officer	3	118120.1	39373.35
Skilled Technician Grade I	4	183417	45854.25
Skilled Technician Grade II	6	203911.1	33985.19
Sub Inspector	1	42632.73	42632.73
Superintendent of Police	1	89254.95	89254.95
	48	2636370	54924.375

Total no. of employees in KSEB	**32448**
Total sum given as salary to employees	**Rs.** 1,267,892,745.22
Average salary given to employees in KSEB	**Rs.** 39074.60

KSEB spends about Rs. 127 crores monthly in direct employee salaries. About Rs. 4.9 crores (3.84%) monthly are spent on direct salaries of support staff. Out of 32448 employees, the share of support staff in numbers is 1543 (4.75%). Support staff (CAs, OAs, FCAs, Sweepers and Drivers) earn on an average from Rs. 12498 (Sweepers) to Rs. 64282 (Confidential Assistants) per month (pm). Confidential Assistants (Rs. 64282 pm) on an average earn more than Administrative Support Staff (cashier, Assistants, Superintendents together at Rs. 52966 pm). While private competitors are engaging Engineers at Rs. 10000 to 12000 pm, KSEB paying on an average above Rs. 12000 pm to sweepers and above 64000 pm to confidential assistants is something which puts KSEB at great disadvantage. Although high salaries may help social cause and is likely to increase employee loyalty, no linkage of the same with performance and value addition to the organization does not serve the public cause.

3.2.8.3 RECOMMENDATIONS WITH RESPECT TO PAY AND PROMOTION

- It is strongly recommended that appropriate mechanisms to link compensation to market, value addition to organization, and performance (individual and/or group) may be devised. It is further suggested to take help of external agencies in same. It is desirable such exercise is done before the next revision in pay and allowances.
- In order to achieve competitive advantage, recruitment of employees for non-competitive or less value adding activities like drivers and sweepers needs to be stopped immediately. KSEB may consider engaging drivers & sweepers on contract basis instead of full time support staff.
- If need be contracts to agencies may be provided
- At the average salary of Rs. 31622 for support staff, and assuming going rate of payment to contract agencies for such services to be conservatively on higher side of Rs. 15000 pm, it stills leads to a saving of Rs. 2.56 crores pm for KSEB for 1543 employees. Similarly, reduction in administrative staff by 2/3rd at an average salary of Rs. 52965, may lead to a savings of Rs 16.46 crores per month.

3.2.9 RECOMMENDATIONS: JOB DESCRIPTIONS

3.2.9.1 METHODOLOGY

The preliminary focused group discussion with various competent authorities in sub-section offices, section offices, circle offices, and at Corporate Headquarters, Vydyuthi Bhavanam, Trivandrum revealed that job descriptions were absent for many positions. This was reinforced by our interaction with the CE (HRM), who also emphasized that some positions did have defined duties and responsibilities, but were unsuitable to capture current complexities. The study team therefore decided to develop the JDs afresh, which would act as the basis of developing the competencies and other HR systems of the organization. The study team followed the following method to develop the JDs.

- A group of individuals (4-6 members) representing each position in the organogram, up to Chief Engineer, was invited[34] to participate in a workshop[35] and was explained briefly on the importance and content of a JD.
- The participating members were also introduced and taken through O*NET website[36] to benchmark the duties and responsibilities, as applicable to their position, with the available best practices internationally.
- The job holders were asked to brainstorm, reflect, refer, discuss, and finally author a JD that best reflects their current roles and responsibilities in KSEB[37]. Endeavour was made repeatedly by the investigators in encouraging the participants to think deeply on their work, so as to capture the entire width of the activities to be done by an incumbent occupying the position.
- The JDs thus prepared were sent to the CE (HRM) for validation by the immediate supervisor as well as by him, in order to reduce rater bias.

3.2.9.2 FINDINGS

JDs were developed for every position ranging from Chief Engineer and below. They are enclosed as **Appendix G** in this document[38]. (Note: The Job Descriptions and Competencies need to be re-validated with the specific functions. We tried seeking clarifications on a few aspects which we were unable to receive despite several follow ups

3.2.10 GENERAL RECOMMENDATIONS

1. Review the **'Compassionate employment scheme'** which allows employment in the position such as workman, lineman, and office attendant, confidential assistant and fair copy assistant.
   a) Recruitment on compassionate ground for the positions of office attendant, confidential assistant and fair copy assistant ought to be stopped. It may be noted that as per JD, the

[34] The CE(HRM) helped us in identifying the individuals and the locations for the workshops. The workshops were conducted at RPTI, Calicut; and RPTI Ernakulam.

[35] Group meetings (also called subject matter expert meetings) are one of the most common ways to discuss various aspects of work. Such meetings are facilitated by job analyst and are argued to be one of the most efficient ways to collect information. An advantage of group meetings is the possibility of consensus, which is often necessary for finalization of a job description (Morgeson & Dierdorff, 2011)

[36] Please refer http://www.onetonline.org/ for a detailed tour of O*NET.

[37] Many of the participants initially resisted, claiming that same positions have varied responsibilities, primarily contingent on the geographic locations of employment. However we reasoned with them that same positions may have different degrees of difficulty in performing the same activities. Nevertheless, we requested the participants to prove differences in duties and responsibilities, if any, in writing, and if substantial differences were found, separate JDs were developed for same positions.

[38] It may be noted that we received another set (largely distinct) of job descriptions and competencies from the CE (HRM)'s office. However the information provided was limited, did not encompass all the positions, with the competencies not defined. The project team is still debating on the final version that shall be incorporated in the report.

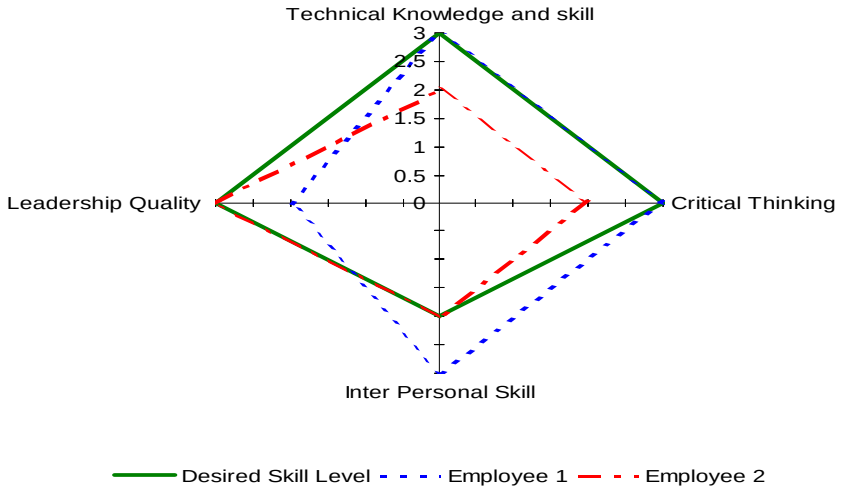
positions of confidential assistant and fair copy assistant are largely duplicates. Thus they can be amalgamated/or possibly phased out post the introduction of information technology.

b) Promotion of these employees further to higher position without requisite skill not only compromises with the overall skill requirement, but also creates a danger of exposing the employees life to risk while handling the job

c) KSEB must ensure the minimum skill requirement before or within a specified period (may be through provisional appointment) of absorbing any employee under this scheme

2. Thus KSEB may explore the following options to deal with the compassionate employment scheme:
    1. Option 1: Fund and train the dependents before considering them for employment and after successful performance in the skill test.
    2. Option 2: Give a provisional employment to the hired employees on compassionate ground, who need to ensure acquiring of competency before confirmation.
    3. Option 3: The 'Compassionate Employment Scheme' must be stopped in long run, and instead the organization might explore in embracing a "group term insurance policy" to pay a huge compensation. This would not just reduce the cost of KSEB significantly, but would also reduce the liability of the company. This would also help KSEB to get competent employees sans any compromises, guided solely by the competency requirements, while providing adequate benefits to the dependents of the deceased employees.
3. We recommend that the training centres be restructured. The Regional Power Training Institutes (RPTI) need to report to PETARC and the later should report to Director (HR) for optimal usage of infrastructure and consolidation of every training activity in KSEB.
4. Based on the identified competency, KSEB should go for mapping the individual employee against the desired competency against those positions. For example requires four major competency such as technical knowledge and skill, critical thinking, inter-personal skill and leadership. All these competencies are defined in each position and also a Behaviourally Anchored Rating Scale (BARS) is prepared by the participants during the workshop for job analysis. With the help of the participants and the HR department the desired level of competency is also identified. This will help in mapping the current skill level of the individual employee and the shortfall in skill. A sample map of the competency is presented below.

FIGURE 3.27 SAMPLE COMPETENCY MAP OF AE



N.B. – While desired level is identified for the position, employee 1 & employee 2 are hypothetical figures for illustration purpose.

We recommend KSEB to conduct this exercise with the help of the HR for all the employees working in these 29 positions under the study. This will not only help the organization in assessing the existing

skill level, but also help in identifying the training requirement of each employee which can be a crucial input for the training department.

5. Successive planning needs to be brought in particularly at higher management levels. Changes in structures to possibly suit the ability of the individuals hints at a situation wherein management although is not confident of ability of the person but feels constrained to do so. Presence and adherence of merit based performance criteria at higher levels are very crucial. Board is requested to look into the same preferably by taking external help to create explicit and detailed performance parameters. More on same is discussed in recruitment and progression section.
6. Socially desirable and diversity initiatives too can be linked with performance and cost reduction. For example, there is a sports quota based selection in KSEB at present. The noble intention is very appreciable. But this itself does not ensure the present arrangement to be better way to promote sports and in most cost effective way. There is a general perception that managers having such individuals find it difficult to get job done and face disruptions in execution of jobs as mostly these resources are busy in practice and participating in events. Can KSEB possibly explore options like recruiting sportsperson with appropriate qualification after they have finished their competitive sports stint, can it consider committing equivalent amount of resources to supporting sports initiatives of sportspersons or others instead of recruiting individuals with unmatching skills and thereby creating a sense of liability on both sides (possibly less performing individuals for KSEB and less motivation for individuals as KSEB work may not be of interest to them).
7. Increment and promotion should follow an annual cycle (based on financial year, calendar year or any such date as decided by the management) instead of the current cycle based on date of joining.

   This will optimize the efforts and reduce the workload of SAs

8. Planning and changes to major policy and the structure should not be done on an ad-hoc manner, but to the extent possible based on an annual calendar.
9. The organization should take initiatives to identify the relevant training needs of its employees every year. Apart from running the default training programmes, effort should be made to reach out to employees and their supervisors at every level, in order to design customized training programmes. Such a move shall not just be relevant as far as employee performance is considered, but shall encourage enthusiasm among employees for self-development.
10. KSEB should constantly question the need of a resource (human or material) with reference to organizational mission, and the ability of the personnel to use/manage. Without being satisfied on the above criteria, the organization should refrain from engaging in recruitment, selection, training, promotion, and transfer exercises.
11. Initiatives on HRIS and MIS in the organization needs to be sustained. This shall not just bring transparency and efficiency of effort, but shall also help in right sizing manpower in the long run.
12. KSEB may consider options like developing Hydel tourism where the skills of Civil engineers can be utilized.

One limitation of the study is that few Job Descriptions and Competencies need to be re-validated with the specific functions.

CHAPTER 4: THE ROADMAP

4.1 SUMMARY OF FINDINGS

KSEB is at the cusp of change. In addition to drastic changes happening in the regulatory environment of power generation, transmission and distribution, the technology adoption in power distribution is creating a fundamental shift in the way the power utilities would function in India. As major structural changes are happening in power production, with increased emphasis on thermal and non-conventional energy, the unique environment of Kerala is pushing KSEB more into a power distribution utility away from low cost power generator fame (thanks to massive hydel power plants being built and managed by it) it enjoy in the yester years. As the share of the hydel energy in the total energy reduces, there is an increasing need for KSEB to enhance its productivity and effectiveness in transmission and more in distribution. The KSEB has already taken up the challenge by adopting modern technology in power distribution and transmission, creating an impressive record in reducing technical losses in distribution. However, in order to harness the full potential of the technology implementation, the technical means have to be supplemented with organizational and human resource skills to facilitate a paradigm shift in the way the organization is working. The current study which looked at the organizational effectiveness and customer service could identify several operational and strategic pointers to facilitate this change. While operational changes are discussed on various aspects of business are discussed in detail in previous chapters, the strategic changes required for KSEB to evolve as one of the best power utility in the world is discussed in this chapter

As discussed in chapter 1, the broad objective of the study (summarized in figure 1.1 reproduced below as fig 4.1) is to develop KSEB as one of the top power utility in the world and this was attempted through 5 sub projects which focuses on external and internal competencies. In Project A (summarized in Chapter 1), the performance of KSEB was benchmarked with other utilities in India. The study which was based on a rigorous scientific methodology used a muti-criteria Data Envelopment Analysis model to compare the utility with other utilities in India and abroad. While the overall performance makes KSEB as one of the best utilities in the country, this was primarily driven by the low cost power availability and low technical and commercial loss. In order to follow MYTP the study recommends an annual improvement inefficiency of KSEB as a DISCOM @ 2% and as a GENCO @ 1%. In order to improve efficiency, KSEB needs to focus on employee cost, administrative and general cost and operating and maintenance cost. With open access, KSEB may not be in a position to charge a high differential tariff to its commercial customers. The study further looked at components of performance and identified Manpower cost as the Achilles's heel for the utility. While difficult operational terrain, higher skill level availability, better Quality of Service etc. justifies this manpower cost to some extent, the adoption of technology can have sweeping changes to the functioning of organization which could harness its immense manpower potential for growth and development. This is discussed in next section.

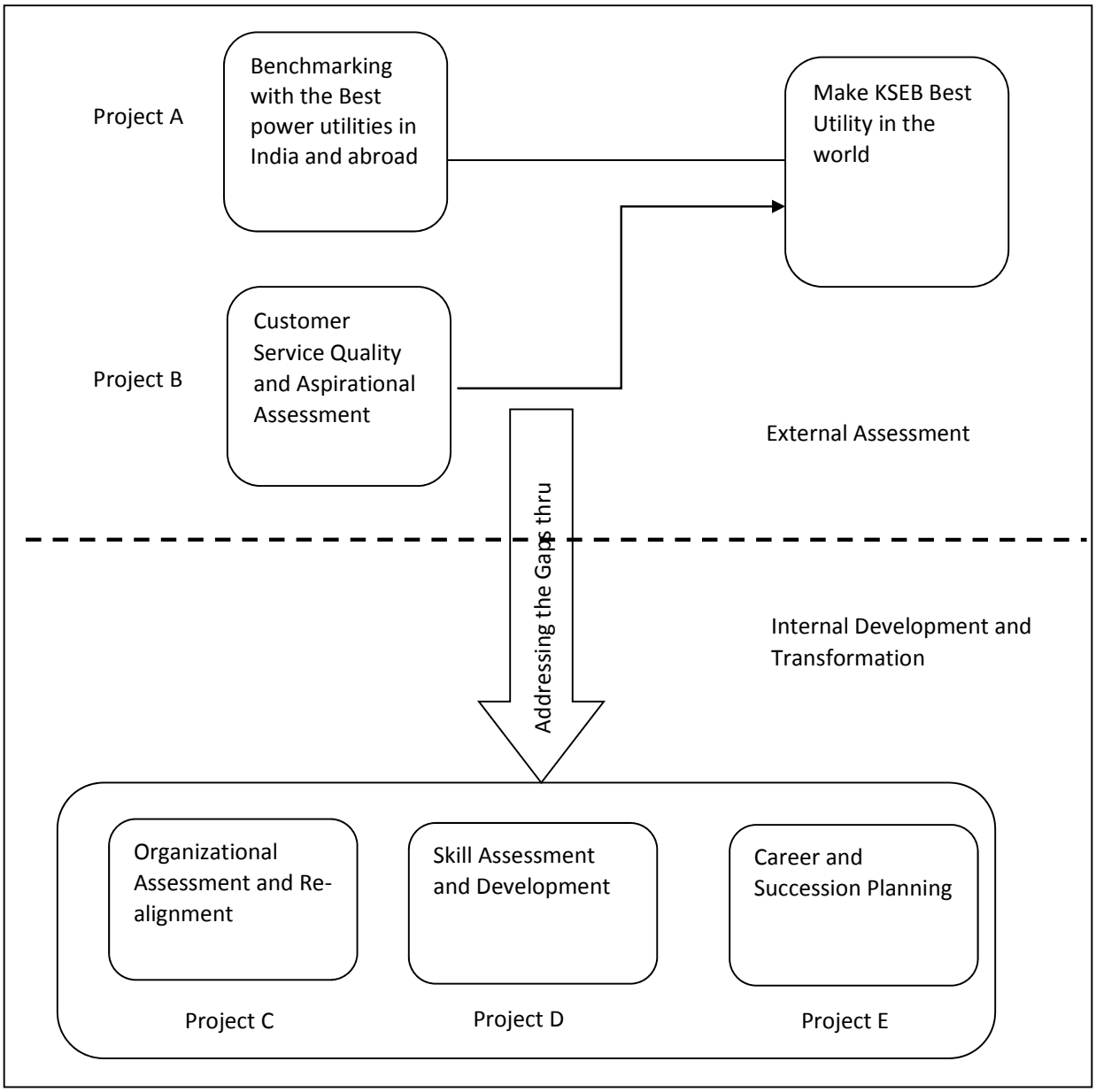
The limitation of the Benchmarking study was that it was done by comparing KSEB with other utilities in India. This suffered from two limitations: a) Sampling Bias: poor performance of other utilities made KSEB as the leader among the pack b) Lack of data: Service quality inputs were available only at feeder level and not at consumer level. In order to address the latter lacunae, an explicit customer study was conducted which formed the sub Project B of this work (elaborated in Chapter 2)

Conventionally power utilities in India enjoyed (natural) monopoly status. This has led to such organization function more on a supplier model with little concern for the customer requirements. The Electricity Act

2003, which deregulated the market allowed free purchasing right to customers in order to alter this situation. However, the limitations in the grid capacity and reluctance to accept open access has limited this choice and power utilities continue to enjoy monopoly, even though the extent may be reduce somewhat in some areas. Even though KSEB has not faced any problem of customer switching to alternate power producer (thanks to limitation of grid connectivity to the State and absence of competition in distribution), the progressive regulator has placed over the time stricter norms of customer service on the utility. Moreover, within the State itself, the switching of some of the key customers to licensees (or resellers) of KSEB is an indirect indication of high networth customer's disillusionment with KSEB. KSEB also face an interesting situation that while its revenue comes from a few commercial customers, the customer service efforts are generally targeted to the more vocal and diligent domestic customers who contribute to the larger subscriber base. Project B was done in this context using a primary survey methodology to understand the customer aspirations, requirements and expectations so as to have a realistic assessment of the gaps in customer service of KSEB. The results of this study were very illuminating (see chapter 2). While KSEB continue to remain as one of the most efficient utility in the country, the gaps in customer service is quite significant. Primarily, the organization is a tech driven entity with little emphasis on marketing and customer service. Interestingly several avenues of revenue generation and maximization are getting ignored in this process. While the benchmarking study (Project A) identified the need to reorient the manpower to rationalize the manpower and operating costs, Customer service study stressed the need for a marketing orientation for the company there by emphasizing the paradigm shift for KSEB from a "producer and distributor" of power to an effective power service utility company. The study identified avenues in which KSEB can work closely with customers to "generate" power by cutting down wastages at the customer end, thereby enhancing its revenue from commercial customers. The study also stressed the need for the utility to identify adoption of technology as an active business proposition to enhance growth rather than as a passive mechanism for reducing the losses. With the seamless data connectivity happening over the power network, the KSEB can have access to over 9 million households on a real time making it the largest connected platform of customers in Kerala. It is quite possible for the organization to build innovative solutions to harness the power such as a vast connected community. However this require a major change in the way the organizational system and its participants work to harness this potential. This forms the three other subprojects (discussed in Chapter 3)

These sub projects (Project C, D &E) as shown in figure below tries to determine the organizational and human resource processes that need to be developed and/or fine-tuned to address the gaps identified by Project A and Project B. As discussed above, Project A identified the need to rationalize the manpower and generate operating efficiencies, project B identified enhancing customer service as a key way forward to meaningfully redeploy the high quality manpower. However, in order to make this effective, there is a need to visualize the change in organization, its processes, roles and functions in the wake of massive technology adoption and sweeping regulatory changes happening in the environment. Sub project C thus attempted an organizational assessment of the company, given the inducement of technology to meet the gaps and challenges identified in Project A and B above. Based on the assessment, a restructuring exercise that clearly defined the roles and responsibilities (Job Descriptions), the requirements of positions at various levels etc. were proposed to enhance effectiveness of operations (see chapter 3). Further the key issue of wasted manpower- high quality manpower being expended for low level tasks due to limited growth opportunities and stagnation formed a major consideration for this study. Based on the detailed study across various divisions, offices and levels, the study has proposed a new organizational system for enhancing the effectiveness of KSEB. However, such a system is feasible if an only if the HR processes and the people are aligned to the same. Further the participants also require necessary skill sets to steer this transformation. This form the other two subprojects (details discussed in Chapter 3). Through a detailed skill and competency assessment the skill matching at various positions of the organization has been carried out. Further redundancy in organization and skills gaps were also identified through these studies. The studies also provide the methodology for enhancing the skills, rationalizing the position as well as the career and succession planning for the employees. Once implemented these operational changes can go a long way in addressing the gaps identified by Project A and B and would slowly transform KSEB as one of the best power utilities in the region.

FIGURE 4.1: SCHEMATIC OF TRANSFORMATION PROJECT OF KSEB



The power sector in India is undergoing a rapid transformation. In addition to regulatory changes, the Govt. is investing substantially in improving infrastructure, quality or service etc. with an objective of minimizing the losses and enhancing accessibility or power to larger masses of population. In tune with this, KSEB has also adopted technology as means to modernize its distribution and transformation systems, realizing a substantial reduction in T&D losses. Even though the current level of losses is much higher than International benchmark levels of 3-4%, KSEB has become the frontrunner among Indian power utilities to minimise these losses. However treating technology adoption as a means to address vulnerabilities and minimizing the losses presents very limited view of the potential of such technologies. As KSEB progresses further, its future roadmap have to be aligned with technology with this orientation. As discussed in Chapter 1 and subsequently, the limiting factor of KSEB is its high manpower cost and operating and general expenses. The regulatory authority has also pointed out this in several instances. The studies presented in this work specifically identifies the excess manpower available and redundant positions in the organizational structure. The most rational thing which succeeds such a study will be cut down manpower number and delayering of the organization. Given the socio-political environment, and humanitarian orientation of the public sector enterprise, this is normally implemented by eliminating the posts on retirement of employees and attempting limited (wherever feasible) redeployment of people to alternative positions. However, given the potential of KSEB, these commonly adopted methodologies may have to be replaced by better strategies discussed below.

Reduction of manpower and removal of positions in organization is not the ideal solution in the context of KSEB and Kerala. With limited job opportunities for youth, KSEB is always an aspiring employer for qualified engineers in the State. The reduction/elimination of positions will limit such recruitments in the future. However, the objective of any organization cannot be only for providing employment. Hence there is a need to balance continued recruitment with increased growth of the organisation. Primarily the common phenomena of enhanced manpower leading to reduced profits have to be broken innovatively. Further, over the years KSEB (as the top power utility in the country) has amassed tremendous wealth knowledge, which needs to be exploited for its commercial benefit. These two aspects shape the strategic direction for KSEB.

The primary direction in which KSEB has to reorient itself in the near future is to position itself as a Knowledge organization rather than a production (or even a power utility service) organization. The technology trends happening in the organisation allows it to leverage on its current knowledge base. For instance, KSEB has expert Engineers in power generation. Given that the power generation has reached stagnation and the development of new dams a distant possibility, these resources are turned redundant. However, in a country where not more than 14% of its hydel resources are exploited, such resources have tremendous value if KSEB can create a design organization that provide consultancy and development services to other utilities in India and abroad. This is one example of its transition to a knowledge service provider. Several such strategic changes can be identified, if the organization looks at technology adoption in a different light. Power Information technology, developing data services over passive networks, developing innovative customer services over the network of connected customers etc. are some of the areas which could be explored. However, in order to realise this organization has to understand the hidden potential that knowledge services can contribute to its revenue and growth and re-orient its manpower by looking at the way some of the best utilities in the world are evolving today. Creating a strategic plan that aim at generating a specific but significant, portion of its revenue from knowledge services is needed as a first step in this direction. However, this require a major transition and training exercise to be undertaken among employees at different levels to understand, internalize and implement the transition.

Finally, we estimate the changes in efficiency that can be passed on to the consumer while filing the multi-year tariff petition. In the case of a DISCOM, we find that KSEB could transfer anywhere between 2-4% of its generated efficiencies to its consumers. As a GENCO, we narrow down to a 1% efficiency factor. As suggested by the forum of regulators, the first regulatory period could be kept at three years.

4.3WAY AHEAD

From the ensuing discussion, it is clear that the findings of the study results in multiple implications for KSEB. At one end, the previous three chapters give specific recommendations for enhancing customer service, rationalizing manpower, modifying the organizational structure and enhancing competencies of people. However, these operational improvements have to supplement with a creative company transformation exercise that attempt to convert KSEB as a Knowledge intensive organization. This will ensure sustainable growth and development of KSEB. While details of this have to work out in detail, the first step to realise this is to conduct an organization wide transformation exercise to improve the mind-set and skills of the manpower. A multi-level training program has to be conducted from the top level executives onwards where in the nuances of the hidden power of technology as well as the managerial changes required for harnessing the power of technology to make it transform itself from a passive solution to an innovative growth engine are understood and adopted by the organization as a whole. Ideally this should be conducted jointly by a technology provider and experts in management. Exposure to world class systems will make executives experience the way in which some of the modern power utilities in the world have transformed as energy knowledge companies. This will enable them to steer such transformational exercises in the organization. As Strategic re-orientation is not a part of this study, the details are not presented here for brevity. However, depending upon the need of KSEB, IIMK can design and help implement such a transformational plan for the benefit of KSEB.

4.4CLOSURE: TRANSITIONING FROM GOOD TO EXCELLENT

KSEB is one of the better performing power utilities in India. The benchmarking study and customer service survey conducted as a part of this study have unearthed several areas of weakness and potential improvement. Through a very detailed organizational study, specific plans for improvement are also proposed. However, the study also found that KSEB has huge potential for growth and development given its high quality manpower and its appetite for adopting technology. Developing innovative solutions for enhancing growth over the technology infrastructure being developed to support power networks could be a way forward to achieve this. However, this requires a paradigm shift in the organization to transform itself as a knowledge entity leveraging on its strengths, a conscious structure manpower development effort with multiple interventions is imperative to achieve the same. The organization has to adopt a culture of excellence. After all, as Aristotle said Excellence is seldom an Act but a habit…

Developing such a habit should be focus of transformation of KSEB and that will indeed pave way for the utility in the years to come to become one of the best among the world….

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APPENDIX A: CHRONOLOGY OF ELECTRICITY SECTOR REFORM IN INDIA[39]

1990	Electricity laws (Amendment) Act allows private sector participation in generation, with foreign investors allowed 100% ownership.
1992-97	Eight projects given "fast track" approval status and sovereign guarantees by the central government.
1995	Orissa Electricity Reform Act established the Orissa Electricity Regulatory Commission and provided for unbundling of Orissa States Electricity Boards.
1996	World Bank support for Orissa Power sector restructuring project approved.
1996	Chief Ministers, Conference formulated a common minimum action plan for electricity.
1997	World Bank Haryana Power Sector Restructuring Project approved, and Haryana state government passes the Haryana Electricity Reform Act.
1998	Electricity Regulatory Commission ordinance notification provides for establishment of Central Electricity Regulatory Commission and State-level electricity
1999-01	Andhra Pradesh, Karnataka, and Uttar Pradesh proceed with preparation of electricity reform Acts. The World Bank prepares and approves projects supporting reform in each of these states.
2001	Energy Conservation Bill Passed by Parliament. Accelerated Power Development and reform program came in force.
2000-02	Draft central government electricity bill Prepared and introduced in Parliament.
2002-03	Benefits of Mega Power policy extended; restructuring and privatization of Delhi Vidyut Board (DVB).
2003	Electricity Act, 2003: De-licensing thermal generation and to allow open access to user in a competitive era.
2005	Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) for rural electricity infrastructure and household electrification launched by central government.
2007	The Electricity (Amendment) Act, 2007 enacted for amending certain provisions of the Electricity Act, 2003. Energy Conservation Scheme

[39](Source: Anoop Singh, 2006, Dubash and Rajan, WRI: Power Politics, and Annual Report 2007-08, MoP, GoI,) [5][9][17].

APPENDIX B: SALIENT FEATURES OF THE ELECTRICITY ACT 2003 [40]

Sr. No.	Category	Key feature
1	Objectives	1. Encouraging autonomous regulation with the separation of policy regulation and operational aspects 2. Rationalizing tariff and lowering the cross-subsidization levels 3. Creating competition in the industry 4. Ensuring supply of electricity to all areas 5. Protecting consumer interests
2	Policy	▪ A National electricity plan shall be prepared in accordance with National Electricity Policy every 5 years ▪ National policy on stands alone systems for rural areas and Non-conventional energy systems ▪ National policy on electrification and local distribution in rural areas
3	Restructuring	▪ Vertical integration instead of horizontal unbundling of State Electricity Boards (SEBs) to make them financially strong ▪ State governments will have the freedom to decide the sequence and phases of restructuring, and also retain the integrated structure of the SEB for a limited period ▪ Introduction of the concept of power trading as a distinct activity, and the introduction of spot market for bulk electricity
4	Generation	▪ Removal of captive power plants from the ambit of licensing and other permissions ▪ Generators can contract directly with DISCOMs ▪ DISCOMs can have embedded generation ▪ Captive generation allowed freely—can supply to associates ▪ Elimination of Licensing requirement and techno-economic clearances for generation projects except hydel projects
5	T&D	▪ Provision for Private participation in distribution ▪ Surcharge for open access to meet current cross-subsidy burden (except for CPP's) ▪ Dedicated transmission lines allowed (not regulated) ▪ Central and State transmission Utilities (CTU and STUs) not permitted to trade ▪ Transmission licensees allowed

[40] (Thakur, T., Deshmukh, S. (Placeholder1)G., Kaushik, S. C., & Kulshrestha, M., 2005)

		▪ Multi Year Tariff (MYT) recommended ▪ Bidding allowed ▪ Provision of Non-discriminatory open access mandatory. Open access in distribution is to be introduced in phases. SERCs will frame regulations within 1 year regarding phasing-in of open access. Open access only when allowed by regulator ▪ Fixed charges for third party sales for service obligation of incumbent ▪ Non-exclusive licensing ▪ Parallel networks explicitly allowed ▪ Mandatory metering within 2 years (extendable by GoI)
6	Regulation	▪ Gradual (progressive) reduction and ultimate elimination of Cross-subsidization ▪ The formation of a State Electricity Regulatory Commission (SERC) in every state to be mandatory
7	Legislation	1. Provision for appropriate legislation to check power theft 2. Provision of Appellate Tribunal
8	Consumer Protection	1. Consumer protection against failure to meet the standards of performance 2. Mechanism for redressal of consumer grievances

APPENDIX C: STATUS OF REFORMS & RESTRUCTURING OF 29 STATES[41]

		Milestones						
	1.0	SERC				2.0		
	a	Constituted	b Operationalisation	c Open Access Regulations		Unbundling / Corporatisation	a Unbundling/ Corporatisation - Implementation	b Privatisation of Distribution
Total		29	29	28			19	2
West Bengal		√	√	√			√	
Uttarakhand		√	√	√			√	
Uttar Pradesh		√	√	√			√	
Tripura		√	√	√			*	
Tamil Nadu		√	√	√			√	
Sikkim		√	√					
Rajasthan		√	√	√			√	
Punjab		√	√	√			√	
Orissa		√	√	√			√	√
Nagaland		√	√	√				
Madhya Pradesh		√	√	√			√	
Maharashtra		√	√	√			√	
Mizoram		√	√	√				
Manipur		√	√	√				
Meghalaya		√	√	√			√	
Kerala		√	√	√				
Karnataka		√	√	√			√	
Jharkhand		√	√	√				
Jammu & Kashmir		√	√	√				
Himachal Pradesh		√	√	√			√	
Haryana		√	√	√			√	
Goa		√	√	√				
Gujarat		√	√	√			√	
Delhi		√	√	√			√	√
Chattisgarh		√	√	√			√	
Bihar		√	√	√			√	
Assam		√	√	√			√	
Andhra Pradesh		√	√	√			√	
Arunachal Pradesh		√	√	√				

Note:

* Tripura Power Dept. is corporatised as Tripura State Electricity Corporation Ltd.

[41] (Ltd.(PFC), 2013)

APPENDIX D: MALMQUIST PRODUCTIVITY INDEX

The Malmquist (output-oriented) TFP change index between period t (the base period) and period t+1 is given by

$$M_0\left(x^{t+1},u^{t+1};x^t,u^t\right)=\left[\frac{D_0^t\left(x^{t+1},u^{t+1}/CRTS\right)}{D_0^t\left(x^t,u^t/CRTS\right)}\cdot\frac{D_0^{t+1}\left(x^{t+1},u^{t+1}/CRTS\right)}{D_0^{t+1}\left(x^t,u^t/CRTS\right)}\right]^{\frac{1}{2}} \quad ....(1)$$

where the notation $D_0^s\left(u^t,x^t\right)$ represents the distance from the period t observation to the period S technology.

A value of M_0 greater than one will indicate positive TFP growth from period S to period t. But a value less than one indicates a TFP decline.

However, the Malmquist total factor productivity change can be decomposed into the product of technical and efficiency changes.

Efficiency change: $$\frac{D_0^t\left(x^{t+1},u^{t+1}/CRTS\right)}{D_0^t\left(x^t,u^t/CRTS\right)} \quad ....(2)$$

Technical change: $$\left[\frac{D_0^t\left(x^{t+1},u^{t+1}/CRTS\right)}{D_0^{t+1}\left(x^{t+1},u^{t+1}/CRTS\right)}\cdot\frac{D_0^t\left(x^t,u^t/CRTS\right)}{D_0^{t+1}\left(x^t,u^t/CRTS\right)}\right]^{\frac{1}{2}} \quad ....(3)$$

Here efficiency change (EC) measures the catching-up factor with the best practice frontier for each observation between two time period t and t+1. Technical change (TC) measures the shift in the frontier of technology (innovation) between two successive periods evaluated at x^t and x^{t+1}. Efficiency and technical change indices exceeding unity indicates gains in those components.

However, under constant returns-to-scale (CRTS) the efficiency change (EC) can be decomposed into two components as

$$EC=\frac{D_0^{t+1}\left(x^{t+1},u^{t+1}\right)/CRTS}{D_0^t\left(x^t,u^t\right)/CRTS}$$

$$=\frac{D_0^{t+1}\left(x^{t+1},u^{t+1}/VRTS\right)}{D_0^t\left(x^t,u^t\right)/VRTS}\cdot\left[\frac{D_0^t\left(x^t,u^t\right)VRS}{D_0^t\left(x^t,u^t\right)CRS}\,x\,\frac{D_0^{t+1}\left(x^{t+1},u^{t+1}\right)/CRS}{D_0^{t+1}\left(x^{t+1},u^{t+1}\right)/VRS}\right]$$

In the above, the first term outside the parenthesis is called as pure efficiency change (PECH) and it measures change in technical efficiency under the assumption of variance returns to scale (VRTS). The term in the parenthesis is scale efficiency change and it measures the changes in efficiency due to movement toward or away from the point of optimal scale.

If the Malmquist TFP is greater than one, we say that there is growth in production and less than one shows decline.

Enhancing
Service Quality & Organisational Effectiveness
in Kerala State Electricity Board

Customer Survey - Part of Project B
Approvals and Sanctions Required

Background:

- Customer awareness, perceptions, expectations, attitudes and satisfaction measurement is one of important aspect of external assessment in the project to help identify gaps to improve quality and organizational effectiveness as per the project plan.

- IIMK team on the project has designed a field survey of the customers towards this based on extensive secondary data and exploratory studies using qualitative approaches such as observations, depth-interviews and focused group discussions.

- The survey design and plan was shared with the Chairman-KSEB and other key executives of KSEB on August 5, 2014 at IIMK Campus.

- Final approval and execution of fieldwork was decided to be done by distribution committee of KSEB.

- This note contains detailed survey plan for approval and execution of fieldwork. Upon completion of the fieldwork, field up responses may be forwarded to the following address:

  Prof. Joffi Thomas,
  Associate Professor,
  Faculty Room # 1/17, Academic Hill,
  Indian Institute of Management Kozhikode,
  IIMK Campus PO,
  Kozhikode 673570
  Ph.: 0495-2809117

Actions required from the Distribution Committee:

1. Approval of Sampling Plan as detailed in Section 1

2. Approval of Data Collection Plan as detailed in Section 2
3. Approval of Field Operations Plan as detailed in Section 3
4. Execution/ Implementation of Field Work as per 3 above.

Section 1 Sampling Plan

Sampling Unit & Size:

Type of Consumer	Sampling Unit	Respondent	Sample Size	Sample Strata
Domestic	Household	CWE (Chief Wage Earner)	2920	1580 - Urban
				1340 - Rural
Commercial	Shop/ Office	Owner/ Manager	960	720 - Retail
				240 - Office

Sample size is driven by time and budgetary constraints yet sufficient to provide reasonably accurate measurement.

Sampling Methodology:

- Proposed sample quotas are decided based on representativeness across sub segment, geography, proportionate distribution to population and practical constraints dictated by field operation plan.

- A hybrid method using cluster and quota sampling approaches is followed. One urban and one rural section from each circle in each zone were chosen randomly (random number generated by a computer software). Quota for urban, rural, commercial-retail and non-retail are fixed based on general understanding and proportion of population in each section.
- While it is important to meet quota requirements for each section for commercial, domestic urban and domestic rural as specified, for commercial responses approximately 3:1 ratio may be maintained for retail: non-retail consumers

Sample Quotas by Section/ Circle:

Zone	Circle	Section		Population	Sample for Domestic (D)	Sample for Commercial(C)
North	Kasargod	Commercial	C			40
		Kasargod	U	21642	80	
		Uduma	R	16511	60	
	Kannur	Commercial	C			40
		Kannur	U	17467	60	
		Eachur	R	23397	80	
	Kalpetta	Commercial	C			40

		Kalpetta	U	17326	60	
		Vythiri	R	13053	60	
	Sreekandapuram	Commercial	C			40
		Payyannur	U	22724	80	
		Alakkod	R	16692	60	
	Vatakara	Commercial	C			40
		Koyilandi South	U	20547	60	
		Moodady	R	6328	40	
	Kozhikode	Commercial	C			40
		Kozhikode Central	U	12221	60	
		Koorachundu	R	5784	40	
	Tirur	Commercial	C			40
		Tirur West	U	19693	60	
		Thoovakkad	R	12036	60	
	Nilambur	Commercial	C			40
		Nilmbur	U	13523	60	
		Areacode	R	18170	60	
	Manjeri	Commercial	C			40
		Mallappuram East	U	16111	60	
		Pandikkad	R	19672	60	
	Shornur	Commercial	C			40
		Shornur	U	15556	60	
		Vallappuzha	R	10251	40	
	Palakkad	Commercial	C			40
		Olavakkod	U	15416	60	
		Velanthavalam	R	17455	60	
	Region total			**351575**	**1320**	**440**
Central	Allapuzha	Commercial	C			40
		Alapuzha north	U	25491	80	
		Mannar	R	13556	60	
	Ernakulam	Commercial	C			40
		Edapally	U	23578	80	
		Vaduthala	R	13101	60	
	Irinjalakuda	Commercial	C			40
		Kodungallur-No.1	U	16426	60	
		Thalikulam	R	10217	60	
	Thodupuzha	Commercial	C			40
		Thodupuzha-No.2	U	20483	60	
		Adimaly	R	18372	60	
	Thrissur	Commercial	C			40
		Guruvayoor	U	16463	60	
		Arimbur	R	12079	60	
	Pala	Commercial	C			40
		Pala	U	16083	60	
		Kidangoor	R	10700	60	
	Perumbavoor	Commercial	C			40

		Aluva town	U	21797	80	
		Thuravoor	R	6962	60	
	Region total			225308	840	280
South	**Thiruvanthapuram (U)**	Commercial	C			40
		Poojapura	U	24177	80	
		Attingal	R	21215	80	
	Thiruvanthapuram (U)	Commercial	C			40
		Nedumangad	U	20275	60	
		Maranalloor	R	13687	60	
	Kollam	Commercial	C			40
		Contonement(Kollam)	U	14623	60	
		Thevalakkara	R	19740	60	
	Kottarakara	Commercial	C			40
		Kottarakara	U	15116	60	
		Pattazhi	R	16109	60	
	Pathanamthitta	Commercial	C			40
		Pathanamthitta	U	17420	60	
		Kaippattoor	R	19453	60	
	Kottayam	Commercial	C			40
		Kottayam central	U	16712	60	
		Thalayazham	R	11051	40	
	Region total			309578	740	240

Section 2 Data Collection Plan

Data Collection Instrument:

- Data collection instruments are designed using key conceptual framework borrowed from JD Power utility company satisfaction surveys. This is believed to be comprehensive from the point of view of the key dimensions/ factors that a consumer considers while evaluating a power utility company.

- The framework was validated using exploratory methods in Kerala context and suitably adapted to identify key structure so far as information areas are concerned.

- Apart from awareness, perceptions, expectations and satisfaction, attitudes of consumers towards a few new ideas are measured to be conclusive.

- Data collection instruments were developed in English and translated and back translated for consistency.

- Appendix 1a and 1b and Appendix 2a and 2b are the English and Malayalam instruments for domestic and commercial consumers respectively.

Mode of Data Collection

- Data would be collected using face-to-face administration of the questionnaire.

- Field investigator (KSEB representative) would visit a household/ commercial establishment in respective section based on convenience.

- He would ascertain the presence of the target respondent (time of visit hence may be planned to make sure the availability of target respondent), share the instrument in appropriate language and request responses.

- Field investigator would clarify and assist the respondent during the process, collect the filled up response and then only leave the premise of the respondent.

- Field investigator would identify target household/ commercial establishment conveniently to get another unique response. As he completes the quota, he would stop and submit the filled up responses to the field team leader.

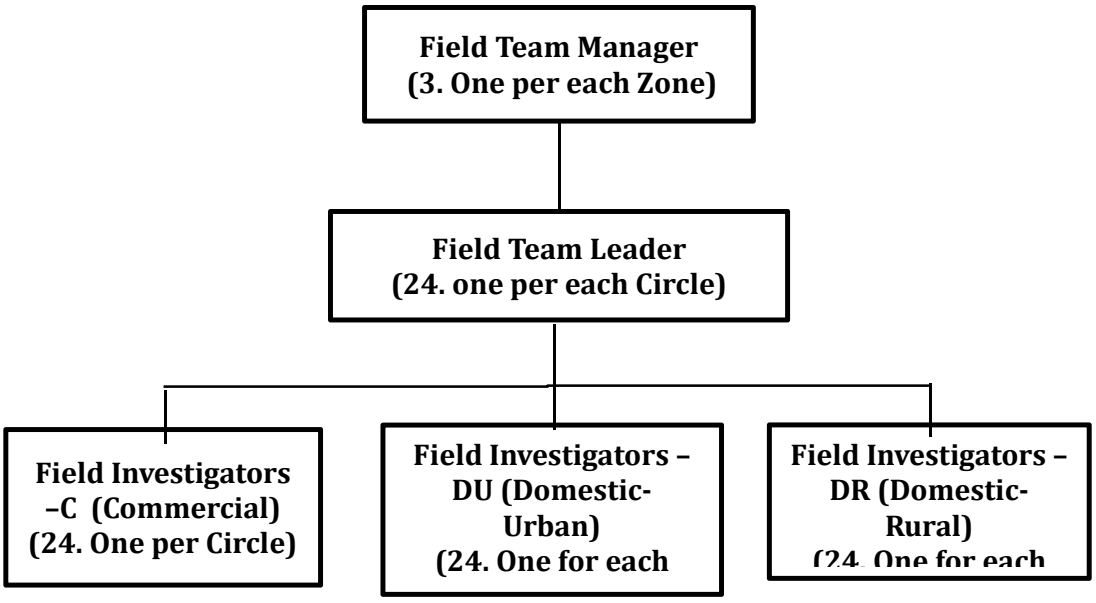
- Each response takes approx. 20-25 minutes.

Section 3 Field Operation Plan

Field Organization:

- KSEB would set-up an ad-hoc organization for this project to get fieldwork done.

- Suggested organization structure, roles and responsibilities of various members are provided as under.
-



- *Responsibility of Field Investigator (FI)*
  - Participate in field training and mock field interview with IIMK team
  - Collect copies (Eng./Mal) of instruments from FTL.
  - Read and understand the instrument carefully
  - Prepare the field kit containing - your ID card, Chairman's letter, Eng./Mal copies of instruments, Writing instrument, quota status card.
  - Visit the sampling unit - C, RU, DU as assigned in your section and contact the respondent.
  - Introduce yourself and the purpose of the exercise. Show letter from the Chairman.
  - Assist respondent fill up the questionnaire. Clarify doubt, if required.
  - Collect filled-up response. Ensure it is complete. Fill-up required information from your side. Update quota status
  - Continue collecting responses till quota is complete.

- Number each response, put all responses in envelope. Write clearly section name, number of responses, section type - urban, rural, and commercial on the envelope and handover them to the FTL.

- *Responsibility of Field Team Leader (FTL)*
  - Identify field investigators (FI) in your circle (Urban, Rural and Commercial) and form a team as specified.
  - Participate along with team of FIs in field training and understand the field operation plan with IIMK team
  - Collect soft copies (Eng./Mal) of instruments from IIMK and distribute them in required numbers to the FIs in your team. Ensure that the FI is given commercial questionnaire and domestic questionnaire appropriately.
  - Read and understand the instrument carefully.
  - Ensure that FIs have understood the process and responsibilities correctly. Explain sample quota and process again, if required.
  - Provide copy of chairman's letter to the FIs, issue ID cards, if not available.
  - Supervise the process. Check completed questionnaires and ensure quota numbers for each type of FI.
  - Seek clarification and coordinate with IIMK team.

- *Responsibility of Field Team Manager (FTM)*
  - Understand this document and seek clarification with IIMK team if required.
  - Help organize training at zonal level for various field teams in the sections from his/her zone.
  - Be present at training for some time to emphasize the significance of the project and motivate the field team
  - Prepare and issue chairman's letter on his behalf - draft enclosed.
  - Approve the sections selected. Suggest sections based on peculiarities, if any.
  - Identify field team leaders (FTL) in your zone (Urban, Rural and Commercial) and form a team as specified. Refer this document for details of sampled sections, quotas and field structure.
  - Explain significance of the exercise to field team leaders and assign them to participate in the project.
  - Help IIMK with any issues pertaining to fieldwork.
  - Help get the fieldwork completed in 15 days time.
  - Manage any specific queries from media or other stakeholder and manage any larger issues concerning the field work, if and when arise.

Field Training:

- IIMK to conduct briefing-cum-training session at zonal level for all field teams pertaining to the respective zone at a central venue arranged by FTM.
- Field team including FTLs and FIs from respective zones to attend the session.
- Training to contain mock sessions by FIs

APPENDIX F: QUESTIONNAIRES USED FOR FIELD CUSTOMER SURVEY (ENGLISH AND MALAYALAM VERSIONS)

<<<In Separate Folder>>>

APPENDIX G: ILLUSTRATIVE BILL DESIGNS

<<<In Separate Folder>>>

APPENDIX H: EMPLOYEE JOB DESCRIPTIONS

WORKSHOP 1

1. ASSISTANT ENGINEER

	JOB DESCRIPTION
GENERAL DUTIES	Design Various Electrical Uninstallation / Networks
	Testing & Commissioning of Electrical Equipment's / Installations such as transformers, CT, PT, Relays, Meters, CB, isolators, Capacitor Banks, communication equipment's, control panels, battery systems, DC systems, Oil filter units. Testing and installations of 10-15 numbers in a day.
	Travel (around 100-150 KM per day for conducting Inspection of Various equipment's / Installations
	Preparation of Various estimates for works
	Scheduling Planning and Execution of Capital Works
	Scheduling Planning and Execution of Routine / Preventive Maintenance
	Execution of Emergency Breakdown Works
	Attending before Various Forums like CDRF CGRF etc.
	Measuring Work Contract Bills / Works
	Study like Load flow analysis / Voltage Regulation Calculations / DPR of Projects etc.
	Attending various Meeting / Conference
	Man Power Management
	Material Management
	Customer Management / Customer Satisfaction activity
	Issuing of Work Permits Conducting testing and commissioning of various LT/HT/EHT equipment of various electrical installations like CT, PT, Transformers, Communication equipment, various relays and UG cables

GENERATION OPERATION	Starting /stopping & synchronizing the generators as per the requirement from Load
	Monitoring/recording various parameters
	Issuing work permit on generators feeders, and other equipment
	Issuing work permit on generators feeders, and other equipment
	Load controlling as per instruction from LD
	Up keeping the operators diary
MAINTENANCE	Routine maintenance of Generators, transformers and other equipment (daily, monthly – 1day and annual 1- month for each machine) includes maintenance of mechanical, electrical and PLC equipment.
	Break down maintenance of Generators and other equipment
	Store transactions
	Maintaining & up keeping registers (Asset, tools and plants, Equipment, maintenance)
	Maintaining sufficient stock of essential spares and materials. Up keeping Register of Materials
CORPORATE OFFICE / Vigilance & APTS	Compile and process the technical data received from different agencies
	Analysis of more than 1500 Vigilance Petitions Per Year and more than 2500 APTS Data
	Conducting 21758 number of APTS inspections all over Kerala in LT and HT premises
	Preparation/processing of statement of facts/notes of technical related issues in note file /enquiry reports
	Liaison with other offices /departments
TRANSMISSION OPERATION	Recording operational statistics
	Issuing permit works on EHT/HT feeders /equipment
	Ensuring healthiness of all equipment
	Recording and maintaining operators diary
	Coping with emergency situation such as break down, cascade etc.
	Planning Scheduling and implementation of routine and Preventive maintenance, like weekly, Monthly, and
	Break down maintenance
MAINTENANCE	Store transactions
	Procurement of safety equipment and various materials for maintenance works
	Ensure safety of operating personnel in all electrical/mechanical works
	Up keeping of substation assets including tool & plant, Registers etc.
	Verifying monthly system operation statistics and forwarding to corporate office

	Verifying, compiling and forwarding of various estimates of operational, maintenance and capital works to higher office for sanction
	Timely implementation of various sanctioned jobs through contract/department staff
	Supervising and ensuring quality of various construction works
	Measuring, preparing work bills and capitalizing the asset formed.
DISTRIBUTION	Conduct Sun rise meeting and work arrangement
	Ensure attendance of employees promptly report any irregularities
	Work arrangement and deploying staff among capital & maintenance Wing, Revenue Wing (DC&RC, meter changing, meter testing, etc. (70nos/day and Breakdown Wings (attending about 60-70 calls/day)
	Daily Safety Planning of Works
	Verification and up keeping of Standard of Performance Registers like HT, LT Interruption, AF, oyec ,DC&RCregisters, Complaint register etc.
	Arranging Cash collection of about 12000 consumers/month
	Daily Material Management through SCM
	Verifying monthly material consumption statement for different works and Closing of material account
	Receiving Application from consumers/applicants for various services
	Attend Consumer Grievance Issues
	Assign Jobs in Oruma Software to the employees for field verification for tariff changing, ownership changing, deposit works, connected load change, meter shifting, conversion from single to three phase
	Verify the applications processed by subordinates and completed within the time limit
	Sanction of Service Connection estimate, issuing demand notice, assigning priority and assigning employees for effecting SC
	Releasing service connection Timely
	Identification of different work, preparation of estimate, sanction / Approval of Voltage Improvement / System Improvement work
	Prepare Power Feasibility Study, estimate, sanction approval etc. related OYEC line Extension Work
	Preparing schedule for transformer maintenance.
	Arranging patrolling of HT- 70km, LT lines (300Km and finding out maintenance works Preparation of Estimate for Street Light Work
	Preparation of Estimate for Street Light Work

	Forwarding Various report called for from the Higher offices regarding
	Attending / making report for Preparation of statement of facts for various Consumer Grievance Form / Court like CDRF, CGRF / Appeal Form of 126 / Court
	Inspection of Abnormality and Preparation of Site Mahazer
	Issue of Provisional Bill
	Hearing Objection as per Section 126
	Attend Before Appeal Form of Section 126 of Act 2003
	Check Reading of Meter (per month around 100 consumers in random)
	Very Reading Register Monthly / Bi monthly
	Arrange to issue bills as directed by regional Audit
	Preparation of Audit Report / RAO / CAG
	Updating of Oruma System details
	Measuring Work Bills, Preparing working estimate, Material consumption statement
	HT Reading. Reading entry and Calculation
	Inspection of work sites for verifying the quality and to ensure safety norms.
	Reporting the accidents /causalities, preparing site Mahazar, intimating to police, Electrical inspector, arranging treatment.
	Man Power Management
	Customer Management
	Material Management
	Attending Meetings – Division / Circle Level etc. various KSEB office
	Inspection of Abnormalities reported through Abnormality Register
	Planning Scheduling and Implementation of Routine Preventive Maintenance like transformer Maintenance, Damaged Pole Changing, HT & LT Line Maintenance etc.
	Planning Scheduling and Implementation of Emergency Breakdown Maintenance distribution Maintenance
IT-COMPUTERISATION	Development of software according to requirements specified by Board/State Govt./Central Govt guidelines, supply code, other Acts etc.
	Testing of developed software for any problems
	Training for users on the developed software
	Implementing developed software
	Hardware supplying/maintenance of various equipment, data line, networks etc.
	Server installation, Configuration and maintenance

	Data center control, monitoring, configuring, maintenance etc. For the soft wares used in KSEB
	Requirement study for new software, Hardware etc.
	Support, problem study, solving of different problems reported from field related to software
	Generally study, read, grasp new technologies, software, languages etc. And adopt if required with sanction from competent authority
	Prepare documents, quotations, and detailed requirement chart for projects that are outsourced.
	Monitor development of outsourced projects
	Test/train/implement software delivered by the vendor
	Collection of employee list from various offices for training from different category.
	Programming works to be done for software.
RPTI	Arranging faculty for the specific subject
	Preparing schedule for monthly training
	Purchase of materials for training (collecting quotations, issuing purchase order etc.
	Arranging refreshments for training.
	Preparing and arranging printing of certificates, printed notes, etc.
	Store management
	Maintenance of training Hall & Dormitory
	Vehicle arrangement for field visit
	Collection of feedback from participants
	Honorarium for faculty
	Upkeep of imprest account
POWER EQUIPMENT DESIGN	Design generating/transmission/distribution systems/stations deciding on capacity, future prospects, environmental, public concerns etc. averaging about 6-7 max about 16-18
	Prepare detail design drawing for constructing generating/transmission stations.
	Prepare quotations for each project according to design.
	Identify the technical expatriation of various companies for undertaking generating station works
LOAD DESPATCH	Load flow studies with elaborate data from substations, generating stations etc.
	Monitor live load on feeders and generators
	Take decisions find actions on live lad data to avoid catastrophic disasters, power failure etc.
	Give orders to generating stations to adjust loads to substations to adjust voltage for frequency /voltage control
	Give support to plan and implement trading
HRM	Identify the work required in various departments, skills required etc.

	Prepare list of employees to be posted, transfer etc. for various departments based on applications from employees requests/demand from department heads.
	Transfer list averages about 200-250 employees list to 500 maximum.

Skills Required		Poor	Average	Superior
Technical knowledge & skill	Transformer failure	Cannot identify the fault	Delay in fault identification and rectification	Timely fault identification and rectification
Critical Thinking for threshold operation.	Electrical accident	Stunned with the situation	Informed the higher-ups and unable to provide assistance to the victim	Informed higher-ups, managed the mob, proper assistance to the victim and subordinate staff timely
Inter Personnel Skill	Consumer with a complicated grievance	Situation becomes worst after the discussion	Somehow managed the situation but consumer not fully satisfied	Handled the situation effectively and consumer was happy
Leadership Quality in terms of Utilization of Man Power	Urgent emergency breakdown works	No proper utilization of available man power and material	Somehow managed the situation but with enormous delay	Effectively utilized the available man & material and restored the supply within no time.

2. CASHIER

	JOB DESCRIPTION
	Attend up to 650 consumers per day in 2 shifts
	Cross check the bill with details in computer
	Collect cash
	Check for counterfeit notes
	Enter data through Uruma net
	Print and issue receipts
	Explain and clarify doubts of consumer
	Direct consumers to the concerned authorities to solve their problems
	Register faulty meter consumers in faulty meter register while taking collection
	Keep documents needed for further action e.g. sop 10, bank challan
	Keep records – cheque register, Mo register,

	cash remittance register, cash in hand register, advance collection register, r f waiving and receipt cancellation register, (need further validation)
	Check with dc register and report to AE or SS consumers who are pending with more than 2 bills
	Maintain computer systems
	Count cash and reconcile with computer statement
	Prepare bank challans for remittance
	Making arrangements for remittance
	DC and RC register maintaining
	Computer back up per day
	Sometimes open cash counters on holidays (as per orders)
	Operating in two shifts 8-1 and 1-6 (due to shortage of staff we have to take 2 shifts)
	Sub center collection and manual collection should be entered on the same operating day
	Evening shift collection to be put in the chest and locked. The key to be kept under the authority of AE or SS
	Ensure that one is logged out of the system

Skills	
Arithmetic skill	Numbering ability, basic mathematics plus. Minus. Division. Multiplication.
Computer skill	Basic computer knowledge
Language skills	Basic English
Time management skill	Satisfy the consumer in minimum time. Counter must be open at 8 am and closed by 6pm
Knowledge	Basic knowledge about supply code. Tariff information act 2007. Body posture. Listening. Billing calculation
EBook keeping	Proper maintaining of accounts and registers in system

SKILL	BASIC	AVERAGE	EXPERT
Arithmetic	Calculates with hand. Slow in understanding mathematical information related to tariffs.	Calculates with hand. Is through with mathematical information related to tariffs.	CALCULATE SPEEDELY ADD, MULTIPLICATION AVERAGE by calculator/computer. Is in knowledge of mathematical information related to tariff.
COMPUTER SKILL		TYPING SPEED AVERAGE	

TIME MANAGEMENT SKILL			SATISFING MORE CONSUMER WITH OUT ERRORS

3. **LINEMAN**

Lineman is currently being recruited for distribution section only.
Duty hours - 8 hours, their duties are shifted routinely. (8am-5pm)
According to the duties assigned by the authorities like overseer, sub engineer etc., they are allotted to different tasks based on the daily complaints.
According to the model section, it is categorized into 3 wings:

1. Revenue wing
2. Break down wing
3. Maintenance wing

Linemen have to maintain safety precautions before being in the field or leaving for their work 12 linemen are allotted in a section, of which, 2 are for maintenance wing, 2 from revenue wing and 8 allotted for breakdown wing.
Damaged cable, fuse units, insulators, reshackling of line (tightening loosened wire), stray wire, conductors re-joining, transformer yard maintenance etc. are done by linemen
The detailed duties and responsibilities are provided below:

	Job duties and Responsibilities
	- Provide Newer connections based on the instruction of Overseer.
	- Based on the instructions of the Overseer, implement the disconnection list after giving due notice to the consumer.
	(The validity of paying the bill without fine is 7 days and for the next 7days is given which have to be paid with fine. Linemen indicate the same to consumers warns them and disconnects in the 14th day.
	After they pay the bill, the linemen give the consumers reconnection within 24 hours. Reconnect the power supply after the bill payment by the consumer within 24 hours.
	- Take the reading of the customer at the time of disconnection and reconnection.
	- Shifting of meters, (which was done in course of construction work etc.) are to be done
	- Replacing of meters in case of complaint, over reading etc.
	- Average no of new connections: 100 connections
	- To attend the complaints registered (like unavailability of supply, repairing faulty meters etc.) by the consumers

	- Average no. of breakdowns handled: 50-60 per day
	- Dismantling of connections as instructed by the overseer based on the request of consumers
	-He needs to do maintenance work like replacing of damaged cables, insulators, fuse units, reshackling of line ,transformer yard maintenance, reshackling of line etc.
	-Handing over monthly bills to the LT-4 (Industrial) consumers
	-Overall, he needs to maintain good relations with the consumers
	Duty hours - 8 hours, their duties are shifted routinely. (8am-5pm)

Skills	Definition
technical Knowledge about electricity	Is the knowledge to know 'what electricity is' on situational basis like to identify presence of electricity flow in people , or in water or in case of a line cut on a road...to deal
	-knowledge about parameters of electrical appliances like voltage, feeder, transformers, etc.
	- situation based analysis to manage and deal with the work(e.g.: in case of emergency or accidence)
	- Precision in the work one does
-Time management(for disconnection or Reconnection and to deal with the maintenance or breakdown works)	- is the ability to impart proper disconnection or reconnection works .To timely attend or deal with the maintenance or breakdown works.
-Physical fitness and Confidence to work upon the field	
-Commitment to the work while dealing with maintenance or repairing work (in the post)	
-Inter-communication skill with the field team(Team Work)	

Skills	BASIC	AVERAGE	SUPERIOR
1. technical Knowledge about electricity like			-min. 2 years' experience in this field with know-how to maintain electrical instruments like transformer, meters etc.
	-to on or off supply	-to on or off supply	-Basic awareness and knowledge about electricity
		-Diagnose the faults easily	-Easy to diagnose the electrical faults, or proactively do the

			electrical maintenance work easily
			-Independently able to handle the field works.
			-Problem solving ability
-Time management(for disconnection or Reconnection and to deal with the maintenance or breakdown works)	Is unavailable for work at critical periods of shutdown	Hurries through one's work without a plan. Messy work.	-Planned and timely execution of work.
-Physical fitness and Confidence to work upon the field			-Stamina
			Vision
			Observation
			hearing ability

4. OVERSEER

	JOB DESCRIPTION	QUANTIFIED
breakdown- 3 OVERSEER , 8 LINEMEN	enter complaint, inform linemen, manage registers, ensure safety measures, give instructions to linemen regarding safety measures	
	Check complaint register. Group linemen. Send them to specific areas.	Average 40 rainy 100
	exhibit good behavior towards consumer while receiving complaints	
	Receive and enter complaints in complaint register and inform the respective area linemen.	30 complaints phone 10 directly
	Ensure the complaint is rectified and confirm.	40 complaints rectified daily
	take necessary actions to off the transformer and 11kv line and to rectify the problems whenever the distribution line is broken	
	enter when LT/ HT line is off and enter it in records(LT/HT register)	4 at average rainy 15

	inform Sub Egg and AE when 11kv line is broken	
	maintain good communication with peers and colleagues	
	give instructions to linemen for proper functioning	8 linemen in breakdown section
	ensure proper safety measures are taken by linemen	
	night duty + peak duty	in btw 4 days, in btw 4 days
	Maintain all registers - complaint register, LT/HT maintenance register, application register, and common application.	
	3 overseer, 1 sub engineer, 8 linemen	
Revenue **- 1 overseer , 2 linemen , 2 worker, sub engineer 1**	ensure consumer pays bill	
	faulty meter check	
	service register maintenance	
	check registers - service connection register, new connection application, meter complaint, RC register, DC register	
	DC- RC information to linemen	
	ensure field staff DC	
	ensure RC is given by field staff	
	Ensure efficiency is not reduced - find consumers who have not paid bill and inform them about bill and direct them to pay bill	70 people
	new service connections - ensure all documents are present, take estimate, steps to pay CD(cash deposit)	6 connections in one day(need further validation)
	revenue complaints - increased amount in bill - 10, creeping meter - 1, faulty meter changing complaints - 10 checking - 10 changing -	

	2 according to availability of meter,	
	meter shifting - 10 per month	
	new service connection	5 per day
	good verbal communication with consumers	
	check linemen and their behavior	
MAINTENANCE and CAPITAL WING - 2 overseer, 2 linemen, 4 workers, 1 sub engineer	work scheduling - maintenance work, enter data from field verification book	3 per day, 3 hour
	according to importance and priority carry out the work	
	supervise maintenance work	
	-changing wires	
	, - creeping in line	
	-yard cleaning of transformers,	
	-changing burnt out cables(fuse unit),	
	-restakling,	
	-posts which are faulty + lean + rusty,	
	-11kv line maintenance	
	-transformer maintenance	
	-supervise all these works	
	safety measures - line off, earth, no other supply are on, 11kv line is off where maintenance is done, inform sub egg where 11kv lines are there, ensure safety instruments	
	rapport with subordinates	
Transmission - 4 OVERSEER, 2 WORKER, 1 SUBENGINEER, 4 OPERATORS, 1 STATION ENGINEER. overseer is called shift assistant	help station operator in operation works - permit to work, VCB off for permit to work and rack out, earth wherever possible, open yard AB in presence of operator and inform the operator	

	so that he can enter this in records	
	hang boards - at rack out and AB	
	check yard and its premises, equipment(circuit breaker), if nay discrepancies inform operator	
	ensure equipment are safe	
	help operator in earthing	
	measure temperature of transformer	
	check gas air pressure	
	if any equipment are not working then inform the operator	
	rapport with all colleagues	
	ensure safety of all equipment to avoid accidents	

EXTRAORDINARY EVENTS: AT NATURAL CALAMITIES ALL THE DEPARTMENTS UNITE AND WORK TOGETHER WHICH MAY EXTEND TILL THE WORKS ARE CLEARED. THIS CAN EXTEND UP TO ONE OR TWO WEEKS.

KNOWLEDGE	DEFINITION	SUPERIOR	AVERAGE	BASIC
knowledge about rules and regulations	rules and regulations of electricity act, supply code act	Should be in complete know how of Electricity Act, Supply Code Act etc.		
technical knowledge	knowledge on how to handle equipment, use of equipment, application of equipment	field experience, understands complaints, diagnose complaints, takes necessary actions, implements actions	field experience but not expert	no field experience, safety measures are not obeyed
field knowledge	knowledge about the locations of transformers, site locations, interlinking locations, laying of lines			

geographical knowledge	knowledge about the lines, its locations		Recalls and locates areas, posts, transformers faulty, knowledge about line, supply, interlinks	incomplete information about areas
basic computer knowledge	knowledge to operate oruma software		enters data without mistakes, speed, fast access and operation, good knowledge about the software, fast in typing	knows basic aspects of software
SKILLS				
communication skills	writing and reading local language, understand the complaints raised by customers, communicate effectively with colleagues	UNDERSTAND COMPLAINTS FAST, reply fast, take actions fast, takes correct action	takes complaints, actions delayed	does not understand, takes directions form other,
stress management	ability to handle work and family, manage chaotic situations, ability to take measures at distress situations	experiential knowledge of job, administrates stress conditions,	takes time to implement actions, slow to respond	unable to understand and implement work
interpersonal skills	flexible to handle commands, customer relationships and rapport, relationships with colleagues	good interaction, understand others feelings, creates good impression, work without complex,	understands but not able to respond with apathy	hesitant to express and emotionally static
presence of mind	use knowledge appropriately, obeys and takes measures as commanded, take intuitive actions	concentrates on work, fully engaged, sincerity, understands things fast	takes time to understand aspects, low on concentration	does not concentrate, does not use safety measures
directedness	give directions on equipment, use of tools and directs to work areas, assigns work areas			
supervisory skills	supervise workers and linemen, supervise lining, post fixing, angles	Is able to bring about a smooth coordination	Can't prevent the origination of conflict. However	Is bad at handling conflicts among linemen leading to acute delay.

	to put stay, works done by linemen and workers	of linemen towards execution of tasks	manages it somehow.	
safety assurance	ensure supply is cut whenever required, earthing safety, safety equipment, safety measurements, directions to subordinates on safety measures	Knows about supply, circuits, and routes of supply. Experience, safety measures. Takes all nods of measures to ensure safe working conditions. Understands lightning aspects and takes measures necessary. Works when proper light is there. Keeps time and works fast. Provides necessary tools and materials.	Less field experience, supply routes confusion.	Geographically does not understand, materials are not available, supply knowledge low. (need further validation)
ABILITY				
physical ability	good hearing and eyesight, able to read measurements, take correct instructions, record information properly, sound mind	work without subordinates, work by himself, good eye sight , no physical defects	works with subordinates,	physically handicapped
mental ability	mentally prepared to handle situations as and when required			
emotional ability	emotionally stable, to be rational over emotional agitations			

5. SENIOR SUPERINTENDENT

Senior Superintendent (AB)
Examine all work bills/purchase bills and offer audit remarks
Verification of calculation statement in work bills/purchase bills
First level of verification in all passed bills
Ensure statutory compliance in connection with the payments of income tax, service tax, VAT etc.
verification of Journals Ledgers and Trial Balance and supervision of its preparation
Preparing reply to the audit queries
Verification of Bank Reconciliation statement
Supervise preparation of Monthly and Annual Accounts
Supervise cash transactions and its accounting
Verification of Bank transactions
Supervise all type of letters and correspondences
Advising and equipping the Senior Assistants of changes regarding statutes such as IT Act. Service Act VAT etc.
Supervising the filing of IT returns and timely uploading of the same
Issuing of Form 16A to the contractors
Liaison with contractors/suppliers such as attending telephonic and personal queries on status of bills etc.
Attending the meetings and passing decisions taken to the Senior Assistants
Maintaining cordial relationship with all subordinates.
Providing facilities such as computer, stationery etc.
Reporting to the higher authorities of extra ordinary items
Implementation of instructions / decisions of higher authorities
Senior Superintendent (ES)
Ensure cent percent updating of new connections in the system
Ensure cent percent meter reading taken including new connections
Check whether billing done under proper tariff
Check whether bills issued includes penal portions if any
Check and approve bills prepared by Senior Assistant
Monitoring of cash collection on daily basis-without interruption and time frames are followed
Check and download online payment and all out station collection
Supervision of all Division cash collection
Monitoring of receipt cancellation
monitoring outstation collection, MO/cheques
Down load online payments and verify collection remittance with bank scroll
verification of disconnection register
verification of receipt cancellation
prepare revenue details for analysis
preparation of Monthly accounts
preparation of arrear notice and DL notice
upkeep of various registers
Upkeep of Attendance register
Keeping aquittance register
Prepare Inspection bills – Squad inspection, APTS
Discharge Duties of PIO
Prepare CD, ACD and refund of excess CD and CD interest
Implementation of Electricity Supply Code and Electricity Supply Act
Verify Meter Readers register and Diary
Maintain registers of Bill revision, Tariff change/Due date change/Meter change/ToD calculation/FR correction/Advance collection/Street light/Stamp accounts/Ex-system bills/System maintenance register/Litigation /Dispute/installment registers

File related to the above registers
Arrange Revenue meeting
Settlement of complaints regarding revenue disputes
Senior Superintendent (Regional Audit Office)
Audit of Revenue and Expenditure accounts of Divisions and Circles includes verification
Verification of Service Books kept in Division offices and Circle offices
Verification of Trial Balance
Verification of Permanent and Temporary Imprest
Verification Log book of vehicles
Verification of Administrative Expenses of Account Rendering Units(ARU)
Verification of Work Bills in divisions
Verification of purchase bills in circles
Verification of Revenue Accounts in Electrical Sections
Verification of Material at Site Account(MASA)
Reconciliation of collection with bank remittance
Attending conferences and meetings in division and circle levels.
Bringing into the major deviations and anomalies with the higher officers in conferences
In section level audit includes the verification of service connection register, meter reading register , anomaly register, meter changing register , connected load changing register, check reading register power allocation register, cash collection records like SOP 10 demand revision register receipt cancellation register , disconnection/reconnection register
reporting of the anomalies to the higher authorities
Timely follow up action of the anomalies reported.
Senior Superintendent (Corporate Office)
Taking measures to adopt various Govt. orders from time to time
Communicate with the Public Service Commission and the Govt. for recruitment criteria to various posts and to formulate rules and regulations, educational qualifications etc., regulate promotion, sanctioning of leave and giving advance to medical treatment
Giving reply to LA interpellation to Legislative Assembly and questions to both Houses of Parliament relating to KSEB
Prepare, counter, written statements in various cases pertaining to KSEB
To represent the KSEB in various judicial/ quasi-judicial fora in and outside of the State
To prepare legal documents and to tender legal opinion
To attend legal adulates and High Court mediation cell regularly
To entrust lawyers at various courts to safe guard's KSEB's interest
To undertake legal scrutiny/ vetting of documents prepared by various offices
Proper assessment of sanctioned strength, working strength of all categories of employees and report the same to Kerala Public Service Commission
To asses vacancies and effect promotion accordingly
To effect transfers and posting of all categories periodically
To sanction all kinds of leave
Opening of service books and its updating from time to time
Preparation of salary and other establishment claims such as Earned Leave Surrender, Medical reimbursement, Festival Allowance and Bonus etc., Travelling Expense claims
Preparation of DA arrear bills and Pay Revision Bills
Preparation of papers for pension and retirement benefits

To conduct disciplinary proceeding against all employees
Prepare counter statement sand submit to various judicial forum/ court in connection with disciplinary matters
Prepare and furnish reply to Right to Information Act and Service Act
Issuance of vigilance clearance to all employees
Preparation of gradation list of all employees based on authentic records
Updating of gradation list
Recasting of gradation list as per the direction of court
Preparation of list of those employees eligible to be promoted in accordance with rules of promotion
Rectifying anomaly with regard to junior drawing higher pay the senior and granting step up of pay
Preparation of statement of facts with regard to seniority
Monitoring and verifying pension papers, pension calculation statements and pension records all retired employees and sanctioning retiring benefits
Sanctioning family pension and compassionate allowances
Authorization of pensioners benefits
Reckoning of prior services other than board's services for weightage and pensioners benefits
Pre audit of purchase bills of Board Secretariat, Civil Division, CE(HRM), CE (SCM), Financial Advisor
Pre audit of work bills of Civil Division
Pre audit of bills of hiring of vehicles by Board Secretariat, CE(HRM)
Pre audit of bill of fuel supplied by Civil Supplies Corporation
Pre audit of Permanent imprest vouchers of Board Secretariat, Civil Division, CE(HRM), CE (SCM), Financial Advisor
Pre audit of Temporary Imprest
Pre audit of Bills of legal charges
Pre audit of bills related to sports activities
Pre audit of claims of related to tender notification and advertisement
Routine audit of expenditure accounts of Account Rendering Units
Special audit on various issues reported from the field
Obtain, consolidate and furnishing reply to audit findings of AG
Attending PAC/ PUC meetings
Fixation of pay and allowances of serving and retired employees of all categories
Giving approval of fixation of pay
Reply to queries to Govt and AG
Verification of accuracy of pensioners claims and family pensioners claims
Auditing of restoration of commutation PF pension
Allotting membership to GPF/CPF
Proper accounting of PF subscription deducted from the salary of all employees
Sanctioning of Nonrefundable Advances form GPF
Sanctioning of Temporary Advances
Monitoring of repayment of temporary advance
Issuance of credit card to all employees every year
Preparation of regular monthly bills of HT and EHT consumers and penal bills
Sanctioning of interest on Security Deposit
Periodical revision of Security Deposit based on electricity charges
Audit of bills and monitoring revenue from HT and EHT consumers
Pre audit of salary and other establishment claims of workmen category
Conduct field audit of the same

Pre audit of salary and other establishment claims of officers
Taking measures to adopt various Govt. orders from time to time
Communicate with the Public Service Commission and the Govt. for recruitment criteria to various posts and to formulate rules and regulations, educational qualifications etc., regulate promotion, sanctioning of leave and giving advance to medical treatment
Giving reply to LA interpellation to Legislative Assembly and questions to both Houses of Parliament relating to KSEB
Prepare, counter, written statements in various cases pertaining to KSEB
To represent the KSEB in various judicial/ quasi-judicial fora in and outside of the State
To prepare legal documents and to tender legal opinion
To attend legal adalaths and High Court mediation cell regularly
To entrust lawyers at various courts to safe guard's KSEB's interest
To undertake legal scrutiny/ vetting of documents prepared by various offices
Proper assessment of sanctioned strength, working strength of all categories of employees and report the same to Kerala Public Service Commission
To asses vacancies and effect promotion accordingly
To effect transfers and posting of all categories periodically
To sanction all kinds of leave
Opening of service books and its updating from time to time
Preparation of salary and other establishment claims such as Earned Leave Surrender, Medical reimbursement, Festival Allowance and Bonus etc., Travelling Expense claims
Preparation of DA arrear bills and Pay Revision Bills
Preparation of papers for pension and retirement benefits
To conduct disciplinary proceeding against all employees
Prepare counter statement sand submit to various judicial forum/ court in connection with disciplinary matters
Prepare and furnish reply to Right to Information Act and Service Act
Issuance of vigilance clearance to all employees
Preparation of gradation list of all employees based on authentic records
Updating of gradation list
Recasting of gradation list as per the direction of court
Preparation of list of those employees eligible to be promoted in accordance with rules of promotion
Rectifying anomaly with regard to junior drawing higher pay the senior and granting step up of pay
Preparation of statement of facts with regard to seniority
Monitoring and verifying pension papers, pension calculation statements and pension records all retired employees and sanctioning retiring benefits
Sanctioning family pension and compassionate allowances
Authorization of pensioners benefits
Reckoning of prior services other than board's services for weightage and pensioners benefits
Pre audit of purchase bills of Board Secretariat, Civil Division, CE(HRM), CE (SCM), Financial Advisor
Pre audit of work bills of Civil Division
Pre audit of bills of hiring of vehicles by Board Secretariat, CE(HRM)
Pre audit of bill of fuel supplied by Civil Supplies Corporation
Pre audit of Permanent imprest vouchers of Board Secretariat, Civil Division, CE(HRM), CE (SCM), Financial Advisor
Pre audit of Temporary Imprest
Pre audit of Bills of legal charges
Pre audit of bills related to sports activities
Pre audit of claims of related to tender notification and advertisement

Routine audit of expenditure accounts of Account Rendering Units
Special audit on various issues reported from the field
Obtain, consolidate and furnishing reply to audit findings of AG
Attending PAC/ PUC meetings
Fixation of pay and allowances of serving and retired employees of all categories
Giving approval of fixation of pay
Reply to queries to Got and AG
Verification of accuracy of pensioners claims and family pensioners claims
Auditing of restoration of commutation PF pension
Allotting membership to GPF/CPF
Proper accounting of PF subscription deducted from the salary of all employees
Sanctioning of Nonrefundable Advances form GPF
Sanctioning of Temporary Advances
Monitoring of repayment of temporary advance
Issuance of credit card to all employees every year
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Conduct field audit of the same
Pre audit of salary and other establishment claims of officers
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Communicate with the Public Service Commission and the Govt. for recruitment criteria to various posts and to formulate rules and regulations, educational qualifications etc., regulate promotion, sanctioning of leave and giving advance to medical treatment
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To entrust lawyers at various courts to safe guard's KSEB's interest
To undertake legal scrutiny/ vetting of documents prepared by various offices
Proper assessment of sanctioned strength, working strength of all categories of employees and report the same to Kerala Public Service Commission
To asses vacancies and effect promotion accordingly
To effect transfers and posting of all categories periodically
To sanction all kinds of leave
Opening of service books and its updating from time to time
Preparation of salary and other establishment claims such as Earned Leave Surrender, Medical reimbursement, Festival Allowance and Bonus etc., Travelling Expense claims
Preparation of DA arrear bills and Pay Revision Bills
Preparation of papers for pension and retirement benefits
To conduct disciplinary proceeding against all employees
Prepare counter statement sand submit to various judicial forum/ court in connection with disciplinary matters
Prepare and furnish reply to Right to Information Act and Service Act
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Preparation of gradation list of all employees based on authentic records
Updating of gradation list
Recasting of gradation list as per the direction of court

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Authorization of pensioner benefits
Reckoning of prior services other than board's services for weightage and pensioners benefits
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Pre audit of work bills of Civil Division
Pre audit of bills of hiring of vehicles by Board Secretariat, CE(HRM)
Pre audit of bill of fuel supplied by Civil Supplies Corporation
Pre audit of Permanent imprest vouchers of Board Secretariat, Civil Division, CE(HRM), CE (SCM), Financial Advisor
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Sanctioning of Temporary Advances
Monitoring of repayment of temporary advance
Issuance of credit card to all employees every year
Preparation of regular monthly bills of HT and EHT consumers and penal bills
Sanctioning of interest on Security Deposit
Periodical revision of Security Deposit based on electricity charges
Audit of bills and monitoring revenue from HT and EHT consumers
Pre audit of salary and other establishment claims of workmen category
Conduct field audit of the same
Pre audit of salary and other establishment claims of officers
Conduct field audit claims of officers
Monitoring of repayment of principal and interest on Housed building Advance and conveyance advance
Issuance No Objection Certificate for releasing mortgage deed
Pre check of all work bills of Civil Circles
Pre check of work bill over Rs.50,000 in Transmission Circles
Monitoring of performance of regional Audit Offices
Critical evaluation of audit reports from Regional audit offices

Reporting to top management on serious issues pointed out in the reports
Follow up of rectification of irregularities reported from field offices
Monitoring of external and internal borrowings
Payment and proper accounting of purchase of power
Preparation of budget KSEB
Verification of monthly accounts
Preparation of annual financial statement of KSEB
Clearing of inter unit transactions
Assigning fund to field offices
Accounting of amounts received at SBT, Administrative Complex branch Patton
Bank reconciliation of revenue
Up keeping of asset records
calculation of depreciation
Floating tenders and its finalization
Monitoring of admission of all employees in KSEB Welfare Fund
Proper accounting of subscription deducted towards EWF
Proper verification and settling of accident claims
Settling of litigation, labour disputes under ID act and Workmen's' compensation act
Questionnaire revision of pay and allowances of staff and pay of officers
Assigning duties and functions of all categories of employees
Settling the grievances of contractors and petty contractors \
Registration of all trade unions and office bearers

6. SENIOR ASSISTANT

	Job description of Senior Assistant	frequency	Volume	importance
1	Updating of HRIS- (Details of employees from joining	monthly	100/SA	**100**
2	Up keeping of Salary Register, Service Book, processing stipends to apprentices	monthly	100/SA	**100**
3	Preparing various schedules such as Income tax LIC ,Pro Tax and related recoveries (GPF, KSFE, BANK HOUSING LOAN, CO OP SOCIETY, COURT ATTACHMENTS)	monthly	100/SA	**100**
4	Issuing ,Income statement and other recovery certificates and effecting statutory recoveries	monthly	100/SA	**100**
5	Sanctioning Leave ,Increment, Various Allowances, NRA,PF Advance etc.	monthly	30 numbers	**100**

6	Preparation of TA bills, medical reimbursement, sanctioning medical advance etc.	monthly	35 numbers	**85**
7	Preparation and submission of monthly and annual accounts, day books, ledgers, IUTN,IUML etc.	monthly		**100**
8	Audit of Imprest, Log Book, and Petty Bills such as contract staff bill.	monthly	350 numbers	**100**
9	Audit of Work Bill, Purchase bill	monthly	300 no's	
10	Issue of C forms, Form 16, Sales Tax receipt etc.	quarterly		
11	E filing of VAT, Income tax, Service Tax	quarterly		
12	Audit reply to -Internal and AG audit	monthly	10 num	
13	Attending Disciplinary Proceedings and Court Cases, (Preparation of statement of facts, reports, reply, affidavit, arranging court depost	weekly		
14	Reply under RTI Act and LA questions(Average 30 per month)	weekly	3 numbers	
15	Preparing T & P orders , Preparing gradation list, updating incumbency details	half yearly		
16	Registration of Graduate Apprentices and claim sending for 50 % reimbursement and issuing certificate to apprentices	quarterly		
17	Drawing and issuing Cheque, collection and remittance of cash, Bank reconciliation, credit application forwarding etc.	daily		
18	Regional Audit and section office verification.	monthly		
19	Drafting of various correspondence	daily		
20	Audit of MASA(Material at site account) submitted by AEs (Approx. 10-17)	monthly		
21	Compilation and forwarding of Revenue reports(both at Dn level and circle level)	monthly		
22	CD ,SD refund	monthly		
23	Preparation of Invoices at Sn Offices(5000 per month)	daily		
2	Meter Reading Entry	daily		
25	Reporting of Anomaly and preparing Penal Bills	daily		

26	Preparing list for RR action, Dismantling, Door Lock Notice	daily		
27	Downloading online & agent central collection & posting.	daily		
28	Uploading bills to central server	daily		
29	Data back-up in section offices.	daily		
30	Take charge as SS in the absence, & man cashier's duty in their absence.	weekly		
31	Preparation ACD Bills & SD interest & verify collection.	yearly		
32	Computer Typing -Both English & Malayalam.	daily		
33	Inward & Dispatch of correspondences.	daily		
34	**Processing Miscellaneous bills like Telephone, Rent, and water charge.**	**monthly**		

	SKILLS REQUIRED FOR SENIOR ASSISTANTS	BASIC	AVERAGE	EXPERT
1	COMMUNICATION			
	Communication ability to handle consumers, public, colleagues, without offending their sensitiveness.	1.offending 2. Difficulty in stating & writing. 3. one way communication	1.without Pleasing 2. Effective in both providing & receiving.	**1. With listening & With correctness** **2.consistently articulates in verbal & written.**
2	OBSERVATION SKILL			
	The ability to find out errors & omissions in various bills submitted for audit.	Fail to find out mistakes	Inaccuracy Ignored.	**Find & rectify on time**
3	IT SKILL			
	Updated IT Skill to handle various software and use modern means of	ignorance	limited knowledge In IT	**Updated & Applying IT knowledge**
4	MANAGE CHANGE			

	Ability to adapt with change in nature of work.	resist change	adjust with change	**excels in Changed atmosphere**
5	Time MANAGEMENT SKILL			
	Prioritizing tasks in time.	**1.difficulty In Prioritizing 2.need great deal of Directions**	**Doesn't monitor own Progress.**	**1.ensure timely Completion 2.effectively priorities Task**

7. SUB ENGINEER

Duties and Responsibilities of Sub Engineers	
Description	Remarks
Arranging and supervising all 11KV/33KV level works including Maintenance , Break down (Round the clock) and Capital works	TECHNICAL KNOWLEDGE ABOUT THE WORK
Assist AE to doing EHT level works including breakdown / routine/ capital works	DEDICATION
Prepare Estimate and work schedule of capital works, funded works. annual plan works, deposit and capacity enhancement works	TECHINACL KNOWLEDGE
Keep and update all schematic diagram of distribution system	TECHINACL KNOWLEDGE
Revenue monitoring (DC & RC)	LEADERSHIP & DEDICATION
Routine checking of Generators, Transformers, Lines, Battery Banks, Yard equipment, Firefighting equipment and report any abnormalities	TECHINACL KNOWLEDGE
Arranging and ensuring all auxiliary systems such as Fuel treatment house, Boilers, etc. of Generators	TECHINACL KNOWLEDGE

Prepare MCS, ROM, Procurement of materials from store	INITIATIVE
Assist AE to Prepare MASA, Contract work bills , Line works, Site Mahazzer, MOR, Operational data's and Load flow study	INITIATIVE
Assist to AE for doing Legal formalities of construction of Substation and Lines, Tree Marking, Tree cutting, Walk over survey, Route Survey, etc.	DEDICATION
Take and Record Hourly Meter readings of Power Transformers, Generators, Control room Operation data	TECHINACL KNOWLEDGE
Take and Record Monthly Readings of Monthly Billing consumers (All Industrial, above 10KW non Domestic and Above 20 KW Domestic Consumers)	INITIATIVE
To check and ensure all safety of men and materials	TECHNICAL KNOWLEDGE & LEADERSHIP
keep and update daily maintenance/details of equipment registers, history of equipment, major breakdown register	
Keep and update all Registers of Maintenance , Transformer, AB operating, EHT/HT interruption, Tree cutting and case registers,	
Maintenance of Generator , Generator transformer, Runner and Yard equipment	TECHNICAL KNOWLEDGE ABOUT THE WORK & LEADER SHIP
To assist AE's & AEE's at the time of breakdown of Generators, Substations and Transmission Lines.(ROUND THE CLOCK)	KNOWLEDGE & DEDICATION
Arrange Permit to do work both contractors & Department staff	communication skill
Conduct Regular Inspections as per abnormality register maintained in the section office	DEDICATION
To arrange service connection as per priority register (Oyec, OTP, normal development. RGGVY) and maintain service connection register	
To Arrange Faulty meter changing and record in meter changing register	
To arrange service connection dismantling as per consumer request and payment defaulters and record in dismantling register	
Prepare service connection priority register, OYEC , OTP ,NORMAL	
Meter details entered in the Oruma Net software	IT SKILL
To assist AE to maintain SCM Software	IT SKILL
To conduct Sunrise meeting in the absence of AE & maintain register	LEADERSHIP
Inspecting & prepare estimate for Tariff changing , Connected load changing , Owner ship changing , meter shifting and new service connection	
Uploaded the details of equipment in PSE (Power system engineering) software	IT SKILL
Uploaded the details of MOR (Monthly operating review) in PSE(Power system engineering) software	IT SKILL
Vehicle log register maintain	
To assist Operators to Start and Stopping of Generators	
All changes recoded in the oruma software	

assist AE to schedule and carryout monthly /quarterly/ half yearly/ annually/ pre monsoon maintenance of substation /generator/ transmission/distribution equipment	DEDICATION
Should ensure safety of staff working under him , ensure working area is fully isolated and earthed , they wear proper safety equipment	
To take Peak load of transformers and arrange to load balancing when required	DEDICATION
To assist AE to preparation of purchase order. Work order. Estimate sanction., tender calling, and recorded in registers	
To arrange to serve notices issued from the office (Monthly bills, dismantling/ disconnection , arrear, RAO Inspection bills, tree cutting notice, tree cutting mahazzr. tower spotting notice, Gazette notice)	INITATIVE
Assist AE to doing fault finding and rectification of Lines and control wiring system	
To arrange workmen duty chart (Night , Peak, phone and Holiday)	
Assist AE to design of Substation/ EHT lines and prepare estimates	
Took Permit to work on11KV/33KV lines	
CT connected meter changing/service connection supervision	
Prepare Voltage regulation Chart for 11 KV lines/ Transformers when required	
Monitoring compliant registers	
Assist AE to construction of EHT lines and Substations	
Assist AE & AEE's Valuation of trees for the tree cutting compensation	
Preparation of Detailed valuation statement for tree cutting compensation	
To assist AEE for work bill checking, issue local order, agreement executing	
Natural calamity fault rectification	Fast responding

	EXPERT	AVERAGE	POOR
Communication Skill: Better interaction with Co- workers and Public	Subordinate should understand what the supervisor means	There is a repeated seeking of information from supervisor.	Subordinate gets confused
Technical knowledge : Updating recent technical changes and knowledge about the work	Sufficient Qualification & experience	minimum qualification & experience	un qualified& less experience
IT knowledge : Doing the work within the time limit	Well Trained	lack of training	not trained
Fast responding : Ability to respond any	Quick and fast respondent	not taking much risk	lazy

situation for achieving better result within time limit			
Leader ship, Planning and Organizing the work	better technical knowledge of work & Co operation	LESS Technical knowledge	unskilled in work & poor knowledge

WORKSHOP 2

8. Electricity Worker - Distribution

1. Duty Time: 8am to 5pm

Duties and responsibilities

Duties	Frequency
Clean the office store	Monthly
Collect the material from the regional store, do the recoiling of the conductor	Weekly
Import the tools and materials required for the work as decided in the sunrise meeting and after the work properly count and replace the materials to the store	Daily
Clearing the transformer yard and RMU yard using machete and big knifes under the supervision of overseer and sub engineer	Daily
Touching work of LT HT lines (Climb up and remove the tree branches)(using put cutter and sickle)	Daily
Helping the lineman to load and unload the 7,8,9,11,meter, rail pole's posts etc.	
Digging the mud to place the post, stay using machete and other equipment	
Help the lineman to draw new lines and connections (w/p, OH)	Daily
As per the order of S/E, O/S work with the lineman after switching off the line and earthen it.	Daily
As per the order of S/E or O/S for DC, RC go along with the line and find out the owners of vacant shops and houses for make them pay the bill.	Daily (8am to 6pm)
Go along with lineman to replace the faulty meter with the faulty meter list provided by the Sub engineer	Daily
Install the parallel meter to check the complaints on meter	Daily
Dismantling the service connection of those who were not paid the bill	Daily
Disconnect the service along with the lineman based on the consumer application	Daily
Conduct the monsoon maintenance, transformer maintenance etc. under the supervision of Assistant Engineer and Sub Engineer using essential tools.	

Help the superior officer to do the transformer oil changing, painting etc. up to date.	Monthly
If the HT cable got faulty re-join the cable using trench **(need further validation)**	
Help the superior officer while carrying out the new line survey	
Go along with the lineman if the transformer fuse goes	Daily
During natural disasters work timelessly to replace the electricity connection	
As per the order of Assistant Engineer and Sub Engineer do the necessary work by earthing/switching off the line	Daily

Generation

Duties of Electricity Workers.

1. Machine Cleaning
2. Trace cleaning
3. Battery checking and
4. Turban bitty cleaning
5. Auxiliary Work
6. Exester cover cleaning (need further validation)
7. Painting
8. Remove the grass from yard
9. CVT checking
10. Compressor cleaning
11. Machine maintenance
12. Pit cleaning
13. Line fault worker
14. CT,PT cleaning(after doing permeant earthing)using safety tools such as shoes, helmet, safety belt, glass
15. Civil section work such as plumbing, wiring, quarters maintenance etc.

Transmission

1. Battery cleaning
2. Panel board cleaning
3. Yard cleaning
4. Remove grass
5. Permit Work: As per the order from A/E earth two sides
6. Washing CB,CT,PT,IL LA and apply new grease oil jelly
7. Clean the office environment
8. Painting
9. 11KV fitter under the presence of AE and Sub Engineer
10. Clean the capacitor bank of 11KV feeder and 110KV feeder of transformer
11. During high load days turn off the transformer to prevent its heating
12. Fault rectification and tower cleaning of 110KV line
13. Toching of 110KV fuse (need further validation)
14. Checking the line daily

Skills Required for Electricity Worker

1. Good stamina
2. Adaptability to various circumstances (climate, time, environment)
3. Good eye sight
4. Good memory power
5. Quick Grasping of work by observing

6. 100% sincerity to the work
7. Ability and patience to properly deal with the consumers
8. Avoid over confidence
9. Readiness to work effectively in a team
10. Consideration to the colleague
11. Consciousness to danger zones
12. Knowledge regarding the HT LT lines in his section
13. Knowledge to discriminate between the interlink poles
14. Ability to climb upon the post and work
15. Ability to distinguish proper earthing
16. Awareness on the importance of the line work by understanding his laziness or negligence may cause danger to the co-worker
17. Reading and writing skill

Skills	Basic	Advanced	Expert
Knowledge on HT/LT lines	Awareness on transformer LT line and knowledge on supply cut point, inter linking post and switched off transformer	Awareness on all the HT, LT feeders of the transformers in their section. Knowledge on HT line AB, and the knowledge to distinguish multiple feeder points	Expert awareness on supplies like LT, HT, RMU In HT feeding knowledge on back feed, feeder change etc.
Stamina	Stamina to lift RMU, transformer yard, line touching etc.	Stamina to dig for handling the post and lift it into the hand carrying vehicle	Stamina to lift heavy posts to load and unload on vehicles or carry by hand
Knowledge and prediction of danger	Preliminary awareness on the consequences of electric shock	Knowledge of the importance of earthing while working with the HT, LT lines and predicting the possible occurrence of danger	Ability to make sure there is no supply in the line by switching off LT, HT and RMU shorting and earthing. Knowledge of First aid during Knowledge to use the safety equipment properly
Absence of vertigo	Ability to climb on ladder and do the line works	Ability to climb upon the post using stick and do the line works	Ability to opt methods to do the work neatly and without danger according to the situations

9. OFFICE ATTENDER

Duties	Frequency
1.Reach the office by 9.30am	
Tidy up the files	
All the files (almost 200) from different officers must be handed over to corresponding sections	Daily
Take the required photo copies of files	
Side patching of copies	

Deliver the side patched copies to the corresponding sections	
Attend the phone	Monthly 500no.s
Record the details of phone calls in a book and inform to the corresponding sections.	
Go to the bank to pay the bills, exchange of cheques, taking DD etc.	Monthly 5 lakhs
Carrying the letters to post office	Daily 50
Hand over the urgent files and letters with responsibility to mentioned offices	Daily 100
Hand over all the files to be signed by Chief Engineer post ensuring by senior assistant, senior superintendent, assistant account officer, accounts officer and deputy chief engineer	Daily around 200 files
R1 act, tender amount, quarters rent, ground rent (need further validation)	2
Contact through phone to other offices and section offices while the fax are not working. PF, Salary, Interest, meeting time etc. (need further validation)	
Seal and hand over all the received files to the superior officer and distribute it to corresponding offices	Daily 100

Skills Required for an Office Attendant

1. Knowledge about the job
2. English and Malayalam reading and writing skill
3. Memory power
4. Good dealing with the superior officers and readiness to accept the order and instructions
5. Ability to distinguish various files
6. Patience to hear the superior officer
7. Do the work which is pleasing to the superior officer
8. Accuracy in the work
9. Proper dealing with the consumer with a humble attitude
10. Computer knowledge: word and Excel
11. Keep the confidentiality of files
12. Sincerity and good relationship with the subordinates

Skills	Basic	Advanced	Expert
Keep the confidentiality of files	Under influence they may reveal	Under influence they won't reveal the confidential data	Will not reveal any confidentiality of data under any pressure from any source
Punctuality at work	Get delayed in work. Frequently miss assigned deadlines.	Complete the work within time constraints.	Complete the work in advance. Allowing plenty of time for feedback and rework (if necessary).
Good dealings with consumers.	Reply only to the enquiries asked. Knowledge only on jobs done by them.	Reply to the consumers in an elaborate manner. Knowledge on the roles and responsibilities at all level.	Help consumers with specific directions.

1. Meter Reader

1. Collect the bills from the office and give bills to the customers based on their energy consumption after checking their meters (40-80 meters per day depending upon area).
2. Submit the duplicate copy of the bills to the office and enter in the register if found any anomalies, inform to the office in-charge and enter the details in the register.
3. Inform the office in-charge about the faulty meters and mismatching tariffs.

SKILLS AND KNOWLEDGE REQUIRED

1. Basic knowledge in technical & calculation (kw, kwh, connected load etc.)
2. Basic knowledge about different type of meters and metering (1PH,3PH, TOD)
3. Basic knowledge about different tariff & rates (1A, 7A, 6A, 6B etc.)
4. Communication skill (Describe the rates, tariff and unit consumed etc. to consumer)
5. Knowledge about area and location of electrical sections
6. Physical fitness (better eye vision, ability to walk)
7. Patience (Deal with people in tense situations-regarding billing)
8. Planning (Daily and monthly billing target)
9. Decision making (Whether the meter is working in good condition, suitable tariff etc.)
10. Vigilant (about the thefts)

Competencies	Basic	Average	Expert
1. Technical Qualification and Knowledge	a. Computing skills b. Knowledge about billing	a. Knowledge about kw, kwh, connected load etc.	a. Knowledge about different type of meters and its parameters b. Knowledge about tariffs and rates
2. Communication Skills	Explain the bill.	Interpret the bill and advise consumers on future courses of action (if asked).	Deal with people in tense situation about billing Explain about how to calculate the bill according to tariff

			Explain about how to get new connection for different tariffs
3.Vigilant	Can spot evidences for meter tampering while meter reading	Knowledge on meters' working condition (suspected faulty/not working). Can provide directions for its rectification.	Knows about all different types of electrical thefts, tariff miss using, all service connections, connected Load using etc.

10. Chief Engineer

	Granting sanctions for providing main power (both technical and non-technical) (need further validation)
	Supervises and notes functions such as retirement of employees through state level PSC, reporting vacancies to PSC, appointment of employees who are advised by PSC etc.
	Issues general transfer orders up to AER (E), AER (V) and AAO
	Promotes employees belonging to categories up to AER (E), AER© and AAO
	Sanctions of medical advances to employees, Reimbursement of medical bills
	Receives and rectifies inward tapals, distributing to various sections, controlling of dispatch section where tapals are sent out properly without delay.
	Prepares and scrutinizes of statements of facts related to various court cases, for issues related to pension, transfer and posting, other issues before the man right Commission, SC/ST commission and other forums.
	Appointment of kin of employees who died in harness etc. under compassion employment scheme
	Establishment matters such as sanctioning of leaves, special disability leave etc., issuing certificate for study purpose and for acquiring Indian Passport, NLC etc.
	Upkeep of graduation list of all employees
	Initiating disciplinary action procedure based on classification and appeal (CC&A
	Reports and responds to questions from legislative assembly, Chief Ministers Grievance Redressal cell, Suthariya Keralam Redressal complaints from public as well as for other organization, answering queries and furnishing information to the higher ups as well as to other units of the organization regarding employee details etc.
	Administrative control of sections such as establishment's fair copy section, GB section, EB vigilance section, gradation section, law section, inward section, dispatch section etc.
	Selection and posting of apprentice trainees
	Skills and Competency Required
	Knowledge of rules and preputation mainly for examples KSR, Manual of Disciplinary Procedure (MDP), transfer policies which may vary from time to time (formulated every year after discussion with Trade Union and other officers association), (need further validation)
	Knowledge of rules related to posting of personnel,

BASIC	AVERAGE	EXPERT **(need further validation)**
Should be professional		
Communication Skill		
Field Experience		
Should be empathetic		

Negotiation skills with trade unions		
Keep up good relationship with employees		
Knowledge in rules and regulations		
Capability in understanding skills of staff in the field of Transmission, Distribution and Generation.		

11. FINANCE OFFICER

Job Description Of Finance Officer

ACCOUTANT	1	Verification /Preparation of monthly and annual accounts and schedules and submission to the head office which includes vouchers and day books, journals, ledgers, trial balance, schedules, bank reconciliation ,cash books, fund transfer statement etc.
	2	Verification of budget, estimates (in various account heads like repairs and maintains, administration and general expense, employee cost etc.) and forward to head office with the approval of head at ARU.
	3	Ensure proper accounting of revenue and expenditure as per approved accounting principles and standards prescribed.
	4	Preparation of financial statements/reports for various purposes.
	5	Fund Management: Assessing the requirement of fund forwarding credit request to head office, disbursement of credit assigned from head office, monitoring fund transfer, timely deposit of cash/cheque/DD collected at account rendering unit (ARU)
	6	Keeping and maintenance of accounting records.
ADVISOR	1	Tax matters relating to income tax, work contract tax, VAT, service tax etc.
	2	Verification of financial and commercial aspects of tender documents submitted.
	3	Member in prequalification committee for work and purchase and in scrap disposal committee.
	4	Matters related with interpretation and applicability of provisions described in ESAAR, manuals published by KSEB,PWD Acode, Department code, Financial code ,regulatory matters, store purchase manuals etc.
AUDITOR	1	Auditing of work bills purchase bills, tree cutting and other compensation bills, court remittance, imprest, log etc.
	2	Replay to audit enquires from AG, CIA pertaining to financial aspects.

		3	Auditing of materials and store related documents.
		4	Functions related to Budgetary control-ensuring expenditures made within budgetary limits.
CORPORATE OFFICE			
	TENDER SECTION	1	Verification of all tender documents forwarded to financial advisor for remarks
		2	Advise on all matters referred to financial advisor
		3	Analysis of financial viability of projects from civil, transmission and generation wings
	ANNUAL ACCOUNTS	1	Preparation of financial statements of KSEB - compilation of accounts and submission
		2	Tax returns - filing of appeals - issue of circulars
	CREDIT SECTION	1	Assigning credit to all ARU's
		2	Correspondences with various banks for raising funds, WC loans etc.
	BUDGET	1	Preparation of annual budget of the board.
		2	Giving sanction to ARU's to exchange budget allocation under different heads of accounts.
	TRAC	1	Filing of ARR & ERC of board before KSERC. Presentation of financial data in ARR & ERC.
		2	Financial analysis of data in past years
	CE (IT)	1	Monitoring of revenue collection and remittance through online fund transfer facilities.
	PURCHASE OF POWER	1	Arrangement and accounting of power purchase bills of board.
		2	Reconciliation of financial data with power purchasers, suppliers, traders etc.
	PRE-CHECK UNIT	1	Special audits in projects as per the requirement of KSEB
	AUDIT REPORT INTERFACE		

12. ACCOUNTS OFFICER

JOD DESCRIPTION

1. Pension Sanction
1. Approval of pension, family pension, death-cum-gratuity and commutation after verification of both preliminary and final verifications.
2. Gratuity revision according to the pay revision and final verifications.
3. Pension revision as per long term settlement and grade promotion etc.
4. Pension revision work due to implementation of one rank one pension scheme.
5. Application received for giving reply to the RTI Act 2005 in the capacity PIO
6. Reply to the 'suthariyakeralam' programme of Hon'ble Chief Minister
7. Sanctioning of invalid pension, voluntary retirement pension, Compulsory retirement pension, dismal and resignation etc.
8. Gratuity revision sanction as per gratuity Act 1972.
9. Statement of facts to the right petitions.
10. Change of nominations after verifying 7 documents.

2. Pay fixation

Entrusted to do the supervisory works of Pay fixation section as an Accounts officer under the control of Chief Internal Auditor.

Objectives:

- Audit of fixation of pay
- Audit of fixation of pay consequent to promotion and granting grade promotion.
- Audit of fixation of pay consequent to Junior/ senior fixation.
- Audit of fixation of pay consequent on reassignment of promotion/increment date
- Field Audit: a) Audit of fixation of pay based on long term settlement introduced from time to time
- Giving approval to fixation of pay after careful examination and verification with the existing rules and conditions.
- Audit circular is to be issued according to the long term settlement
- Giving reply to Right to Information Act in capacity of PIO.
- Giving statement of facts to right petitions.
- Clarification regarding Pay fixation, audit Circular etc.
- Letter informing to the concerned ARU about the objections found in the service Book while auditing Pay fixation entries.

Suggestions to improve the quality of Work

- Suitable training is to be given to the officers to enrich the ability, quality and new techniques.
- Technical jobs and non-technical jobs are to be segregated and assigned to do the work based on the nature of work. Better for the prestigious business organization to get utilized the manpower of technical officers, purely utilize in the technical field itself.
- Working environment with sufficient staff to be provided.
- Duties and responsibilities and accountabilities of each and every officers to be fixed and bring in to implementation.

Skills Required

- Pension Statement
    - Must know the existing rules and regulations and Board orders
    - Basically, required graduation as minimum academic qualification.
    - Requires manpower, must be result oriented activity
    - Create and maintain a workplace relationship with the subordinates.
    - To pass a positive experience and obligation to do the same.
    - Appreciation and Recognition should be given to my subordinates in their remarkable performance.

- To take commands appropriately in such a situation where – an application under RTI Act for giving reply.
- A comprehensive understanding requires while answering/relying to the 'Sudharya Keralam' and Statement of facts.

- Pay Fixation
  - Must know the rules governing guidelines for verifying fixation of pay and to give approval for the same.
  - Must know the existing circulars and Board orders. Also requires adequate qualification and manpower.
  - Must create and maintain a workplace relationship and cooperation with subordinates.
  - To give reply under RTI Act after examining all the aspects within- the existing rules and common sense while giving reply.

Basically, an Accounts officer should know the existing rules of KSEB Limited. He should be thoroughly expert in verifying accuracy in the field of auditing/ examination.

	Basic	Advanced	Expert
• Must know the existing rules	Must know the existing rules, circulars, Board orders, and government circulars.	Must be familiar with all the rules	To be expert in this field, he should cover thoroughly all rules attending seminars/conferences.
• Acquire enough skilled level of knowledge	Acquiring skilled level of knowledge referring Board orders, circulars.	To be advanced in the subject	To become expert in the field applying the acquired knowledge in the best effective manner.
• Motivation	Always be motivated Collecting relevant Board orders, circulars, Govt. orders	By motivating the subordinates, thereby improve the quality of work	Must motivate the subordinates to get the best result oriented activity. Appreciation may be considered for their remarkable performance.

1. REGIONAL AUDIT OFFICER

- Accounts officers working in the Internal Audit Wing is designated as Regional Audit officers. Jurisdiction of an RAO is all electrical sections and other ARU's under each electrical circle

Duties and Responsibilities

a. Arrange all audit under his jurisdiction as per the approved audit Plan and monitor at its every stage and arrange revenue meetings
b. Conducting field verification together with AE from the concerned electrical sections
c. Reply evaluation , follow-ups, dropping of audit paras
d. Tracing out special issues during inspection and conduct special check where ever necessary (issues like malpractices, misappropriation of Board's money)
e. Attending conferences, meeting at Board level etc., and Dy.CE and Executive Engineer level. Special issues brought to the notice of the above meeting.
f. Issuance of proposal for NLC (to the cashiers) to the EE concerned.
g. Proper personal claims, counter signing TA claims issuing NLC to the RAO staff.

Audit at Glance [Supervision]

1. Audit on monthly billed consumers → LT IV Industrial. Consumers having above 10 KW, connected load. Domestic consumers having connected load 20 KW, TOD billed consumers.

2. Supervise verification by RAO on specific issue on direction or self. [E.g. Bank Guarantee, cable TV, Quarters rent, Street light etc.]
3. Audit on cash collection and altered matters especially misappropriation of Board's money ensure that the Board's money is not in any way misappropriated.
4. Audit on general, revenue cash collection normally handles – bi-monthly billed cases, general matters
    a. Whether rules and regulations re being followed:
    b. Accuracy in cash collection and remittance.
    c. Timely remittance of cash ensuring resume accounts. Proper review taken
5. RAO itself conducting surprise verification of cash collection (at least 10 section in a month), major revenue yielding fields, and anomaly rectification.
6. Experience & Work Audit- is an ARU based audit.
    a. Whether the transaction including purchases, tender formation etc. done in the ARU are as per rules.
    b. Whether the actions are used to be financial loss to the KSEB.
    c. Inter Unit Credit: Transfer Notes, adjustments claims on natural calamities.
    d. Whether the expenditure incurred on work, etc. are accounted properly on proper account head, MASA etc.
    e. Cable TV (Rental), Street light work procedure followed- ASTS, investigation are to be reconciled with section level actuals.
    f. Audit being the watch dog- at any time vigilant on theft of energy miss-use Unauthorized extension and UAL, Assuring proper assessment for compensating revenue loss on account of meter faulty, inadequate average awarding misclassification of tariff.

CHALLENGES

1. Sufficient training for the staff posted to audit wing to be provided.
2. Inadequate system computer facilities, the limitations faced in electrical section for coordinating audit.
3. Due consideration is not given for the audit observations certain corners.
4. No conveyance facilities by the institution.
5. Audit should be independent so that establishment matters presently attached with should be separated.
6. Insufficient staff pattern.
7. In the absence of defined audit modules.
8. Proper delegation of power of power so far not ordered.

Suggestion to improve the quality of work

1. Audit should be made independent.
2. Provide system computers (Laptop) to RAO and all audit parties under him.
3. Proper audit modules is to be issued for system audit in (ORUMA & SARAS)
4. Responsibilities should be fixed and separated as technical and non-technical
5. Audit (internal) be extended to other areas such as civil, transmission, generation profit centres.

II Quality Requirements
Practical knowledge, leadership quality, diplomatic, well aware of rules, orders prevailing. Budgeting provisions creativity, proper planning.
III Vigilant- Patience work and tariff related knowledge, IT knowledge, motivation stimulate to subordinate

IV Willpower, better institutional interest planning, loyal to the organization.

Better vision Recognition and appreciation from the institution for the better performance.

Basic Qualities required for Regional Audit Officer

	BASIC	ADVANCED	EXPERT
	Aware that the entire business related to the auditing unit.	All the transaction are done according to the financial proprietary	Awareness regarding statewide statistics of sale of revenue data
	Aware of the prevalent rules and regulations	Suggestions to improve the performance of	
	Tariff awareness		
	Computer knowledge of ORUMA, SARA and prevailing software's.		
PRACTICAL KNOWLEDGE			
	BASIC	**ADVANCED**	**EXPERT**
	Aware of rules and regulations prevailing	Provide sufficient training	Provide better systems facility
	Aware tariff structure and subsequent updates	Provide computer (Laptop)	Provide up to date information's towards the institution
		Provide updated statistical figures registering the institution.	Provide better training to develop leadership quantities
VIGILANT			
	Very conscious	Have a bird's eye watch in all the transaction of the institution.	Independent judgment in decision making
	Be patience	Leadership Quality	Pressure bearing
	Should be up-to-date knowledge reg. the functioning of the business?	Work ethics	Problem solving
PLANNING			
	Preconception that the field to be audited	Creativity	Aggressiveness
	Perceptiveness	Managerial capacity	Adaptability
	Communication	Better coordination	Delegate more powers for better execution

2. Accounts Officer- Special Officer (Revenue)

Duties Performed

1. Supervise and monitor all Billing and allied works of entire HT/EHT consumers of KSEB.
2. Take primary steps to redress the dispute raised by the consumers.
3. Verification of files put up by the officials in different issues such as revision of bills due to the reason of wrong meter reading received from the field staff, upon the complaint raised by the consumers, mistake in data received from the agreement authority (Dy. CE) and field staff.
4. Verification and supervision of details/statement of facts prepared by the office staff in connection with the OP, WP, filed before the Hon'ble courts and complaints filed before the CGRF, Ombudsman etc.

5. Personally appear before the sitting held by the Hon'ble legal forum like CGRF, Ombudsman etc.
6. Verification of agreement executed between the HT/EHT consumers and the licensee (Dy.CE) and sought clarification if formed necessary. And also ensure whether the data used for billing purpose is in conformity with the data furnished in the agreement.
7. Closely watch the compliance of judgment and interim orders of the Hon'ble court time to time.
8. Take expedite action to realize long pending arrears from the consumer.
9. Special communication send to the consumers who have pending arrears in case when the Board declared One Time Settlement(OTS) scheme and special OTS scheme etc.
10. Put up files to the Board during the different occasions shown below:
    a. When time extension requested by the consumer to remit regular C.C, Additional cash deposit etc.(ACD)
    b. When instalment facility requested by the consumer to remit regular CC, ACD etc.
    c. When special concessions requested by the consumer such as reduction in interest rate, reduction of minimum demand of the consumer etc.
    d. Communication with the govt. regarding the extension of certain benefits to the consumers as a policy matter of either government or licensee.
11. Verification of monthly bills issued to the EHT consumers.
12. Monitor Disconnection (D/C) notice to the HT/EHT consumers.
13. Issue Disconnection fax message to the agreement authority (Dy. CE).
14. Supervise the revision of Security Deposit (SD) made every year pertains to al HT/AHR consumers
15. Ensure whether ACD notice issued to the consumer whose available SD found deficiency and excess refunded to the consumer in tome.
16. Check & monitor whether interest for SD assessed and refunded to the consumer during the first quarter of every final year
17. Check the correctness of revenue recovery action notice prepared irrespective consumers.
18. Verification and supervision of proceedings prepared by the entire staff in case of final settlement of accounts pertains to dismantled consumers by incorporating the adjustment of SD made at the time
19. Communication made with the Government with regards to Electricity Duty dispute raised by the consumer.
20. Take up the matter of dispute raised by the consumer for not getting statutory benefits to them.
21. Verify and check the reply to audit report of Accountant General, internal audit using prepared by the officials.
22. Conduct personal hearing with the consumer as per the direction of Hon'ble court, legal forum and some occasion as directed by the HO (SOR).
23. All other works entrusted by the Board.
24. Monitor centralized billing system which is the system of issuing a group of bills in one to the particular government department. Consumers comes under different arrears of KSEB offices so as to facilitate the Head of department to remit current bill in limits.
25. Closely monitor the arrear realization process
26. Seek legal opinions / advice from the legal advisor and disciplinary enquiry officer of the KSEB.

13. Assistant Executive Engineer

JOB DESCRIPTION	
	14. Administrative and technical control of Generation subdivisions (Power stations)/Substation subdivision, transmission lines, Distribution office.
	15. Plan, schedule and carry out the maintenance and testing of all equipment's / installations.
	16. Liaison with statutory agencies like Electrical Inspectorate, Factories & Boilers, Police, Regulatory Commission, Local bodies and private companies.
	17. Maintenance and upkeep of records

	18. Troubleshooting of complaints and early rectification.
	19. Testing & Commissioning of equipment
	20. Testing for other organizations (Deposit work)
	21. Collection of data and preparation of report
	22. Establishment and welfare claims of staff
	23. Accommodation (Quarters) facilities for staff and maintenance of colony (need further validation)
	24. Housekeeping of Power station/ substation/ office
	25. Assessment of Disposal of scrap
	26. Processing and sanctioning of estimates.
	27. Purchase of materials
	28. Tenders for work and purchase
	29. Replies to RIA, LA Interpellation, Audit notes
	30. Purchase and maintenance of office equipment's, vehicles
	31. Energy auditing, safety auditing, protection auditing etc.
	32. Conducting cases in various forums
	33. Complaint redressal of public staff
	34. Monitoring progress of works
	35. Preparation of cost data and revision
	36. Acts on safety officer- safety audit, training.

37. Preparation DVS and distribution of tree cutting compensation & land diminishing compensation, road cutting.
38. Measurement of works
39. Attending and arranging meeting and preparation of minutes.
40. Conducting departmental enquiries.
41. Planning and execution of transmission projects.
42. Arranging shift duties
43. Sanctioning LT service connections above 20 KW and all industrial/ agricultural connections.
44. Material Planning & Allocation.
45. Inspections and check readings
46. DSM activities
47. Demand forecasting

CORPORATE OFFICES

Procurement / Sale/ Banking of Power (need further validation)

48. Demand Forecasting — Identify gap
49. Availability analysis
50. Strategy planning- long term, medium term ,short term
51. Discussion in core committee- [Planning activity]
52. Getting approval from competent authority [Board]
53. Identifying prospective suppliers
54. Inviting Tenders — - Notice Inviting tender

1. Request for proposal

55. Bid Opening
56. Preparation of comparison statement
57. Put up note to competent authority
58. Finalization of quantum [Depends on rate of power]
59. Issuing letter of intent
60. Correspondence with Bankers
61. Finalization of construct performance guarantee/ Payment security
62. Getting approval from competent authority [CPG and Payment Security]

63. Drafting power purchase agreements[PPA]
64. Discussion with suppliers /finalization of PPA
65. Execution of PPA
66. Execution of Contract Performance Guarantee
67. Execution of Payment Security
68. Ensuring timely application for open access[Repetitive process]
69. Watching corridor availability [Repetitive]
70. Processing Invoices in case of purchase
71. Getting certification of supply of energy
72. Verification of invoices served by supply and issuing admissibility statement
73. Ensuring timely payment to suppliers
74. Prepare invoices for supply of energy(in case of sale)
75. Preparation of power purchase statements.

TARIFF & REGULATORY AFFAIRS

76. Handling consumer grievances
77. Matters related to tariff orders issued from time to time
78. Analysis of revenue- consumer category wise.
79. Preparation of Annual Revenue Requirement
80. Preparation of Executed Return from charges
81. Identify revenue gap
82. Put up proposal for filling revenue gap
83. Getting approval from competent authority
84. Put up proposal for tariff revision before Regulatory Commission
85. Attending public hearing
86. Releasing tariff orders as approved by commission
87. Put up proposals on 'Removal of Difficulties' with Regulatory Commission.
88. Attending public hearing- matters related to supply code, Regulation code etc.
89. Providing legal assistance in matters related to techno-commercial aspects.
90. Preparation of lost data.
91. Getting approval from Competent Authority

Skills Required

Generation & Transmission

1. Technical Expertise
2. Planning
3. Delegation
4. Independent Judgment
5. Adaptability
6. Pressure bearing
7. Aggressiveness
8. Employee relation
9. Communication
10. Work Ethic

Distribution

a. Cooperation, tolerance, influence
b. Adaptability - Pressure, changes
c. Decision Making
d. Communication
e. Technical expertise
f. Delegation
g. Aggressiveness
h. Pressure bearing
i. Planning
j. Work Ethics

Rating of skills required using BARS (3- point rating)

Generation & Transmission AEE			
	Basic	**Average**	**Expert**
• Technical Expertise	Minimum qualified B.Tech. Degree Knowledge about electrical machines and transmission lines	Knowledge of communication systems relays and controls.	Knowledge in control and protection system, ability in troubleshooting. Mechanism system, SCADA
• Planning	Requirement analysis- Awareness of availability of resource and needs	Knowledge of limitations of the system and ability to overcome	Knowledge of latest technologies ability to forecast future shortfalls. Knowledge in IT tools like primavera.
• Delegation	Knowledge about the works that can be delegated	Ability to assess subordinates and delegates as per competence	Capability to suggestion modification/ improvement in the present system

Distribution			
	Basic	**Average**	**Expert**
1. Cooperation, tolerance and influence	A person with patience, good communication skills and empathy	Selfless person with social and organizational commitment	Ability to manage situations under pressure and to work as a team
2. Decision Making	Should have good knowledge about the rules and regulations.	Timely decision making capability. Easy understanding of situations and requirements	Thorough knowledge of technical and legal matters. Strong will-power to take decision
3. Technical expertise	B.Tech. Knowledge about electrical distribution system	Awareness of transmission systems and its effects in distribution system, safety rules & regulations	Thorough knowledge of the latest technologies such as ring main unit, & about electricity acts, codes & rules.
Corporate office			

Corporate office			
	Basic	**Advanced**	**Expert**
1. Communication Skills (Written, Verbal, Listening)	Ability to communicate smoothly (written as well as verbal) in Malayalam & English.	Ability to prepare standard documents. Good command on language.	Good negotiation skills tending towards win-win outcomes.

	Should have good listening skills		
2. Technical Expertise	Should have knowledge on rules, practices, codes, regulations acts etc.	Should have ability to interpret rules, practices, codes, regulations, acts etc.	Ability to suggest modification in present rules/ regulations etc.
3. Work Ethics	Ability to go 'an extra mile'. Ability to work within deadline.	Determination. Ability to Strive.	Ability to perform and inspire excellent performance within the framework of rules and guidelines

14. Deputy Chief Engineer

a. (OFFICE OF THE DIRECTOR (Renewable Energy & Planning))

JD (Responsibility of Deputy Chief Engineer (RE & P))

1. Lead a team of engineers & staff of each group to achieve their objectives (need further validation).
2. Furnish reports and suggestions to the Board for Approval/ Implementation.
3. Assist the Director (RE & P) in his/her activities.
4. Carry out activities required /assigned by the Board /Director.

Knowledge & Skill sets required:

1. Electrical system planning skills.
    a. Load forecasting : Statistics, State economics
    b. Generation planning skills
    c. Transmission Planning: Load flow, fault, and Stability analysis.
    d. Distribution Planning
2. Knowledge of Renewable Energy Generation- Solar/Wind etc.
3. Knowledge of government rules, laws, regulations and policies.
   Energy Conservation/ Planning skills. Energy Audit.

1. Technical Skills:
   Basic Electrical Engineering skills
    i. Planning systems
    ii. Statistics skill
    iii. Basic economics and financial planning skills
2. Know of government policies of regulations etc.
    i. Decision making skill
    ii. Written expression skill
    iii. Presentation skill
3. Comprehension
    i. Problem solving
    ii. Creativity
    iii. Perception
4. Delegation judgment planning
5. Team Cooperation
   Employee relation, Loyalty.

Qualification required-

1. Basic graduate in Electrical Engineering
- 15 years' experience in Generation/Transmission/Distribution.
- Basic training in Power system analysis
- Basic training in Load forecast.

2. Skills Competency levels.(need further validation)

SKILL	BASIC	ADVANCED	EXPERT
a. Planning Skills			
a. Data collection & Analysis	Ability to understand Power system Data	Statistical software skills. Knowledge of project formulate Capacity to formulate schemes.	Ability to formulate creative ideas/ novel schemes. Ability to anticipate future changes in power scenario.
b. Load forecasting	Ability to apply forecasting technique. Ability to determine accuracy		
c. Generation Planning	Capability to identify generation options. Ability to use generation planning software tools.		
d. Transmission Planning	Ability to use Transmission Planning software.		
b. Energy Conservation	Basic knowledge of end use of electricity Working of equipment's Capability to prepare DSM activities.	Ability to develop new conservative activities.	
c. Team Leadership	Ability to delegate	Ability to coordinate with external sources. Ability to coordinate with other department.	Ability to take care, use individual skills of the team.

b. Deputy Chief Engineer

Administrative Duties

1. Transfer and posting up to AE/SS (average 500 employees)/year.
2. Discipline: - managing office discipline and subordinate office.
3. Disciplinary action unto AE/SS.
4. Training: - on safety regulations.
5. Recruitment- Vacancy reporting, Posting of Electricity workers.

Establishment

i. Disbursement of salary, pension, PF, other claims(500 persons/months)
ii. Medical claims (50 persons/months)
iii. Sanctioning of leave (50 persons/months)

Technical matters

a. Issue of estimate sanctions
b. Tendering of works/purchase.
c. Awarding of works
d. Planning of capital/more works.
e. Identification of new project or as per system requirements.
f. Network management- Lines, equipment's infrastructure etc.
g. General Planning
h. Auction and scrap disposal
i. DSM activity
j. Power purchase – L.D station.
k. Liaison meeting with government departments local bodies etc.
l. Execution of centrally sponsored schemes RGGVY, RAPDRP, MPLAD etc.
m. Technical audit in systems and generation stations.
n. Energy audit
o. Progress monitoring & reporting.
p. Disaster managements- coordination.
q. Appellate authority under Section 127 of Electricity Act
r. Appellate authority under RI Act
s. Conducting monthly review meetings
t. Restriction of Load management.
u. Water management - LD station.
v. Testing and commissioning activities
w. Equipment/ Line- issue of P/W- LD stations
x. Load study
y. Renovation and modernization of existing system.

Legal Activities

- Consumer disputes resolution.
- Court cases: Theft, manhandling R.O.W issues.
- Disputes with contractor suppliers, public etc.
- Enforcement of court directions

Financial Aspects

1. Passing of work/ purchase bills
2. Issuing payments
3. Taxes & Duties remittance – payments
4. Authorization of accounts
5. Budget preparation/ Annual Plan
6. Filing request & management.
7. Revenue monitoring.

Material Management

a. Procurement of materials on emergency.
b. Ensuring availability of material.
c. Liaising with central offices.
d. Scrap Disposal.
e. Store Management.
f. Quality Assurance mechanism
g. Material logistics and site managements.

Reporting

a. L.A questions
b. Reports to higher offices/other departments.
c. Vacancy reporting

Vehicle

1. Hiring of vehicles.
2. Mace of department vehicles

Project management, Work Review & O&M

1. Project Design
2. Approval
3. Periodical review of ongoing work.

Regulatory Affairs

1. Implementation & Enforcement of CEA, SERC, & CERC regulations.
2. Energy Accounting & Auditing
3. Ensuring availability of major institutions.

Others

1. Ensuring Infrastructure for electrical section offices
2. HT/EHT connectivity // consumers agreements & sanctions
3. Ensuring services for HT/EHT consumers.

SKILLS RQUIRED

1. Degree in Electrical Engineering with 15-20 years' experience in Power Sector in the relevant field.
2. Decision Making- Right decision at the right time for implementation of projects.
3. Leadership- Coordination of employees to work as team in achieving targets in time.
4. Communication and interpersonal skills – To manage employees, public, politicians.
5. Liaison with higher officers/offices for receiving necessary orders at appropriate time.
6. Adaptability – To work in critical situations.
7. Shall be able to handle power supply interruptions with minimum outages.
8. Shall be able to generate more revenue.

		BASIC	AVERAGE	EXPERT
1.	**Qualification**	Degree in Electrical Engineering with 15 years' experience in power sector.	Degree in Electrical Engineering with 15 years' experience in power sector out of which 5 years in relevant field.	Degree in Electrical Engineering with 15 years' experience in power sector out of which 10years in relevant field.
2.	**Decision Making**	Disposal of files pending for decision within 10 days having financial implication	Disposal of files pending for decision within 5 days having financial implication of about 50 lakhs.	Disposal of files pending for decision within 2 days having financial implication of above 50 lakhs.
3.	**Performance**	Handling power supply interruptions at Benchmark of Performance indices.	Handling power supply interruptions at 5% above Benchmark of Performance indices, such that power interruption of 50,000 consumers is faster.	Handling power supply interruptions at Benchmark of Performance indices so that major power failures affecting more than 1 lakh consumers is rectified faster.

WORKSHOP3

15. DIVISIONAL ACCOUNTANT

(THREE FOLD FUNCTIONS – KERALA PUBLIC WORKS ACCOUNT CODE)

AS ACCOUNTS OFFICER	AS AUDIT OFFICER	AS FINANCE OFFICER
Verification of subsidiary ledgers and journal	Audit verification of all Expenditure Bills in the ARU (ACCOUNT RENDERING UNIT)	Verification of Fund request submitted to Head Office
Verification of collection remittance register	Verification of all types of Advance s and Refunds	Monitoring the receipt and utilization of the Fund received from Head Office
Certification of all inter unit transfer notes	Scrutiny of material transactions and accounting in the ARU	Verification and submission of Fund Transfer Note of Collection Account to Head Office
Verification and submission of expenditure account of ARU (Monthly and Annual)	Submission of reply to all audit observations (of various agencies) in the ARU	Verification of Cash Books
Verification and submission of Revenue accounts (monthly and annual)	Second level of expenditure audit in the Regional Audit Office (Introducing)	Submitting remarks on tender evaluations
Verification and submission of Revenue accounts of HT/EHT consumers (in the office of Special Officer Revenue AT CORPORATE OFFICE)	Upper level of Expenditure Audit in the Head Office	Submitting all types of Tax Returns (IT, WCT, SERVICE TAX AND VAT)
Verification and submission of Duty DCB (DEMAND COLLECTION BALANCE) statement of KSEB Ltd to Govt.		Monitoring of Unclaimed Amounts and Non-Revenue income
		Daily monitoring of collection and reconciliation OF EHT/LT consumer in the SPECIAL OFFICE REVENUE.
		Verification of budget estimates

SKILLS	DEFINTION
Thorough knowledge of accounting principles and tax rules.	For ex: the DA should have adequate knowledge in the accounting principles and modern tax rule such as IT. WCT, ST RULES to avoid penalties.
Thorough knowledge in the operation and proper usage of modern software used in KSEB LTD	For ex: a knowledge in the operation of accounting software like SARAS, ORUMA NET, ORUMA, HRIS now using in KSEB Ltd
Ability to analysis and resolve the problem related to accounts audit and finance	For ex: a thorough knowledge in transaction and chances of mistake is very essential to sort out the mistakes and solve the problems effectively.

Sensible analysis of the concept of accrual basis of accounting.	For ex: the transaction should be segregated in a sensible manner to find out the real position of it in the books of accounts.
Communication and leadership qualities.	For ex. The DA should have ability to communicate with his /her subordinates, what he /she is expected to collect from the subordinates in a clear and understanding way. Otherwise information obtained from them is not in the desired level.
High level of managerial skill.	For example as a divisional accountant he /she has to convey information regarding the accounts, audit and finance in the ARU to the higher authorities in a time bound manner. For this timely collection of the required information from the subordinates is very much essential. A managerial skill is inevitable rather than sticking on mere orders. He/she has to motivate the subordinate for the purpose of completing the work in a timely and précised manner.
Interpersonal relationship.	

COMPETENCY	DEFINITION OF COMPETENCY	BASIC	AVERAGE	EXPERTS
Knowledge in accounting and tax rules	Thorough knowledge of accounting principles and tax rules	Specialized skills in the routine transaction in the accounting procedure tax rules related to the transaction in the units	To identify the errors and to rectify it	Analysis based on accounts
				Experience in transactions and accounting in the various fields such as generation, transmission and distribution
				He is able to analyze financial statement of all Aru and his knowledge not limited to transaction of his own Aru
Knowledge about related software used in KSEB ltd	Thorough knowledge in the operation and proper usage of modern software used in KSEB LTD	Operational skill	To identify the errors and to rectify it	Analysis based on the reports generated in the system
Ability to analyze problems	Ability to analysis and resolve the problem related to accounts audit and finance	To find out mistakes of routine nature and knowledge to rectify the same	Ability to analyze the cause of mistakes	Preventive steps to be taken to avoid problems

16. ASSISTANT FINANCE OFFICER

AFOs are appointed mostly in Civil and Generation Circles and in Corporate Offices
BASIC FUNCTIONS OF AFOs in ARUs
JOB DESCRIPTION

BASIC FUNCTIONS OF AFOs in ARUs		
1		Internal Auditor of the ARU
2		Complier of Accounts
3		Financial Adviser to Account Rendering Officer
Role as Internal Auditor		
1		Verification of Contractors bills in connection with works/purchase arranged in field with connected documents like estimates, Work Order, agreement, etc. with Board's policies and budget allocation
2		Verification of Administration and General Expenses bills including Telephone bill, Vehicle related expenses, petty cash expenses, etc.
3		Monitoring the utilization of temporary and permanent cash advances
4		Verification of Material utilization in connection with works.
5		Keeping of contractors' ledger, purchase registers, material related registers, advance registers, Bill passing registers, etc.
6		Reconciliation of collection and disbursement bank accounts in the field offices.
7		Periodical inspection in the field offices with emphasis on keeping of proper registers.
8		Active involvement in the stock taking process in field offices.
		In addition to auditing of bills, effecting payment for all bills including work bills as well as establishment bills come under the role of AFOs in ARUs.
Role as Complier of Accounts		
1		Preparation of monthly MIS Reports
2		Regular monitoring of various Day Books prepared by the accounting software, viz.,
	A	Cash Book - Disbursement Cash Book and Collection Cash Book
	B	R & M Day Books for accounting operation and maintenance works
	C	CWIP Day Books for accounting capital works
	D	AGDB for recording administration and general expenses
	E	PIDB for Permanent Imprest
	F	TIDB for Temporary Imprest
	G	SDB for Salary Expenditure
	H	OECDB for Other Establishment Claims
	I	TADB for Travelling Expenses
	J	PPDB for Pension Payments (in Electrical Divisions)
	K	Maintenance of Fixed Assets Registers

3		Verification of Monthly and annual Trial Balance and preparation of supporting schedules
Role as Financial Advisor		
1		Providing necessary advice through Notes in connection with all matters involving financial implications.
2		Ensuring compliance with all statutory recoveries and remittances of taxes like Income Tax (TDS), VAT, WCT, Service Tax, Excise Duty, CWWF Contribution, etc.
3		Ensuring compliance of other statutory requirements under various tax laws like filing periodical returns, renewal of registration, etc.
4		Reply to the queries raised by internal and external auditors.
5		Preparation of budgets and continuous monitoring of actuals with approved budgets.
		In practice, Assistant Finance Officers in ARUs are acting as Finance Managers of that ARU, who is in charge of funds management.
		This involves assessing and revising the standing credit requirements, sending credit requests based on passed bills and disbursing the assigned funds in the order of priority, monitoring the fund transfer to HO from collection accounts and sending Monthly Fund transfer notes to HO.
Assistant Finance Officer is also the head of Ministerial Staff of that ARU.		
Functions of AFOs in Corporate office		
1	**Credit Section**	
	Fund Management and proper allocation of funds among offices	
	A	Monitoring daily collections from ARUs.
	B	Prepare payment schedules based on priority.
	C	Make-up the short falls in funds, if any, through short-term or long-term borrowing from other sources like banks, etc.
	D	Continuous reporting to management regarding fund position of the company.
2	**Bank Reconciliation**	
		Reconciliation of collection from field offices with collection bank accounts in Corporate office
3	**Taxation related Matters**	
	A	Get the field offices regularly updated on changes in various tax laws - Notifications or Orders issued under tax laws, etc.
	B	Address the queries raised by field offices on various tax related issues, by taking expert opinion from outside agencies, if required.
	C	This require regular correspondence with field personnel, outside experts, etc. - Written, telephonic or e-mail.
	D	Tax related matters, being statutory requirements, involve time pressure.
4	**Corporate accounting of Fixed Assets**	
	A	Maintenance of Consolidated Fixed Assets Register
	B	Computation and accounting of Depreciation on Fixed Assets

5	**Annual Accounts Section: (Works under the supervision of Finance Officer)**		
	A	Consolidation of monthly accounts of the company	
	B	Preparation of Annual Financial Statements of the Company	
	C	Preparation and filing of Tax returns of the company like Income Tax, Wealth Tax, and Agricultural Income Tax.	
	D	Compute Tax, remit and comply with tax payment schedules	
	E	Interact with other offices of KSEB Ltd	
Knowledge requirements:			
I	Advanced knowledge in accounting principles, procedures and standards, especially those applicable to the relevant industry		Expert
	- To prepare original books of accounts and Ledgers		
	- To prepare Trial Balance and Financial Statements		
	- To File Statutory returns		
Ii	Updated knowledge of various tax laws, corporate laws, etc.		Advanced
iii	Thorough understanding of the rules and procedures in the company		Advanced
Skill Requirements:			
i	Ability to apply the accounting principles and procedures on a transaction		Expert
ii	IT Skill - particularly knowledge in Office tools like Excel, Word or similar tools		Advanced
iii	Analytical ability		Expert
	- Ensure effective utilization of funds		
	- Ability to identify problems and suggest solutions for the problem.		
iv	Communication skill - oral and written in both regional and English language		Advanced
	Communicate with top management, subordinates and outsiders like auditors, consumers, contractors, banks, government departments, etc.		
v	Numerical ability - to avoid accounting errors		Expert
vi	Vigilance & attention as an internal auditor - to prevent fraudulent activities		Advanced
vii	Team work and Inter-personal skills		Advanced
	- To co-operate with superiors		
	- To coordinate subordinates to attain the defined goals		
viii	Emotional stability to function as the Ministerial head of the ARU		Advanced

Sl. No.	Competency	Competency definition	Basic	Advanced	Expert
1	Accounting Knowledge	To prepare original books of accounts and Ledgers, Trial Balance and Financial Statements	Preparation of Books - prepare subsidiary records	Identifying the errors in books of accounts - clerical errors, errors of omission, errors of principles, compensating errors	Analyze the financial data to form an opinion
2	knowledge in various statutes	applicability of various tax laws	General knowledge of the rates of tax	Knowledge on the procedures for collection and remittance and filing of returns under various tax laws	Give advice on the taxability
3	Vigilance & attention	As an internal auditor - to prevent fraudulent activities	knowledge of the rules and procedures	Ability to identify the fraudulent activities	Ability to prevent fraudulent activities
4	IT Skills	Knowledge in Accounting Soft wares, MS office, etc.	Basic Data Entry knowledge	- Ability to apply simple functions and prepare basic reports	Ability to apply complex functions for preparing various financial reports

17. EXECUTIVE ENGINEERS

An effective link between top and lower level management

Sl. No	Task
	COMMON TASKS:
1	Planning of work
2	Budgeting and Annual Plan Preparation
3	Design, estimation and preparation of detailed project report
4	Administrative sanction
5	Sanction of Excess/extra items of work
6	Technical Sanction
7	Tendering and Awarding of work
8	Purchase of materials / equipment
9	Allocation / reallocation of materials
10	Scheduling and obtain sanction for shut downs
11	Monitoring/ supervision of major work
12	Auditing / passing of bills
13	Check measurement of work
14	Arranging payments (in ARUs)
15	Monitoring safety aspects and arranging Personnel protective Equipment
16	Establishment matters of Officers / Staff
17	Transfer and posting of subordinate staff
18	Disciplinary matters
19	Arranging Statutory payments and filing returns (ST, IT, PT, BT, WCT etc.)
20	Reply to Audit Notes (Internal & AG)
21	LA Interpolations
22	Obtain license / Approval/ Permit from Statutory bodies like Railway, Inspectorate, PTCC, Social Forestry, Local Authorities etc.
23	Coordinate with other wings of KSEBL and other departments
24	Attending / Follow up of court cases/ disputes
25	Conducting Conferences/ workshops
26	Attending higher officers meeting
27	Imparting technical and safety training
28	Inspection of Subordinate offices and report to higher ups
29	Attending other department's meeting / Statutory meetings like DDC, PTCC, DPC, Accident prevention committee etc.
30	Complete management of vehicles
31	Scrap reporting and disposal

32	Awarding compensation (tree cutting, land, accident compensation)
33	Outsourcing of routine work (Meter Readers, Shift operators etc.)
34	Maintaining Office discipline
35	Various Reports to Management like Monthly progress, financial returns etc.
36	Preparation of ARR
	DISTRIBUTION WING:
1	Attending consumers complaints
2	Arranging emergency field work
3	Monitoring the revenue activities of the field offices
4	attending field office meetings
5	arranging rented building and maintenance of departmental buildings
6	Compounding of offences as per Electricity Act
7	Sanctioning of deposit work
8	Execution of Street light Agreement with Local bodies
9	Execution of Cable TV Agreement with various cable TV operators
10	Implementation of MP/MLA/PPS work
11	Submission of Revenue / Expenditure account
12	Submission and follow up on RR actions
13	Field inspections on safety
14	Establishment matters of Officers / Staff/ Pensioners under his control
15	Public Relations
16	Monitoring Supply interruption
	TRANSMISSION WING
1	Pesting and commissioning of major equipment
2	Project management using PM tools like MS Project
3	Condition monitoring of equipment
4	Periodical maintenance of substation and lines
5	Arranging OEM services
6	Asset management using PSEM software
7	Sanction of overstayed of quarters
8	Inspection for building permits near lines / installation
9	Inspection for Quarry operation near EHT lines.
10	Preparation and control of Load restrictions
11	Verification of records and documents esp. maintenance registers
12	Co -ordination with LD for shutdown of lines and substations

13	Tree cutting sanction (in right of way of line)
14	land acquisitions for substations : Coordination with District Collector and Revenue dept.
15	Planning and scheduling of maintenance of Transformers and switch gears
16	Procurement of essential spares
17	Scheduling of engineers / staff for shift duty
18	Supervise and monitor all day to day maintenance activities
19	Prepare schedule for preventive and breakdown maintenance of lines and substations
20	Follow up on Technical Audit / Protection Audit issues
21	Co -ordination with PET / Relay /Metering wings of System operation
22	Approval of Operating Instructions
	SYSTEM OPERATION WING
1	Overall charge of LD operation, Water management, Market operation, Outage planning, Power position review etc.
2	sanctioning shutdowns, coordination with SRLDC/SRPC for shutdowns, coordination with IPPs
3	System study Committee, Analysis of major grid events, protection coordination subcommittee of SRPC, reliability coordination
4	Load flow studies/ system studies
5	Availability certification of transmission system
6	TCC,SRPC,OCC, Standing Committee meetings
7	Coordination of matters related to under frequency/ADMs/SPS etc.
8	Transmission system planning
9	Projection of cost for merit order of IPPs, Thermal Generation/ CGS
10	Verification and certification of power purchase bills, UI bills, Reactive Charges bills
11	Regional transmission accounts, Transmission Deviating account, SLDC charges
12	Intrastate UI bill and other matters connected with intra state ABT
13	Energy transaction account between profit centers
14	Monitoring RE obligation and furnishing comments on proposals for meeting RE obligations
15	NOC for open access transaction for HT/EHT consumers, energy audit and related matters
16	Protection audit related matters and Technical audit related matters
17	Overall charge of Communication, Meter testing and SCADA system
18	Overall charge of TNMS, System operation store
19	Testing and commissioning of new stations (Relay/PET) and healthiness of existing system
	GENERATION
1	Planning and scheduling of maintenance of Generators, Transformers and switch gears
2	Procurement of essential / imported spares
3	Scheduling of engineers / staff for shift duty

4	Supervise and monitor all day to day maintenance activities
5	Arrangements / Scheduling and execution for major repair works
6	Prepare schedule for preventive and breakdown maintenance
7	Co-coordinator of Disaster management and discharge of Safety Officer
8	Supervise and monitor works connected with mace of colony , township, IB, roads, drinking water, waste disposal
9	attend all emergency situations during power black outs and tripping of generating units
10	Arrange condition monitoring and routine testing for vital equipment in the station
11	Planning and scheduling of major overhauling works of penstocks, butterfly valves, main inlet valves etc.
12	Security arrangements at vital installations
13	periodical inspection of vital installations
14	Liaison and communication with Load dispatch
15	Obtaining sanction for shutdown of generating units and connected equipment from head office and LD
16	Monitoring statistics, details of generation, reservoir details and upload to LD
17	Water management and fuel management
18	Plan and prepare schedule for RMU work
19	Arrange technical training for subordinate staff in the power station
20	Act as management representative for ISO certification
21	Communicate all major events / breakdown to higher ups
22	Arrange mock drills / safety drills
23	Monitoring of housekeeping of power station
24	Attend Technical Audit/ safety audit

COMPETENCY REQUIREMENTS:

1 Technical expertise

Should have a clear idea about the work with updated knowledge

Experience in respective field of work.

2 Decision making

Right decision at the right time

3 Interpersonal relationship

Should have good relationship between superiors / subordinates

Should have good relationship with consumers & general public

4 Leadership & motivation

should coordinate and lead the team to achieve the goal

motivate subordinates

5 Coordination

Coordination of work

Coordination among staff

Coordination among various departments (internal & external)

6 Commitment / Loyalty

Commitment to the organization and general public

7 Emotional Stability

Should be capable to deal with people and situations with a balanced mind.

8 Adaptability

Should be adaptable to situations, changes and policies.

9 Foresight

Should have long term vision for proper planning

10 Communication skills

Effective Communication with Superiors / Subordinates and with general public

11 Analytical reasoning

Should be capable of analysing the issues and priories accordingly.

12 Safety culture

Should be aware of the latest safety regulations

Should develop safety culture among the subordinates

13 Cost effectiveness

Work is to be executed in a cost effective way without affecting quality

14 Time management

Capable of sticking on to the schedule without compromising the required parameters

15 Social commitment

Execute the work with minimum inconvenience to the consumers

16 Punctuality

Should be a model to the Subordinates in punctuality

17 Aggressiveness

Should be aggressive in follow up actions

18 Delegation

Should delegate the work to the right person

19 Employee relationship

Should be able to keep good personal relationship with other employees.

Sl. No	Competency	Definition of Competency	Basic	Average	Expert
1	Leadership & Motivation	Lead the team to achieve the goal in an effective manner	Leading a group in consultation with others	Positive mentality	Technical expertise

			Give adequate directions	Incentives	Training
			Leading in front	Motivate staff	Appreciation
			Understanding the situations and collecting feedback	Avail consultancy from experts	Adopt updated technology
				Commitmen t to work	Identify and utilize the apt personnel
					Extract Maximum potential
2	Decision Making	Right decision at the right time	Decisions without detailed analysis	Analysis of essential parameters	Decision on detailed analysis
			Untimely decisions	Quick decision as the demand of the situation	Consulting with experts
			Decisions without stipulation of time	Quick decision on emergency situations	Correct Decision in time.
			Decisions based on discussion with others	Decision based on past experience	Foresight
					knowledge of rules & regulations
					Quick and wise decision in emergencies / disasters

3	Communicatio n skill	Express needs and desires to superiors and co-workers	Person to person communication	Public speaking	Systematic approach with modern facilities
			Communication in small group	Clear Circulars & Orders	Timely communication
			Oral communication s	Listening	Acknowledgement
					Communicate with a mob in chaotic situation
4	Co-ordination & Time Management	Co-ordination of resources for timely execution of work	Manage the work without the support of planning	Execute the work in time frame	Plan & schedule the work
			Managing work with available resources	co-ordination with staff	Plan resources
			Work without proper analysis and rescheduling	co-ordination with superiors	Analyze slippages using Project Management tools
			Starting the work in scheduled time.	Rescheduling the work with analysis	observe safety measurements
				Coordinatio n with other wings/ depts.	Analyze economic aspects
					Proper documentation
					Infrastructure facilities.

	18. **FAIR COPY ASSISTANT**
Sl. No.	**JOB DESCRIPTION**
	Typing the following works both English and Malayalam: (Average papers per day - 17 to 25)
1	Appointment Memos - from Electricity Workers to Assistant Engineers (Both PSC and Compassionate Appointments)(Depends on each year)
2	Entering incumbency details for Transfer and posting
3	Finalizing the order
4	Entering incumbency details for Promotions
5	Finalizing the order
6	Medical Reimbursement.
7	Medical Advance
8	Send and resubmitting of Medical Bills
9	Letters - Non Liability Certificates, No Objection Certificates, Last Pay Certificates and others.
10	Salary Certificates
11	Apprentices Certificates and letters
12	Compassionate and PSC - other letters.
13	Proceedings.
14	Board Orders
15	Service Books forwarding letters.
16	Note to the various Officers.
17	Pay Extract, Income Tax, Professional Tax, etc.
18	Show Cause Notice, Memo of Charges
19	Disciplinary Cases, Suit, Statement of Facts, Affidavit and other Court related documents.
20	Right to Information Act, Sutharya Keralam, Janasamparka Paripadi, etc.
21	Pension Sanction and Pension Authorization letters, Pension Book forwarding etc.
22	Revenue letters and other works
23	Tender Forms
24	Minutes of Monthly Division Conference.
25	Minutes of Monthly Safety Meetings.
26	Minutes of Monthly Scrap Disposal Committee Meetings
27	email checking and forwarding
28	Permit works forward to LD
29	Consolidating Budget and Annual Plans.
30	Progress Reports (Substation)
31	Inward and Dispatch work (Stamp Accounts)
32	Preparing Estimate and Data
33	Material requirement works.
34	Power allocation works
35	Special Credit
36	Experience Certificate
37	SD Releasing letter
38	Bank Guarantee Letters
Ability and Skill	

Accuracy- Type within short time without any errors.
Typing speed- ability in typing fast without errors
To read and recognize different type of handwritings and type it without errors.
Knowledge in English and Malayalam Typing
Understand and co-operative with colleagues, supervisors and different type of customers.
Ability to type continuously for long time.
Technical knowledge: Word, Excel, PowerPoint
Communication- Communicate with colleagues at different levels.
Concentration-
Memory
Co-operation
Pressure bearing
Employee relations
Loyalty

Sl. No.	Competency	Definition of Competency	Basic	Average	Expert
1	Typing skill	Ability to Type English and Malayalam	typing speed of 40 words per minute	typing speed of 60 words per minute	typing speed of 70 words per minute
			Computer Knowledge in word	Computer Knowledge in word, excel	Computer Knowledge in word, excel, PowerPoint
2	Reading skill	Reading Ability	ability to read and understand normal handwriting	ability to read and understand different type of handwriting	ability to read and understand difficult and complex handwritings
3	Accuracy	Type without errors and neatly, easy to understand	80%	90%	97%
4	Communication	Passing various information in different level of Higher authorities	Giving required information		Forwarding urgent details in the absence of the higher officers
5	Pressure bearing	Handling the Contempt of Court Cases and Time Limit matters	dealing with the situation		Effectively handle the works according to the situations and priority

19. CONFIDENTIAL ASSISTANTS

Confidential Assistants (i.e. Personal assistant to the officer)
DUTIES & RESPONSIBILITIES

Providing all help & support to the officer for the day-to-day functioning of the office.
To inform the officer regarding the time of the meetings, and also time limit of the certain Tapals for reply & other important matters
Taking dictation from the officer and transcribe the same in Computer
Attending the meetings along with higher officer and draft the minutes of the meetings
Meeting includes both internal as well as field meetings
Prepare the advance tour programme, Progress Report and tour note of the higher officer and follow-up the settlement*
Accept all Tapals and other communications to the office, Enter in the register/Computer. Inform the officer about any urgent matters & time limit.
Attend the Telephone of the office and connect them to other sections if required.
Giving and Taking of Telephone messages to other offices
Messages include intimation of conference, safety meeting, requirement of data, requirement of materials, etc.
Intimate every officers and other concerned parties over phone & other communication methods about the conference/meeting and confirm their participation.
Collecting various data from section offices for the use various branches (Establishment, Drawing, Accounts, General, etc.) of the office
Data may be Requirement of materials, technical information to prepare reports for the DB such as Peak time Reading, Faulty Meters, Interruption, etc.
Details required to furnish reply to the LA Questions.
Checking of e-mail, taking printouts, entering the register and deliver to the officer
Sending and Receiving of FAX
Documents includes urgent letters, intimations, etc.
Writing the log book of officers*
Necessary typing works of documents both in English & Malayalam using computer
Receiving visitors and provide needy assistance.
Occasionally assisting the other branches (Establishment, Drawing, Accounts, General, etc.) of the office for the smooth functioning of the office.
* In corporate offices.

	SKILLS NEEDED
1	Keeping some matters confidentially and some other till at the time of publishing.
2	Capability to read, write clearly and understand English & Malayalam
3	Good Communication skills, understand spoken and written information in English & Malayalam
4	Knowledge in Shorthand in 100 words/min and Typing (50 to 60 Words/Min) in computer is essential
	Technical Expertise in Computer and other Communication devices
5	A thorough knowledge in Word processing, Spreadsheet and e-mail client applications.

6	Ability to do the works accurately within the time limit
7	Acquire new ideas in accordance with the scientific developments and utilize the same in our day-to-day work.
8	Good Organizational awareness.

SL.NO	COMPETENCY	DEFINTION OF THE COMPETENCY	BASIC	ADVANCED	EXPERT
1	COMMUNICATION SKILL	to communicate the subject matter to other offices in written as well as oral	Can be communicated orally	Can be communicated orally as well as written, express the importance of the subject matter and also prepare Letters independently as and when required.	Capable of using latest communication technologies for speedy and effective communication, Should be able to convey messages to all persons involved without any hesitation.
			Express the idea in communicative language	Express the basic ideas more effectively and in better languages	Should confirm the message conveyed is clearly understood and noted.
2	SHORTHAND SKILL	TAKING NOTES IN SHORTHAND (English & Malayalam) FROM THE OFFICER	SHOULD BE CAPABLE FOR 80 WORDS/MIN	Capable of noting 100 words/min with 95% accuracy, To add important points not included in the dictation.	Capable of noting 120 words/min with 99% accuracy, Highlight the important points not included in the dictation which are necessary

3	COMPUTER SKILLS	PREPARATION OF DOCUMENTS, SEND & RECEIVE MAIL	Basic Knowledge in Word-processing & Spreadsheet Applications	Knowledge in Computer & Office automation packages, Use advanced techniques in Excels for preparing Tabular data & Estimate preparation , etc.	Technical Expertise in office automation packages, Use Advanced techniques in Word & Excel to reduce the complexity of works, Internet & Mail clients, Knowledge in Malayalam typing, basic computer maintenance skills
4	CONFIDENTIAL MATTERS	MATTERS SHOULD BE KEPT CONFIDENTIAL (Such as Statement of Facts of OP Cases, etc.)	Confidential should not be revealed to anybody	Confidential matters should not be revealed if any officers compelled.	Matter should be kept Confidential at any cost. Matters never revealed if any officers enquire even from higher levels.
5	TYPING SKILL	Typing of various documents in Malayalam/English	40 words/Minutes	50 Words/Minutes with 90% accuracy	60 Words/Minutes with 99% accuracy
6	PUNCTUALITY	Timely completion of works	Minimum	Maximum	Optimum
			knowledge in English/Malayalam	Read & understand the subject matter and	Communications should be extract

				share it with others	better result without further explanation.

20. ASSISTANT ACCOUNTS OFFICER

There are 7 senior Assistants, 2 Fair copy Assistant, 2Office assistant and 2 Senior Superintendent are coming under the control of AAO

SUPERVISING AND PASSING UNDER MENTIONED WORKS

ESTABLISHMMENT & ACCOUNTS	All entries in service book of Officers and staff related to, Sanction of increment, Earned Leave surrender ,Leave and fixation
	Passing of Salary bills and other establishment claims.
	Supervision of Transfer and posting, all general establishment related to Officers and Staff,
	Supervising of disciplinary proceedings related to Officers and Staff
	Litigations under various courts, complaints received from consumers,
	Verification of monthly accounts & Annual accounts
	Verifying and passing IUTN & IUMIL and verifying Budget
	Passing of purchase bills and work bills
	Verifying the Bank Reconciliation statement of Disbursement and collection
	Verifying and passing medical bill and TA bills of Officers and staff
	Monitoring progress report of Revenue & Works
	Supervision of Tender Procedures related to spot bill & Receipt forms, books and stationary
	Verifying and passing of Log book ,petty bills, telephone bills etc.
	Monitoring energy and audit report
	Verifying and passing all kinds of payments
	Monitoring e-payment of all kinds of taxes and e-filing of taxes
	Passing of permanent Imprest & Temporary Imprest of Officers
	Verification and passing of store accounting
	Maintaining and timely renewal of Bank Guarantees executed for purchase and works
	Monitoring of all general matters etc.
	Timely reply of audit queries of AG,CIA&RAO
ASSISTANT ACCOUNTS OFFICER ,LA &DEO	
	Distribution of Inward papers of Humble High court cases to all legal section concerned

	Supervising of all the works detailed below conducted by 3law assistants
	Supervising High court cases relating with Arbitration, contract agreement ,policy matters interstate dispute cases, miscellaneous cases of hydel projects and cases on dispute with Electricity supply Act 2003
	Supervising High court cases of land acquisition disputed on, line drawl and preparing Adv., fees.
	All miscellaneous cases relating with LT consumers Electricity supply, pole rent of cable TV network connections , CGTRF and Ombudsman cases
	Also supervising the submission of draft relating the request for Board orders,
	As public information officer attended on duties on accepting all the application relating to Law section, collecting information from
	legal section concerned and finalizing the application as per RIA 2005 within time limit
	Also working as assistant state public information officer of state public relation officer
	As accepting all application and supervising on collecting details from officers concerned an d final reply prepared by the senior assistant

SKILL & ABILITIES

COMMITMENT
To complete the work in a time bound manner
VIGILENT
Seriousness of work
FORESIGHT
Knowledge
Knowledge in SOFTWARE SARAS ,HRIS,ORUMA NET
COMMUNICATION SKILLS

INDENPENDANT OPINION
by analysing views of subordinate and take appropriate decision in time
MOTIVATION
Encouraging the subordinate in the progress of work by giving needful direction
LEADERSHIP
Motivate to subordinate to complete their work in time
ACCOUNTS
MATERIALS ACCOUNTING
Material accounting through GRN, and ISMRN documents
Material issued other ARUs through MRCI,ISTN
The value of materials accounted standard rate of Board through journal entry

The value of materials accounted through IUTN

The value of IUTN issued to ARU and accepted the IUTN through journal entry and forwarded to originating ARUS

Then IUMIL prepared and forwarded to ARUs the confirmed copies IUMIL forwarded to originating unit.

Confirmed IUMIL and IUTN forwarded to Head office responding unit and originating unit.

sl.no	competency	definition of competency	Basic	Average	Expert
1	KNOWLEDGE	MATERIAL ACCOUNTING	MATERIAL ACCOUNTING THROUGH DOCUMENTS Goods received note(GRN) &inter store materials received note(ISMRN)	POSTING OF Goods received note& inter store materials note	Material accounting through GRN & ISMRN, Then standard rate is to be posted, GRN analysis sheet prepared and journal entry in SARAS
		Salary	by arriving gross emoluments ,	recovery of various deduction and arriving net emoluments	By applying eligible Basic pay, eligible DA + admissible allowances deducted recovery General provident fund, income tax and employee's welfare fund. Then update HRIS
2	Leadership	Co-ordination of subordinate	supervise the work subordinate promptly and in time with applying the rules and regulations existing	to evaluate the outcome of work done by subordinate as per rule	Ensuring the correctness of rules and regulations in the organization
	VIGILENT	Statutory tax	Deduction from concerned bills	deduct correct amount as per rules	remittance of deducted amount to the concerned dept. within the stipulated time limit, through e-payment and e-filing in time
					By applying eligible Basic pay, eligible DA + admissible allowances deducted recovery

					General provident fund, income tax and employee's welfare fund. Then update HRIS

21. DRIVER

All the drivers having heavy license and having 20-30 years of experience.

1. There is no specific duty time for drivers, whenever required they have to come for duty expect in the generation wing.
2. Driver has to keep all the records of vehicle safety(documents such as Vehicle log book, RC book, Insurance certificate)
3. Drivers vehicle up to 1500 to 2000KM
4. Maintain all the vehicles currently used even if it is very old.
5. Travel national level for interstate meter calibration
6. Do the daily inspection of vehicles
7. In emergency situations, do the field work especially in monsoon work.
8. Servicing of the vehicle in every month
9. Report any complaints regarding vehicle to the superior officer
10. As per the order of superior officer drive the vehicle above 2000km.
11. Driver has to collect the details such as date, time, purpose, place, KM etc. of those officers who use the vehicles.
12. Renew and keep all the documents of vehicle safely

Skills and Abilities

1. Must have Valued Heavy Driving license and has to renew and keep safely
2. Should be mentally fit- right eye sight, audibility and stamina
3. Awareness on traffic laws and follow it strictly
4. Make sure the safety of passengers in the vehicle
5. Knowledge about the vehicle, possible damages and the way to resolve these issues
6.

BASIC	AVERAGE	EXPERT
Doesn't have much experience to drive the vehicle even if he had a valued license	Drive the vehicle without making any accidents	An ideal driver is the one who driver the vehicle correctly following the traffic rules and reach the destination without creating any accidents
One who drives the vehicle without knowing the traffic rules properly	One who is unable to drive for long time	One who can drive at any situation, climate condition through any type of roads
One who doesn't know anything about the maintenance work of vehicle	One who has difficulty for driving in the night time	One who knows the repair work of the vehicle
Those who doesn't know much about meter gauges	Drivers without caring the nature of roads	One who drives by knowing the details of road such as Hilly area, Hair pin bends etc.
	Will not check the documents properly	Those who check and renew the documents of the vehicle in time

WORKSHOP 4

22. DEPUTY CHEIF ENGINEER (CIVIL)

DUTIES AND RESPONSIBILITIES

To function as head of each wing of the civil branch such as Investigation and Planning, Construction of works / Projects in the North, South, Dam safety.

1. To take decisions on the proposals submitted by Deputy Chief Engineers and Project managers
2. To take up the Board on matters requiring sanction from the Board
3. Liaising with other departments
4. Periodical inspection of sites and issue appropriate directions.
5. To take up with Board alternate or new / innovative ideas for implementation
6. To approve designs for projects / works
7. To attend meetings convened by committees , higher authorities and other departments
8. To implement board and statutory decisions within his jurisdiction
9. To lead committee meetings as per the direction of the Board and to submit recommendations to Board
10. To prepare the satisfactory replies to audit observations, made by AG and other statutory committees and replies to LA interpellations.
11. To submit to the Board annual plan, budget estimates for the works under him
12. To prepare DPR for new hydroelectric schemes.
13. To prepare and submit details sought by Board.
14. Agreement authority for projects and other major works and implementing the project as per the agreement.
15. Correspondence with the contractors and resolve issues and bottlenecks relating to contractual obligations for speedy implementation of works.
16. To monitor and to take timely decisions on timely implementation of the projects.

- **DEPUTY CHIEF ENGINEER (CIVIL DESIGN)**

1. To evolve monthly / annual action plan, organise, coordinate and control the activities in the civil design wing to attain the mission effectively within the time frame.

a) To check and furnish recommendations / comments to the Chief Engineer
   (a) About the design and drawings submitted by Executive Engineers.
   (b) Fabrication drawings obtained from manufacturer / supplier / contractor

b) To Submit
   (a) Specific proposals in connection with the project implementation to the Chief Engineer
   (b) Report on monthly progress / performance of design wing to the Chief Engineer
   (c) Proposals for technology up gradation and installation of highly sophisticated scientific equipment's and software's in the civil wing.
   (d) Specific proposals to improve the facility in the design wing according to requirements.
   (e) To coordinate design activities with the construction activities
   (f) To obtain the data to function the design wing effectively.

c) To Formulate action plan to obtain the data to function the design wing effectively

d) To Identify
   (a) The training and development's needs, chart out programme and submit the

proposals to the Chief Engineer

(b) The needs and requirements in the field and to formulate plan to issue drawings based on the construction schedule.

e) To manage the officers and staff under the design wing and allocation of works.
f) Monthly inspection of sites.
g) To evolve strategies for continuous improvements and performance
h) To carry out any other work which may be assigned to him by his superior officers.

II DEPUTY CHIEF ENGINEER IN THE PROJECT

- To sanction estimates within the delegation of powers
  1. inviting tenders / quotations / placing work orders and execute agreements
  2. planning activities of the project
  3. monitoring of work as per the construction programme
  4. Conducting office meetings and review meetings of works with the contractors and field engineers as part of monitoring works
  5. passing of works and establishment bills
  6. arranging credit for payment of work bills and establishment
  7. office management circles and control of all the staff under the circle
  8. arranging pre check furnishing replies to the pre check
  9. preparation of monthly and annual accounts as head of Account rendering unit
  10. approving drawings and arranging drawings from the drawings for proper execution of works
  11. to function as a member of land acquisition committee
  12. arranging to convene high level committee meetings
  13. function as disciplinary authority of all up to Assistant Engineers
  14. coordinating all activities of all divisions under the control of the circle
  15. scrutiny of extra items and excess quantities and take up for sanction
  16. liaising with other department such as revenue forest / PWD and Irrigation for the implementation of the projects
  17. Preparation of the Progress report and incumbency report
  18. \attending senior officers meeting
  19. Reporting and settling field problems that require high level intervention
  20. scrutiny and compilation of budget and revised estimate
  21. payment of establishment claims of all staff
  22. pay fixation of all staff under the circle
  23. sanction of leave and other establishment matters
  24. up keeping of service books of all officers and staff
  25. disbursing of claims of all staff and officers under circle
  26. facilitate all statutory audits
  27. Regular inspection of work sites and sort out all problems
  28. All other works assigned by higher officers.

III. DEPUTY CHIEF ENGINEER (INVESTIGATION)

To Head and lead the entire investigation wing as a team right from the Sub Engineer to the Executive Engineer for the development of Major, small, mini, Micro Hydroelectric project in the state with divisions and sub divisions

1. Sanctioning authority of Preliminary investigation survey for new investigation project
2. Vetting of field reports like feasibility reports, preliminary investigation reports, detailed investigation reports and drawings coordinate the geological exploration activities in the field with geological survey of India department

1. Periodical site inspection and verification of component structures for e ach project.
2. Conducting periodical review meetings and chasing of targets set for each project with field engineers.
3. liaising with other department such as revenue forest / PWD and Irrigation for the implementation of the projects
4. Preparation of the Progress report and incumbency report
5. \attending senior officers meeting
6. Reporting and settling field problems that require high level intervention

7. scrutiny and compilation of budget and revised estimate

IV **DEPUTY CHIEF ENGINEER (FABRICATION UNIT)**

1. To function as the Account rendering unit for fabrication divisions at Pallom and Angamali and also for the small hydroelectric projects at Perunthenaruvi, Marmala and Ladrum project
2. Deputy Chief Engineer in charge of the prefabricated building at Punnapra
3. Controlling all officers and staff under the circle
4. Sanctioning estimates and arranging works under the circle
5. Auditing and Passing work bills
6. Submitting of monthly remittances and returns to the Excise department in respect of fabrication and galvanisation works
7. Arranging galvanisation work of fabricated materials.
8 To invite tenders and quotation for the procurement of materials for fabrication works
8. To purchase and provide raw materials required for fabrication works (Amount 5000 Metric Tonnes annually)
9. To look after all establishment matters under the circle (around 60 numbers)
10. Disciplinary authority up to the rank of Assistant Engineer

V **DEPUTY CHIEF ENGINEER (RESEARCH AND DAM SAFETY)**

1. To function as head of safety aspects of all the 53 dams owned by KSEB as per the dam safety guide lines act.
2. To function as head of all research activities of civil wing
3. To function as head of the Dam Rehabilitation and Improvement Projects of all dams owned by KSEB which is aided by World Bank.
4. Liaising with Central Water Commission relating to DRIP works and safety aspects of all dams owned by KSEB
5. Conducting periodical inspections along with CWC and Dam safety Review Panel Committee and World Bank Representatives in connection with DRIP works.
6. Conducting periodical progress review meetings of DRIP works with CWC and World Bank officials
7. Conducting periodical inspections such as post monsoon, pre monsoons of all dams and peering the reports and submitting to CWC and Chief Engineers
8. Conducting safety and security audits of all dams owned by KSEB along with Intelligence Bureau and National Security agencies and implementing the recommendations.
10. Inspecting and arranging periodical maintenance of the dams owned by KSEB.
11. To function as head of Account Rendering Units for all division under his control
12 Preparation of evacuation plan and implementing the same in consultation with revenue and disaster management unit

VI **DEPUTY CHIEF ENGINEER (OFFICE)**

1. To render all the administrative and technical assistance to the Chief Engineer
3. To function in charge of the Chief Engineer in the absence of the Chief Engineer during his leave / Field inspection.

2. To coordinate, supervise and monitoring of all activities in the office of CE in connection with the implementation of all projects and works except design
3. Checking all the estimates submitted from the field officers for facilitating sanction by Chief Engineer
4. Scrutiny of tender documents of all projects and works
5. Scrutiny of all tender documents for tender finalisation and executing agreement by CE
6. Scrutiny of all notes to the Board and all correspondence to the contractors, higher officers, subordinate officers
7. liaising with other departments like NH, Survey, and Forest etc.
8. Attending meeting with higher officer
9 To enforce discipline in the CE s office
10 to look after all establishment matters and all statutory audit reports
11 Scrutiny replies to LA Interpolation

- preparation and scrutiny of Affidavits and counter affidavits to various court cases relating to works

1. 13. Preparation and scrutiny of budget estimates, annual plan etc.
2. All other works assigned by higher officers

SKILL COMPENTENCY REQUIRED TO DO THE ABOVE JOB

1. **Technical skill for the job assigned to him**

Adequate technical knowledge for the implementation of the Hydroelectric projects / Buildings, works including preparation of Detailed Project Report, Detailed Project estimate, Tendering process, Design of component structures, and Project execution

BASIC – He obtains the technical solutions to carry out the job with the assistance of others

AVERAGE – He arrives at the technical solutions in consultation with others

EXPERT – He gives immediate solutions to the technical problems single handily

1) Project Management skill

Execution of the project by preparing a construction schedule as per the CPM / PERT programme and monitoring regularly

BASIC – He obtains the l solutions to carry out the job with the assistance of others

Average – He arrives at the solutions in consultation with others

EXPERT – He gives immediate solutions to the problems single handed

a. Managerial skill

To lead the team by mobilising optimum resources like materials, machineries, men and money**.**

BASIC – He obtains the l solutions to carry out the job with the assistance of others

AVERAGE – He arrives at the solutions in consultation with others

EXPERT – He gives immediate solutions to the problems single handily

b. Interpersonal management
c. To maintain a good working atmosphere in the organisation with the team members and other stake holders to carry out the job in hand
d. communication skill
e. To convey the requirement expected of the other party and to extract the job expected of him
f. Listening skill
g. To hear the stake holder patiently so that the problem dies out automatically
h. Conflict management
i. To resolve the conflict between the stake holders expeditiously and amicably
j. Change management
k. To prepare to accept and implement the organisation for the required change as per the direction of the Board
l. Analytical skill
m. To evolve and analyse the various alternatives to the problem at hand and to select the optimum one for implementation
n. Awareness about statutory, contract and other laws
o. Adequate knowledge about the labour and contract laws etc. for smooth implementation of the project
p. Personal management
q. To maintain cordial relationships with all the stake holders to achieve the organisational goal with optimum benefit
r. Encourage and Motivational skill
s. To stimulate the team members by recognising their achievement and encouragement to achieve higher outturn
t. Hospitality skill for management
u. Physical and mental agility to handle the job at hand

23. OVERSEER

WORKS RELATED TO OVERSEERS IN KSEB

1. Supervision of all the civil works -like Dam, tunnel Driving, Powerhouse construction and KSEB commercial building , transmission construction works (Assist these works as per the direction of the superior officers)

2. Establishing Benchmark

3. Preconstruction survey and triangulation survey
4. Field Investigation survey
5.Property Survey and Demarcation of boundaries
6.Preparing drawings of connected survey works
7. Assisting land acquisition procedures
8. Supervising the maintenance work of existing building

CARRYING OUT OF INVESTIGATION WORKS

1. Identification of project by GTS map.
2.Recognising survey
3.Location fixing by the help of GPS
4.Hydraulogical and meteorological data collected from KSEB office and other sources(Rain gauge ,Weir Gauge and Rainfall)
5 Preliminary Investigation survey(PIR) - Handling with survey instruments like total station, dumpy level, GPS, compass etc. Approx. 1Month
6.Assisting detailed Investigation survey - Handling with survey instruments like total station, dumpy level, GPS, compass etc.
7.Assisting detailed Investigation report(DIR)
8. Prepare all drawings related to the investigation works

OFFICE WORKS

1. Scrutinizing the estimate
2. Preparing Tender documents
3.Preparing agreement documents
4.To assist the preparation work of project report such as PIR,DIR,DPR(Detailed Project Report) of various schemes
5.To prepare the bills related to contract works
6.To scrutinize the contract bills
7.Preparing the monthly progress report of the works
8. Assisting to prepare (DPR) detailed project report
9. To prepare the reply of all correspondence works

The time completion of project and survey works depends upon the direction of superior officers and field works are depended upon the quantity of work, site condition, i.e. nature of terrain in hilly areas thick and wild forest etc., and depending on the climatic conditions And capacity of hydroelectric project and reservoir area , length of tunnel and penstock route

Competency Skills & Knowledge Required:

1 ** Technical skill*
- Deep knowledge about handling survey instruments like total station, GPS, theolite, Compass etc.
- GIS skill
- Need knowledge about transferring the data from the survey

a instruments
- Knowledge in computer software like CAD, Excel, LISCAD for preparing drawing and estimation
- Knowledge about quantitative computation for preparing the report based on survey conducted

- Knowledge about modern technical equipment and materials for civil construction works
- Ability for interpreting project or any construction

b drawing

2 ** Team Work*
- Collective proactiveness and responsibility in the Team work
- Interpersonal skills

3 ** Mental Ability – Giving attention to the work. (Physical abilities especially sensory inputs)*
- Need sensory inputs for the perfect accuracy of the survey
- Must be vigilant and attentive in survey and construction works

- Interpersonal skills in survey and construction

4 related team work

KNOWLEDGE	BASIC	AVERAGE	EXPERT
** Technical skill*	Needs to set & operate the survey instrument	In addition to setting & operating the survey instrument ,he can take data from the instrument and can prepare drawing	Knowledge in handling survey instruments & preparing drawing and computing area by using software's like AUTOCAD,LISCAD , GIS etc.
			- He must be update in the modern equipment & materials
	Supervising the work as per the drawing	- Arranging and supervising the work	- To analyze , verify and execute the construction work
	-Only taking measurement and quantity calculation of the work	-prepare the estimate by using the data book & SOR (Schedule of Rate), in addition to the basic level.	- Analyze the estimate & prepare the estimate with the help of excel, AUTOCAD. Basic knowledge of SOR & CPWD & KSEB data
** Team Work*	Participating in the work without taking any initiative	Arrange the work without delay	- Arrange and leadership the work without delay
** Mental Ability*	Able to do the works as per instructions	Giving more effort for the works other than the given instructions	More vigilant, more creative and self-prepared for the work and emergency situations.
			Retain and recall ideas
(Physical abilities especially sensory inputs)	Physically fit	Able to handle survey instruments, attend the fieldwork in steep terrain.	Excellent eye vision, body fitness, ability to work under different climatic conditions.

24. SUB ENGINEER CIVIL

Various job descriptions of sub engineers in civil wing is described here under. The duties of sub engineers in different departments such as investigation, design, construction, maintenance etc. The following works are originated / drafted by sub engineers and verified / approved by higher officers

JOB DESCRIPTION

	Items	Requirement	Tools & Equipment	Software
Hydroelectric Project Investigation		10 Sub Engineer / division		
	Office work			
1	Identifying the potential locations from survey of India GTS maps	Identify 5 projects under each division annually	GTS Maps	
2	Locating the components using Google earth and finalizing the ideal locations and determining the latitude and longitude.	Identify 5 projects under each division annually	Computer	Google Earth, QGIS, Global Mapper
3	Preparing the inflow calculations from weir gauge, river gauge and rain gauge	Identify 5 projects under each division annually	Computer	MS Excel
4	Preparing survey drawings such as longitudinal section, cross sections and contour maps	3 prioritized projects annually	Computer	Auto CAD
5	Preparing the preliminary design of component structures	3 prioritized projects annually	Computer	Auto CAD
	Preparing rough cost estimate	3 prioritized projects annually	Computer	MS Excel
6	Preparing financial analysis	3 prioritized projects annually	Computer	MS Excel
7	Consolidating all the above and compiling the Detailed Investigation Report	3 prioritized projects annually	Computer	MS Word
8	Preparing Contour plan and cross sections	3 prioritized projects annually	Computer	Civil CAD, Civil 3D
	Field work			
1	Maintaining and collecting records of rain gauges, weir gauges and river gauges data	25 years historic metrological data required for proposed HE schemes	Rain gauges, Weir gauges	
2	These meteorological data are collected at different locations in a daily basis by different contracting agencies	Periodic inspection and monitoring to verify the accuracy in weekly basis during rainy season.		
3	Reconnaissance survey	Identify 5 projects under each division annually	Hand held GPS	
4	Identifying the sources of construction materials, quarries etc.	Identify 5 projects under each division annually		

5	Preliminary Investigation survey	3 prioritized projects annually	Level / Compass/ tape	
	Which includes transferring the bench marks, taking longitudinal sections and cross sections.			
6	Detailed Investigation Survey	3 prioritized projects annually	Total Station	
	Which includes conducting contour survey, taking longitudinal sections and cross sections of various component structures, rivers etc.			
Preconstruction				
	Office work			
1	Drafting job for contour plans, cross sections, preliminary designs etc.	1 project annually	Computer	Civil CAD, Civil 3D
2	Preparing detailed estimates and submitting for approval	1 project annually	Computer	MS Excel
	Field work			
3	Precise contouring, precise sections, triangulations	1 project annually	Total Station	
	Supervising the geological investigations such as taking bore holes, permeability test, soil parameters etc.	1 project annually	Core boring machineries by hire	
	Property survey			
1	Quantify the requirement of land for the project.	1 project annually	Computer	Auto CAD
2	Identify the category of lands	1 project annually		
3	Collecting the details of landowners and quantify the extend of land.	1 project annually		
4	Demarcating the boundaries of required land and requisition drawing.	1 project annually	Total Station	
5	Liaison work with local revenue forest authorities	1 project annually		
6	Tree counting in forestlands.	1 project annually		
7	Prepare the rehabilitation package	1 project annually		
	Note: Land acquisition work is generally delayed due to external factors such as protest from publics, environmental issues, administrative sanctions, government procedural delay etc.			
Project Construction (for typical 5MW project)				

1	Study the drawing and tender specifications and agreement conditions	During the entire period of construction		
2	Determining the discrepancies in drawings with site conditions and prepare the alternative suggestions	During the entire period of construction		
3	Assisting assistant engineer for taking initial levels	2000 sq. M per day with 3 sub engineers, in difficult terrain 50% of the above	Total Station / Leveling instrument	
4	Assisting AE for taking intermediate levels for monthly bills	3000 sq. M per day with 3 sub engineers	Total Station / Leveling instrument	
5	Establishing reference lines and bench marks	1 km per day with 3 sub engineer 50% for difficult terrain	Leveling instrument	
6	Detailing the drawings for construction activities	Daily activity at each work front		
7	Setting out works for component structures using Total station	Daily activity at each work front	Total Station	
8	Checking the quality of materials supplied at site	Daily activity at each work front	Lab equipment's	
9	Verifying the material availability, checking centering and shuttering, levels and lines, reinforcement dispositions, safety and quality control for concrete, masonry works etc.	Daily activity at each work front		
10	Supervising the erection of gates, penstocks, trash racks, truss, crane girder, embedded parts etc.	Daily activity at each work front		
	Drafting work			
1	Preparing cross sections of initial levels	10 cross sections / per SE / day	Computer	Auto CAD
2	Preparing cross sections of intermediate bills in monthly basis	10 cross sections / per SE / day	Computer	Auto CAD
3	Preparing drawings for various proposals	Monthly 3 no's	Computer	Auto CAD
	Office work			
1	Preparing estimates	Yearly	Computer	MS Excel
2	Working estimates	monthly	Computer	MS Excel
3	Assisting AE's for checking contractors monthly bills at Circle level	monthly		
4	Project planning – Preparing Bar Charts for progress review	monthly	Computer	MS Project / Primavira
5	Preparing the draft for all correspondence	daily	Computer	MS Word
6	Preparing the tender/ quotation documents	monthly	Computer	MS Word

Transmission Construction				
1	Assisting survey work for transmission lines	1 km per day with 3 sub engineer 50% for difficult terrain	Total Station	
2	Locating tower locations	1 location per day	Total Station	
3	Preparation of estimate for substation construction & maintenance	monthly	Computer	MS Excel
4	Site supervision in various activities in substation construction	daily		
5	Maintaining Colony roads, quarters etc.	daily		
Distribution wing				
1	Maintenance of existing field offices	daily		
2	Supervising the construction of various buildings such as section offices	daily		
Generation wing				
1	Maintaining dams, penstock, gates and allied structures	daily		
2	Maintenance of staff quarters and colonies	daily		
Other Works				
1	Maintaining Seismographic stations	daily		
	Publishing surface water year book	monthly		
2	Execution of Central aid works – Dam rehabilitation improvement programs	as and when required		
3	Assisting in various land acquisition cases and other litigation works	as and when required		
4	Account closing unit – Preparing as built drawings and CRCS (Completion report and Capitalization Statements)	as and when required	Computer	Auto CAD, Excel
5	Stores - Assisting in preparation of store documents, Accompanying the materials during transit from stores to site	daily		
6	Maintaining registers, files, tools and plants	daily		
7	Calibrating survey equipment	Annually		

ATTRIBUTES OF SUB ENGINEER			
For Field Engineers			

Technical Skill	Experience in operating modern survey equipment such as Total station, GPS, subject knowledge		
Good physique	Ability for working in difficult terrain, forest area, river valleys etc.		
Time management	Should not be clock watcher, working in overnight, holidays etc.		
Team work	For working as group		
Communication	speaking, sharing information, rapport to publics & other departments		
For Office Engineers			
Technical Skill	Subject Knowledge		
Computer Skill	Knowledge in AutoCAD, MS Excel, Word, Power Point, MS Project		
Correspondence	Knowledge in Office procedures		
Quantity surveying	Preparation of estimate, rate analysis		
Obedience	Assisting higher officers in various works, liaison with field engineers		
Comprehensive reading	Keeping registers, Data updating,		

Skill		**Basic**	**Average**	**Expert**
Technical	Survey	Transferring bench marks, fly levels, initial levels	Preparing contour maps, Section	Triangulation survey, DGPS, Satellite remote sensing
		Using Theodolite & leveling instruments	Cross Sections using Total Station	
			Setting out work of component	

			structures	
	Hydraulic Design	Raiding design drawings of hydraulic structures	Designing canals, culverts, penstocks etc.	Intakes, tunnels, bifurcations
	Structural Design	Reading design only	Design of simple beams & slabs	Retaining wall, Dams, Weirs, Penstock, Bridge, Surge, For eBay, Intakes, multi storied building
	Preparation of Detailed Investigation Report	Drafting report only	Preparing the preliminary designs, working tables	Machine selection
			Estimates & Planning	financial analysis
	Gates & Trash racks	Reading drawings	Designing Gates for SHEP's	Designing for major stations
	Quantity Survey	Bill preparation through conventional practices.	Bill preparation through spread sheets	Bill preparations through Database management & programming through macro
	Construction	Supervising the works based on drawings	Detailing of daily activities and ensuring the qualities	Checking the adequacy of drawings with respect to site conditions
			of materials	
	Construction techniques.	Conversant with general construc	Use of program tools for improvin	Expert in construction techniques and management.

		tion techniques.	g the speed.	
	Selection of Machines	Selection of machines based on head	Based on efficiency	Advance design aspects
	Qualification	Diploma in Civil Engineering	Graduation in Engineering	Post-Graduation
Computer Skill	Auto CAD	Generating simple drawings, dimensioning &	Printing using layouts, drawing cross sections	Working with 3D, programming with macro & LISP
		printing	managing layers, dimension styles, plot styles	Animation
	MS-Excel	Preparing tables, using simple equations	Linking different sheets, advanced formulas	Pivot Tables, Programming with macros,
			Advanced formatting	
	MS-Word	Drafting simple letters	Formatting and using styles, templates etc.	Mail merging, macro programming, equation editing
	Power Point	Creating simple slides	Creating animated slides	Creating linked slides and sophisticated animations
	MS Project	Creating Bar chart	Bar chart with resource planning	Analyzing for CPM / PERT
Time Management	working time	working in normal office hours	working in projects	working in task forces

	working locations	prefer to work in cities	working in projects	anywhere any time
Communication skill	Mode of communication	Through postal letters	By email	WhatsApp, Facebook, twitter etc.
	Presentation & Training skill	Peer to peer communication only	Communication with in the office	Training at organizational level, through medias etc.
Decision making	Changes in design	Not take any decision in this respect	Just bring to notice	Find the solution and brought to the notice of higher officers
Liaison with other departments	Follow up and getting sanctions / orders	Official approach only	Frequent follow ups	Getting it done through in born tactics
Facing Challenges	working locations	Working in plain terrain and easily accessible	Hilly areas with difficult access	Working in adventurous locations such as thick forest
		areas		and wild animals, leaches etc.

25. CHIEF ENGINEER

Duties				Quantity
1	Leave sanctioning			10/month
2	Service benefits			
		Increment		
		medical benefits		25/month
		PF		
3	Disciplinary action			3/month
4	Posting			4/year
5	Appointing authorities up to AE			
6	Approval for training			3/month
7	Budgetary control			3/month
8	Seminar			5/year
9	Tour Sanction			5/month
1	Convene monthly meeting of sub-ordinate officers			1/month

2	Attending board level meetings					2/month
3	Purchase Committee meetings					2/month
4	Tender committee meetings					1/month
5	Meeting with suppliers contractors					5/month
6	Adalath /Public					1/year
7	Meeting with statutory bodies			state/central		2/month
1	Finalization of annual plan					Yearly
2	Finalization of budget					2/year
3	Preparation of short term or long term plan					2/year
4	ARR and ERC					yearly
5	Chief project planning					5/year
1	Liaison with legal units of KSEB					2/month
2	Liaison with finance					3/month
3	Replying to audit					2/month
4	Approval of monthly accounts					monthly
5	General correspondence					10/day
6	Reporting: Fortnightly and monthly					6/month
7	Material management ,allocation/reallocation					3/daily
8	Vehicle sanction ,hiring, approval for hiring vehicle					3/month
9	Approval for outsourcing personals of different levels 1/year					1/year
10	Attending inaugurations					20/year
11	Attending litigations					5/year
12	Finalization of appeals					10/year
13	Decisions on purchase of power from the market					Daily
14	Decisions on merit order scheduling of generation					Daily
15	Decision on water management					Daily
16	load forecasting					Daily

	LEADERSHIP	Capability to lead a large group of people having different levels and capabilities namely from a workmen to senior level as given and other administrative officers towards a common organizational goal efficiently and effectively. He must be capable of monitoring his team members.
	DECISION MAKING	Capability to take very important decisions having huge financial, and social implications.

	communication skills	should have very good oral as well as written communication skills so as to interact to set this done by the subordinates and to project the needs of their team to the arrangement and worst favorable decisions
	planning	Should be able conceive future requirements of customers and to devise projects to start the needs. He should be able to plan daily activities.
	Delegation	He should be able to delegate works and responsibilities to his subordinates for maximizing effectiveness. He should have trust and confidence in his subordinates.
	Stress Balancing	To absorb stress in challenging situations.

26. ASSISTANT ENGINEER CIVIL

DUTIES OF ASSISTANT ENGINEERS (CIVIL) IN KSEB

DUTIES OF ASSISTANT ENGINEERS (CIVIL) IN INVESTIGATION

Investigation works for the development of hydroelectric projects is a team activity. The Various major activities coming under the investigation works are

a. Identification of potential hydroelectric Projects viz. micro/mini/small/major projects.
b. Preparation of pre-feasibility reports after conducting field visits and with the help of topo sheets.
c. Preparation of preliminary investigation reports after conducting preliminary investigation survey
d. Preliminary investigation survey requires assistance from labours which is arranged through contract for which the following activities are required in office.
e. Preparation of detailed estimate for the work
f. Preparation of contract documents and arranging contract for labour supply through tender process.
g. Preparation of work bill for payment after completion of the contract.
h. Field investigation survey for preliminary investigation works comprises a bench mark transfer by using levelling instrument taking longitudinal section , cross section of the river/ stream in which the project is proposed, taking a longitudinal section and certain cross section of the proposed water conducting system.
i. Preparation of preliminary investigation

Report comprises a power potential study using H & M data collected from various H & M stations maintained by KSEB, Other Govt. Department and private agencies, a preliminary design of component structures of the project and a preliminary cost estimate of the project.
Preparation of Detailed Investigation Report after completion of Detailed Investigation of the scheme. This is being done after getting approval from the higher officials to the extent of Chief Engineers considering the viability of the project based on the preliminary Investigation Report.
The process of preparation of Detailed Estimate for arranging contract work for labour supply has to be repeated in this case also.

In the detailed field investigation survey, complete topographical survey of the area is being done.

After the complete contour survey of the area, FRL survey and marking of FRL in the field, fixing the location of the project components etc. are being done based on the details collected, reservoir capacity of the project etc. are computed, detailed survey drawings are prepared.
Preparation of Detailed Estimate for finding the cost of the project, financial analysis etc. are being done in this stage.

Geological survey is being conducted in this stage. This work is being arranged on contract basis. Drilling and collecting of rock core samples are being done with the help of contract agencies and all formalities are being observed here also. During the course of work, supervision of the work along with preparation of core log, conducting water permeability test, preparation of core log etc. are being done. Measurement of all quantities and preparation of work bill for payment are also being done.

Maintenance of H&M Stations viz. Rain gauges, river gauges etc., collection and compilation of H&M data for preparation of Surface water year book. Preparation of work bills etc. are

DUTIES OF ASSISTANT ENGINEERS (CIVIL) IN DISTRIBUTION WING

1) Inspection of work sites for building construction and maintenance
2) Preparation of various estimates for the above works
3) Supervision and execution
4) Measurements
5) Procurement, supply and manufacturing of PSC and MS poles
6) tendering of civil works and Purchase of distribution materials under the Regional Distribution Chief Engineers
7) Rent fixation of various rented buildings

DUTIES OF ASSISTANT ENGINEERS (CIVIL) IN TRANSMISSION WING

1. Site inspection and land surveys
2. Preparation of estimates
3. Land acquisition procedures
4. Execution of works including all contract management works
5. Measurements and bills
6. Investigation for and construction of transmission works
7. Tower foundation, Substation and yard structures etc. Substation buildings, cable trench works etc.

About 70% of works under transmission wing are civil works

DUTIES OF ASSISTANT ENGINEERS (CIVIL) IN OFFICE

Asst. Engineer is an initiating officer in an office of the matters mainly technical and is the whole custodian of all the files and he is giving technical assistance / support to the authority.

1. After approval of DPR detailed study regarding its location hydrology, component structures including water conductor system ,power house machine details ,power evacuation, financial viability and total cost. He is well aware and conversant with these things.
2. Scrutiny of estimate preparation - Detailed quantity estimate in accordance with available drawings, geological study including levels. Preparation of data (KPWD, CPWD, Machine data etc.), rates from SOR (KPWD, CPWD, Market rate etc.)
3. Land acquisition - Approvals, Govt. orders checking demarcated sketches, liaisoning with

revenue department, land revenue commission etc. forest land - compensatory afforestation, social forestry clearances etc.

4. Tendering - Tender Notice, Preparation and Scrutiny of tender documents (5 volume) in accordance with prevailing rules, conditions etc. PQ analysis, price bid analysis, negotiations, recommendation and board's approval.
5. Work awarding and agreement execution.
6. Contract management and engineering - Decision making, correspondence/communications to various levels including contractor and managing stakeholders- revenue , forest, pollution control, environmental ,factories and boilers etc.
7. Constructing management and scheduling - Reviewing the progress, make up the short falls, MIS reports etc.
8. Variations / changes -approvals, PMC, recommendations, clarifications and approval from board.
9. Bill auditing/scrutiny - It is a major time consuming jobs - arithmetical checking of M Books, Levels Books , Micro level scrutiny of measurements with design drawings , Provisions of agreement schedule , conditions (One AE - two projects costing - 30 cr to 100cr. bills of 1 to 4 cr monthly)
10. Grand and aids from agencies - MNRE, CDM, Loans from Banks and other financial agencies.
11. Scrutinizing and verifying the foreclosing works - as built drawings , deviation statements , revised estimates
12. Litigations in courts, vehicles etc.
13. Any other assignments other than mentioned above

DUTIES OF ASSISTANT ENGINEERS (CIVIL) IN CONSTRUCTION

- Establishing Bench Marks.
- Pre-construction activities
- Pre-construction survey , triangulation
- Property survey and land demarcation
- Preparation of final drawings including longitudinal sections, cross sections
- Land acquisition process
- Taking procession of land & documents.
- Estimating and tendering
- Handing over the site.
- Execution of work
    a. Site clearance
    b. prepare micro level planning
    c. Fixing priorities for requirements of drawings.
    d. See that the drawings, plans, specifications are obtained in time and followed in execution of each item of work.
    e. Reporting the required data as per the rule to authorities.
    f. Setting out & Checking the same to see whether the work is as per approved drawings
    g. Check the quality of work and materials.
    h. Taking and recording measurements in M Books.
    i. Supervising the progress of work and take necessary steps to remove bottlenecks.
    j. Close watch to execution of work and necessary steps to effective performance of works.
    k. Report to higher authorities if any problem are occurred at site

11. Keep proper accounting for tools, computers, machines etc.
12. Completion of works and account closing

DUTIES OF ASSISTANT ENGINEERS (CIVIL) IN DAM SAFETY

1. Gate Operation during monsoon including publicity and safety.
2. Monitoring instruments - pressure, deflection, stress, strain, pendulum etc.
3. Seepage measurements and water analysis etc.

4. Analysis of comparison, researches and preparing reports to higher officers.
5. Seismic observations and analysis
6. Rain gauge readings, observations, report to higher officers and CWC etc.
7. Annual periodical maintenance including grouting, watch and wall etc.

DUTIES OF ASSISTANT ENGINEERS (CIVIL) IN DESIGN

1. Studying DPR
2. Identification of data available required for design.
3. Identification of additional data required for design
4. Collection of additional data and details required for design
5. Collection of required codes and standard reference books for design.
6. Conducting site inspection
7. Preliminary discussion with concerned higher officers and formation of design concepts and design options.
8. Finalization of most suitable option.
9. Carrying out final design of component structural parts with the help of codes, standard and reference journals etc. Preparation of design drawings
10. Revision of design drawings during construction whenever necessary.
11. Conducting project site visit whenever necessary.
12. Ensuring document control to incorporate the revisions in execution of works
13. Keeping design documents / drawings for future reference.
14. Ensuring use of latest codes, softwares, etc. for design.

DUTIES OF ASSISTANT ENGINEERS (CIVIL) IN OFFICE AND FIELD

1. Prefab works
2. Civil maintenance work
3. Bill preparation
4. R & M works

Competencies required for Assistant Engineer (Civil)

1. **Technical Expertise**
2. **Decision Making**
3. **Problem solving**
4. **Planning**

5. Communications
6. Numerical Aptitude
7. Adaptability
8. Creativity
9. Loyalty and ethics
10. Active learning and listening
11. Reading
12. Energy levels.
13. Perspectiveness
14. Perseverance
15. Clerical aptitude
16. Co operation
17. Data Analysis and Process
18. Time management

Technical Expertise	Knowledge to Read Engineering Drawings, Codes and Standards	Awareness in Computer software packages Knowledge in advanced survey Average application and practice of value Engineering	Application of software's and application of knowledge in advanced survey
	Knowledge in Quality and quantity assessment of executed works, Basic Surveying,		
	Basic Computer Skills		

	Basic	Average	Expert
Decision Making	Implementation of assigned, defined and specified jobs.	Identification of bottlenecks and suggestion of remedial measures	Forecast of bottlenecks and taking timely decisions accordingly along with preventive measures

	Basic	Average	Expert
Problem solving	Identification of current problems	Proposals for solving the current problems	Solving the current problems with apt solutions
	Cannot identify future problems	Can identify future problems	

	Basic	Average	Expert
Planning	Basic planning with obsolete tools	Knowledge in scientific planning tools and software's Planning tools and software scanning tools and soft wares	Application of scientific Planning tools and soft wares

27. EXECUTIVE ENGINEER

DUTIES AND RESPONSIBILITIES OF EXECUTIVE ENGINEERS IN CIVIL WING

Civil wing of KSEB mainly comprises of Investigation, Design, Construction of projects, Research and Dam safety works and Mechanical Fabrication units along with civil works

under the Transmission and Distribution wings. Out of these, Transmission wing does not have any Executive Engineer for supervision of civil works. The job of an Executive Engineer is mainly of a managerial type. Unit wise duties and responsibilities of Executive Engineers are enumerated below.

EXECUTIVE ENGINEER FIELD INVESTIGATION DIVISION:

The works are mainly categorized under five groups. Mainly scrutiny/approval of:

1. Feasibility report of the schemes/projects
2. Preliminary investigation report (PIR)
3. Detailed investigation report (DIR)
4. Detailed project report (DPR)
5. Administrative Functions such as DB/ AB matters and its subordinate offices.

Feasibility Report: (6 – 8 per year in each division office)

- Preliminary approval to the power potential locations identified by the field sub division office based on GTS maps and google imagery.
- Check whether the hydrological parameters like rain gauge, river gauge and meteorological data available nearby the identified location. Suggest proposal for new river/ rain gauge stations
- Approving catchment area plans
- Check availability of head proposed by field subdivision officer by visual site inspection
- Ascertain impact on environmental and ecological factors if the project is implemented
- SWOT analysis
- Site visits to approve / modify the feasibility report.
- Issue order to field officer to proceed with PIR preparation
- Check whether any interstate water issues are involved

Preliminary investigation report. (4 - 5 small schemes per year in each division)

1. Scrutinize and suggest modifications/ alternatives for hydrological data, tentative approval to the location identified for the weir, power house and water conductor system.
2. Suggest alternatives in case of objection /protest and technical and financial viability issues.
3. Scrutiny of PIR and recommend to higher office for sanction to DIR
4. Interaction and follow up with higher office to obtain sanction for DI
5. Accompany higher officers to appraise the technical feasibility of the project and get sanction for Detailed Investigation (DI)
6. Preliminaries of power potential studies – fixing installed capacity, machine number, type of machine, capacity of each.

Detailed Investigation report (2 per year in each division)

1. Scrutiny of estimate for DI and forward to higher office for sanction
2. Arrange contour, longitudinal section and cross section survey work and get it done through field subdivision office using total station and marking at site.
3. Arranging transferring GTS/MSL to site and tentatively fixing the hydraulic components.
4. Obtaining the finalization of alignment from higher office.
5. Prepare plan for geological exploration and arrange site visit of the geologist from GSI India to obtain suggestion / modification.
6. Scrutiny of power potential studies – fixing installed capacity, machine number, type of machine, capacity of each.
7. Scrutiny and modification of preliminary project estimate, construction plan
8. Interaction with local transmission section for obtaining preliminary route of power evacuation arrangement.

9. Approval of survey drawings and preliminary design of hydraulic components viz. weir/ dam, intake, Power canal/ tunnel/ surge/ forebay, valve house, penstock. Pressure shaft/ inclined shaft, power house, tail race, switch yard, etc. for estimate preparation.
10. Scrutiny of DIR and Drawing volume and submission to higher office.
11. General …Administrative control of EB/ DB matters and subordinates offices.

Monitoring and maintaining the hydrological data at various river basins to find out the preparation of surface water year book and for the use of hydrological studies of projects.

EXECUTIVE ENGINEER (DPR preparation Division)

DPR preparation (6 to 8 per year)

1. Detailed scrutiny of study of DIR
2. Obtaining clarification from field on various aspects of DIR
3. Suggesting modification / variation in DIR
4. Obtaining revised drawing or additional details from field for improving on the proposal
5. Making scheme more economically and financially and technically viable.
6. Explore innovative and cost effective alternatives
7. Preparing DPR incorporating – need of project, salient features, survey and investigation details, project overview, layout of hydro components, geological features, hydro met studies, power potential studies, detailed hydro design of project, construction programme, project estimate, financial analysis, environmental and ecology matters
8. Presenting before DPR approval committee and defend the DPR with respect to technical and financial viability of project.

DUTIES AND RESPONSIBILITIES OF EXECUTIVE ENGINEERS CONSTRUCTION (FIELD)

Construction of a project commences only after approval of the DPR by the committee or Board and issuance of administrative sanction. Usually the design drawings are also to be kept ready to the extent possible before commencing of the execution.

Duties of a field executive engineer (civil) in the construction wing starts at this stage. He is entrusted with management of all the jobs required for the successful implementation of the project from preconstruction survey till closing and preparation of completion report, as listed below. In the execution wing one executive engineer is entrusted with one or two projects, depending on the quantum of works involved, location of the project etc.

1. Project Scheduling
    a. Activity planning: scheduling all the components towards completion of the project.
    b. Resource planning: This includes HR planning and getting the required staff posted.
    c. Financial planning including preparation of budget and cash flow statements.
2. Pre-construction survey: Management and finalization of works required for
    a. Accurate setting out of approved alignment
    b. Geological investigation for soil and subsurface parameter required for detailed designs
    c. Preparation of preliminary sketches required for design
    d. Assessing extent of land required
        i. Detailed property survey
        ii. Interaction with private land owners
        iii. Interaction with forest department and other affected departments
        iv. Interaction with revenue department for acquisition/purchase of land
        v. Purchase/acquisition of land after observing all the formalities
    e. Obtaining clearances: Forest and environmental, CWC, CEA clearances required based on the characteristics of the project.
    f. Finalization of detailed estimate based on detailed design and sanctioning the same based on the delegation of powers
    g. Finalization of tender documents
    h. Tendering of the project after obtaining required clearances as mentioned above and land acquisition
    i. Finalization of tenders including prequalification of bidders, evaluation of price bids, award of work and execution of agreement

3. Actual execution of work:
    a. Activity wise detailed scheduling of civil works
    b. Planning of resources
    c. Progress monitoring and reporting daily/weekly/monthly progress
    d. Rescheduling of works, if required, based on the progress report
    e. Quality control and assuring execution of works based on specifications and design drawings
    f. Finalization of quantities of works done(check measurement) and finalization of periodic bills
    g. Passing of bills and making payments including co-ordination with finance wing
    h. Co-ordination with electrical wing for electro-mechanical works
    i. Testing and commissioning of the project
    j. Handing over the project to generation wing
    k. Finalization of final bill and preparation of completion report and capitalization statement
    l. Account closing and preparation of technical completion report

DUTIES AND RESPONSIBILITIES OF EXECUTIVE ENGINEER (DISTRIBUTION)

1. Technical assistance to Chief Engineer regarding civil engineering matters in the territorial region.
2. Attending meetings, implementing decisions pertaining to civil works in Distribution wing of KSEB.
3. Construction of buildings, Maintenance of various buildings (water supply, sanitation, electrical, housekeeping etc.) including Vydyuthi Bhavanams
4. Pole Casting Works-Tendering and Purchase
5. Rent fixation of various rented buildings.
6. Scrutiny, checking of various estimates and recommending sanction and submission to CE
7. Preparation and submission of various progress reports regarding supply of poles, building works, other Civil Engineering works. To assist CE for estimate sanction, tendering, tender finalization and award of work.

DUTIES AND RESPONSIBILITIES OF EXECUTIVE ENGINEER (O/O CE CIVIL CONSTRUCTION)

Executive Engineer (office) of the Chief Engineer or Deputy Chief Engineer (construction) assists the Chief Engineer or Deputy Chief Engineer in all the technical activities.

In account rendering units, office Executive Engineer is entrusted with passing of establishment bills and arranging payments.

He is also entrusted with arranging petty payments such as cash advances, minor contract bills etc.

He is also in charge of General office administration.

DUTEIES AND RESPONSIBILITIES OF EXECUTIVE ENGINEER (C) IN DESIGN AND CONSULTANCY

The Design and Consultancy wing is involved in preparation of detailed drawings of various civil engineering structures (for estimating as well as construction purpose) based on technical calculation with the help of IS codes, guide lines by CBIP, MNRE, USBR etc., text books. The output from design wing is drawings to suit the actual site conditions, which are to be issued in time. The components includes weir (conventional weir and trench weir) , Intake arrangements with gates, river training works, water conductor system – like canal, tunnel, aqueduct etc., bridges, box culverts, de-silting chamber, forebay / surge tank, penstock pipes and specials, anchor blocks, rocker supports & foundations , Power House building, Machine Foundation, EOT crane, Tail race channel, Hydraulic gates, Foundation of switch yard structures etc. The design works of substation buildings, office buildings, foundation of transmission line towers are also attended by this wing.

The staffs associated with this wing are Draftsmen, Sub-engineers, Assistant Engineer, Assistant Executive Engineer, Executive Engineer, Deputy Chief Engineer headed by Chief Engineer.

The duties and responsibilities of Executive Engineers are listed below.

1. To assess regularly the total number of drawings (component wise) to be issued in next three months period based on field requirements under the territorial jurisdiction of Chief Engineer (Civil – North).
2. Conduct meeting with Assistant Engineers, Assistant Executive Engineers, discuss the target for next three months and fix up target date for issue of drawings.

3. Thorough study of DPR of the scheme, suggest necessary changes in components for general advantage of the project and get approval from higher authorities with the help of AEEs and AEs.
4. Starting up Design work- Conduct discussion with AEEs and AEs for each component using available field data. Make an assessment of additional data required for design and call for such data.
5. Conduct field inspection with subordinate design engineers for close observation of site for assessing the geological, topographical etc. characters of the site. Detailed study of the report furnished by Geological Survey of India.
6. To monitor the design progress on daily basis by intervening with AEEs and AEs and help them in finalizing an optimum design from among various alternative options.
7. Coordinate among subordinate engineers to assure that various components of a project are in conformity with each other- with respect to dimensional compatibility, lines and levels etc. so that overall arrangement is in perfect harmony.
8. Thorough checking and micro level verification of detailed design and draft drawings submitted by AEE .Giving instructions to AEE for making corrections / modifications, if necessary.
9. Submission of detailed calculation and draft drawings after correction / modification to Deputy Chief Engineer with specific recommendations.
10. Attend discussion with, Deputy Chief Engineer and Chief Engineer during the approval process, appraise them about the design concepts, replying doubts / queries, attending modifications suggested by the higher officers etc. until the drawings are finally approved. After approval ensure that the drawings are issued to field in time.
11. To attend the revisions required during the construction to suit the actual site conditions.
12. Design and Drawings of certain components are furnished by Manufacturer/ Supplier / Contractor. The duties includes checking of the above documents with the help of subordinate staff and make necessary modifications / corrections and submit to Deputy Chief Engineer with specific recommendations. Follow step (10).
13. Involve in routine activities like office administration, preparation of periodical reports, answering RTI act, preparing performance appraisal of subordinate staff, attending training etc.
14. Quantum of Works

The total number of drawings issued for the past 10 years = 2000 No.
Average Annual output = 200 No.

SKILLS/COMPETENCY REQUIRED FOR THE ABOVE DUTIES:

(1) Decision making capacity
(2) Sound technical knowledge of his/her field of activity viz. technical competency – degree in civil engineering (Desirable – specialization in hydraulics, geo-technical engineering, structure, construction management and GPS technology/remote sensing)
(3) Problem solving capacity
(4) Adaptability to changes
(5) Aggressiveness
(6) Communication
(7) Commitment and loyalty
(8) Computer knowledge (MS excel, word, power point, AutoCAD, civil cad, MS project, Primavera, use of internet search engines)
(9) Perceptiveness
(10) Delegation
(11) Co-operation
(12) Leadership
(13) Emotional stability
(14) Tolerance
(15) Motive oriented - need for achievement
(16) Good listener
(17) Dedication to the works entrusted in a time bound manner
(18) Sharing of knowledge to the sub ordinates
(19) Accommodative
(20) Time consciousness

CORE COMPETENCIES

Competency	Basic	Average	Expert
Decision making capacity: Take decision examining various options in a time bound manner	Take a decision considering options which are very clear	Take a decision considering options which are advantageous in different aspects, i.e. some of the options are economical but time consuming and some others are vice versa	Take decisions in such a way that the results of available options are not clearly predictable
Aggressiveness: Take command in all situations directly enterprising all the works	Insist and impress his sub ordinates the activities entrusted	Fix a target for its completion and consistent follow up	Ascertain that the target is accomplished at any cost
Adaptability to changes: Ability to perform under changing conditions, high stress and adverse conditions	Adjust to little changes and interruptions during course of work	Adjust with pressure from higher authorities, appreciable changes and work in places causing discomfort	Adjust with high pressure, changing nature of works, struggle to meet the target. Working in isolated conditions and dangerous situations.
Communication: Ability to express needs and desires orally and in writing to sub ordinate and superiors effectively	Communicate through email or official letters in routine manner	Follow up and ascertain that the matter is conveyed in the right way to the correct person	Able to convey ideas using understandable language and motivate others to get this done. Make sure that communicating is effective and expected result is achieved in time.
Time consciousness: Awareness of target date of accomplishing a task	Micro level splitting of activity and scheduling so as to complete as scheduled	Intervene proactively and render necessary help for problem solving	Ensure that target is met as planned and project is not delayed

28. ASSISTANT EXECUTIVE ENGINEER

DUTIES AND RESPONSIBILITIES OF ASST. EXECUTIVE ENGINEER (CIVIL) IN VARIOUS OFFICES OF KSEB

- An AEE is the leader of a team consisting of Asst. Engineers, Sub Engineers, and overseers and head of a subdivision office.

- He check-measures 100 percent of the measurements taken by the AE, as per departmental code, and PWD Manual.
- He take check levels for earthwork levelling works
- He supervises the works and give instructions to the AEs.
- He co-ordinates the activities between the field engineers, contractors, consultants, external agencies, legal matters with the Courts, prepares budget, annual plan, progress reports
- He scrutinize the estimates and issue technical sanctions
- He arranges tender for the works and issue work orders and execute agreements within his delegation
- He scrutinizes the work bill.
- He is the chief person responsible for speedy execution and quality of works as per PWD manual.
- He maintains the departmental vehicles, equipments etc. attached with the project offices.
- He is the Asst. Public Information Officer (APIO)/ PIO according to RTI Act.
- Preparation of project planning reports, using MS Project, Primavera etc. and project schedule.
- working as technical assistants for the chief engineers and deputy chief engineers in all circle offices and higher offices

INVESTIGATION WING

Nature of Work

a. Identification of projects from GTS
b. Power potential analysis based on hydrological data collected
c. Supervises and arranging Field surveys such as reconnaissance, preliminary investigation, contour survey, geological explorations, and further related detailed investigations
d. Looking into various alternative options for project component locations
e. Preliminary design of project components and preparing estimates
f. Preparation of Detailed Investigation report
g. Preparation of drawings of the proposed project
b. Submitting the prepared DIRs / DPRs to higher offices

From start to the preparation of DIR, at least two years are required. The subdivision team consists of 1 AEE, 1 AE and 2-3 sub engineers and 2 overseers. The terrain where investigation is done is deep jungles and mountains, and is a risky job with elephants and wild animals, leeches, venous snakes and insects, malaria and no hospital facilities nearby.

DAM SAFETY WING

There are 52 large and small dams and at present 11 AEEs are working for this purpose including DRIP project implementation team.

1. Arranging daily Monitoring works of Dam and appurtenant structures
2. Conducting Research activities, and quality tests.
3. Mix design studies for all civil works in KSEB
4. Earthquake monitoring
5. Periodical examination of tunnels for assessing the conditions
6. Seepage analysis, water analysis, deflection studies,
7. Pre monsoon and post monsoon inspection of dams and reporting to higher officers monthly and weekly.
8. Alerting the public and the district administration regarding spilling of reservoirs and flooding of banks.
9. Disaster management

GENERATION WING

1. Arranging works related to civil maintenance of generating stations, penstocks, tunnels, residential colonies, roads etc.
2. In charge of camp offices, managing Board's real estate and the residential camps in the hydel projects

DESIGN WING

1) Preparation of detailed designs and drawings of the components of the project based on the approved DPR for tendering
2) Preparation of construction drawings based on pre-construction surveys, site conditions and geological surprises
3) Frequent site visits to study the site conditions
4) Preparation of completion drawings

CONSTRUCTION WING

1. Arranging Pre-construction surveys, including establishing benchmarks
2. Arranging Property surveys, demarcation of boundaries,
3. Supervision of Construction of Dams, powerhouses, hydels, penstock and buildings
4. Liaison with forest officials, revenue officials, local bodies, and other concerned offices.
5. Preparation of project estimates
6. Preparation of technical specifications for the works and tender conditions
7. Co-ordination in the execution of the work with the contractor
8. Monitoring all project works according to scheduled construction programme.
9. Settlement of labour issues
10. Ensuring safety at site
11. Preparation of completion reports of projects
12. Account closing of completed projects

TRANSMISSION WING

a. Construction of new substations

New substation construction involves substantial quantum of civil works as listed below.

Arranging the following works

a. Tree cutting, site levelling, and site development
b. Construction of temporary store cum site office buildings, arranging water supply / well construction, security cabin, loading plinths (if necessary) etc.
c. Construction of control room building
d. Construction of column and equipment foundations and transformer plinths
e. Cable trenches, cable supports and covering slabs
f. Yard metalling, yard fencing using chain link fencing
g. Compound wall construction with anti-climbing devices on top
h. Roads inside substations
i. Construction of foundations for towers and line construction.

Over the duration of the project, 80-90 per cent of time required for substation construction is for civil works. However, cost-wise, civil works cost only 15-20 per cent of the total cost of a substation project since the cost of equipment

b. Maintenance works

Civil maintenance works include special repairs as well as routine maintenance. There are large number of quarters, office buildings, roads, and other structures that may need special repairs.

c. Line construction works

Power lines are to be drawn from substations to powerhouses or other substations. These are routed either through country terrain or roadside. The works include tree cutting, survey and alignment, tower foundation construction in various types of soil conditions etc.

There are 11 transmission circle offices in KSEB. In each transmission circle, there are about 2-3 transmission divisions. However, there is only 1 AEE (civil), 2 AE (civil) and 4-sub engineer civil posts sanctioned in these circles.
In each transmission circle there are large number of substations of various capacities. In all substations there are number of buildings and civil structures to be maintained.

DISTRIBUTION WING

a. Construction of section offices and maintenance works
b. Pole casting works at various pole-casting units
c. Pre- fab construction
1. Technical assistants in Distribution circle office

FABRICATION WING

AEE is in charge of the manufacturing and fabrication plants (Mechanical Facility units) where line materials, A type poles, tower parts etc. are fabricated and galvanised.

HYDEL TOURISM

KSEB has a number of dams having tourism potential. At Thariyod, Peringalkuthu and Munnar the hydel tourism activities are in full swing.
These activities are under civil AEEs.

COMPETENCIES REQUIRED FOR AEEs in various wings

COMMON COMPETENCIES REQUIRED

1. Technical knowledge:
a. Knowledge in civil engineering
b. Knowledge of codes, departmental manual and procedures,
Survey up to total station, AutoCAD drawing, planning software,

Basic	Average	Expert
1. able to conduct surveys, **2.** able to measure civil works **3.** able to prepare estimates of civil works **4.** Basic excel knowledge	Project planning using MS Project, Autocad drawing,	Able to design RCC and steel structures Design of Preparation of DPRs Able to use total station for survey works

Knows the codes and manuals referring the books only	Able to apply code and manual provisions in execution of works	Should be able to take crucial decisions according to codal provisions
merely knows about latest technology, equipments, and procedures	Update knowledge and skills: knowledge of materials, equipments, and technology available in the market; new inventions	Application of latest knowledge and skills: knowledge of materials, equipments, and technology available in the market; new inventions

- Experience: Experience in the particular field such as investigation and DPR preparation, Designs, Construction, etc.

Basic	Average	Expert
2 yrs experience in concerned field	2-5 years experience in the concerned field	1. 5 years experience
1. participation in survey works of investigtion, supervision of site works	able to do survey, preparation of reports, make drawings, estimation	Able to finalize a DIR Able to design a project component and guide subordinates

- Leadership: identifying the situations and taking right decisions at the right time

Basic	Average	Expert
Initiative: Arranging of facilities for employees for attaining goals	Taking risk in jobs –essential for execution of works	Overcoming hurdles by laisoning with various stakeholders
Listening attitude	Motivating colleagues to exercise specific roles and use their powers	Tackling problems at site as and when they arise
Creativity and Positive thinking in execution of works	Convincing stakeholders about KSEB's initiatives and maintaining goodwill	Decision making abilities and Settling of disputes

- Communication skills: ability to express in oral and written manner about the actions to be taken, preparing reports and taking up with superior officers for sanctions

Basic	Average	Expert

able to report to higher officers any issues related to one's work	able to document and report regularly the activities and issues at site	able to prepare reports and present various alternatives, and suggest remedies and probable best decisions able to communicate horizontally and vertically
using conventional methods like oral and written	able to use modern means of communication (like email, fax)	using electronic equipments to reach everyone more effectively (video conferencing, powerpoint presentation)

- Health: Health is essential for field works in project and in investigation

Basic	Average	Expert
able to perform office works	able to perform field works	able to work in remote and high altitudes under adverse site conditions

- Work ethics: honesty (no corrupt practices), Diligence, Commitment
- Patriotism: We should be committed to the national interest so that our focus will be unselfish and society and nation oriented. Lack of this will lead to evasion of works, insincerity, avoiding risk taking and focussing on personal interests alone.

APPENDIX I: EMPLOYEE SURVEY REPORT

<<<Enclosed in Separate Folder>>>

ADDITIONAL WORKS ON

ENHANCING SERVICE QUALITY AND ORGANIZATIONAL EFFECTIVENESS

IN

KERALA STATE ELECTRICITY BOARD LTD

PREPARED BY

INDIAN INSTITUTE OF MANAGEMENT KOZHIKODE

2017

I. INTRODUCTION

IIMK had conducted a study for KSEBL for enhancing its service quality and organizational effectiveness as per the work order dated 27.03.2014. However, KSEBL management requested for some additional work to the recommendation on the organization structure and to put explicit recommendations for career and training needs. Further work was also requested by KSEBL about the restructuring of some of the departments in the corporate office which include offices of the Chief Engineer (HRM), Secretary (Administration), Chief Personnel Officer, Chief Engineer (Commercial and Tariff), Chief Engineer (Supply Chain Management) and Chief Engineer (REES). Accordingly IIMK team has undertaken this revised and additional work without any additional financial charges as agreed upon in the meeting chaired by Director (Finance) dated 21.2.2017. This report consists of the recommendations to the agreed upon points as per the above meeting.

An extensive field study was conducted and the functional heads and management representatives across various offices under study were interviewed in order to understand the structure, function, workload and challenges of the respective departments. Representatives of position holders in each department were also visited by the study team to understand the roles and deliverables. These field study observations of office representatives and the inferences made by us were helpful in understanding the nuances of the above offices in KSEBL. Additionally, we also approached CE (HRM), Secretary (Administration), CPO, CE (Commercial and Tariff), CE (SCM) and CE (REES) offices for secondary data on present structure, manpower, and the quantum of workload. We further requested data on consumer strength for each section office, division office and circle office. We approached a few representative section and division offices for information on present manpower and workload. Effort was made in section offices and division offices to ensure availability of both quantitative and qualitative information on workload. Even though some of the data was not received, most of the offices meticulously provided requested data. In fact some of the offices provided proactive information on various aspects of manpower, structure and workload. We are thankful for data and information provided and we have ensured wherever relevant, the suggestions have been incorporated in our report.

RESTRUCTURING IN THE CORPORATE OFFICE

a. POSSIBLE INTEGRATION OF WORKS IN THE OFFICES OF THE CHIEF ENGINEER (HRM), OFFICE OF THE SECRETARY (ADMINISTRATION) AND OFFICE OF THE CHIEF PERSONNEL OFFICER

OFFICE OF CHIEF ENGINEER (HRM)

The human resource management department is presently structured as consisting of office of the deputy CE (HRM-I), office of the deputy CE (HRM-II) and HRD cell, all reporting to CE (HRM). Deputy CE (HRM-I) office has an administrative officer and 7 SSs reporting to the AO looking after functions of establishment, vigilance, gradation, accounts, despatch, secretarial support and general administration. The 7 SSs supervise the works of 45 SAs and 1 JA. 1 FCS, 13 FCAs, 7 OAs, and 1 Dup. OP support in secretarial support to the AO, SSs, SAs and the JA. The Deputy CE (HRM-II) office has one CA attached for support activities. The office of Deputy CE (HRM-I) has therefore an overall manpower of 78 employees.

The Deputy CE (HRM-I) office primarily deals with the mattes of appointment, promotion, transfer and posting of about 31000 employees upto the cadre of AEE/AAO. The establishment wing deals with matters of appointments, transfers and postings; the gradation wing deals with grade fixation matters; vigilance deals with disciplinary matters; accounts branch deals with claims and benefits matters; and fair copy wing deals with copying and printing works whereas despatch section deals with despatch of files and documents. The establishment branch receives more than 10000 applications annually for transfers and postings about 50% of which are effected; the wing effects about 2000 regular appointments and promotions each, apart from discharging miscellaneous responsibilities. The gradation section annually deals with about 500 cases of grade fixation; the general branch takes care of about 1500 medical claims; the vigilance wing handles about 300 files annually amounting to about 1500 correspondences; the accounts branch deals with about 150 cases of certificate issue, extensions, refund, allocation and advances; while despatch section takes care of about 25000 despatches annually.

The office of the Deputy CE (HRM-II) deals with matters of deductions of statutory taxes and issuance of TDS certificates and disbursements of payments in ARU. It has an establishment bill section, cash section, pension sanction and pension authorization section. The establishment bill section is dealing with processing of salary and all other establishment

claims like TA, Medical Reimbursement, sanctioning of increment, grade promotion, pay fixation, pay revision work, preparation and issuance of Form No. 16 etc. to all employees drawing salary from Vydyuthi Bhavanam. The cash section is exclusively for the purpose of all establishment claims, disbursement of cash, income tax remittance and filing of returns, audit of all work bills and compilation of expenditure accounts of the ARU. Pension sanction section deals with sanctioning of end benefits of retired of employees (all officers and staff of K.S.E. Board) are being attended in the pension sanction section, with an average of 250 claims being attended every month. The works attended by the assistants include registering of pension cases, verification of service book, processing of pension papers and correspondence with field office in this regard. Pension authorization section deals with preparation of pension pay order and assigning of PPO numbers of all pensioners of the Kerala State Electricity Board. The bill section has manpower of 1 SAO, 1 AO, 4 SSs, 19 SAs and 2 OAs, totalling to 27 employees. Accounts branch (Cash section) has manpower of 1 AFO, 1 SS, 10 SAs and 1 OA, totalling to 13 employees. Pension sanction section has manpower of 1 AO, 1 AAO, 9 SSs, 19 SAs, 2 JAs and 2 OAs, totalling to 34 employees. Pension authorization section has 1 AO, 4 SSs, 18 SAs, 1 OA, totalling to 24 employees. Records section has 1 SS, 3 SAs, 1 overseer, and 1 JA, totalling to 6 employees. The deputy CE (HRM-II) office therefore has manpower of 105 employees.

The HRD cell has 2 AEs and 2 SAs reporting to the EE (HRD). The cell deals with training of employees and interns. The office has a total manpower of 5 employees.

The office of the CE (HRM) has AEE as TA supervising Senior PA and Inward section staff. The inward section has 4 SAs, 3 OAs and 1 driver. The office of the CE (HRM) therefore has 11 employees including the CE (HRM).

The CE (HRM) office as of now therefore has a total manpower strength of 199 employees. The details of present structure of CE (HRM) office are given in figure 1.1.1 to figure 1.1.5. The job description of each of the positions is given in Appendix I for Deputy CE (HRM-I) office while Appendix II contains details for Deputy CE (HRM-II) office.

After reviewing the current function, structure of the department, manpower and extent of use of technology and scenario post computerization, the study team made the following observations:

1. The office seems to be overstaffed presently. With the use of computer, ERP and other software, the manpower requirement will reduce further. The revised manpower is articulated in the proposed revised structure.

   With the use of software like ERP, the works and processes which take days to address can be resolved in matters of couple of hours, subject to condition that all the service records, leave data, transfer details are already updated and available in ERP (HRIS) and the staff have technical knowledge of HR functions and the software.

2. The functions of Billing and Cash sections seem to be wrongly placed in CE (HRM) office. The type of work done by these offices mandate their presence in Director (Finance) office.
3. There is some overlap in functions done by different offices. For example, establishment bill section in Deputy CE (HRM-II) office does many works of corporate office employees overlapping with works of many sections in Deputy CE (HRM-I) office which are for board employees up-to the level of AEE/AAO. With introduction of technology, such segmentation does not serve any purpose. Centralization of such activities will lead to rationalization of manpower in such activities.
4. CE (HRM) office is not structured as per HR functions typically executed in organizations.

OFFICE OF CHIEF PERSONNEL OFFICER

The present structure of office of Chief Personnel office is given in figure 1.2.1. The job description of each of the position in the office of CPO is given in Annexure III.

OFFICE OF SECRETARY (ADMINISTRATION)

The present structure of office of Secretary (Administration) is given in figures 1.3.1 to 1.3.8. The Secretary (Administration) has additional responsibility of looking after office of Legal

Adviser too. The job description of each of the position in the office of Secretary (Administration) is given in Annexure IV.

INTEGRATION OF WORKS IN THE OFFICES OF THE CHIEF ENGINEER (HRM), OFFICE OF THE SECRETARY (ADMINISTRATION) AND OFFICE OF THE CHIEF PERSONNEL OFFICER

The works in CE (HRM) office and CPO office are done typically by HR function managers in organizations and therefore there is definitely a possibility of integration of these two offices. With respect to the works of the office of Secretary (Administration), barring the office of Legal Adviser, the works are mostly administrative in nature. Such works can be kept with a separate office as well as put under a larger office which typically is given to the office of HR head in many organizations. The present reporting of Legal wing under the Secretary (Administration) can be changed to better utilize the strengths of Legal office. The functions of Legal office comes close to that of HR office in the sense, employment and employee related cases are handled by HR office whereas consumer related cases are handled by Legal office. Putting the Legal office under CE (HRM) office therefore makes sense from synergy point of view. After bringing Legal office under HRM office, not much work remains under Secretary (Administration). That much amount of work can be taken care by HRM office. Therefore the secretarial work of Secretary (Administration) is brought under HRM office.

Therefore considering the observations regarding CE (HRM) office, Secretary (Administration) office and CPO Office the study team recommends the following:

Recommendation 1: The designations of positions in HRM office may be changed in the line of HR functions.

It is recommended that the post of HR Associate will be equivalent to that of an SE; that of senior HR associate will be equivalent to AE; that of Manager will be equivalent to AEE; that of senior manager will be equivalent to EE and that of general manager will be equivalent to CE. The CE (HRM) office needs to be renamed as Director (HRM) office.

Recommendation 2: The office of the CEHRM, CPO and Secretary – Administration should be merged as per the proposed structure and manpower.

Therefore in the proposed structure, the activities of HRM office, CPO office and Secretary (Administration) will all come under HRM office. The HRM office will be headed by Director (HRM). This office will have office of General Manager (HR Administration), office of Senior Manager (HR Strategy and Planning), office of Senior Manager (Director HRM office) and the office of Legal Adviser and Disciplinary Enquiry Officer reporting to Director (HRM).

The details of proposed structure of Director (HRM) office are depicted through **Figure 1.4.1 to 1.4.8**. The figures are self-explanatory and **proposed manpower** at each position in each function is also provided in this figures.

The office of GM (HR Administration) will handle matters of employee, recruitment, transition and separation; matters of employee grievances, claims and welfare; and matters of training and development of employees and others. The recruitment and transition (appointments, transfers and promotions) were earlier taken care mostly by establishment wing of Deputy CE (HRM-I) office while separation (e.g., pension) matters were earlier taken care by pension wing of Deputy CE (HRM-II) office. It is to be noted that HRM office now will only handle employment related technical matters and calculation of aspects of separation while financial aspects such as disbursement of pensions will now come under Director (Finance) office jurisdiction. This differentiation has been done to ensure matching of work with functional expertise. Technical works of claims of accounts branch and general grievances and welfare aspects of Vigilance and CPO office will now come under SM (Employee grievances, claims and welfare). SM (Training and Development) will now handle the works of EE (HRD).

Senior Manager (HR strategy and planning) is a new function for HR office. It has the mandate to plan HR strategies, collect, and analyse data and disseminate and use insights for employee efficiency, welfare and productivity. This office will also liaison with circle and division offices to execute the HR strategies and to seek feedback from the field and other offices.

The office of Legal Adviser and Disciplinary Enquiry officer will continue to have its earlier responsibilities. In addition to those it will now additionally handle the major works of CPO

office. Qualified HR professionals in matters of employment and labour laws will assist the office in managerial and associate positions to handle employment cases. This office will have an additional responsibility of trying to prevent new court cases by providing for options of conciliation and arbitration by involving the Legal Adviser. Possibly this option can be explored for speedy disbursal of old cases too.

The office of SM (Director HRM office) will handle the administrative support functions for the board and the Director (HRM) office.

The present working strength of HRM office is 199 while that of CPO office is 20 and that of office of Secretary (Administration) is 50 and Legal office is 40. The total present working strength of these offices is 309. Post restructuring the combined strength of these integrated offices will become 124 (73 in office of Director (HRM); 40 in legal office; and additional 11 in legal office handling IR and employment cases). An additional strength of manpower of 22 employees is proposed for earlier present accounting activities of cash, bill and pension sections. This function will now move to Director (Finance) office. Therefore effectively the number of employees changes from 309 to 146 (Dooney, 2015)[1].

As mentioned earlier, it is to be noted that the proposed changes in manpower are functions of one or more of the three factors:

1. The technological changes in the offices with respect to availability of appropriate tools and software is there;
2. Employees are comfortable and well versed in using these tool and;
3. Employees have appropriate professional qualification to address the demands of the jobs.

1 Dooney, J. (2015). *Workforce Analytics: A Critical Evaluation - How Organizational Staff Size Influences HR Metrics.* Retrieved from SHRM: https://www.shrm.org/ResourcesAndTools/business-solutions/Documents/Organizational%20Staff%20Size.pdf

Recommendation 3: It is recommended that minimum educational qualification of HR associates and senior associates would be bachelors in HR or equivalent fields, while that for managers and above minimum qualification of Masters in HR and equivalent fields would be necessary conditions to ensure better efficiency and effectiveness of employees. For managerial positions in HR, only Engineers with masters in HR and equivalent fields should be considered.

For proposed structure and manpower suggestions to be operational, the service records and related changes including promotion, transfer, pay fixation, skill acquisition, training attended, leave records, attendance etc. are needed to be automated and made available for ready reference.

Recommendation 4 (generic): All managerial cadre including managers, senior managers, General manager, Director in HR and their equivalents in field offices (please refer Recommendation 2 for details of equivalent fields) must be well versed in the use of technology and should serve as role models by using their computer in daily discharge of their responsibilities and providing approvals though computers only. Appropriate guidelines in this regard may be circulated by the board.

Recommendation 5 (generic): as of now, many current practices lead to redundant (e.g., pen and paper and rendering activities) and repetitive works (e.g., vetting of documents at multiple levels) in the name of ensuring accuracy and error-free work. Such processes in work activities have to be stopped at the earliest and *relevant and appropriate board orders* in this regard should be issued without compromising quality of the work.

B. RESTRUCTURING OF OFFICE OF THE CHIEF ENGINEER (COMMERCIAL & TARIFF)

The office of Chief Engineer (Commercial and Tariff) have two significant activities. The first activity deals with aspects related with power purchase billing such as verification, ensuring rebate, deviation settlement (mostly under EE-I), as well as managing documentation and processes for power purchase including verification of various short term, medium term and long term power purchases (mostly under EE-II). The tariff office mostly deals with various aspects of tariff and regulation. Study of various regulations, interaction with regulatory authority in tariff matters, preparation of tariff data, analysis of data etc. are major activities of Deputy Chief Engineer (TRAC) office. The present structure of the office is given in figure 2.1.1 and 2.1.2. The detailed job descriptions are provided in Appendix V.

Based on our observation, there is no need for any major changes in structure of this office. A few minor overlap of work division between EE –I and EE-II offices are there, which does not seem to be significant.

Recommendation 6: since activities of Deputy CE (TRAC) office needs lot of preparation and background knowledge on tariff regulations, it is recommended that frequent transfers from this office be avoided.

C. RESTRUCTURING OF OFFICE OF THE CHIEF ENGINEER (SUPPLY CHAIN MANAGEMENT)

The Asst. Executive Engineers and Asst. Engineers under the Executive Engineers Transmission (X_T), Distribution (X_D and XH) and Civil (X_C) deal with the procurement of various materials required for the transmission and distribution works. The EE (Quality assurance and monitoring: X_M) deals with aspects of vendor management as well as quality checks in stores. The office of AFO deals with verification and auditing of various procurement bills. The present structure details are provided in figure 3.1.1 and detailed job descriptions are provided in Annexure VI.

The following observations and recommendations are made regarding the present structure of CE (SCM) office:

Recommendation 7: the AFO (office) can be shifted to the office of Director (Finance), as it deals with financial matters. With use of technology, there is no need for the AFO to be seated in close proximity to the office of CE (SCM). Also, the AFO office is overstaffed. AFO can easily discharge the duties with the help of 1 SS and 1 SA level associates. Additionally, 1 general level office attendant should be sufficient to assist in all support activities. Therefore 2 SAs and 3 office support staff are redundant in present structure for the office of AFO.

Recommendation 8: There is no need to have a deputy Chief Engineer (SCM). The EEs can directly report to CE (SCM).

Recommendation 9: There is no need to have a separate AEE (computers and purchase) in EE (Quality Assurance and Monitoring) office.

Recommendation 10: The employees were seen to mostly rely on pen and paper calculations in CE (SCM) department. The shift to use of SCM software needs to be expedited.

Of late there have been difficulties in timely procurement of items through SCM department. This has led to difficulties for Distribution and Transmission Business Units. Therefore a way suggested is to decentralize generation, transmission and distribution items procurements as responsibilities of Distribution and Transmission Directors respectively. Each of the two choices to whether let the procurement be centralized at corporate office or to decentralize it to two of the three units have their pros and cons. The idea of centralization has cost effectiveness at its core (more so if large value and volume items procurement are overlapping for distribution, transmission and generation) whereas decentralization brings the merits of speed and customization. For centralization to succeed it is very essential that proper planning and execution is done. Decentralization will however lead to redundancy of manpower as more people (at 2 locations) will be needed to do the same task. Centralization however may likely lead to fast

adoption of SCM software. If the implementation of SCM software can be expedited the bifurcation of the CE (SCM) can yield desirable results as well as take care of the cons of bifurcation effort as software implementation will lead to increase in efficiency.

Recommendation 11: though constrained by limited availability of data, it is suggested to bifurcate the procurement under CE (SCM) for Generation and Distribution procurements and procurement under Deputy CE (SCM) office for Transmission procurement. The bifurcation is however likely to lead to difficulty in planning for EE (civil) activities as these cater to the needs of both distribution and transmission wings.

The bifurcation will also likely lead to difficulty in resource allocations in EE (Quality Assurance and monitoring) office as vendors for both distribution and transmission would come under this office. To ensure balance of power, it is recommended to divide the two offices between the two such that EE (Quality Assurance and Monitoring) will report to Transmission office procurement while EE (Civil) will continue to report to CE (SCM). The proposed structures and related manpower are given in figure 3.1.2 to 3.1.4.

Additionally it has been observed that execution of work in SCM department needs understanding of aspects of supply chain management, project management, vendor relationship management, total quality management etc. It is important that manpower in this department have educational background in operation management.

Recommendation 12: it is therefore recommended that preference in posting in SCM department be given to employees with operation management background.

D.RESTRUCTURING OF OFFICE OF THE CHIEF ENGINEER (REES)

The present structure of REES is given in figure 4.1.1. The office deals with solar, energy savings and wind and innovation projects. In recent times, only limited numbers of new projects have come to KSEB. As projects are executed through EPC contractors, so workload is less in REES. For example, there are only two energy auditing projects. Similarly, agricultural pumping related energy saving activities is progressing very slowly. For winds projects as of now only 1 tender and 1 EOI is going on.

Recommendation 13: it is recommended to have a new Consultancy division.

There is increasing interest in various aspects of solar plant, from site survey to grid integration. As the strength of KSEBL is in transmission infrastructure design and grid integration and system studies and therefore many consultants are ready to associate as a technical partners of KSEB. The office can take various roles such as that of owner engineers, advisory role, quality auditing etc. of existing plants. KSEB can focus on design to minimise cost without compromising on quality and grid integration and storage system design. The deliverables would be mostly as survey reports, DPR, design briefs and drawings. Quality assurance works may include quality procedure document preparation for factory and site acceptance and also witnessing of tests.

Recommendation 14: It may further be noted that as of now Director (Finance) may continue mentoring REES and consulting divisions. From long term perspective, however it may be desirable that REES and consulting works are overseen by more operation oriented departments. The proposal to put REES under Deputy CE (SCM) with powers of CE (SCM) for transmission procurements might be explored. In such scenario, our proposal regarding placing EE (quality assurance and monitoring- X_M) under Deputy CE (SCM) might have to be abandoned as balance of workload may get skewed (please refer recommendation 11). In such a scenario, both EE (Civil- X_C) and EE (X_M) might continue reporting to CE (SCM) distribution and generation while REES and Consultancy divisions will report to CE (SCM) transmission.

The recommendation in the main report regarding avoiding restructuring on ad hoc basis should however be kept in mind (please refer recommendation no. 8 in general recommendation section 3.2.10 of the main report). The details of proposed structures are provided in figures 4.1.2. and 4.1.3.

II. EXTENSION OF MAIN REPORT RECOMMENDATIONS REGARDING SECTION OFFICES, SUB DIVISION OFFICES, DIVISION OFFICES AND CIRCLE OFFICES FOR VARYING CONSUMER STRENGTHS

We analysed data with respect to consumer strength of each of the section offices. We also analysed data from representative section offices with respect to their workload. The choice of representative section offices was based on mean value and standard deviation of scores of consumer strength of section offices. Further, section offices were requested for data on present manpower in each of the three breakdown, maintenance and revenue wings. Also workload data of three months was requested from these section offices. The section offices were in addition requested to access the difficulty level of tasks in each of the three wings and to further estimate the amount of tasks with different level of difficulty and average time needed to accomplish such tasks.

The difficult tasks in the representative section offices were reported to be as low as 1% to 30% of the total tasks (incidentally the section offices in more difficult terrains reported more conservative estimates of proportion of difficult tasks!) and the breakdown and maintenance works were reported to take from about an hour to up to 24 hrs., depending upon difficulty level. The manpower of breakdown wing ranged from as low as 7 to as high as 15; the manpower of maintenance wing ranged between 9 and 11 whereas the manpower of revenue wing ranged from as low as 4 to as high as 15 employees. The total workforce in section offices ranged from 23 to 37 employees in the representative samples.

SECTION OFFICE: It is proposed that a section office may have a maximum of 40 employees at any point of time (considering present scheme of things; future technological and other changes are not factored in). The present consumer strength for the section office varies from about 4000 consumers to about 34000 consumers. The allocation of breakup based on consumer strength is divided into (a) those sections with less than 11000 consumers (numbering 144 sections); (b) those with consumer base between 11000 and less than 16000 consumers (numbering 253 sections); (c) those between 16000 and less than 21000 consumers (numbering 222 sections) and (d) those section with 21000 and above consumers (numbering 127 sections). Sections with less than 11000 consumers can have a maximum manpower of 25 employees; sections between 11000 and 16000 consumers can have a maximum of 30 employees; sections between 16000 and 21000 consumers can have a maximum of 35 employees and sections with 21000 and above consumers may have a

maximum of 40 employees. The number of employees is however not entitlements for sections. For example, management may decide to allot manpower of 31 to a section with 19000 consumers while it may allot manpower of 33 to another section with 20000 consumers.

Recommendation 15:

Consumer Strength	Maximum Manpower in a Section Office
less than 11000	25
11000 and less than 16000	30
16000 and less than 21000	35
21000 and above	40

The decision of the management will be assisted in future by proposed changes in CE (HRM) office where annual data of workload and performance of each circle, division, sub-division and section office will be analysed (please see figure on office of SM (HR strategy and planning)) and accordingly allotments will be made which can further be adjusted on case by case basis based on needs. The section offices will however have freedom to decide the manpower breakups for breakdown, maintenance and revenue wings. The section offices are however suggested to desist from frequently changing manpower allocations between the wings as it may affect the morale of the workers.

Recommendation 16: no further change is suggested in manpower distribution based on consumer strength at sub division office level.

DIVISION OFFICE: With respect to division office, the main report recommended changes in establishment branch, general (pension) branch, revenue branch and support staff (OA, FCA, CA, and Driver) of the office of EE. No change was recommended for the drawing branch. In the proposed structure, the general and revenue branch were removed and the establishment branch was made as HR department with responsibilities of both the establishment and general branches. The accounts branch strength was reduced from generally 4 to 3, while the general cumulative strength of general, revenue and establishment branch from about 10-12 was reduced to 3 employees in the new proposed HR department. Similarly, roles of OA, CA, and FCA would now be managed by one support staff. This proposed change effectively reduces the manpower at a division office from around 20-25 earlier to about 15 in the proposed change. The present consumer strength of the division offices range from as low as about 18000 to about 270000. We propose a division office with

less than 120000 consumers (12 division offices) can have a manpower of upto 15 employees including manpower of drawing branch, HR department, accounts department, EE, TA to the EE, one office staff and the driver. Division offices which have consumer strength ranging from 120000 to less than 220000 (44 division offices) can have manpower of upto 18 employees whereas division offices with 220000 consumers or more (15 division offices) may have manpower of upto 20 employees in the division office. As discussed earlier, these numbers are not entitlements but norms to help decide specific numbers for each division office. The division offices have freedom to decide the manpower breakups among drawing branch, HR department and Accounts department. Frequent changes to allocations have to be refrained.

Recommendation 17:

Consumer Strength	Maximum Manpower in a Division Office
less than 120000	15
120000 and less than 220000	18
220000 and above	20

CIRCLE OFFICE: A circle office generally has around 25 employees. A typical circle office may have about 3-4 AEs, 3-4 SEs, 1 AAO, 2 SS, 7-8 SSs, 2 OAs, 1 CA, 1 SFCA, and a driver along with an EE as TA to the Deputy CE. The manpower strength at circle offices however may vary significantly on account of special projects. We are not factoring in such manpower in our recommendations. Circle offices have consumer strength ranging from about 235000 consumers to about 750000 consumers. In proposed structure, the office of AAO gets demerged as HR and Accounts offices with 2 subordinates each thereby effectively reducing the manpower at circle offices by 5. Similarly the support staff can be reduced to 2 general purpose office attendants and a driver from earlier four support staff and a driver. Circle offices with less than 500000 consumer strength may have manpower of upto 22 employees, whereas circle offices with 500000 or more consumers can have manpower of upto 25 employees. Also, these numbers are norms. The circle offices have freedom to decide the manpower breakups among EE (office), HR department and Accounts department. Frequent changes to allocations have to be refrained from.

Recommendation 18:

Consumer Strength	Maximum Manpower in a Circle Office

less than 500000	22
500000 and above	25

III. RECOMMENDATIONS ON COMPETENCY AND TNA

Based on findings of employee workshops conducted in the main report, we have outlined the salient points of competencies required proficiency in jobs for 29 positions and the need for specific training in each of these positions.

Recommendation 19: Competency and TNA Recommendations

Sl. No.	Positions	Competencies required	Training needs
1.	Assistant Engineer	Technical knowledge (electrical engg.,acts and codes, operating procedures, construction standards, energy conservation, sale of energy, report generation); critical thinking; interpersonal skills (internal and external to organization); leadership	Leadership; interpersonal skills (internal and external to organization)
2.	Cashier	Knowledge of Tariff Information Act, 2007; Arithmetic skills; computer knowledge (MS Office, ERP); English language; time management; E-book keeping	Time management; English language, computer skills (MS Office, ERP)
3.	Line man	Technical knowledge about electricity and appliances; time management; physical fitness; interpersonal skills (with relation to customer), teamwork; safety skills	Technical knowledge about electricity and appliances; time management; physical fitness; interpersonal skills (with relation to customer), teamwork; safety skills
4.	Overseer	Knowledge about statutory rules and regulations; knowledge about site and terrain; knowledge about ERP; communication skills; stress management; interpersonal skills; supervisory skills; safety assurance; emotional intelligence	Knowledge about ERP; communication skills; stress management; interpersonal skills; supervisory skills; safety assurance; emotional intelligence
5.	Senior Superintendent	Knowledge of Electricity Act, Supply Code, RTI Act, Taxation, Service Rules, Legal Aspects, Disciplinary procedures, revenue accounts, revenue recovery; bank reconciliation; stores and material accounting, budgeting, purchase procedures, tariff, billing; leadership skills; computer skill; customer orientation; liasoning with offices; accounting skill; communication skill; auditing; report generation; file management	Refresher course on changes in electricity regulations; Computer skill; customer orientation; communication skill; leadership
6.	Senior Assistant	Knowledge of Electricity Act, Supply Code, RTI Act, Taxation, Service Rules, Legal Aspects, Disciplinary procedures, revenue accounts, revenue recovery; bank	Refresher course on changes in electricity regulations; IT skill; time management;

		reconciliation; stores and material accounting, budgeting, purchase procedures, tariff, billing; Communication skill; observation skill; time management; IT skill	observation skill
7.	Sub Engineer	Technical knowledge; communication skill; IT skill (MS Office and ERP); leadership skill; planning and organizing skill; customer orientation	Communication skill; IT skill (MS Office and ERP); leadership skill; planning and organizing skill; customer orientation
8.	Electricity worker	Knowledge on HT/LT lines; physical fitness (e.g. absence of vertigo, ability to climb, lifting of heavy posts, loading and unloading); safety awareness and prediction (use of safety equipment)	Knowledge on HT/LT lines; physical fitness training; safety training
9.	Office Attendant	English and Malayalam comprehension skills; time management; customer orientation; IT skill (MS Word and MS Excel)	Time management; customer orientation; IT skill (MS Office)
10.	Meter Reader	Knowledge of tariff and rates, different types of meters and metering, bill estimation and calculation, geographic location; communication skill; customer orientation; physical fitness	Knowledge of tariff and rates, different types of meters and metering, bill estimation and calculation; communication skill; customer orientation
11.	Chief Engineer	Knowledge of electricity rules, regulations, policies and procedures; Leadership skill; negotiation skill; team building; IT skills (MS Office, ERP and Email)	Leadership skill; negotiation skill; team building; IT skills (MS Office, ERP and Email)
12.	Finance officer	Knowledge of ledger and journal, collection remittance, fund transfer, material accounting, tax rules, expenditure accounts, revenue accounts, tender rules, revenue recovery, accounting rules, leave and other establishment rules; auditing skill; report generation skill; financial management skill; leadership skill; liasoning skill.	Leadership; report generation; liasoning skill
13.	Accounts officer	Knowledge of Electricity Supply Act, 2003; Supply code, revenue accounting, expenditure accounting, auditing, tariff and billing, service rules, banking reconciliation, office procedures, pension, pay fixation; generating reports; leadership, IT Skills, Communication	Auditing, Leadership, IT Skill, Communication Skill
14.	Assistant Executive Engineer	Knowledge of electrical machines, transmission lines, communication systems, relays and controls, Electricity act, codes and rules, safety rules and regulations; leadership; planning; communication skill (written, verbal and listening); IT skills (MS Office and ERP)	Refresher course on changes in electricity and safety regulations; leadership; planning; communication skill (written, verbal and listening); IT skills (MS Office and ERP)

15.	Dy. Chief Engineer (Renewable Energy and Planning)	Knowledge of electrical machines, transmission lines, communication systems, relays and controls, Electricity act, codes and rules, safety rules and regulations, energy conservation, energy audit, load forecasting, generation planning, transmission planning, and distribution planning, financial planning; leadership; statistical skills; creativity; problem solving; team building; project management; liasoning, ability to adapt; IT skills	Leadership; team building; project management; liasoning; IT skills
16.	Divisional Accountant	Knowledge of accounting principles and tax rules, modern software and applications (i.e. SARAS, ORUMA NET, HRIS, MS Office); problem solving; negotiation; communication; leadership	Modern software and applications (i.e. SARAS, ORUMA NET, HRIS, MS Office); problem solving; negotiation; communication; leadership
17.	Assistant Finance Officer	Knowledge of accounting principles and tax rules, ledgers, trial balance and financial statements, statutory returns, modern software and applications (i.e. SARAS, ORUMA NET, HRIS, MS Office); problem solving; communication; analytical ability and numerical ability; interpersonal skills	Modern software and applications (i.e. SARAS, ORUMA NET, HRIS, MS Office); problem solving; communication; interpersonal skills
18.	Executive Engineers	Knowledge of electricity rules, regulations, policies and procedures; adaptability, safety codes and cost minimization; leadership; interpersonal skills; communication; coordination; analytical reasoning; time management; employee relations; IT skills (MS Office and Email)	Knowledge of cost minimization; leadership; interpersonal skills; communication; coordination; analytical reasoning; time management; employee relations; IT skills (MS Office and Email)
19.	Fair copy assistant	Knowledge of English and Malayalam grammar; reading skills; typing speed and accuracy; employee relations; handwriting recognition; IT skills (MS Office and Email)	Knowledge of English and Malayalam grammar; reading skills; typing speed and accuracy; employee relations; IT skills (MS Office and Email)
20.	Confidential assistant	Knowledge of English and Malayalam; communication skills (reading, writing and speaking); shorthand and typing skills; IT skills (MS Office and Email); time management	Communication skills (reading, writing and speaking); shorthand and typing skills; IT skills (MS Office and Email); time management
21.	Assistant Account Officer	Knowledge of material accounting and salary and pay rules; leadership; communication skills (reading, writing and speaking); shorthand and typing skills; IT	Refresher course on changes in accounting procedures and pay structures; IT skills

		skills (HRIS, MS Office, ERP and Email); time management	(HRIS, MS Office, ERP and Email); time management
22.	Driver	Knowledge (certified by Driving License) and ability to drive heavy vehicles; knowledge of traffic rules; safety rules; physical fitness (especially eyesight, audibility and stamina)	Refresher knowledge in safety and traffic rules
23.	Dy. Chief Engineer (Civil)	Knowledge of hydroelectric project /building, tendering, design of component structure, project management, statutory, contract law, labour law; conflict management; interpersonal skills; leadership; team building skills; change management; customer orientation; IT skills (MS Office; MS Project; and Email)	Refresher course of relevant laws; project management; interpersonal skills; leadership; team building skills; change management; customer orientation; IT skills (MS Office; MS Project; and Email)
24.	Overseer (Civil)	Knowledge in handling survey instruments and preparing drawing and computing area by using software like AUTOCAD, LISCAD, GIS etc.; team building; physical fitness; IT skills (MS Office and Email)	Refresher course in software like AUTOCAD, LISCAD, GIS etc.; team building; physical fitness; IT skills (MS Office and Email)
25.	Sub Engineer (Civil)	Knowledge and experience in operating survey instruments like Total station and GPS, knowledge of satellite remote sensing, hydraulic design, structural design, construction techniques, machine selection; physical fitness (ability to work in different terrains); time management; team building; communication; decision making; liasoning; IT skills (Auto CAD; MS Office; MS Project; and Email)	Refresher courses in relevant and required knowledge; time management; team building; communication; decision making; liasoning; IT skills (Auto CAD; MS Office; MS Project; and Email)
26.	Chief Engineer (Civil)	Knowledge of project management; leadership; decision making; communication; planning; delegation skills; ability to manage stress; employee relations; negotiation; IT skills (Auto CAD; MS Office; MS Project; and Email)	Leadership; decision making; communication; ability to manage stress; IT skills (Auto CAD; MS Office; MS Project; and Email)
27.	Asst. Engineer (Civil)	Knowledge of satellite remote sensing, hydraulic design, structural design, construction techniques, physical fitness (ability to work in different terrains); planning; time management; team building; communication; decision making; liasoning; project estimation and management; work billing; site survey and inspection; land acquisition; tendering; contract management; knowledge of dam safety; knowledge of and experience with monitoring instruments; IT skills (Auto	Project management; people management; IT skills (Auto CAD; MS Office; MS Project; and Email)

		CAD; MS Office; MS Project; and Email)	
28.	Executive Engineer (Civil)	Knowledge of civil engineering, hydraulics engineering, geo technical engineering, structure, construction management, GPS technology, and remote sensing; decision making; problem solving; adaptability; leadership; communication; time management; IT skills (Auto CAD; Civil CAD; Primavera; MS Office; MS Project; and Email)	Decision making; problem solving; time management; IT skills (Auto CAD; Civil CAD; Primavera; MS Office; MS Project; and Email)
29.	Asst. Executive Engineer (Civil)	Knowledge of civil engineering and experience in operating survey instruments like Total station, Auto CAD drawing, planning softwares and GPS, departmental manual and procedures; supervisory skills; leadership; communication; IT skills (Auto CAD; Civil CAD; Primavera; MS Office; MS Project; and Email)	Supervisory skills; leadership; communication; IT skills (Auto CAD; Civil CAD; Primavera; MS Office; MS Project; and Email); refresher in advance software

While the Director (HRM) must ensure the availability of competency particularly at the time of recruitment, promotion and transfer the HRD cell must ensure to fill in the gap in skill. It is also essential to facilitate the learning transfer after the training. For example most of the position holders are currently required to go through the IT training and use the computer for their day to day work. After the training The HRD department must ensure that the classroom learning is being implemented and all the employees are using computer, communicating via e-mail and MS-office for correspondence.

IV. RECOMMENDATIONS ON CAREER & SUCCESSION PLANNING

Recommendations with respect to career and succession planning were already provided in the main report. We have reproduced the salient points over here from the main report for ease of reference and easy identification. The detailed information on career and succession planning can be accessed from section 3.2.5 onwards to section 3.2.10 in the main report.

Recommendation 20:

RECOMMENDATIONS SPECIFIC TO POSITIONS

METER READERS (MR)

- Freeze future recruitment - (don't fill 876 current vacancy)
    - This will lead to an approximate saving of 2,40,90,000/- rupees
- The promotion from Meter reader to Sub-engineer should be based on achievement of diploma engineering or equivalent training (internally).
    - It is essential as the subsequent move is to the position of AE.
- MRs becoming SEs merely on the basis of seniority without having relevant field experience
    - MRs should be mentored by existing SEs for say 1 year before taking charge as SE

THOSE PROGRESSING FROM AXE TO EE

- The provision for those with Seniority and arising vacancy in Diploma quota may be abolished
- Address the Skill Resource Mismatch –
    - AXEs are trained in computer and need it for effective delivery of the duties, but no such facility is provided in sub divisions.

SA

- Many SAs are found to be professionally qualified with degrees such as MBA and since long waiting for promotions. We believe it's a waste of talent that not only goes unutilized, but also contributes to employee dissatisfaction and underperformance.
- They may be given with additional responsibility such as HR activities like training and development in circle office after adequate training and orientation
- As per the JD this position under the domain of distribution requires people handling acumen. Utilize and redeploy the SAs in appropriate positions in distribution where

the JD requirement is major field level customer interaction, but less use of engineering skills

- The surplus employees of SA may also be redeployed in innovative projects such as Hydel tourism projects

FOR RECRUITMENT OF DIVISIONAL ACCOUNTANTS

- The criteria of "Graduation with CA or ICWA" may be changed to "either CA or ICWA" without requirement of graduation
- Two other categories of MBA with finance specialization or BBA with finance experience may be added
- The quota ratios also may be changed to:
  1. 50% (Professional qualification)
  2. 30% (KPSC qualification)
  3. 20% (SAs with Account Test)
- For becoming Finance Officer and Senior Finance Officer, a professional qualification (CA/ICWA/MBA (Fin)) may be appropriate
- Recruitment to AFO and higher posts, may be considered purely on the merit of availability and performance

RECRUITMENT OF SES:

- The criteria of 10% reservation for overseers with ITI/Diploma or SSLC with 5 years' experience may be conditional on:
  - Clearing an additional test specifically designed for the purpose for overseers who have SSLC and 5 years' experience

PROGRESSION OF SUB ENGINEERS TO ASSISTANT ENGINEERS, ON ACCOUNT OF CONCERNS OF OVERSUPPLY ON SOME CATEGORIES AND LITIGATIONS REGARDING SOME OTHERS:

- Quota for those with certificates may be changed to 10% (from earlier 20%)
- Quota for those through PSC with BTech and employees in any category may be changed to 20% (from earlier 10%)
- Quota for those with PSC through open market may be changed to 50% (from earlier 40%)

PROMOTION TO THE POSITION OF EE AND ABOVE SHOULD BE BASED ON PERFORMANCE.

- Do away with promotion to the above positions based on PSC rank.
- Recruitment to posts of EE and above may be considered purely on the merit of availability and performance

OFFICERS NEED TO BE TRAINED BEFORE TRANSFER AND PROMOTION AND MUST BE BASED ON COMPETENCY PARTICULARLY WHEN EMPLOYEES ARE MOVING AMONG GENERATION, DISTRIBUTION AND TRANSMISSION.ASSISTANT ENGINEER (AE)–

- Although, selection of officers is done through PSC examinations, we strongly recommend that, deploying them to generation, transmission, and distribution, should be done based on their interest and skills. Based on our field study and observation report, we inferred that distribution demands individuals to be proficient in management, customer orientation, and marketing, while generation demands an interest and proficiency in engineering. It would benefit KSEB immensely, if the competencies identified against each position are utilized for deployment of officers. Further, it shall also be beneficial, if personnel are trained in requisite competencies before their promotions and transfers.
- Promotions should not be decided based on PSC rank, which appears prima facie unfair. A suitable performance appraisal system may be designed and implemented, and promotions should be contingent on competencies and performance.

DRIVERS AND SWEEPERS

- These roles are non-core to the activity of KSEB and found to be costly also. While a senior driver in KSEB is noticed to draw salary of 60,000 rupees per month the average salary of a sweeper found to be 25309 rupees. In order to achieve competitive advantage KSEB may engage divers & sweepers on contract basis instead of full time support staff. These jobs can also be outsourced to agencies at a cheaper cost which also reduce the recurring liability of the organization.

ELECTRICAL WORKERS

- Apart from the recommendations of ensuring qualification of ITI and training system mentioned earlier, KSEB may consider the following as the future option for the job electrical workers.
  - Region-wise auctioning of multi-year contracts to manage maintenance and breakdown works
  - Supervision of the works may still continue by fulltime employees
  - Chance for such workers to become full time employees as Overseers
  - Such full time employment may however will be of shorter duration (e.g., 10 years)
  - Upon superannuation, such full time employees may be given preference for bidding for contracts for managing breakdown and maintenance works

Recommendation 21:

Review the **'Compassionate employment scheme'** which allows employment in the position such as workman, lineman, office attendant, confidential assistants, and fair copy assistant.

a) Recruitment on compassionate ground for the positions of office attendant, confidential assistant and fair copy assistant ought to be stopped. It may be noted that as per JD, the positions of confidential assistant and fair copy assistant are largely duplicates. Thus they can be amalgamated/or possibly phased out post the introduction of information technology.
b) Promotion of these employees further to higher position without requisite skill not only compromises with the overall skill requirement, but also creates a danger of exposing the employees life to risk while handling the job
c) KSEB must ensure the minimum skill requirement before or within a specified period (may be through provisional appointment) of absorbing any employee under this scheme

Thus KSEB may explore the following options to deal with the compassionate employment scheme:

Option 1: Fund and train the dependents before considering them for employment and after successful performance in the skill test.

Option 2: Give a provisional employment to the hired employees on compassionate ground, who need to ensure acquiring of competency before confirmation.

Option 3: The 'Compassionate Employment Scheme' must be stopped in long run, and instead the organization might explore in embracing a "group term insurance policy" to pay a huge compensation. This would not just reduce the cost of KSEB significantly, but would also reduce the liability of the company. This would also help KSEB to get competent employees sans any compromises, guided solely by the competency requirements, while providing adequate benefits to the dependents of the deceased employees.

Recommendation 22: Succession planning needs to be brought in particularly at higher management levels. Changes in structures to possibly suit the ability of the individuals hints at a situation wherein management although is not confident of ability of the person but feels constrained to do so. Presence and adherence of merit based performance criteria at higher levels is very crucial. Board is requested to look into the same preferably by taking external help to create explicit and detailed performance parameters.

Recommendation 23: It is noticed that incumbency of specific functions at positions such as DCE, CE, Director, etc. are changed frequently (almost on yearly basis) which does not allow them to contribute substantially to the function. Hence, the promotion and transfer must be handled in such a manner that the person holding such positions in normal situations must be appointed at least for a period of two years in order to strategically contribute to the function.

Important Note: We understand that it may take certain time to start implementing the recommendations. It is however imperative that presently planned recruitments and promotions also adhere to the spirit of recommendations even before the recommendations come into effect. Therefore it is hoped that aspects of employee recruitment, regularizations, promotions etc. will adhere to the recommendations with immediate effect, else the benefits of the study may not be achieved at all.

Figures

Figure 1.1.1: Present Overall Structure of Office of CE (HRM)

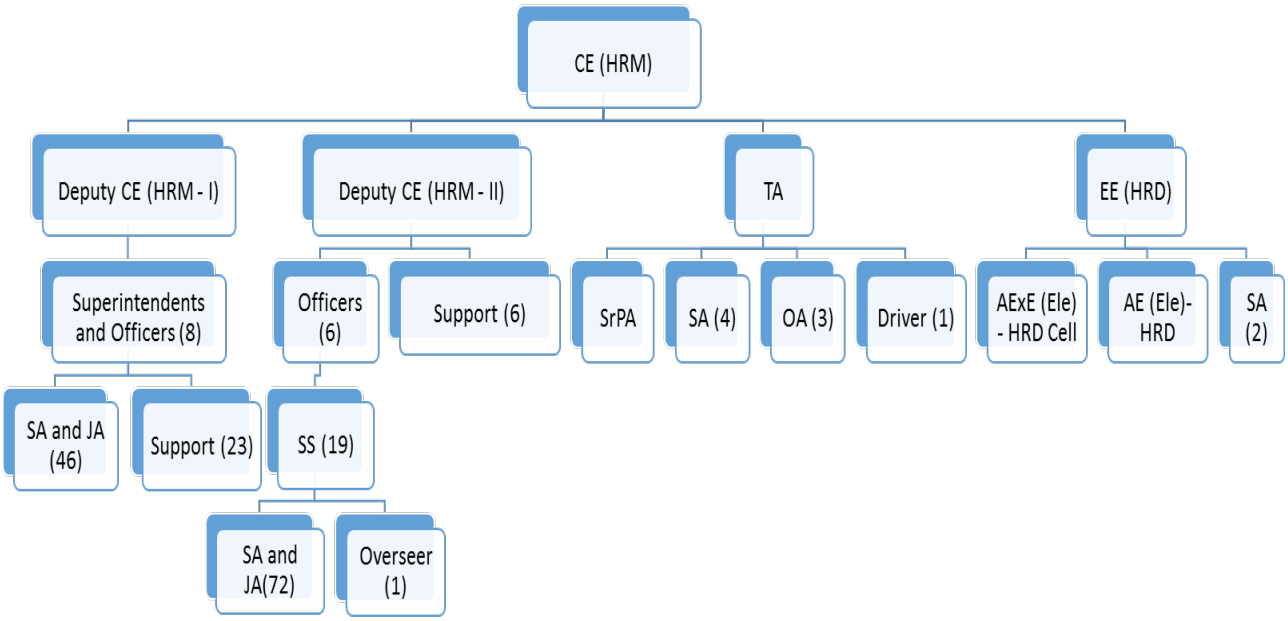


Figure 1.1.2: Present Structure of Support Office of the CE (HRM)

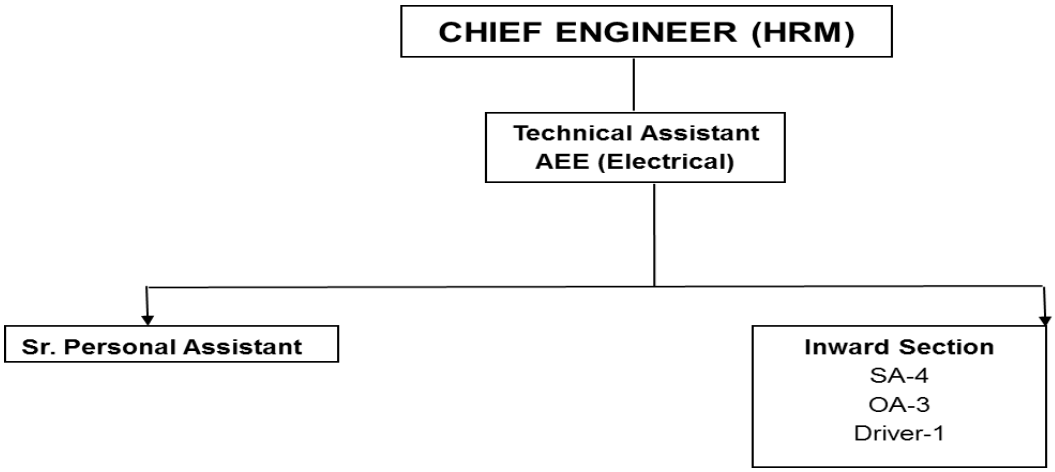


Figure 1.1.3: Present Structure of Office of the Deputy CE (HRM - I)

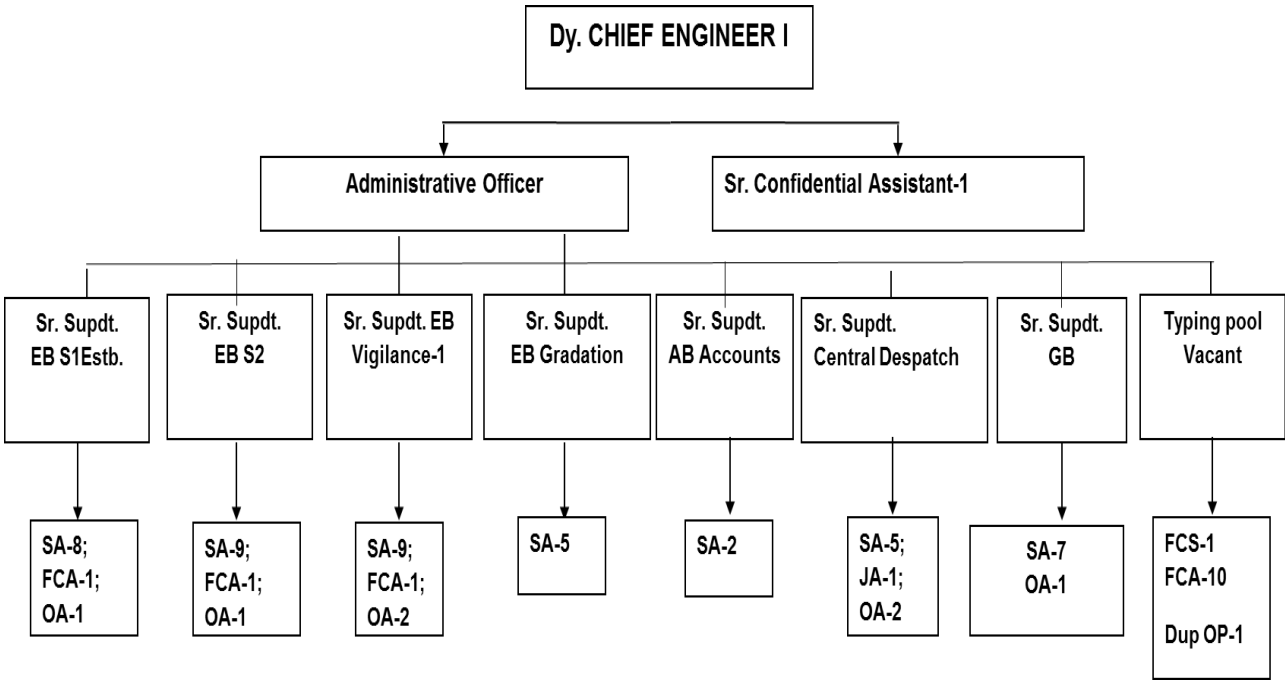


Figure 1.1.4: Present Structure of Office of the Deputy CE (HRM - II)

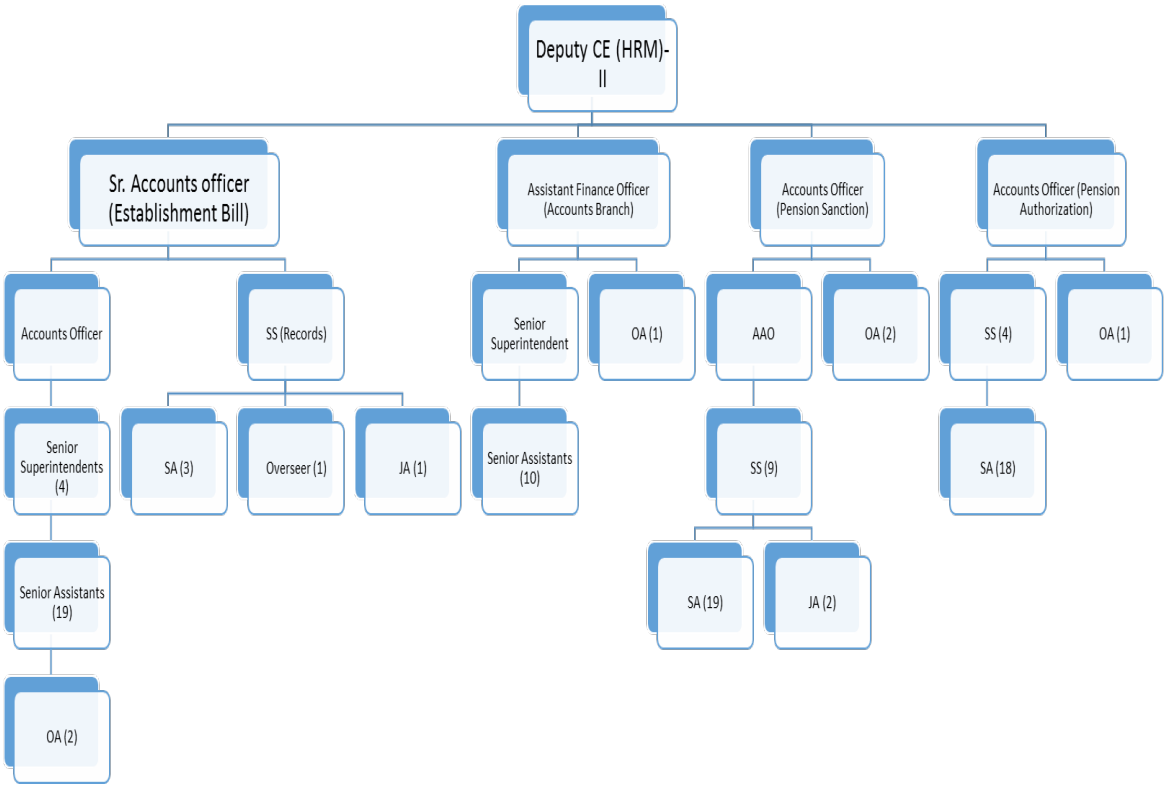


Figure 1.1.5: Present Structure of Office of EE (HRD)

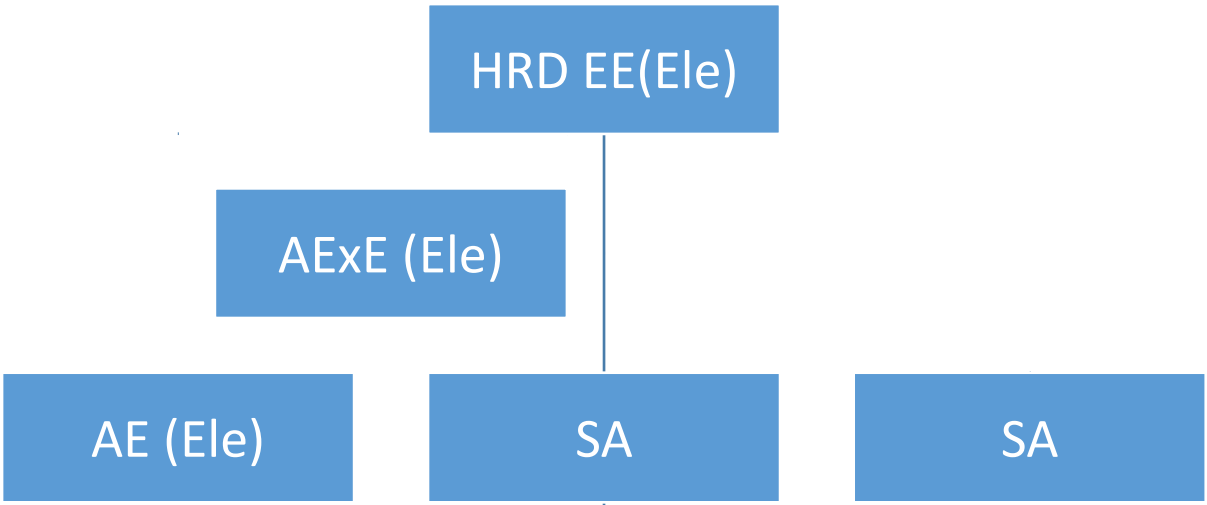

HRD EE(Ele)
AExE (Ele)
AE (Ele)
SA
SA

Figure 1.2.1: Present Structure of Office of CPO

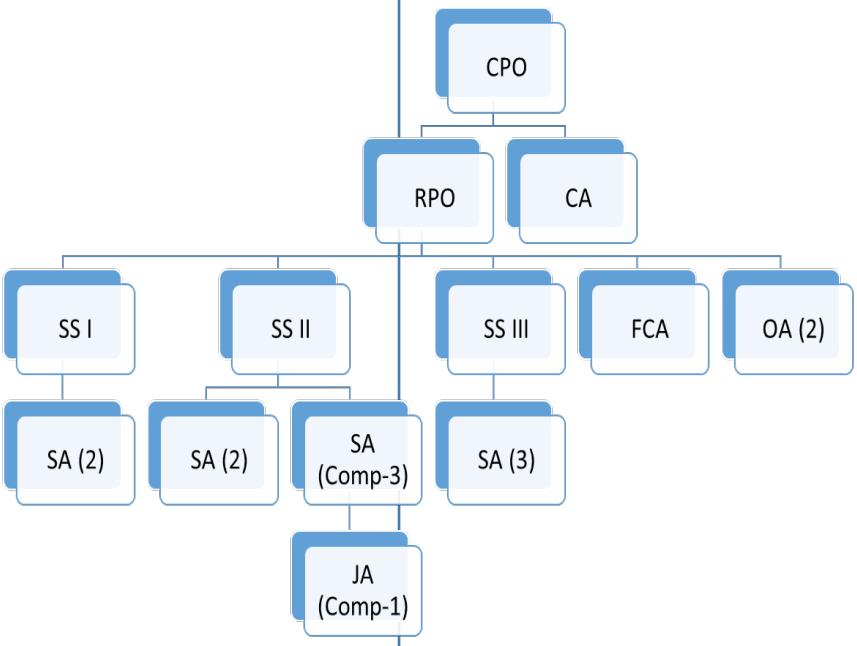


Figure 1.3.1: Present Structure of Office of Secretary (Administration)

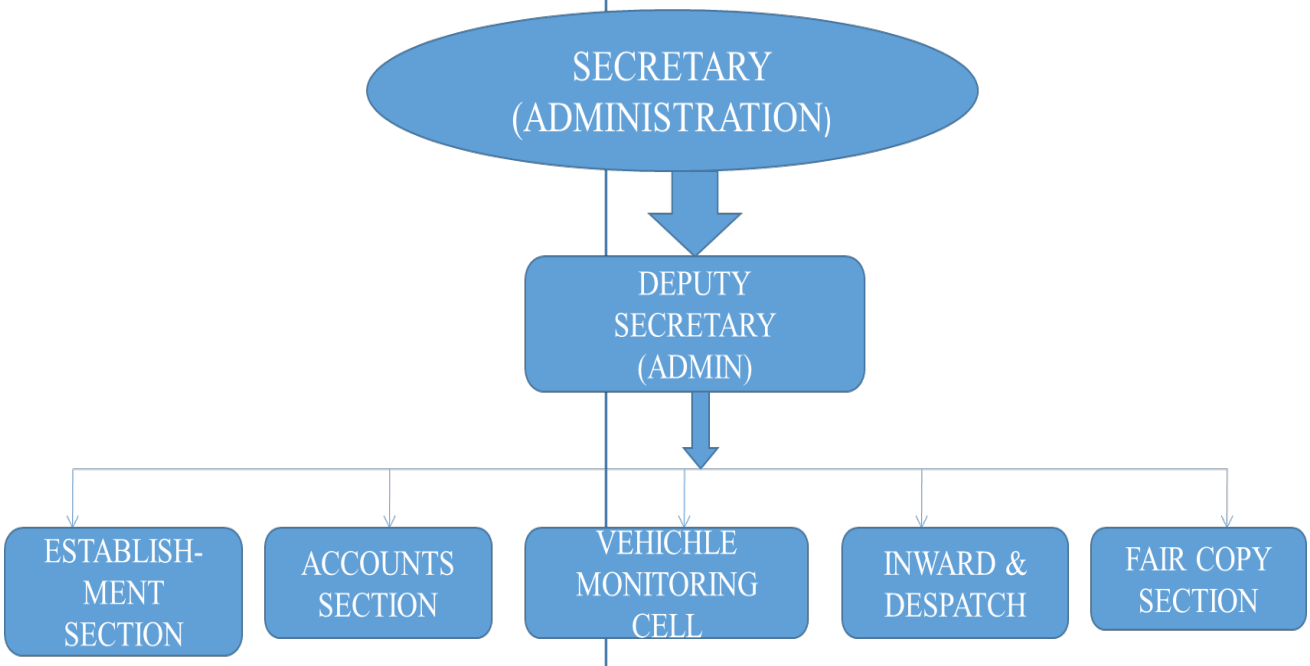


Figure 1.3.2: Present Structure of Support Staff of Secretary (Administration)

Figure 1.3.3: Present Structure of Establishment Branch in Office of Secretary (Administration)

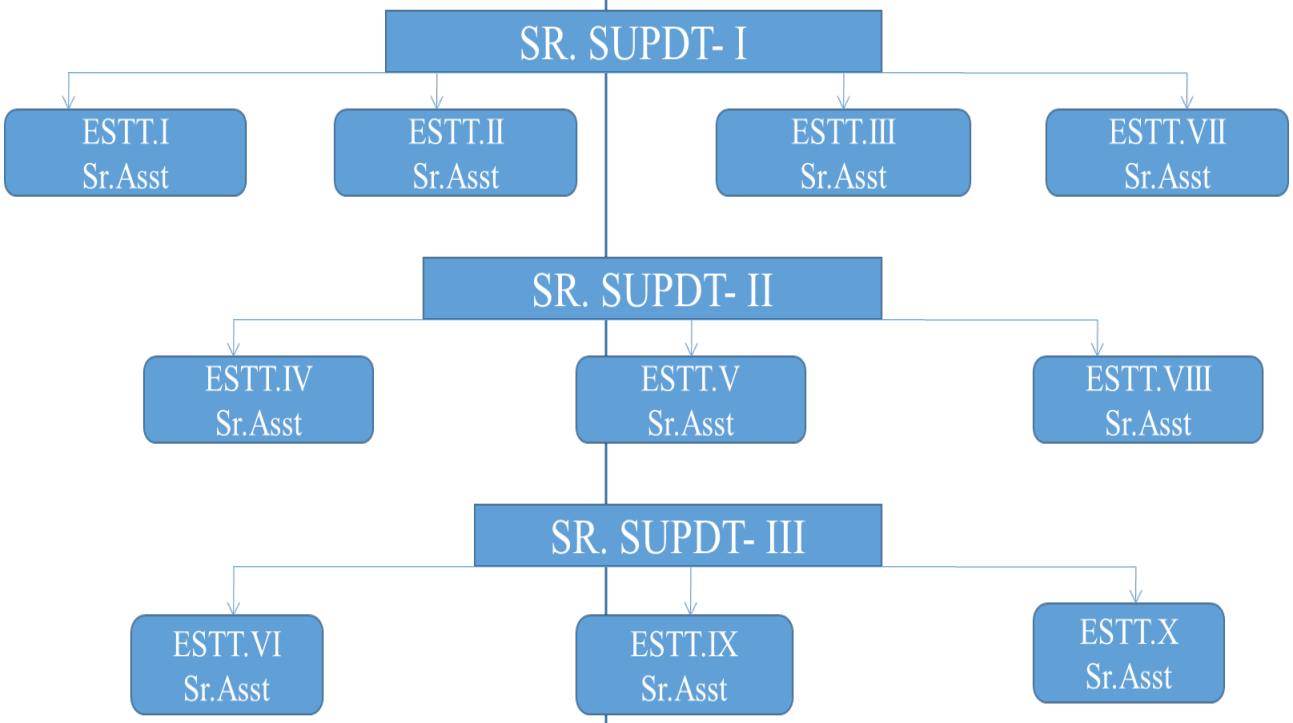


Figure 1.3.4: Present Structure of Accounts Branch in Office of Secretary (Administration)

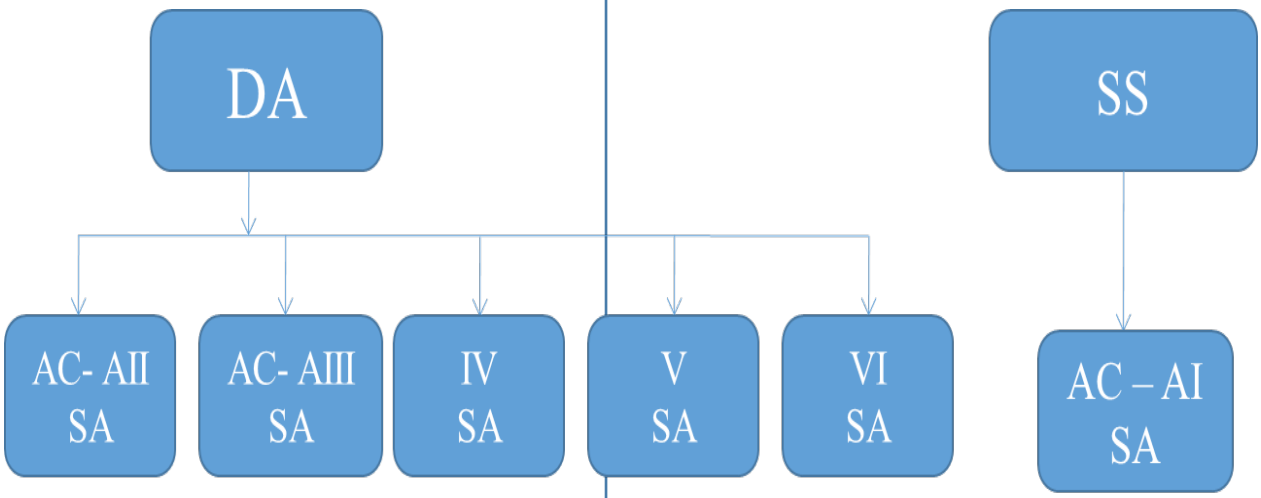


Figure 1.3.5: Present Structure of Vehicle Monitoring Cell in Office of Secretary (Administration)

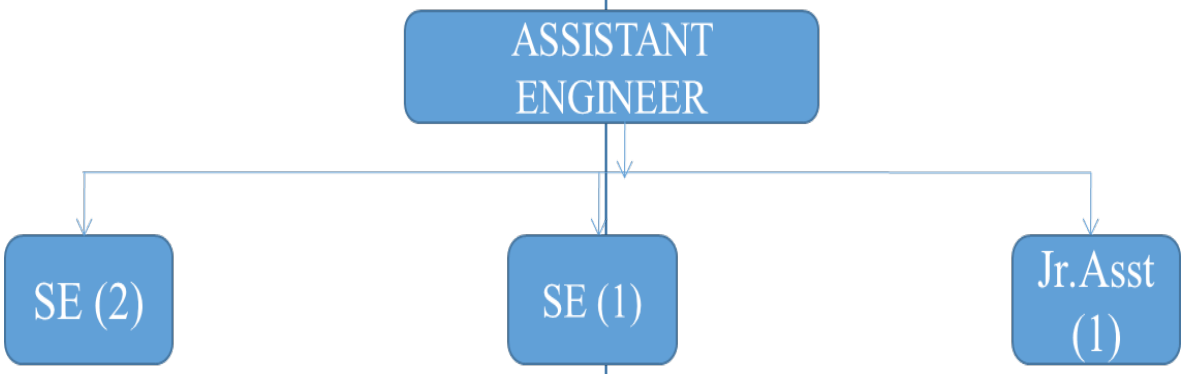


Figure 1.3.6: Present Structure of Fair Copy Wing in Office of Secretary (Administration)

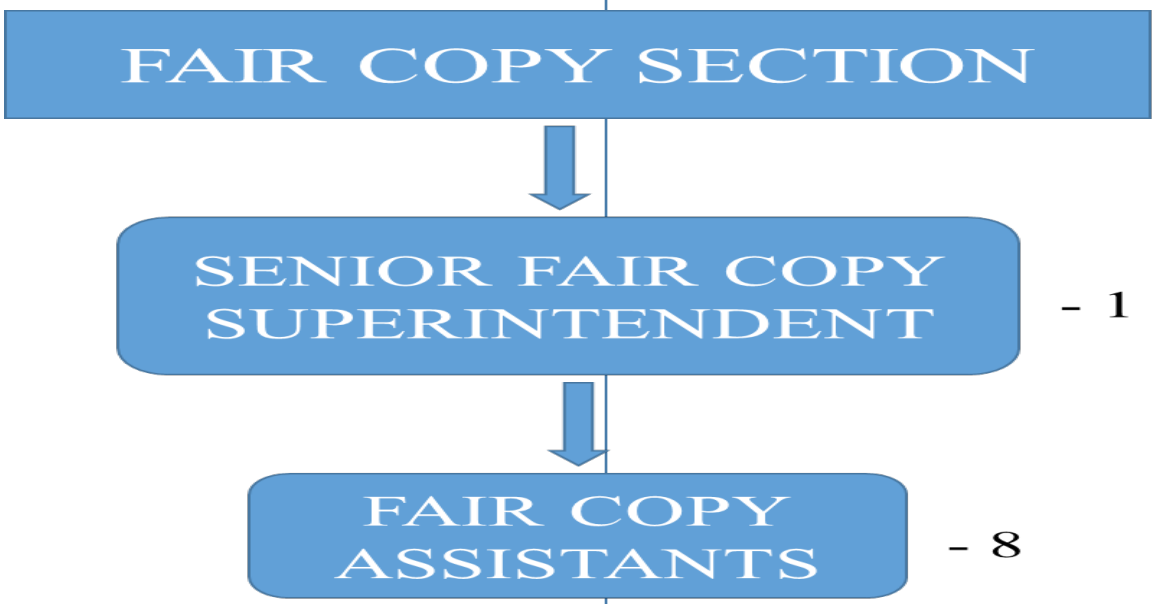


Figure 1.3.7: Present Structure of Inward Despatch Wing in Office of Secretary (Administration)

Figure 1.3.8: Present Structure of Office of Legal Adviser and Disciplinary Enquiry Officer in the Office of Secretary (Administration)

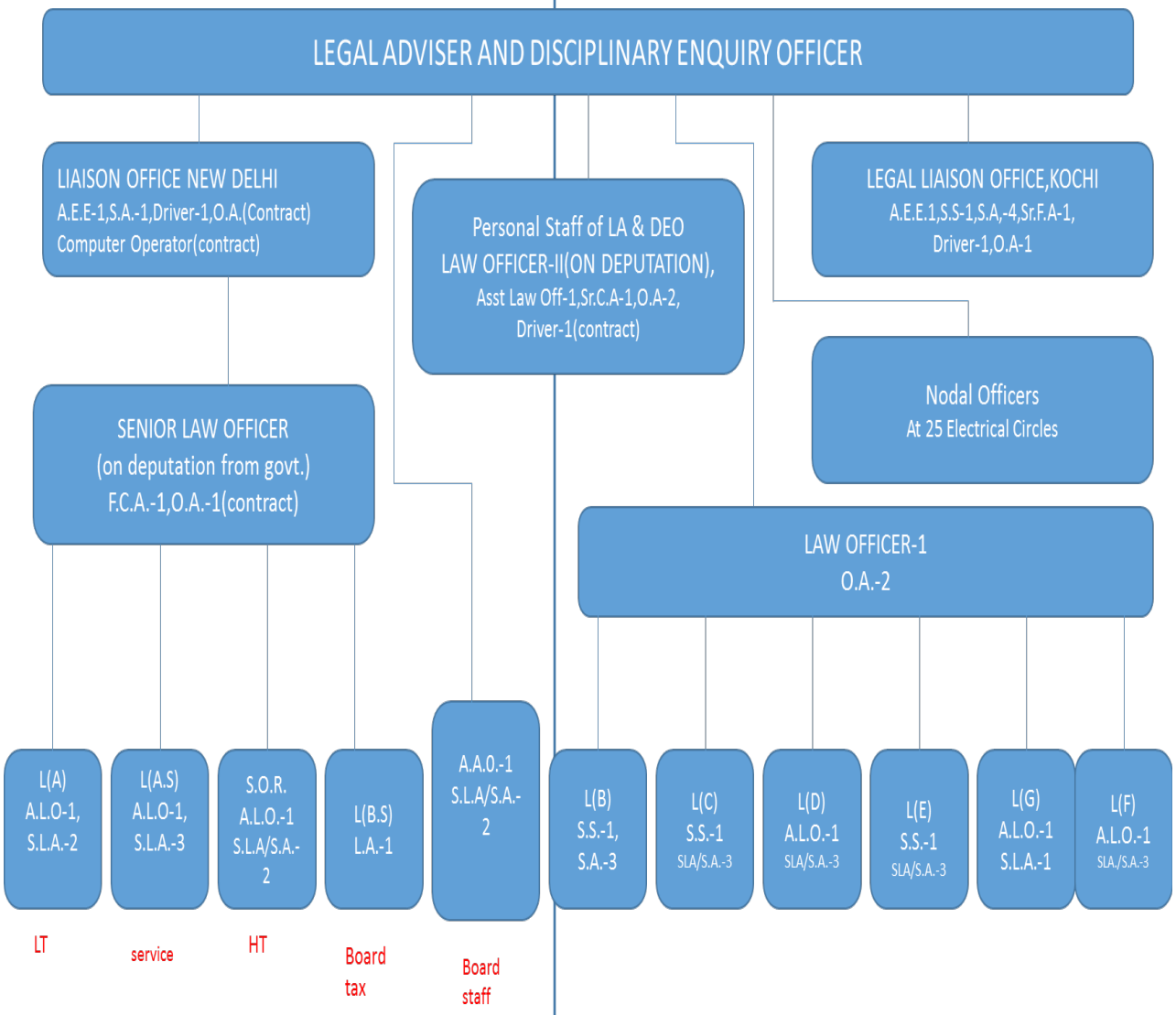


Figure 1.4.1: Proposed Structure of Overall Office of Director (HRM)

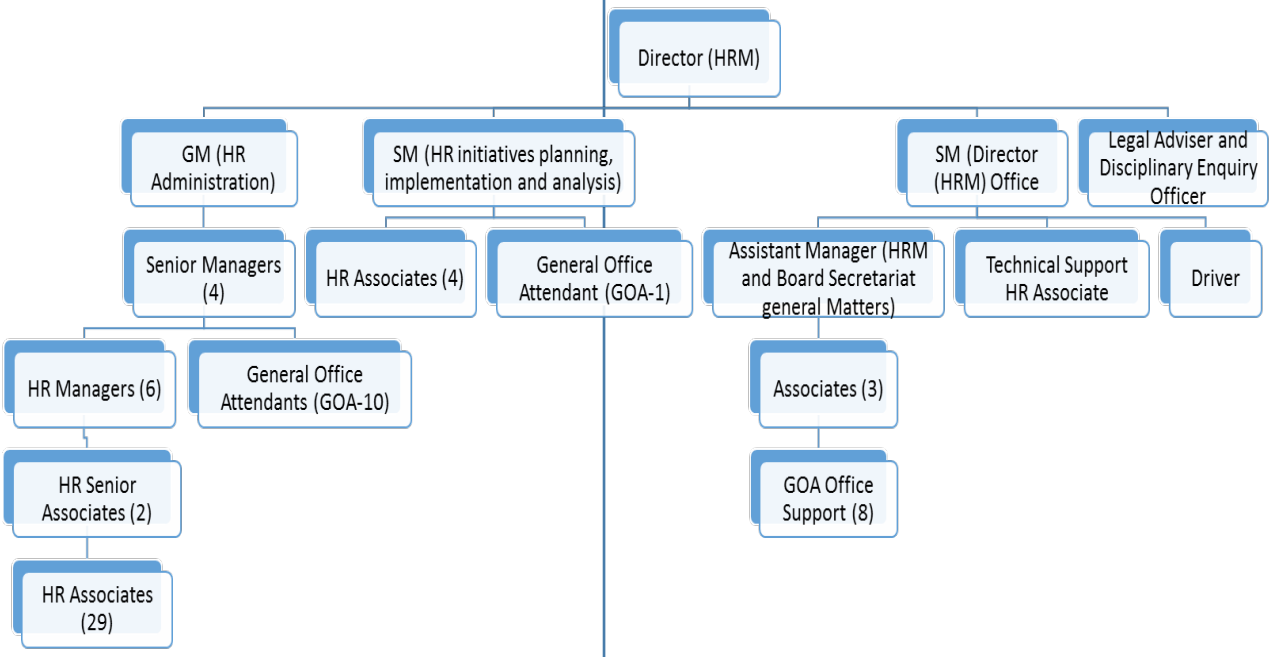


Figure 1.4.2: Proposed Structure of office of GM (HR Administration)

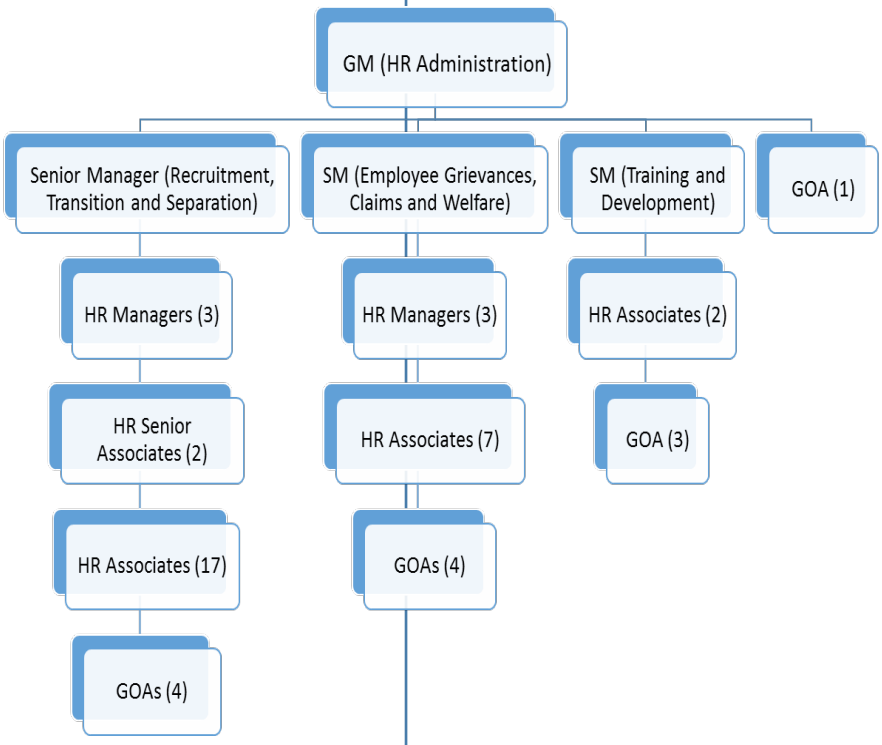


Figure 1.4.3: Proposed Structure of office of SM (recruitment, Transition and Separation)

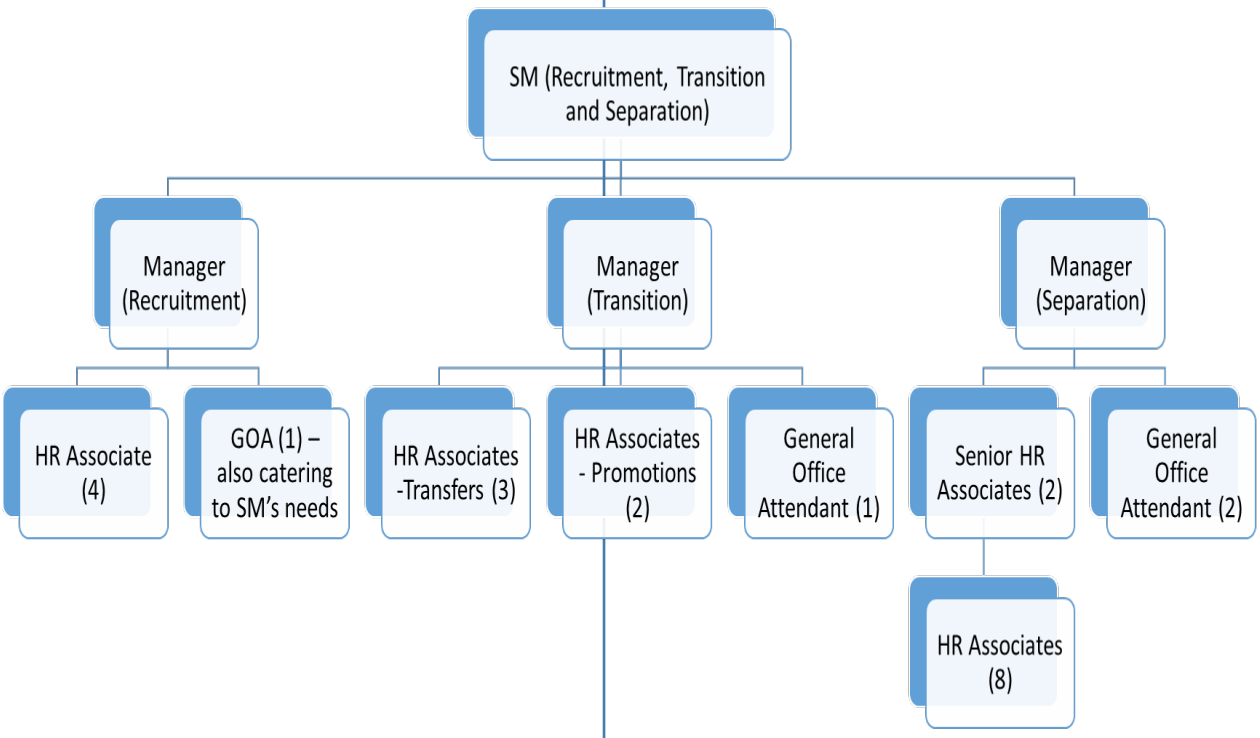


Figure 1.4.4: Proposed Structure of office of SM (Employee Grievances, Claims and Welfare)

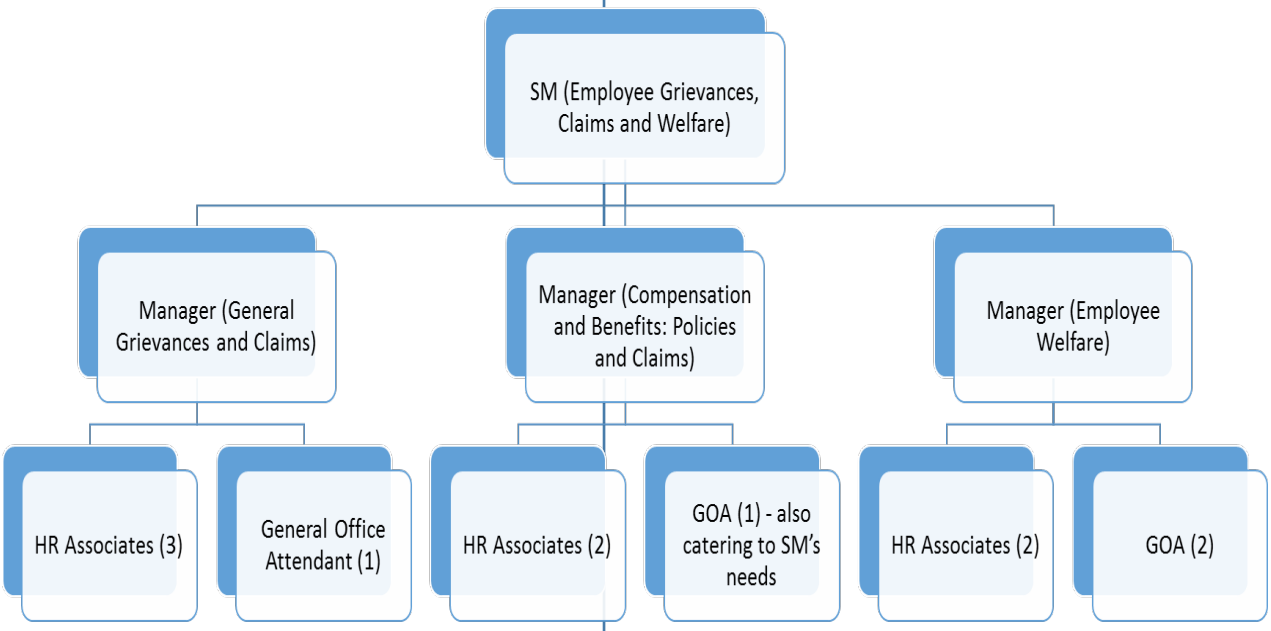


Figure 1.4.5: Proposed Structure of office of SM (HR Initiatives planning, implementation and Analysis)

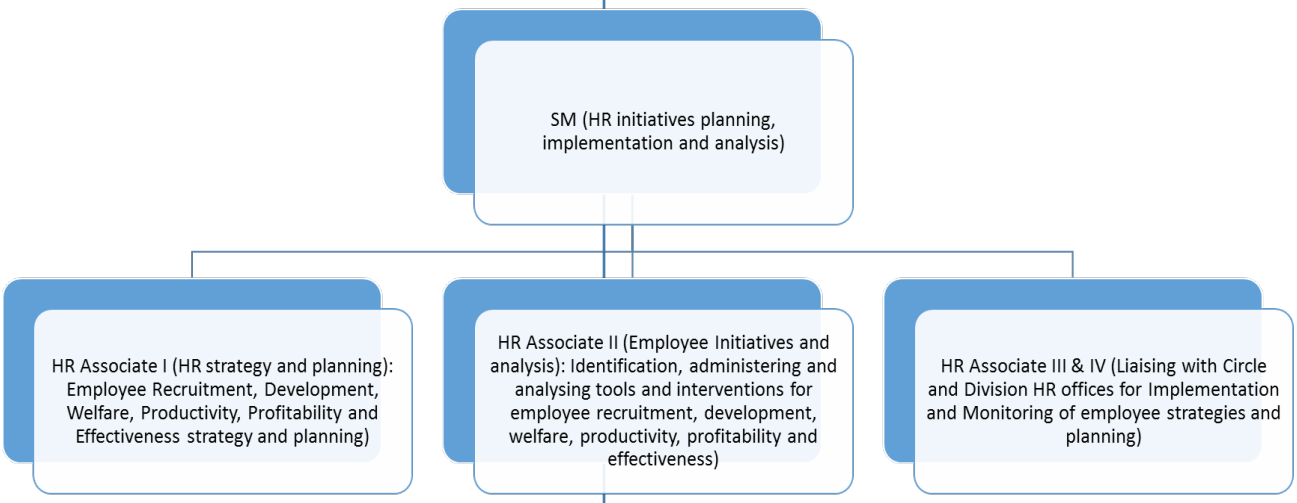


Figure 1.4.6: Proposed Structure of office of SM (Director HRM Office)

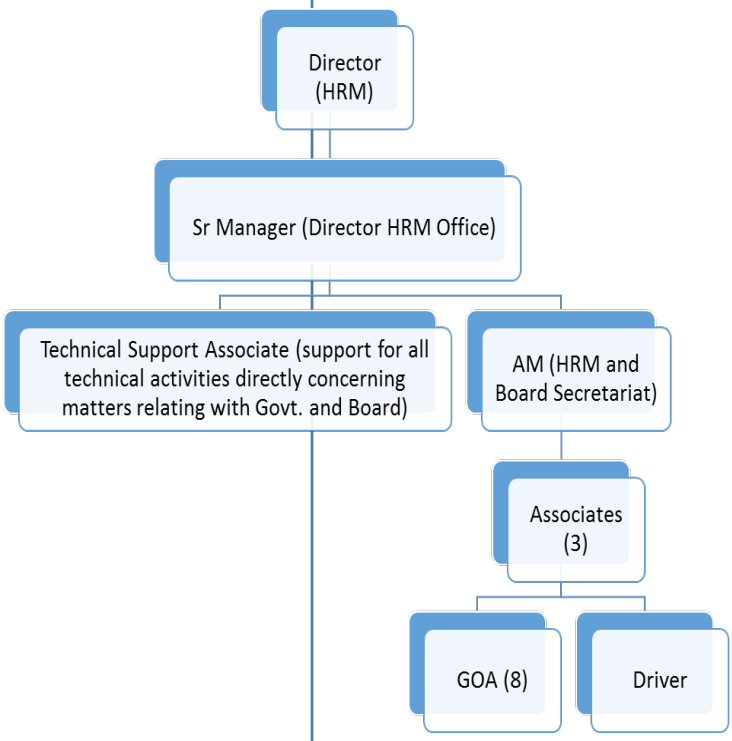

Director (HRM)
Sr Manager (Director HRM Office)
Technical Support Associate (support for all technical activities directly concerning matters relating with Govt. and Board)
AM (HRM and Board Secretariat)
Associates (3)
GOA (8)
Driver

Figure 1.4.7: Proposed Structure of office of Legal Adviser and Disciplinary Enquiry officer (Director HRM Office)

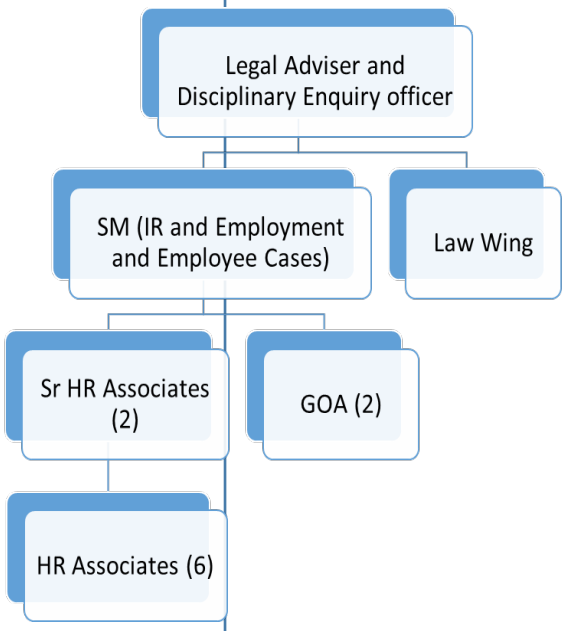


Figure 1.4.8: Proposed Structure of office of Accounts officer (Now to be under Director Finance Office)

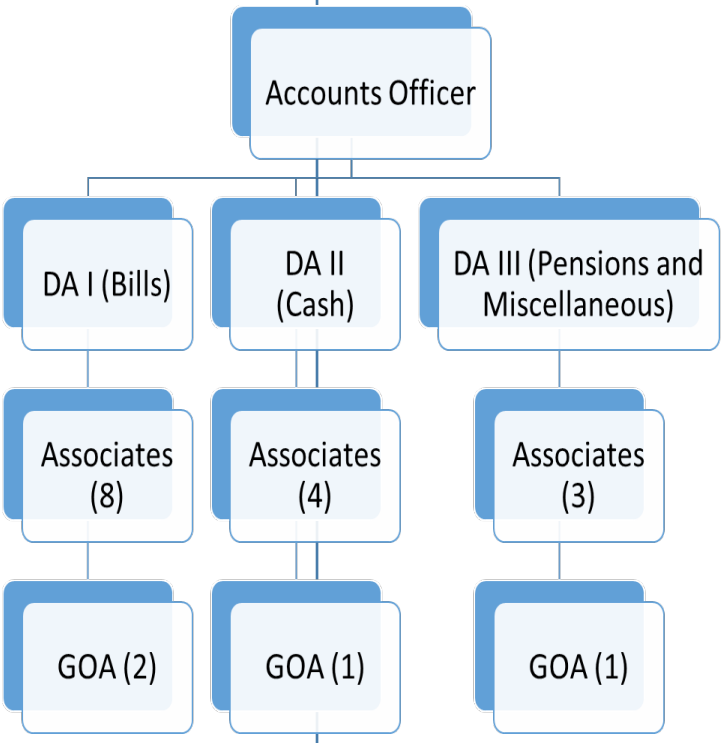


Figure 2.1.1: Present Structure of Office Deputy CE (Commercial) in the office of Chief Engineer (Commercial and Tariff)

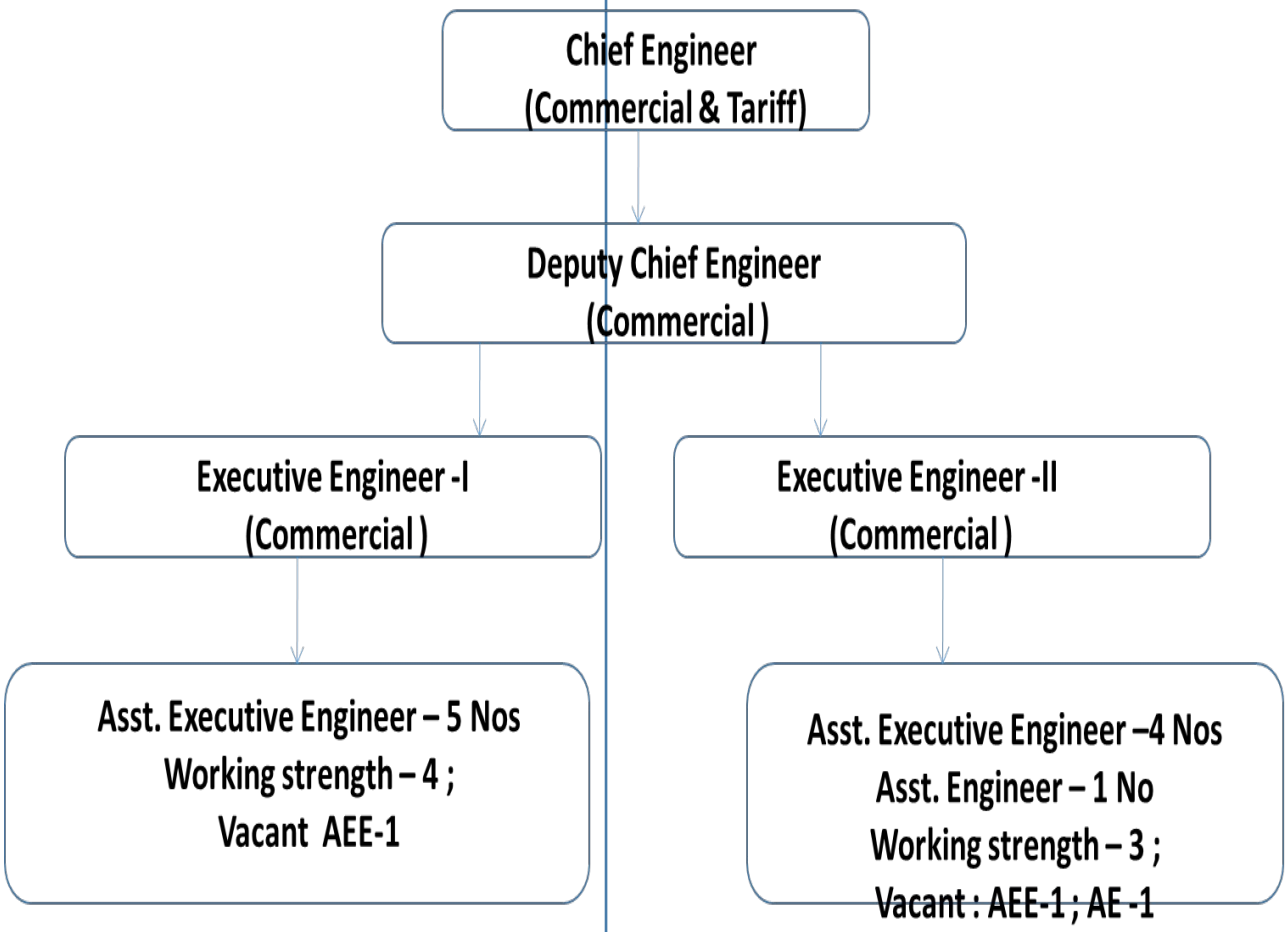


Figure 2.1.2: Present Structure of Office Deputy CE (TRAC) in the office of Chief Engineer (Commercial and Tariff)

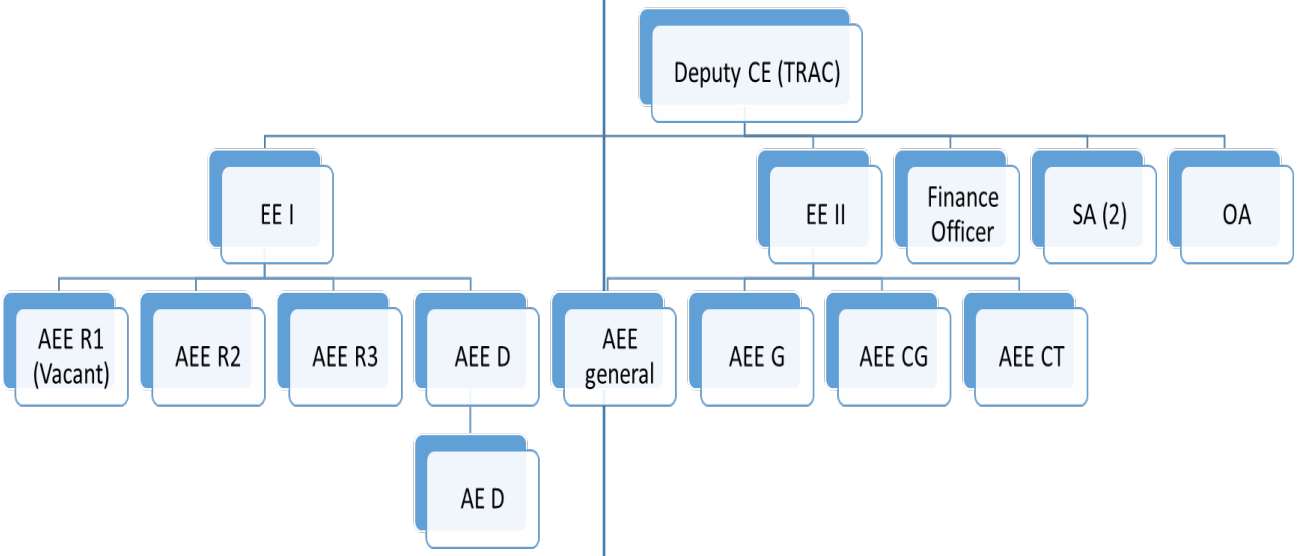


Figure 3.1.1: Present Structure of Office of Chief Engineer (SCM)

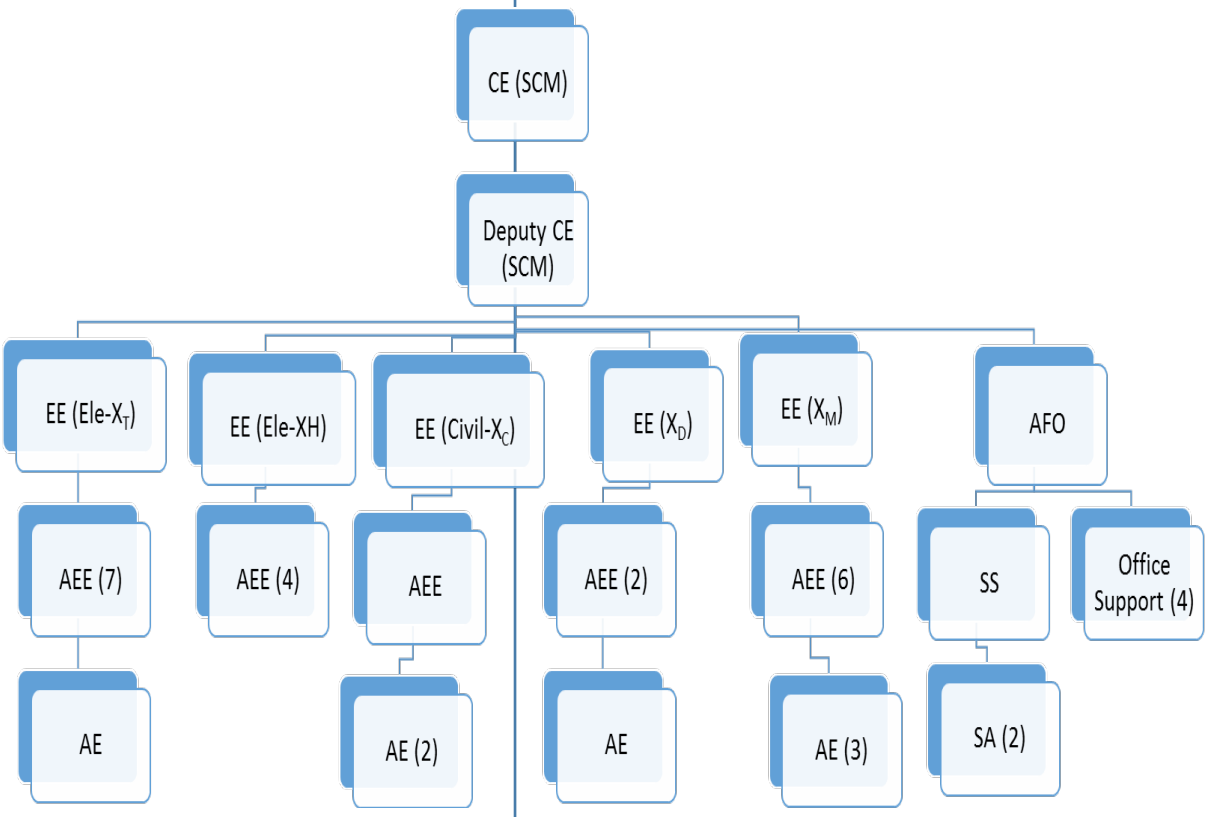


Figure 3.1.2: Proposed Structure of Office of Chief Engineer (SCM) for Distribution and Generation procurement

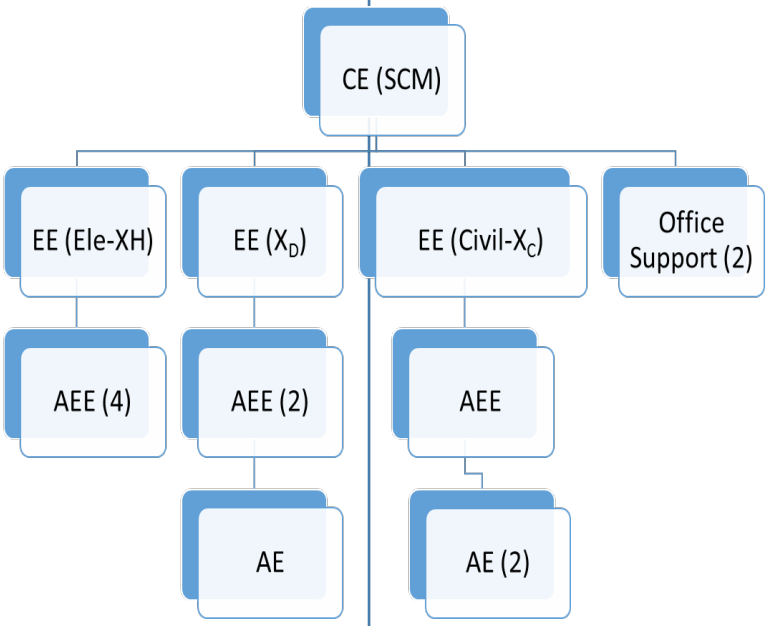


Figure 3.1.3: Proposed Structure of Office of Deputy Chief Engineer (SCM) with powers of CE (SCM) for transmission procurement

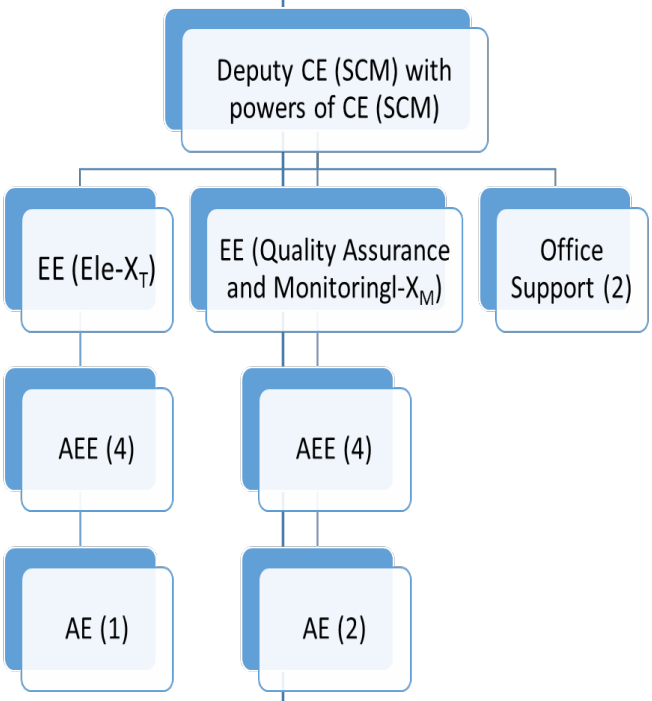


Figure 3.1.4: Proposed Structure of Office of AFO (SCM) now to report to Director (Finance)

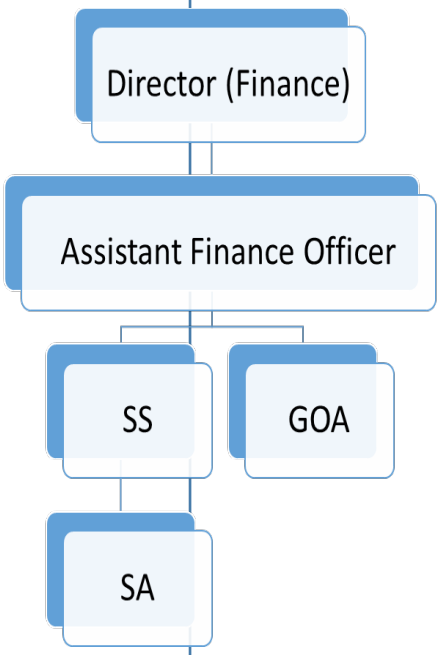


Figure 4.1.1: Present Structure of REES

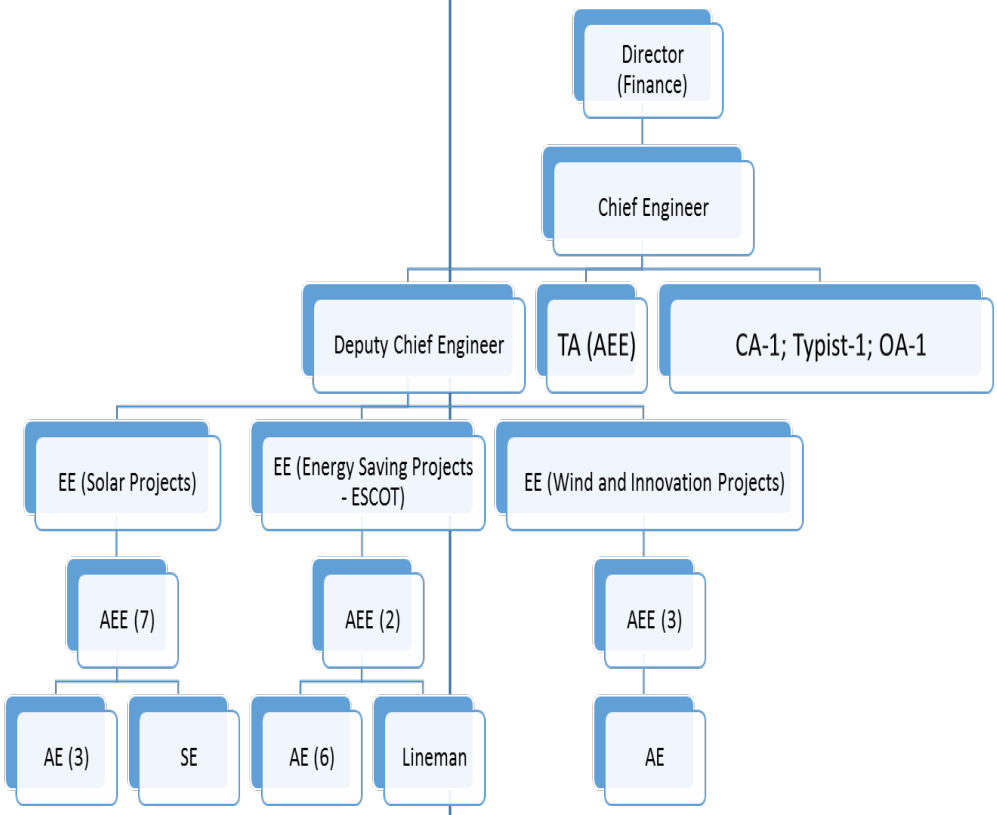


Figure 4.1.2: Proposed Structure of REES

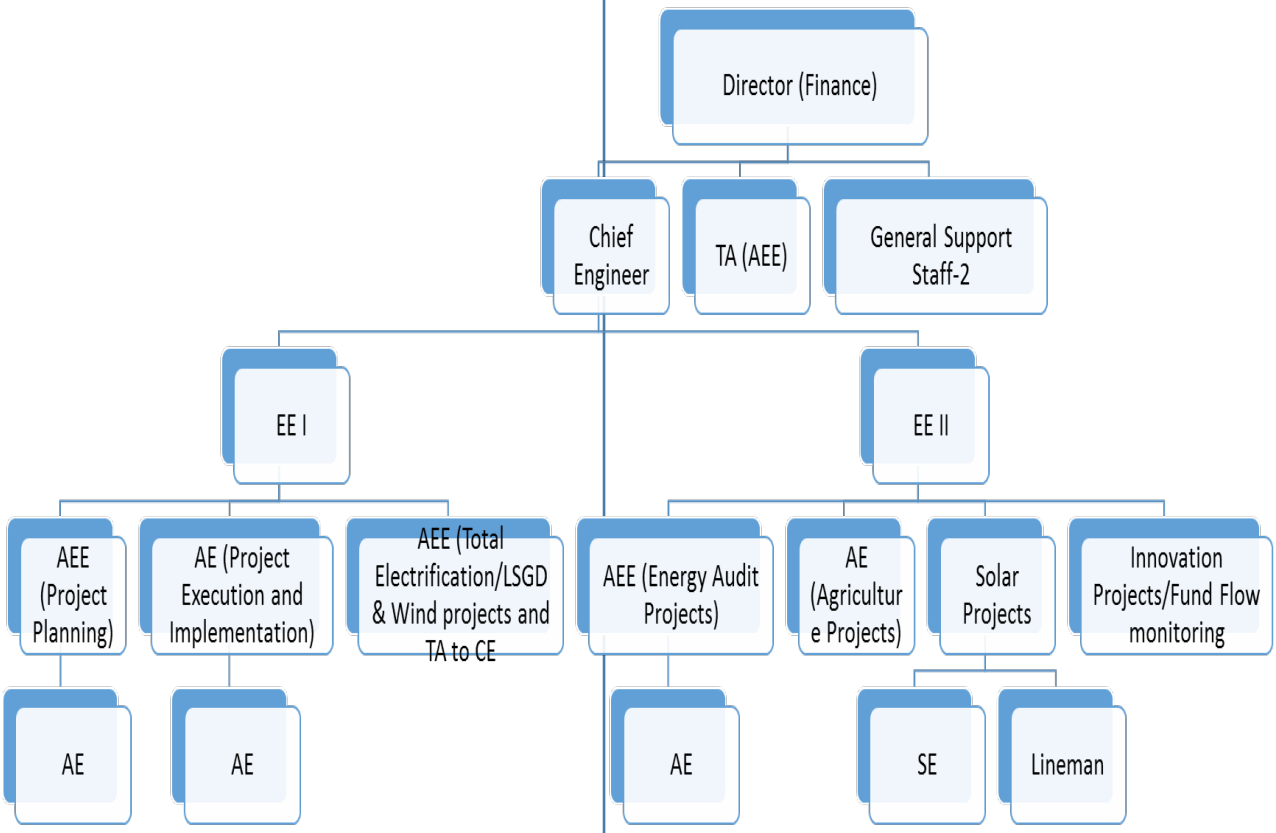
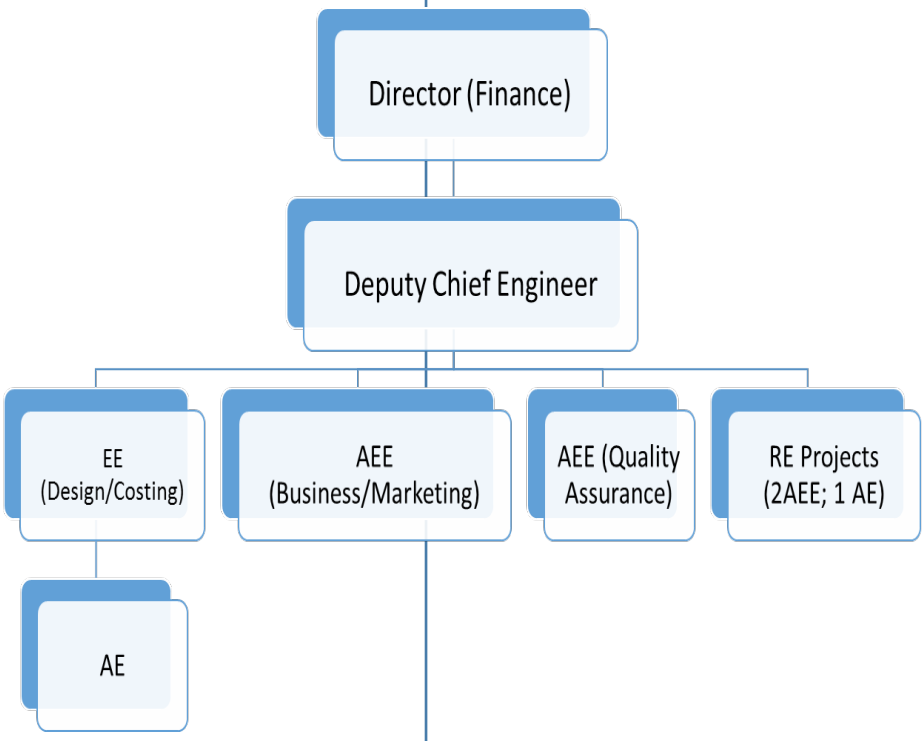


Figure 4.1.3: Proposed Structure of Consultancy Office



ANNEXURE I: OFFICE OF THE DEPUTY CHIEF ENGINEER (HRM-1)

Purpose of Office:

1) Appointments to all cadres upto and including Assistant Executive Engineer (Ele.) and (Civil) in the technical side and Assistant Accounts Officer/Assistanat Finance Officer in the ministerial side and to order transfer and posting of and below the rank of Assistant Executive Engineer/Assistant Accounts Officer/ Assistant Finance Officer.
2) To report vacancies to the Kerala Public Service Commission (except the category of Electricity Worker).
3) Appointment on Compassionate Grounds to the dependants of Board employees.
4) Appointment of paid and unpaid Apprentices.
5) Sanctioning of all kinds of leave exceeding 120 days, except study leave and leave without allowances under Appendix XII.A, B, C Part I, K.S.R.
6) Sanctioning of Special Disability leave of and below the category of Assistant Executive Engineer/Assistant Accounts Officer/Assistant Finance Officer.
7) Investigation Sanction of TA Bills in respect of staff pertaining to other ARUs and to sanction TA of office of the Chief Engineer (Transmission-South) and excess over limit of TA under Office of the Chief Engineer (Transmission-South) an d System Operation , Kalamassery.
8) Issuing of No Objection Certificate for study purpose, Passport, etc.
9) Deals with disciplinary cases of staff of and below the rank of Assistant Executive Engineer/Assistant Account s Officer/Assistant Finance Officer.
10) Preparing the Gradation List of all the categories of the officers/employees in the Kerala State Electricity Board Ltd.
11) Sanctioning of Medical Advance and Reimbursement of medical bills to all the employees of the Kerala State Electricity Board Ltd.

Duties and Responsibilities:

(a) Deputy Chief Engineer:-
The Deputy Chief Engineer (HRM) is the Head of the Section viz., Establishment Section I and II, EBVS Section, Gradation Section, GB Section, AB Section, Despatch Section, Fair Copy Section. He is the authority for all the work s processing in the above offices and reporting to the Chief Engineer (HRM). He supervises and control the Establishment Section dealt with the appointment, promotion, transfer and posting around 3 1 000 employees in various categories upto the cadre of Assistant Executive Engineer/Assistant Account s Officer working in Kerala State Electricity Board Ltd . all over the State. He also

supervises and control the appointments on compassion ate ground to the dependants of Board employees, including verifying the certificates issued by the Government authorities and conducting the interview or the candidates. He is the authority for appointing unpaid apprentices in Kerala State Llectricity Board Ltd. having B.Tech qualification all over the State.

(b) Accounts Officer :-

The Accounts Officer supervises the whole function of the Establishment Section I and II, EBVS Section, Gradation Section, GB Section, AB Section, Despatch Section, Fair Copy Section. He supervises the Establishment Section for the appointment, promotion and Transfer and posting of the various categories of the employees all over the State upto the cadre of Assistant Executive Engineer/Assistant Accounts Officer. He is also designated as the Public Information Officer and carrying out the duty of the Public information Officer. –

(c) **Establishment Section- I**

Senior Superintendent:-

Head of Establishment Section- 1 reporting to Administrative Officer- Supervision or works or the following Senior Assistants furnished below:-

Senior Assistants:-

1. EB.1:- Transfers, postings and promotions of Assistant Executive Engineers (Ele.), sanction of leave and establishment matters relating to Executive Engineers, Deputy Chief Engineers and Chief Engineers.
2. EB.l (a):- Appointment, transfers and postings of Assistant Engineers (Ele.), sanctioning of LWA and other establishment matters or Assistant Engineers.
3. EB.2:- Appointment, transfers and postings of Sub Engineer (Ele.) and Court cases.
4. EB.2 (a):- Transfers and postings of Drivers and other establishment matters of Sub Engineer s (Civil) (Ele.) and Drivers.
5. EB.4(c) :- Transfers and postings of Overseers (Civil), Office Attendants and PTC, establishment matters of CLR Workers, Full Time Sweepers, Electricians, Mechanical Staff and a allied works.
6. EB.7 :- General correspondence, collection of working strength, vacancy and relevant detail from the field officers and processing, reply to Audit paras, issuance of NOC for Part Ti me B.Tec h and Diploma Course.
7. EB.7 (a):- Right to Information Act, 2005, L.A Interpellation, Sutharya Keralam.
8. Estt.GI.I:- To attend all the Court cases relating to retire employees coming under the control of Senior Superintendent – 1

(d) **Establishment Section – II**

Senior Superintendent:-

Head of Establishment Section-II reporting to Administrative Officer-Supervision of works of the following Senior Assistants furnished below:-

Senior Assistants:-

1. EB.3 :- All establishment matters like appointment, transfers and postings of Junior Assistants/Cashiers and Meter Readers and allied works.
2. EB.3 (a):- Transfers and postings of Senior Superintendents, Divisional Accountants, Assistant Accounts Officers, Assistant Finance Officers and allied works.
3. EB.3 (b):-Transfers posting and other establishment matters of Senior Assistants and allied works.
4. EB.4 (a):-Transfers and postings of Lineman, all establishment matters and allied works.
5. EB4 (b):- Transfers and postings or Overseers (Ele.), all establishment matters and allied works.
6. EB.5:- Transfers, postings and promotions of Fair Copy Assistants, Fair Copy Superintendents, Confidential Assistants and allied works, posting of Apprentices (Paid and Unpaid), all investigation sanction of bills.
7. EB.6 (b):- Transfers and postings, appointments, promotions, Court cases of Assistant Engineer (Civil), Assistant Executive Engineer (Civil) and all related establishment matters. All establishment matters related to the Deputy Chief Engineer (Civil), Chief Engineer (Civil) working out of VB and Executive Engineer (Civil) who are working under the direct control of Chief Engineer (Civil).
8. EB.7(d) :-Appointments on compassionate grounds to dependants of Board employees who die-in-harness/retire on invalid grounds and connected matters. Preparation of statement of facts to the Writ Petitions connected with Compassionate Appointment , etc.
9. EBEW :- All establishment matters of Electricity Workers and preparation of gradation lists of Electricity Workers.

(e) Fair Copy Assistants :
Performing fair copy works of official correspondences related to this Section.

(f) Office Attendants.

1	1.Name of Office;- Gradation Section, 0/o the Chief Engineer (HRM)
2	
3	Staff Pattern

No	Designation	No. Of Person
1.	Senior Superintend	
2.	Senior Assistant	
3.	Fair copy Assistant	
4.	Office Attendant	

4. Specific Duties & Responsibilities of each category of employee in the above office.

1.Senior Superintendent -	Head of Section, reporting to Chief Engineer (HRM) Supervision of works associated with Preparation of Gradation updation, Incorporation of Additional Qualification and Jr- Sr.fixation
2. Senior Assistant	- 1,Sweepers, Office Attendant, Fair Copy Assistants (junior and Senior}, Fair Copy Superintendents, Confidential Assistants, Junior Assistant/cashier ,Senior Assistant , Senior Superintendent, Assistant Accounts Officer, Accounts Officer, Senior Accounts Officer, Divisional Accountant, Assistant Finance Officer, Finance Officer, Senior Finance Officer, Junior-Senior Fixation.
	-2 Electricity Worker, lineman II, lineman I, Overseer (Ele),Drivers.
	-3, Meter Reader, Sub Engineer (Electrical), Overseer (Civil) Sub Engineer (Civil),Assistant Engineer (Civil) Assistant Executive Engineer (civil),Executive Engineer (Civil), Dep Chief Engineer(Civil), Chief Engineer(Civil), Junior-Senior fixation
	-4, Assistant Engineer, Assistant Executive Engineer, Executive Engineer, Deputy Chief Engineer, Chief Engineer (All Electrical) Junior- Senior fixation.
	-5, Junior-Senior fixation of lineman
3. Fair Copy Assistant	-
4. Office Attendant	-

No	Designation	No. of persons
1	Senior Superintendent	1
2	Senior Assistant	9
3	Fair copy Assistant	1
4	Office Attendant	1

1

Name of Office

E.B Vigilance Section, O/o. the Chief Engineer (Human Resource Management) , K.S.E.Board Ltd., Vydyuthi Bhavanam, Pattom, Thiruvananthapuram

1. E.B vigilance section is working under the office of the chief engineer (Human resource management) deals with the processing of disciplinary proceedings against the employees of and below the rank of assistant executive engineers and assistant accounts officers/ finance officers
2. This section deals with various appeal petitions against the orders of lower authorities such as deputy chief engineers, executive engineers etc
3. Monitoring the disciplinary actions of the organizations and offering clarifications on disciplinary matters.
4. This section prepares statement of facts in court cases related to disciplinary cases.
5. Vigilance clearances in respect of the employees for various purposes like obtaining passports, promotions, retirement/pensionary benefits etc
6. This office accords sanctions for the employees to indulge in extra curricular activities, contesting in election in various co operative bodies, literary works etc
7. This section collects property statements of employees of and below the rank of assistant executive engineers and assistant accounts officers/ assistant finance officers
8. Providing information under Right to information act-2005 , related to disciplinary action

3

Staff Pattern

Duties and Responsibilities related to staff of E.B Vigilance Section

4	Specific duties & responsibilities of each category of employee in the above office. As mentioned above, the entire work is distributed among the Senior Assistants according to the table shown below

1.Senior Superintendent Supervising the entire work

2. Senior Assistants

		1	EBVS. 1	Electrical Circle – Kasargode, Irinjalikuda and Thodupuzha + R.T.I
		2	EBVS. 2	Electrical Circle- Thiruvananthapuram (urban), Ernakulam and Vydyuthi Bhavanam + R.T.I
		3	EBVS. 3	Electrical Circle – Kannore, Pathanamthitta, Perumbavoor and Sreekantapuram + R.T.I
		4	EBVS. 4	Electrical Circle- Alappuzha, Kottayam and Pala + R.T.I
	5	EBVS. 5	Electrical Circle- Vadakara, Kozhikode and Thrissur + N.O.C +R.T.I	
	6	EBVS. 6	All generation, Transmission, System Operation and L.D Circles + R.T.I	
	7	EBVS. 7	Electrical Circle- Palakkad, manjeri, tirur and shoranur+ RTI	
	8	EBVS. 8	Electrical Circle-kollam, kottarakkara, kalpetta + general works and attendance maintenance + R.T.I	

9	EBVS. 9	Electrical Circle- thiruvananthapuram (rural & civil circles + general stationary + sanction / permission + landed property statement and allied works + R.T.I	
		3. Fair copy assistant	Performing fair copy works of official correspondences related to this section
		4-. Office attendant	Taking photocopies of official document, delivering correspondences inside Vydyuthi Bhavanam premises and to despatch section.

1	Name of office : Despatch Section (0/o the C.E (HRM)			
2	Purpose of office (list the functions of the office/list the service provided to the public/employees)		<u>GENERAL DESPATCH SECTION</u> Despatching the Tapals of the various offices of vydyuthi Bhavanam 0/o the Secretary.	
	Staff pattern	No	Designation	No of persons
		1	Senior superintendent	1
		2	Senior assistant	5
		3	Junior assistant	1
		4	Office attendant	2
4	Specific duties and Responsibilities of each Category of employee in the above office.			
(1)	A. Shanavas Senior superintendent		Overall supervision of the section – receipt of all tapal with proper acknowledgement – maintenance of stamp account – temporary modification of work in case of absence of senior assistant or office attendant.	
(1)	K. Sudarshanan Senior assistant		Despatch of service books and document such as files registers, etc, in registered parcel.	
(2)	Ashadevi R.V		Despatch of all registered letters – including communication related to RIA.	
(3)	Lekha. V. Nair Senior assistant		Despatch of communication to all electrical chief engineers, electrical circle, electrical division, sub divisions and sections of the board via ordinary post. -	
4	V.C John Senior assistant (Active Sports Person)		Despatch of letters to individual persons	
(5)	K.Radhakrishnan Nair Senior assistant		Despatch of communication to all chief engineers Offices, Transmission, Generation and Civil Offices and Letters to Government and private Organizations (in the event of absence of V.C John has works will be attended by Sri K. Radhakrishnan Nair	
(1)	Janshad U Junior assistant (Active sports person)		Assisting the senior assistant's of attending duties of senior Assistant's in their absence.	

(1)	R. Binukumar Office Attendant	Enclosing letters in cover securely. Affixing postage stamps. Pasting journal and carrying the letter to post Office and getting the acknowledge wherever necessary
(2)	Shibu.J.S Office attendant	Enclosing letters in covers securely, affixing postage stamps, pasting journal and carrying the letters to post office and getting acknowledge wherever necessary.

<table>
<tr><td>1.</td><td>Name of Office</td><td>AB Section</td></tr>
<tr><td>2.</td><td>Purpose of Office</td><td>Releasing of Mortgaged documents, excess refund of Conveyance advance/House Construction Advance, Extension of Allocation of quarters, NRA sanction of offices which are not attached to any ARUs.</td></tr>
<tr><td>3.</td><td>Staff pattern</td><td><table><tr><td>Senior Superintendent</td><td>1</td></tr><tr><td>Senior Assistant</td><td>2</td></tr></table></td></tr>
<tr><td>4.</td><td>Specific Duties & Responsibilities of each category of employee in the above</td><td></td></tr>
<tr><td></td><td>1. Senior Superintendent</td><td>Supervision of the following works done by SA 1& SA 2</td></tr>
<tr><td></td><td>2. Senior Assistant - 1</td><td>Safe custody of unprocessed application which are to be returned to the applicant based on request. Cancellation process of conveyance advance sanctioned earlier by not pre-audited or encashed. Extension of allocation of quarters beyond the limit of field officers based on rules and merits, settling disputes in quarters eviction and allocation. Disposal of court cases
filed against eviction of quarters and penal rent and other charges levied, providing opportunity for personal hearing If advised by the court. Release of Mortgage deed of House Construction Advance sanction by CE(Civil)</td></tr>
<tr><td></td><td>3. Senior Assistant - 2</td><td>Release of Mortgage deed of House Construction Advance sanctioned by CE (HRM). Refund of excess amount remitted towards Conveyance advance. Processing application for additional House loan from recognized financial institutions as second mortgage. Processing of Reconveyance deed of House Construction Advance. Processing of PF NRA applications</td></tr>
</table>

1	Name of Section	:	Fair Copy 0/o the Chief Engineer (HRM).
2	Purpose of Office	:	For attending Typing Works
3	**Staff Pattern**		
	1. Fair Copy Superintendent	:	1 No.
	2. Sr. Fair Copy Assistants	:	5 Nos.
	3. Jr. Fair Copy Assistants	:	5 Nos.
	4. Duplicator Operator	:	1 No
4.	**Duties and responsibilities**		
	1. Fair Copy Superintendent		Supervision of all Typing works and Digital Copier printing works.
	2. Fair copy Assistants		All Typing works in the following Sections noted below:
	3. Duplicator Operator		All Digital Copier Printing works in the following Sections noted below:
	1. Typing Works		1. Establishment Section. 2.Cash Section 3.AB Section 4.GB Section 5. EB Vigilance 6. Pension Sanction 7. Pension Authorisation 8. Bill Section 9. RIA Works (Senior A.O) 10. HRD Cell
	Duplicating works (Purchase Order, Tender Form, Transfer & Postings order , Circulars, Proceedings, All Other forms)		1.Financial Adviser 2. Special Officer Revenue 3. Establishment 4. Cash Section 5. GB 6. Bill 7. Gradation 8. Pension Authorisation 9. Pension Sanction 10.Records Section 11.S.C.M 12.Civil 13.G.A.D 14.E.A.D 15.Provident Fund 16.EB Vigilance

ANNEXURE II: OFFICE OF THE DEPUTY CHIEF ENGINEER (HRM-II)

Duties and functions

The following sections are functioning under the direct control and supervision of the Deputy Chief Engineer (HRM-II) (Organisation chart is attached here with).The deputy Chief Engineer (HRM-II) is the authority to deduct all statutory taxes and issue TDS certificates and the disbursing authority of all payments in the ARU.

1. Estt. Bill Section
2. Pension Sanction.
3. Pension Authorisation Section
4. Pension Payment Section.
5. Accounts Branch Compilation section.
6. Accounts Branch (Audit) Section.
7. Cash Disbursement Section.
8. Record Room

Accounts Branch Compilation, Accounts Branch (Audit) &Cash Sections

Exclusively for the purpose of all establishment claims, disbursement of cash, income tax remittance and filing of returns, audit of all work bills and compilation of expenditure accounts of the ARU.

Establishment Bill Section

Preparation of pay bills of about 1200 employees and Officers in Vydyuthi Bhavanam, maintenance of their service books and all other establishment related matters.

Pension Sanction Section

Sanctioning of end benefits of retired of employees (all officers and staff of K.S.E. Board) are being attended in the pension sanction section. An average of 250 Nos of pension claims are being attended every month .28 Assistants are working in this Section. The works attended by the assistants include registering of pension cases, verification of service book, processing of pension papers and correspondence with field office in this regard.

Pension Authorization Section

Authorise the pension sanctioned by the Deputy Chief Engineer HRM II and the Board after due verification. Preparation of Pension Pay Order and assign PPO numbers of all pensioners of the Kerala State Electricity Board.

Pension Payment Section

Disbursement of claims of about 3000 pensioners, drawing pension from this ARU.

Record Room

More than 30,000 valuable records such as service books of retired employees and other records of similar nature are kept in this section.

Name of section: Bill Section

Purpose of office

The Bill Section is exclusively dealing with all service matters of employees namely processing of salary and all other establishment claims, leave sanction, Monthly updation of Budgetary control, monitoring of attendance, sanctioning of increment, grade promotion, pay fixation, pay revision work, preparation and issuance of Form No. 16 to all employees drawing salary from Vaidyuthi Bhavanam. Moreover the Bill section also entrusted with the works such as incumbency updation, service matters of deputation staff, stipend of paid apprentices and all other general matters. lnformations requested from the office of the CE (HRM), office of the Secretary, KSE Board and other Govt: Departments are also furnished from the Bill Section.

In addition to the above purchase and distribution of stationary articles to all the sections under the control of the CE(HRM) are carried out by the section. The preparation of the reply to AGs audit is another function of the b ill section. The preparation and sanctioning of TA bill of all the employees of Vaidyuthi Bhavanam and the deputation staff are also dealt with the Bill section.

Staff Pattern

No	Designation	No. of persons
1	Dy. Chief Engineer (HRM) II	1
2	Senior Accounts Officer	1
1	Accounts Officer	1
2	Senior superintendent	4
3	Senior Assistant	19
4	Office Assistant	2

Duties and responsibilities of each category of employees

DY chief engineer HRM (II) –Dy. chief engineer (HRM) II is the authority of the ARU and the head of the sections namely bill section, pension sanction pension authorisation, cash section. As the authority of the bill section, the Dy. chief engineer (HRM) II give sanction an approval to all establishment claims of around 1200 employees working in Vaidyuthi bhavanam.TA bills of all employees and medical reimbursement claim up to Rs. 20000/- is sanctioned and passed for payment by the Dy chief engineer.PF claims except NRA upto the level of EE and AO is also passed by the Deputy Chief engineer (HRM) II. He is the responsible authority for TDS and issue of Form No. 16 to all employees working in the Vaidyuthi Bhavanam.

Senior Accounts Officer - Supervisors and control the establishment works including checking of monthly salary bills about the level of EE/FO/AO as delegated by the board. As the custodian of the attendance register the SAO monitor the attendance of the Bills section and Records section. The SAO holds the full charge of the Record section of the Vaidyuthi bhavanam. The SAO is also working as the appeal Authority of the Right to Information Act in the office of the Chief Engineer (HRM). It is the responsibility of the SAO to supervise the preparation of reply to the AGs Audit Report in time and monitor the retirement of employees in the Vaidyuthi Bhavanam. The SAO is also authorised to take temporary imprest for any special purposes and has availed Rs.7000/- most of the months for meeting the expenditure in connection with the refilling of cartridges and stationery purchase.

Accounts Officer; - Supervises the whole functions of the Bill section and settled the cases authorised to him as AO. The AO gives sanction to all kinds of leave to workmen in the corporate office except study leave, special disability leave and LWA beyond three months. To give sanction to increment up to the level of AEE/AAO/AFO, grade promotion upto senior assistants, issue of NLC to all workmen category in the corporate office. The AO check the pay fixation statements consequent on promotion, ratio promotion, grade promotion, junior senior fixation of officers and staff and also check all kinds of arrear bills. The AO verifies the TA claims and transfer TA claims, salary bills of all officers upto the level of AEE/AAO/AFO, staff and deputationist. All the pnsion papers originated in the bill section is verified by the AO. The GPF and the EWF applications of the new entrants are verified by the AO before sending it to the concerned authority. The AO supervises the implementation of various BOs relating to HRM activities. Check the calculation of LS and PC, verify the veracity of the certificates to be issued to the employees especially the service connection certificate, verify the eligibility of salary certificates to be issued to the employees, supervising of incumbency updation, check the medical reimbursement claims of employees of the Vaidyuthi Bhavanam, supervising the monthly updation of budgetary control etc are also doing by the AO Bill section.

The AO, Bill section is also designated as the Public Information Officer and carrying out the duty of the Public Information Officer. The AO supervises the preparation of annual administration report, mark the inward and supervises the distribution of the same and to check the claim of the uniform allowance, spectacle allowance submitted by the eligible employees.

Senior Superintendents; Supervises the whole works of the senior assistants and issue necessary directions to them in carrying out their duties. Check the pay bill registers and supervise the preparation of salary bills of officers and staff working in the ARUof the CE(HRM). Verifies the eligibility and availability of the leave applications submitted by the employees both manually and in the HRIS. Verify the pay fixation statements prepared by the senior assistants in connection with the promotion, grade promotion, ratio promotion and junior senior fixation of employees of the Vaidyuthi Bhavanam and the TA claims and transfer TA claims submitted by the employees and the deputionists. Supervises the issuance of NLC and consolidated NLC issued from the Bill Section in connection with transfer and

retirement. Verifies the applications for admission for GPF, temporary advances, NRA and GPF closure submitted by the employees.

The Senior Superintendents are intervened timely for sending preliminary pension papers of concerned employees and clear the objections noted from the related sections and sending the final pension papers after retirement of the employees. Verifies the application for admission to EWF, and the closure application for EWF submitted by the retirees Check the Income Tax statements submitted by the employees and the form No,16 prepared by the senior assistants and all other works related w1th Income Tax . Verifies the timely sanctioning of annual increments to employees and supervises all kinds of certificates issued from the bill section such as salary certificate, employment certificates and certificate for OTP connection. Verify the leave salary and the pension contributions prepared by the senior assistants for the deputionists, supervise the incumbency updation of employees and monitor the preparation of budgetary control by the senior assistants. Moreover the information related with the RIA applications and the all other information requested by the Board or the governmental agencies and departments are collected and consolidated by the senior superintendents with the assistance of senior assistants. Inwards and tapals are distributed among the senior assistants, the maintenance of movement register, supervise the purchase and distribution of stationary materials in the office of the CE (HRM), verification of uniform allowance bills of sweepers, drivers etc, preparation and supervision of annual administration reports, supervision of the reply of the LA questions prepared by the senior assistants etc are the duties of the senior superintendents in the Bill Section.

Senior Assistants; All the works entrusted to the Bill Section are carried out by the senior assistants. Salary bills and all other bills related with establishment claims are originated from the senior assistants. All the files related with promotion, grade promotion, junior senior fixation, ratio promotion, TA claims, transfer TA claims, medical reimbursement claims, pension, invalid pension family pension, NLC, LPC, disciplinary cases, incumbency updation ,

verification of income tax statement and preparation of form. No. 16, monthly updation of budgetary control, leave sanction, LWA, Issuance of all kinds of certificates, preparation of leave salary and pension contribution of the employer on deputation, annual increments, purchase and distribution of stationary materials, processing of EWF and GPF applications, preliminary and final pension papers, preparation of annual administration reports etc are originated by the senior assistants in the bill section. Reply of AGs audit,

reply to LA questions and the Annual Administration Report etc. are also prepared by the senior assistants in the Bill Section. In addition to this a lot of miscellaneous works is also entrusted to the senior assistants in the Bill Section.

CASH/ABC/AB/CASH SECTIONS	
1	Name of office
2	Purpose of office (list the functions o
3	Staff pattern

Specific Duties and Responsibilities of each category of employee in the above office	
1	Assistant Fi
2	Senior Supe
3	Senior Assi
4	Office Assis

DUTIES AND RESPONSIBILITIES OF SENIOR ASSISTANTS IN AB/ABC/ CASH SECTIONS

I. ACCOUNTS BRANCH COMPILATION

ABC 1

- Consolidation of income tax schedules
- Preparation of form 24Q of IT
- Filing of TDS quarterly and annual returns
- Preparation and issuance of Form 16
- Realisation of CUG liability
- Renewal of TIN registration
- Issuance of work order
- Issuance of purchase order
- IUTN- Incoming- Journal entry
- IUTN- Outgoing- Journal entry
- Pass order of NR and Temp. advance from GPF
- All the correspondences related to the above

ABC 2

- Import online salary bills and adj. Bills to Salary Day Book
- Preparation of OEC Day Book
- Issuance of NLC from Cash Section
- Maintenance of Medical Advance Register
- Periodical evaluation for the adjustment of medical advance
- Maintenance of Liability Register
- Periodical evaluation for the realisation of Liabilities
- Consolidation of GPF schedules
- All the correspondences related to the above

ABC 3

- Audit of TA bills
- Preparation of TEDB
- Realisation of Advance TA
- Recovery Remittance
- Remittance of Leave Salary & Pension Contribution
- Preparation of Form 26Q of IT
- Preparation and Issuance of TDS Certificate (contractors)
- e- filing of VAT return in Form 10
- e-filing of WCT return in the Form 10 C
- Online remittance of both VAT & WCT
- Refund of excess recovery
- Remittance of course fee for training
- Realisation of training expenditure incurred by other training centres from HRD cell
- Realisation of interest bearing and interest free advances given to contractors
- All the correspondences related to the above.

ABC4

- Preparation of Bank Reconciliation statement for collection account
- Preparation of Fund Transfer Note
- Preparation of bank reconciliation statement of Drawing Accounts
- Operation of statement for Uncashed Cheques
- Preparation of statement for stale cheques
- Keeping all the files related to cost of police Gaurd
- Verification of MASA - current financial year.
- All the correspondences related to the above.

AB C6

- Keeping cash book and all expenditure bills
- Compilation of monthly expenditure accounts and annual accounts
- Preparation of budget estimate
- Adjustment of contractors material control account
- Realisation of 50% of stipend from apprenticeship adviser
- All the works and the correspondences related to the above

II. ACCOUNTS BRANCH (AUDIT)

AB A5

- Audit of permanent Imprest Cash Account
- Preparation of PIDB
- Audit of bills related to Administrative and General Expenditure
- Audit reply
- Preparation of AGDB
- Attend all works related to forward the bills to WAD section
- Prepared statements showing the details of various taxes deducted from contract bills.
- Collect liability certificate from contractors for WCT
- Collect PAN details from contractors
- Audit reply
- Preparation of AGDB
- Attend all other words in connection with work bills and purchase bills in the ARU
- Prepared statements showing the details of various taxes deducted from contract bills.
- Collect liability certificate from contractors for WCT
- Collect PAN details from contractors
- All the correspondences related to the above.

AB A7

- Audit of Temporary Imprest Cash Account
- Preparation of TIDB
- Audit of Bills related to capital works
- Audit reply
- Preparation of CWIPDB
- Audit of bills related to repairs & maintenance works
- Audit reply

- Preparation of RMDB
- Attend all works related to forward the bills to WAD section.
- Prepare statement showing the details of various taxes deducted from contract
- Collect liability certificate from contractors for WCT
- Collect PAN details from contractors
- Attend all other allied works in connection with work bills and purchase bills in the ARU

III .ACCOUNTS BRANCH (CASH SECTION)

ABC 8

- Preparation of Payment Vouchers
- Preparation of Credit Application
- Preparation of Bank Statement
- Maintaining Cash Book and drawal of Cheques
- All the correspondences related to the above.

ABC 9

- Cash collection and remittance
- Maintenance of CRR
- Refund of SD and EMD
- Keeping and updating register for undisbursed cash
- All other works related to cash collection and remittance
- All the correspondences related to the above.

IV . ACCOUNTS BRANCH (GENERAL)

ABC 10

- All other works not specifically mentioned above (general works)
- Keeping Inward Register, updating and monitoring the movement of Inward
- All the general correspondences.

<table>
<tr><td>1</td><td>Name of Office</td><td colspan="3">Pension Sanction</td></tr>
<tr><td>2</td><td>Purpose of Office</td><td colspan="3">Sanctioning of Pensionary claims to employees of the KSE Board duly verification of documents.
Revising Pension and Gratuity. Receiving and taking action on the complaints from pensioners.</td></tr>
<tr><td>3</td><td>Staff Pattern</td><td colspan="3"><table><tr><td>No</td><td>Designation</td><td>No. of Persons</td></tr><tr><td>1</td><td>Accounts Officer</td><td>1</td></tr><tr><td>2</td><td>Assistant Accounts Officer</td><td>1</td></tr><tr><td>3</td><td>Senior Superintendent</td><td>9</td></tr><tr><td>4</td><td>Senior Assistant</td><td>19</td></tr><tr><td>5</td><td>Junior Assistant (Sports)</td><td>2</td></tr><tr><td>6</td><td>Office Assistant</td><td>2</td></tr></table></td></tr>
<tr><td>4</td><td colspan="3">Specific Duties and Responsibilities of each category of employees in the above office.</td></tr>
<tr><td></td><td>1.Accounts Officer & Public Information Officer</td><td colspan="3">Head of the Office, Forwarding of files to the higher authorities with recommendation for sanctioning of pensionary benefits after counter checking all the documents and calculation. Submission of reports relating to pensionary claims to the higher authorities. Approval of revised pensionary benefits. Giving information as per RIA.</td></tr>
<tr><td></td><td>2.Assistant Accounts Officer</td><td colspan="3">Supervision and audit of the works of the Section.Also assist the work of Accounts Officer.</td></tr>
<tr><td></td><td>3.Senior Superintendent</td><td colspan="3">Supervision and verification of work done by Senior Assistants.</td></tr>
<tr><td></td><td>4.Senior Assistant</td><td colspan="3">Originating Pension files. Checking of all necessary documents in pension application, prepare notes and statement of calculation for pension. Revision works of pension, gratuity and allied works like furnishing statement of facts in connection with Court cases and collect and prepare information as per RIA.</td></tr>
<tr><td></td><td>5.Junior Assistant</td><td colspan="3">- do -</td></tr>
<tr><td></td><td>6. Office Assistant</td><td colspan="3">Transmission of files , and all other allied works</td></tr>
</table>

Pension Authorisation Section

Purpose of Office:

1. Authorisation of Pension, DCRG, Commutation and other pensionary benefits.
2. Preparation and issuance of pension payment orders and authorization orders to corresponding Account Rendering Units.
3. Disbursement of all pensionery benefits and monthly pension to those pensioners who opt their pension from 0/o the Chief Engineer (HRM).
4. Calculation of income tax of pensioners who belong to this ARU, ensuring submission of life Certificate in respect of pensioners and non remarriage certificates of Family Pensioners and issuance of certificate for service connection to the pensioners, issue of Income Certificate etc.

5. Dealing of petitions under RIA.
6. Preparation of statement of facts for various Court Cases pertaining to the pension and pension related matters etc.
7. Prepare the calculation of pension contribution of Staff and Officers working in other departments on deputation.
8. Custodian of service books of all pensioners.
9. There is a cash section dealing with originating Transaction, payments voucher and maintaining pension Day book for Accounts .
10. Verification of statements of WF of all ARUS received from (Pensioners Association) and maintaining register to issue cheque.
11. Reckoning of other eligible services, collection of pro-rata pension and all correspondence with other service.

Staff Pattern

No	Designation	No of Persons Working
1	Accounts Officer	1
2	Senior Superintendent	4
3	Senior Assistant	18
4	Office Attendant	1
	Total	24

Specific duties and responsibilities of each category of employee

(A). **Accounts Officer-** Head of Office

Authorisation of pension, DCRG and Commutation granted by the Sanctioning authority & Issuing various certificates like service certificate, Income certificate, certificate for Electric connection to the pensioners. Distribution of all pensionery benefits and monthly pension to those who opt to draw the same from the 0/o the Chief Engineer (HRM). Verification and approval of life certificate and non-remarriage certificate of family pensioners. Deduction of Income tax of pensioners of this ARU and remittance of the same at Income Tax Department and filing of returns.

(B). Senior Superintendent:

I. Senior Superintendent I

1. To verify all the works originated by the Senior Assistants given below as SA I, SA II, SA III, SA IV, SA VIII and SA XVII.

II . Senior Superintendent II

2.To verify and monitoring all the works originated by the Senior Assistants given below as SA VII, SA X, SA XI and SA XV

III. Senior Superintendent III

To verify and monitoring all the works originated by the Senior Assistants given below as SA IX, SA XII, SA XIII and SA XVIII.

IV. Senior Superintendent IV

To verify and monitoring all the works originated by the Senior Assistants given below as SA XIV, SA XVI, SA V and SA VI.

(C). Senior Assistants

I. Senior Assistants- IC PO - I)

Distribution of all pensionary benefits and monthly pension to those who opt to draw the same from the 0/o the Chief Engineer (HRM). This Section also deals with the calculation of Income Tax liability/ Monitoring of the restoration of the commutted portion of pension1 ensuring the submission of life certificate wherever required1 periodic revision of rate of Dearness Relief1 issuance of form 16 and income certificates etc. Keeping of Pension disbursement register.

2 Senior Assistants- II (P0-2)

As above as SA I

3. Senior Assistants-III(PO - 3)

As above as SA I

4. Senior Assistants- IV CPO- 4)

Distribution of all pensionary benefits and monthly pension to those family pensioners who opt to draw the same from the 0/o the Chief Engineer (HRM). This Section also deals with the calculation of Income Tax liability, issuance of form 16 and income certificate/ verification of life certificate and non- remarriage certificate etc. and preparation for the payment of monthly pension through money order. Verification and maintaining of register for statement of WF received from pensioners Association for issuance of cheque. Disbursement of pension remittance of Income Tax, disbursement pensioner's WF, E-filing of IT & maintenance of monthly accounts.

5. Senior Assistants- V (PA General - 1)

This section deals with the reckoning of prior service put in by Board Employees/ pro-rata pension contribution and others general matters and cases in connection with reckoning. Preparation of statement facts for various Court cases relating to the pension is also dealt with.

6. Senior Assistants VI (PA General - 2)

This Section deals with the petitions belongs to RIA, calculation of pension contribution of Staff and Officers working in other departments on deputation and other general matters.

In addition to the above this section deals with the works enumerated as in SA VII as given below.

7. Senior Assistants VII (PA - I)

This section deals with the authorization of new pension, revised pension, DCRG, nomination change and commutation. This section also deals with the recording of all the above authorization in corresponding Service Book and PA file, keeping up of service books of pensioners belongs to this section, preparation and transmission of pension payment orders and authorization orders to concerned ARUS and pensioners, preparation of certificate of service, electric connection, maintaining PPO & DCRG register, correspondence regarding shifting of place of payment, change of nominee, forwarding service book as per request of concerned ARU'S, reauthorisation of pension and other benefits in the wake of periodic pay revision, grade promotion, junior- senior fixations, of all those who have such revisions following the same procedure as in the case of original one.

8. Senior Assistants VIII (PA - 2)

Same as above PA (I)

9. Senior Assistants IX (PA - 3)

Same as above PA (I)

10. Senior Assistants X (PA - 4)

Same as above PA (I)

11. Senior Assistants XI (PA - 5)

Same as above PA (I)

12. Senior Assistants XII (PA - 6)

Same as above PA (I)

13. Senior Assistants XIII (PA - 7)

Same as above PA (I)

14. Senior Assistants XIV (PA - 8)

Same as above PA (I)

15. Senior Assistants XV (PA - 9)

Same as above PA (I)

16. Senior Assistants XVICPA - 10)

Same as above PA (I)

17. Senior Assistants XVII CPA 11 to 15)

Same as above PA (I)

18. Senior Assistants XVIII (Inward)

Receiving all letters, documents and other papers and entering it in to the computer. All the above papers are recorded in various registers manually and distribute them among the concerned Senior Assistants. Attend phone call from various officers and pensioners.

(D) Office Attendant

To deliver all the letters to the dispatch section and various offices in the Vydyuthi Bhavanam.

1	Name of Office	RECORD SECTION	
2	Purpose of Office	1.Keeping of important files and records of KSEB	
		2. Maintaining Pension Payment Orders with Service Books & Pension Sanction Files of retired employees of KSEB (all over Kerala) over 30,000.	
		3.Maintaining copies of Board Orders and circulars	
3	Staff Pattern	1.Senior Superintendent	1
		2.Senior Assistants	3
		3.Overseer	1
		4.Junior Assistant	1
		5.Office Assistant	nil
4	Specific Duties and Responsibilities of each category of employees in the above office		
	1.Senior Superintendent	General Supervision of works in Record Room.	
	2. Senior Assistants & Junior Assistant	1.Digitalistaion of Records	
		2.Maintanance and upkeeping of Records	
		3.Issue of Service Books and pension Sanction files as per the requirement from various Offices of KSEB.	
		4.Maintanance and upkeeping of Issue Registers	
		5.Furnishing Reply and issue of documents for questions under Right to Information Act	
	3.Overseer	1.Assisting in Digitalisation works of Record Room.	
		2.Supervision of Re-arrangement of Racks and Records in Record Room.	
		3.Maintanance and upkeeping of Book Return Register in Record Room.	

ANNEXURE III: OFFICE OF THE CHIEF PERSONNEL OFFICER

	Name of Office	Personnel Department
2	Purpose of Office	**(a)<u>Industrial Relations</u>** 1. The department functions as an effective machinery in evolving decision related to Personnel Management, Industrial Relations and Labour Welfare. 2. Functions related to collective bargaining, arbitration and adjudication 3. Revision of pay and allied benefits including DA, TA, HRA and conveyance allowance of the employees of the Board and revision of pensionary benefits of pensioners of the Board. 4. The department is conducting review of representation of SC/ST employees in the Board in every quarter. 5. The issues relating to the engagement and regularization of petty contractors and security personnel and the guidelines regarding their engagements. 6. The issues relating to the implementation of Gratuity Act, 1972 as well as the matters relating to the recognition of Trade Unions and Officers Associations and the conduct of Referendum. 7. Issues regarding former (CLR/TLR/HR/Workers). 8. Constitution of Canteen Advisory Committee. 9. Conducting of ID/CP/OP cases on Labour matters in Industrial Tribunals, Labour Court and Hon'ble High Court. 10. Issues relating to former Kottayam/

		Mattanchery Licensee. 11. Matter of integration of Mechanical Categories. 12. Constitution of Complaints Committee regarding sexual harassment. 13. Matters relating to Contribution of Board to Relief Funds in case of Natural Calamities. 14. Referendum and Recognition of Unions/Associations. 15. Matters relating to Protection from Transfer in respect of representatives of Trade Unions and Officers Associations. 16. Arranging meetings with Trade Unions and Officer's Associations. 17. Matters relating to Strike by Employees. 18. Adoption of Government Orders on service matters. 19. Issuing of Standing Orders of Workmen. 20. Issuing of orders relating to Duties and Functions of Employees. 21. Issuing of orders relating to Qualification and Method of Appointment. 22. Regularisation of provisional employees. 23. Issuing of orders relating to Bonus/Festival Allowance. 24. Matters relating to Employees' State Insurance. 25. Issuing of orders relating to Classification of places for HRA. 26. Issuing of Rules regarding appointment of PTC Employees. **(b) Accident Compensations** 1. 1. Processing and sanctioning of workmen's compensation claims due to fatal and nonfatal accidents to Board employees and petty contractors and their workmen and reimbursement of medical claims to the accident victims of the Board. 2. The payment of Exgratia as per Vydyuthi

Suraksha Scheme for the public and domestic cattle electrocuted from Board's installations.

c) **Employees Welfare Fund**

1. KSE Board Employees' welfare Fund provides various benefits to the employees of KSE Board viz death benefit, retirement benefit, disablement benefit, resignation benefit, dismissal benefit in accordance with the regulations of EWF subject to the decision of the Governing Body.
2. The fund also grants Educational Cash Award to the children of the members who achieve 90% or above marks or equivalent grade in the class X and class XII examination of Kerala/ICSE / CBSE syllabus.

No	Designation	No. Of Persons
1	~~Chief personnel Officer~~	1
2	Confidential Assistant	1
3	Regional Personnel Officer	3
4	Senior Superintendent	3
5	Senior Assistant	12
6	Fair Copy Assistant	1
7	Office Attendant	1
8	CLR	1

4 in the office

of Personnel

l Officers and

partment.

(1) ~~Chief Personnel Officer~~ irman, Board,

Members of the Board and heads of various departments of the Board in dealing with all matters connected with personnel administration, industrial relation and labour welfare.

3. Having liaison with government labour department authorities regarding matters under conciliation conferences, representing

	Board. 4. To administer EW Fund as per its regulation. 5. Initiating disciplinary proceedings against officers and staff attached to Personnel Department. 6. Sanction all kinds of leaves except study leave, special disability leave, hospital leave and leave without allowance to all officers attached with Personnel Department. 7. To sanction payment effected towards various expenditures incurred in association of the functioning of Personnel Department. 8. To reserve imprest amount to meet urgent necessities as per the amount fixed in the delegation of powers. 9. To sanction and arrange repairs of furniture, office equipments and other essentials. 10. To incur expenditure on refreshments from office contingencies in connection with meetings, discussion, conferences, conciliation proceedings etc. 11. Sanctioning of eligible compensation for death/ disability /non-fatal accidents to board employees, petty contract workmen, general public and domestic cattle based on the provision of Workmen's Compensation Act 1923 and as per the Vydyuthi Sureksha Insurance Scheme. 12. Functioning as a member of governing body of EW Fund and to undertake all activities necessary as per the regulation of EW Fund. Any other duties and function as and when assigned by the Board.
(2) Confidential Assistant	1. 1. Handling confidential and other

	related files entrusted by Chief Personnel Officer. 2. Taking dictations for notes letters etc and related typing works. 3. Receiving of all Tapals and Inwards, recording the same in corresponding registers and distribution of same to concerned sections/Offices as marked by Chief Personnel Officer. 4. Preparation of Minutes of the meetings convened by Chief Personnel Officer and circulating the copies of Minutes to concerned offices. 5. Preparation of monthly Performance Reports. 6. Attending all telephone calls and conveying necessary information. 7. Custody and maintenance of documents and files as per directions of Chief Personnel Officer.
(3) Regional Personnel Officer	1. Control of the functioning of Senior Superintendents associated with welfare fund, Accident Compensation claims and industrial relations. 2. Rendering assistance to Chief Personnel Officer, Personnel Officer and heads of various departments under the Board in dealing with all matters connected with personnel administration, industrial relations and labour welfare. 3. Appearing before labour department, government secretariat, tribunals and courts in connection with matters regarding conciliation and adjudication. 4. Conducting visit and making discussions/meetings with head of the

	departments of various offices/Banks/Insurance Company/secretariat to obtain necessary government orders/ circulars/ instructions/ guidelines for ensuring the effective functioning of KSE Board. 5. Verifying and checking the eligibility and computation of the claim amount sanctioned as retirement/ death/ invalid/ resignation benefit and educational cash award from EWF. 6. Counterchecking the application for admission to EWF/change of nomination/issue of membership cards etc. with respect to EWF. 7. Maintaining liaison with nationalized banks for inviting competitive quotations for investing the amount of welfare fund as fixed deposits for prescribed period after inviting competitive quotations. Making necessary arrangements for the opening of the quotation at office and assisting in the selection of the highest bid for the deposit. 8. Performing all activities associated with functioning of a public information officer providing information to all concerned and performing all other necessary functions entrusted as per the provision of the Right to Information Act 2005. 9. Examining the eligibility of compensation payable for Death/

	disablement/Non-fatal accident for the board employees, petty contract workmen, general public and domestic cattle based on the eligibility criteria stipulated as per the documents/ details produced, Vydyuthi Sureksha Insurance Scheme and as per the provision of the Workmen's Compensation Act, 1923. 10. Examining the eligibility and the computation of appropriate amount payable towards reimbursement of medical expenses to the accident victims. 11. Undertaking the activities associated with the addition, modification and editing of the information/ details to be provided to various officials/government as per Sutharya Keralam, LA interpellation, Annual administration report and Right to Information Act 2005. 12. Making necessary arrangements for the conduct of various meetings/ conferences with trade unions/ Officers Organisation, Government officials Banks, Insurance Companies and Head of Departments wherever necessary. 13. Evaluation and verification of various, registers/ records/reports regarding the various activities undertaken in the Personnel Department. 14. Evaluating the statement of facts to be produced before various courts in association with ID/CP/OP/WCC and making necessary additions, modifications and updation wherever

	necessary before forwarding to the standing counsel. 15. Overall supervision of the insurance policies, auditing of accounts, issue of identity cards, bank transactions and establishment function of Personnel Department. 16. Monitoring works in association with Pay revision/Pension Revision, Revision of various allowances and benefits, compassionate appointments, Issues of CLR, TLR/HR workers, Licensees etc. 17. Monitoring the precaution to be exercised during strike, preparation of standing orders, activities associated with conducting of referendum protection from transfer and adoption of Government orders. 18. Active participation as a member in canteen advisory committee, representation of SC/ST committees and assisting in the functioning of complaints committee. 19. Undertaking activities associated with declaration of holidays, determination of duties and function of employees including the assessment of qualification and method of employment. 20. Activities associated with processing and settlement of employee grievances. 21. All activities associated with the convening of Governing Body Meetings of Employees Welfare fund. Any other works in addition to the above assigned from time to time.

(4)Senior Superintendent	**Senior Superintendent- I** 1. Supervision of the establishment matters of Personnel Departrnent. 2. Maintenance of Attendance Register & Office discipline. 3. Handling of cases regarding labour matters of workmen compensation and superv1s1on in the preparation of statement of facts. 4. Supervision & Monitoring of Workmen Compensation claim in respect of Board employees and Petty Contract Workmen including their Insurance claims. 5. Supervision and monitoring of the settlement of accident claims of general public & domestic cattle as per the Vydyuthi Suraksha Insurance Scheme. 6. Monitoring the settlement of medical reimbursement claims of workmen injured during the course of employment. 7. All activities related with the preparation and editing of information/details to be provided to various authorities/Government/Genl.public as per Right to Information Act, 2005, LA interpellation, Annual administration report, Sutharya Keralam etc. 8. Guiding and supervising the preparation and submission of monthly /yearly reports regarding the accident details to various authorities/ offices/ government. 9. Monitoring and controlling the works associated with the purchase of stationary, imprest account, repairs and maintenance of

	office equipments/furniture etc. 10. Verification and upkeep of various registers/records regarding stamp account, Inward, despatch, accident details register etc. 11. Issue of identity cards, maintenance of register for recording regarding the same and issue of receipts on surrender of ID cards. 12. Making visits to Government offices/Secretariat/Insurance companies/various courts for discussion on official matters and to provide the required information/ details/ documents as and when necessary on behalf of the Personnel Department. 13. Any other works in addition to the above assigned from time to time. **Senior Superintendent-11** 1. Establishment works of SS-1 in his/her absence. 2. All supervisory works related with the administration of the KSEB Employees Welfare Fund. 3. Holding of KSEB EWF governing body meetings and connected works with necessary assistance from Senior Assistants. 4. Monitoring all activities associated with the renewal of Fixed Deposit s of EWF. 5. Supervising the computation of eligible amount payable toward s various benefits and issue of cheques in respect of retirement/ death/resignation / invalid claims of EW fund. 6. Monitoring and Supervising the admission,

	change of nomination, issue of duplicate cards, monthly subscription postings, educational cash awards, group insurance policy income tax exemption and auditing of the accounts of EW Fund. 7. Monitoring the preparation of statement of facts to be produced before courts in association with suits pending in various courts regarding the claims of EW Fund. 8. Supervising the preparation editing and compiling of replies as per Right to Information Act 2005. 9. Monitoring the maintenance of various records/ registers. 10. Visits to various government offices/insurance company/ banks/courts on behalf of the functioning of Personnel Department. 11. Supervising the preparation of monthly/quarterly/yearly reports on EW activities for submission to various officials. 12. Any other work assigned from time to time. **Senior Superintendent- III** 1. Monitoring works associated with Pay Revision & Pension Revision. 2. Arranging meetings with various unions and association including preparation of minutes. 3. Supervision of works in association with revision of various allowances and benefits. 4. Monitoring activities in association with strike, standing orders, referendum protection from transfer and adoption government orders. 5. Supervising the function of complaints committee, canteen advisory committee and representation of SC/ST employees in KSE

	Board. 6. Monitoring the ID/CP/OD/cases on various courts and preparation of statement of facts. 7. Supervising the preparation of replies to LA Interpellation and as per Right to Information Act 2005. 8. Handling the issues regarding compassionate appointment provisional employees, PTC/CLR/TLR/ HR/Workers and Licensees including petty contractors and the workmen. 9. Handling the activities associated with declaration of holidays, duties and functions of employee including qualification and method of appointment of employees. 10. Any other works in addition to the above as and when found necessary.
(5) Senior Assistant	**PSI** 1. Revision of Pay and Allowances. 2. Revision of Pension and allied benefits. 3. Revision of DA/ DR. 4. Revision of TA/ DA. 5. Revision of HRA/ Conveyance Allowance. 6.Adoption of Government Orders on service matters 7. Standing Orders of Workmen. 8. Duties and Functions of Employees. 9. Qualification and Method of Appointment. 10. Regularisation of provision al employees. 11. Bonus/Festival Allowance. 12. Employees' State Insurance. 13. Classification of places for HRA. 14. Rules regarding appointment of PTC

	Employees. 15. Issues relating to Security Staff. 16. Issues relating to Petty Contractors and their Workmen **PS l(A)** 1. Payment of Gratuity Act, 1972. 2. Issues regarding former (CLR/TLR/HR/Workers). 3. Canteen Advisory Committee. 4. ID/CP/OP cases on Labour matters in Industrial Tribunals, Labour Court and Hon 'ble High Court. 5. Issues relating to former Kottayam/Mattanchery Licensee. 6. Integration of Mechanical Categories. 7. Complaints Committee regarding sexual harassment. 8. Natural Calamities- Contribution of Board to Relief Funds. 9. Referendum and Recognition Associations of Unions/ Associations. 10. Protection from Transfer. 11. Arranging meetings with Trade Unions and Officer's Association preparation of minutes. 12. Representation of SC/ST Employees in KSE Board. 13. Strike by Employees. 14. Any other work assigned from time to time. **PS2** 1. Settlement of Death/Disablement claims of EWF. 2. Preparation and submission of monthly statement containing details regarding the number of claims received, claims settled

	and the claims pending within first week of the succeeding month to be forwarded to GB Members of EWF. 3. Maintenance of Subsidiary register for entering the details of death/ disablement claims received, details of cheques issued and each rounded with red ink on settlement to be forwarded to SS II for verification each month. 4. Preparation of Agenda of Governing Body meetings related to the work attended and organising various EWF meetings. 5. Preparation and forwarding of claim form to the Insurance Company for death benefit ensuring the receipt of the claim amount due in time and transferring the cheques received from the insurance company to PS 10 for crediting the same into SB A/C of EWF. 6. Obtaining details of death occurred to Board Employees from PS 8 section and requesting the relevant documents from the field office for early settlement of death claims from EWF. 7. Preparation of statements of facts with respect to suits pending in various courts related to death and invalid claims and maintenance of Case Registers. 8. Up keep of the settled files concerned with death and disablement claims to be produced at the time of audit and proper maintenance of the same till disposal. 9. Verification through data base of EWF whether an application for death/ disablement claims received was previously settled or not and furnishing the remarks on

	the application for claim. 10. Preparation of consolidated monthly statement regarding work attended. 11. Preparation and forwarding of circulars to various ARUS related to the work attended. 12. 12. Assisting PS7 in the preparation of live list of employees to be forwarded to the Insurance Company annually/monthly and the correspondence with the Insurance Company. 13. Furnishing of details of work attended daily in the work register for verification. 14. Maintenance of Reminder Diary for monitoring pen ding files for which decision cannot be taken due to defects/ non receipt of documents/ challenged in a court of law and forwarding the duly filled up dairy for monthly evaluation by higher officials suggesting appropriate course of action taken already/to be taken. 15. Any other work assigned from time to time. 16. Ensuring encashment of all cheques sanctioned to the nominees/beneficiaries towards death benefit by verification of payment receipts, attaching the same with files and closing the files after proper scrutiny. 17. Identification of uncashed cheques, if any, issued to beneficiaries by verification of receipts of payments received from various offices and bringing the same to the notice of PS 10 section for entering the same in the Stale Cheque Register for cancellation and for crediting the same back to Employees Welfare Fund's account. 18. 18. Submission of all unsettled files not

closed in line with Sl. No. 1 & 2 above for the perusal of higher officers every three months for verification and follow up.

19. Works related to the identification of students eligible for educational cash awards from EWF, preparation of list of eligible students and distribution of cheques, certificates, mementos etc.

PS 4

1. Individual subscription posting work of EWF of the following ARUS

Electrical Circle and Electrical Division	Shornur, Manjeri, Kozhikode, Vadakara, Kannur, Sreekantapuram
Transmission Circles	Alappuzha, Poovanthurath, Thrissur, Trivandrum
System Operation Circles	Trivandrum, Kalamassery, Kannur
Generation Circles	BDPP, KDPP
Civil Circles	Kuttiyadi, HEP, Kakkayam, AHEP Poringalkuthu

2. Reconciliation of the total subscription due with the cheque amount received through monthly subscription posting in association with PS 10 section and correspondence with ARUS for shortage if any in subscription.
3. Rectification of Discrepancies/Defects/Insufficient Information if any found in the date base of

	EWF through subscription posting work by communicating with ARUS. 4. Ensuring the enrolment of all employees subscribing to the EWF under the ARUS whose subscription posting work is attended and correspondence with ARUS in respect of non enrolled employees if any. 5. Preparation of cash flow statement for each month for approval of the secretary and the treasurer. 6. Preparation of consolidated monthly statement regarding work attended. 7. Preparation and forwarding of circulars to various ARUS related to the work attended. 8. Preparation of Governing Body agenda related to the work attended and assisting in organizing various EWF functions. 9. Assisting PS 7 in the preparation of live list of employees Company to be forwarded to the Insurance Company annually/monthly and the correspondence with the Insurance Company. 10. Assisting PS 7 in the upkeep and maintenance of the computer systems including its accessories, purchase of stationeries and efficient management of software and hardware requirements of the Personnel Department. 11. Duties of PS 7 in his/her absence. 12. Furnishing of details of work attended daily in the work register for verification. 13. Maintenance of Reminder Dairy for monitory pending files for which decision cannot be taken due to defects/non-receipt of documents/ challenged in a court of law and forwarding the duly filled up diary for monthly evaluation by higher officials

	suggesting appropriate course of action taken already Ito be taken. 14. Admission of new member to EW Fund by processing the applications for membership within two weeks of receipt of application and correspondence (including reminders) with ARUS in this regard. 15. Manual work in connection with EWF admission including preparation and issue of membership card, preparation and compilation of admission register etc. 16. Preparation of consolidated monthly statement showing the number of applications for admission to EWF received, no. of members admitted, no. of applications pending and other works attended. 17. Issuing membership cards after allocation of membership nos. along with the copy of the application to the concerned offices with covering letters. Bundling the membership cards in respect of each single office together for forwarding the same to the respective offices. 18. Issuing membership cards in the order of its receipt as per inward number on the same day of its receipt. 19. Verification through database of EWF whether an application for death/ disablement claim received was previously settled or not and furnishing the remarks on the application for claim. 20. Any other work assigned from time to time. **PS6**

	1. Ensuring the encashment of all cheques sanctioned towards retirement benefit to the beneficiaries by verification of payment receipts, attaching the same with concerned files and closing the files after proper scrutiny. 2. Identification of uncashed cheques, if any, disbursed to beneficiaries and bringing the same to the notice of PS 10 section for entering the same in the Stale Cheque Register for cancellation and for crediting the same back to Employees Welfare Fund's account. 3. Submission of the unsettled files not closed in line with Sl. No.1 &2 above for the perusal of higher officers every three months for verification and follow up. 4. Preparation of entitlement cum payment voucher in respect of retirement and resignation claims. 5. Works related with the distribution of educational cash awards to the children of EWF members. 6. Maintenance of admission register compiled by PS 4. 7. Assisting in preparation of agenda of GB meeting and organizing various EWF meetings. 8. Preparation of monthly statement regarding the number of retirement claims received, claims settled and claims pending for each month submitted within the first week of succeeding month to be forwarded to GB members. 9. Maintenance of subsidiary Register for

	entering details of retirement and resignation claims received, details of Cheque issued and each entries rounded with red ink settlement to be forwarded to SS II for verification each month. 10. Preparation of statement of facts with respect to various suits pending in various Courts related to Retirement and Resignation claims and maintenance of case registers. 11. 11.Maintenance of Reminder Diary for monitoring pending flies for which decision cannot be taken due to defects/non receipt of documents/ challenged in a court of law and forwarding the duly filled up diary for monthly evaluation by the higher officials suggesting the appropriate course of action taken already/ to be taken. 12. Manual works related to EWF closure. 13. Upkeep of the settled files of retirement/resignation claims after filing the acknowledgement of cheques to be produced at the time of audit and proper maintenance of the same till disposal. 14. Reminders to ARUs for obtaining acknowledgement of cheques towards retirement/ resignation claims. 15. Any other works assigned from time to time. **PS7** 1. Maintenance of stock file for all Circulars

and Board Order related with EWF and the minutes of GB Meetings.

2. Issue of duplicate membership card and manual work associated with it.
3. Individual subscription posting work of EWF of the following ARUs.

Electrical Circle and Electrical Divisions under them	Alappuzha, Ernakulam,Perumbavoor, Iranjalikkuda, Trissur, Palakkad
Transmission Circles	Kozhikode, Palakkad, Kannur
Head Offices	O/o the Chief Engineer (HRM), Chief Engineer (Distribution- South), Chief Engineer (Distribution- North) Chief Engineer (Transmission- North Ezkd)

4. Correspondences and negotiations with the insurance company/companies regarding the commencement of new policy, annual renewal of existing policy and monthly addition of new employees in association with PS 4.
5. Verification of the amount of premium claimed by the insurance company and calculation of the refund of premium due from insurance company on account of employees retired/resigned/ dismissed from service of KSEB during the currency of policy.
6. Change of nomination and manual work in connection with the same.
7. Preparation and issue of Cheque in respect of Retirement/Death/Resignation/ Invalid claims, fixed deposits. Cash awards and

	other payments related to EW Fund. 8. Submission of Cheque Register chronologically arranged in a bound volume to the SS II after printing each set of cheques. 9. Preparation of cash flow statement for each month for approval of the secretary and the treasurer. 10. Preparation of live list of employees for the annual renewal of the insurance policy and correspondence with insurance company in this regard. 11. Preparation of live list of new employees admitted into the fund each month for forwarding to the Insurance Company and communication with the company in this regard. 12. Preparation of list of employees retired/ due to retire for claiming refund of excess premium from the Insurance Company 13. Preparation of consolidated monthly statement regarding work attended. 14. Functioning as a system supervisor for the upkeep and maintenance of the computer systems including its accessories, purchase of stationeries and efficient management of software and hardware requirements of the Personnel Department and maintenance of a separate register for the same. 15. Individual subscription posting work EWF of the following ARUs.

Electrical Circles & Divisions under them	Tirur, Pathanamthitta, Thodupuzha, Kalpetta, Kasargod.
Transmission Circles	Malappuram, Kalamassery
Civil Circles	Pallom, Kottarakkara, Kozhikkode, Kothamangalam, Investigation Circle, Trissur, LMSHEP, Palode Civil Division , Moolamattom, MSHEP, Malankara, Adyanpara SHEP.

16. Reconciliation of the total subscription due with the Cheque amount received trough monthly subscription posting in association with PS 10 section and correspondence with ARUs for shortage in subscription.
17. Rectification of Discrepancies/Defects/Insufficient Information if any found in the data base of EWF through subscription posting work by communicating with ARUs.
18. Ensuring the enrolment of all employees subscribing to the EW Fund under the ARUs whose subscription posting work is attending and correspondence with ARUs m respect of non enrolled employees, if any.
19. Preparation of Governing Body agenda items related to the work attended and assisting in organizing various EWF functions.
20. Preparation and forwarding of circulars to various ARUs related to the work attended.
21. Duties of PS4 in his/her absence.
22. Furnishing of details of work register for verification.
23. Any other works assigned from time to time.
24. Providing remarks to PS6 whether

	application for claim received for retirement/ resignation benefit from EWF was previously settled or not. **PS 8** 1. Settlement of Employees' Compensation claims. 2. Re-imbursement of medical expenses in respect of Workmen category under the Employees' Compensation Act. 3. Preparation of Monthly /Yearly statements regarding accidents occurred to Board employees and contract workmen. 4. Reply to question under RIA, Sutharya Keralam and LA interpellation in connection with the accident claim. 5. Preparation of statement of facts in respect of Workmen's compensation claims, MFA Employees' before various courts, Maintenance of case registers and reminder diaries on that behalf. 6. Maintenance of Reminder Diary for monitoring pending files for which decision cannot be taken due to defects/non receipt of documents/ challenged in a court of law and forwarding the duly filled up diary for monthly evaluation by the Superintendent suggesting the appropriate course of action already/ to be taken. 7. Any other works assigned from time to time. **PS9** 1. Settlement of Electrical accident claims including claims of public/ cattle under

	Vydyuthi Suraksha Scheme. 2. Preparation of Monthly /Yearly statement regarding accidents occurred to public/ cattle. 3. Reply to question under RIA Sutharya Keralam and LA interpellation in connection with electrical accidents occurred to Public/Cattle. 4. Preparation of statement of facts in respect of suits filed before various courts on the accident occurred to general public/cattle. Maintenance of case registers and reminder diaries. 5. Maintenance of Reminder Diary for monitoring pending files for which decision cannot be taken due to defects/non receipt of documents/ challenged in a court of law and forwarding the duly filled up diary for monthly evaluation by the Superintendent suggesting the appropriate course of action already/ to be taken. 6. Any other works assigned from time to time. **PS 10** 1. Processing the receipt of EWF Subscription schedules and presentation of EWF cheques received from field offices/firms to Bank. 2. Processing the receipt of EWF Subscription schedules and presentation of EWF cheques received from field offices/firms to Bank. 3. Correspondence related to the receipt of EWF cheques towards subscription from field offices and Interest receivable from Fixed Deposits of EWF. 4. Preparation of EWF Monthly accounts and

	Annual accounts. 5. Preparation of Agenda for KSEB EWF Governing Body Meeting. 6. Renewal of Fixed Deposit of EWF by inviting competitive quotations from Nationalised Banks. 7. Works associated with obtaining Income Tax Exemption to EWF. 8. Proper maintenance and upkeep of Registers/Records/ Circulars/Certificates/Documents associated with the accounts of EWF. 9. Monitoring the Fixed Deposits & SB A/ c of EWF and identifying profitable long term/ short term investment options for the consideration of Board at appropriate time intervals/maturity of deposits. 10. All works associated with the Audit of Accounts of EWF. 11. Preparation of replies as per Right to Information Act, 2005 and preparation of statement of facts to be submitted before courts. 12. Visits to offices/banks/courts/auditors/insurance companies on behalf of EWF. 13. Preparation of monthly/quarterly/yearly reports on EWF activities for submission to Board. 14. Identification of unclaimed/uncashed cheques sanctioned on behalf of retirement/ death claims by liasoning with PS 2 & PS 6 section and updation of the Stale Cheque Register. Submission of Stale Cheque Register for verification and approval of the Senior Superintendent every month. 15. Ensuring the receipt of subscription in

	respect of all members of Employees Welfare Fund each month by counterchecking employee list in the HRIS software and reconciliation of the same with the total Cheque amount received from all the members through 'SARAS' software. 16. Correspondences with offices for ensuring 100 % receipt of monthly subscription from all member of Employees Welfare Fund. 17. Ensuring that all the cheque amounts received towards subscription to Employees Welfare Fund has been credited to the SB Account of IOB and correspondences if any required for non receipt of cheques from ARUs identified through SARAS software. **PS 12** 1. Inward of all the letters correspondence, Circulars, Orders, Periodicals, files, representations and other communications received in Personnel Department. 2. Maintenance of stamp account and respective registers on that behalf. 3. Works associated with the procurement of stationery, maintenance of its accounts and registers. 4. Upkeep of the registers, reference books, gazetts, periodicals and registers of Personnel Department. 5. Despatch of letters, Welfare Fund hand books and all other correspondences. 6. Any other work assigned from time to time. 7. Identification of unsettled/ pending files

	regarding the sanctioning of compensation to Board employees and Petty Contract workmen and submission of the same to SSI with legally valid and appropriate suggestions /recommendations for settlement after satisfying the required procedural formalities. 8. Assisting in the preparation of the list of eligible contract workers with respect to the regularization of Petty Contract Workmen. 9. Assisting in the preparation of list of students eligible for Educational Cash Award from Employees Welfare Fund. 10. Maintenance of stamp account and up keep of files and Registers on that behalf. 11. Works associated with the procurement of stationery, maintenance of its accounts and registers. 12. Upkeep of the registers, reference books, gazettes and periodicals of Personnel Department.
(6) CLR/Junior Assistant/Senior Assistant	**PS 13** 1. Assisting in the works related with issue of membership cards, duplicate membership cards and manual works associated with it. 2. Processing the receipt of EWF Subscription schedules and presentation of EWF cheques received from field offices/firms to Bank. 3. Visits to offices/banks/ courts/ auditors/insurance companies on behalf of EWF. 4. Preparation of monthly/ quarterly/yearly

	reports on EWF activities for submission to Board. 5. Works associated with the procurement of stationery, maintenance of its accounts and registers. 6. Assisting in the preparation of the list of eligible contract workers with respect to the regularization of Petty Contract Workmen. 7. Assisting in the preparation of list of students eligible for Educational Cash Award from Employees Welfare Fund. 8. Maintenance of stamp account and up keep of files and Registers on that behalf.
(7) Fair Copy Assistant	1. Typing and Printing Letters, Notes, Board Orders, Circulars, Minutes, Affidavits Reports etc. 2. Corrections/Modification of textual data. 3. Maintenance of copies of all the textual data generated in office and works associated with binding the same as bound volume. 4. Proper maintenance and upkeep of Compact Discs containing textual data generated from office.
(8) Office Attendant	1. Arranging and classifying files, proper storage of the same in racks/shelves or store room. 2. Taking photocopies, Distribution of Tapals, Local Delivery etc. 3. Delivery of Cheques towards recovery of Employees Welfare Fund subscription to Bank. 4. Visits, Government Offices/Banks/Post Office/ Insurance Offices etc for handing over letters, orders, reports, circulars,

	minutes etc. 5. Procurement and storage of office stationeries equipments at store room.

ANNEXURE IV: OFFICE OF THE SECRETARY (ADMINISTRATION)

Functions in establishment section

Estt - I

- All leaves that require sanction of board.
- Investigation sanction of belated payments
- Tour programme of board directors.
- Pay fixation and allied matters.

Estt – II

- Extension of joining time for new appointments.
- All correspondence with PSC.
- Reappointment of board employees.
- Communication with PSC/Govt in the matter of qualifications.
- Compassionate appointment.
- Fixing method/ qualification for appointment of posts as and below AEE.
- Framing special rules for recruitment.
- Fixation of daily wages of employee.
- Matters connected with place creation.

Esst – III

- Promotion/ transfer of officers of and above the posts of AO/EE.
- Matters relating to DPC/ approval of nomination.
- Disciplinary action against officers of and above the post of AO/EE.
- Restructuring of offices.
- Probation of officers.

Estt – IV

- Deputation of staff IN/OUT.
- Cases of invalid pension/ voluntary retirement.
- NOC of all types.
- Recording of prior service.
- Regularisation of break in service.

Esst – V

- Adoption of Government orders.
- Cases of good service entry.
- Matters connected with office orders(internal arrangement).
- Matters relating to HR/ daily wages/ contract wages etc.
- Providing reply to applications under Right to Information act- 2005.
- Other miscellaneous items.

Esst – VI

- IB booking and allied works.
- Clarification in the matters connected with incentive allowance, charge allowance etc.

- Annual property statements.

Esst – VII

- Medical advance.
- Clarification of medical benefit rules.
- Correction of date of birth in service book.
- Sanction time bound grade promotion.
- Matters connected with seniority/ complaints on promotion of staff and officers.

Esst – VIII

- Complaints regarding non- receipt of claims of employees and pensioners.
- Sanction of NRA from GPF and closure of GPF.
- Sanction for disbursement of arrears of pension.
- Sanction of compassionate allowance.
- Pension claims of officers (Deputy CE and above).

Estt – IX

- Issuing NLC of officers of and above AO/EE.
- Purchase of computers and other office equipments.
- Issue connected with Liasion office New Delhi.
- Indenting and issue of stationery items.

Esst – X

- LA interpellation/ Rajya Sabha/ Lok Sabha questions.
- Subject committee.
- SC/ST committee.

ACCOUNTS WING

Works of ACA is connected with payments and accounting of bills and invoices received from various sections under ARU, board Secretariat with ARU head as Deputy Secretary (Admin).

Officers coming under this ARU are:-

1. Office of the CMD and board of directors.

2. Office of LA & DEO.

3. Office of the CPRO.

4. Office of the CPO.

5. Office of the resident engineer (New Delhi).

6. Vehicle monitoring cell.

7. Sports cell.

The payments and accounts of the bills from the office of CE (REES) and CE(C&T) also made from this ARU.

ACA - I

- Credit application.
- Collection and remittance of cash, cheque etc.
- Arranging all payments of ARU.
- Maintaining permanent interest of secretary (Admin).
- Payment of advances and its closure.

ACA - II

- Compilation of accounts.
- Matters connected with government funds and its remittance.
- Bank reconciliation.
- Budget preparation.
- RAPDRP loan related issues.
- Correspondence with Bank.
- Up keeping of asset register.

ACA - III

- Processing of purchase bills.
- Processing bills relating to sponsorship/ contribution, postage etc.

ACA - IV

- Processing purchase bills of vehicles, fuel bills, work bills etc.
- Payments of hired vehicles and HR drivers.
- Repayment of SD, EMD etc.
- Correspondence connected with vehicles.

ACA - V

- Maintenance of temporary advance.
- Maintenance of permanent imprest.
- Processing bills of sports activities.
- Payment of newspaper, periodicals etc.
- Non liability certificate.
- Processing bills of Asianet cable, Couriers etc.

ACA - VI

- Matters connected with IT payments.
- Matters connected with tax payments.
- E- Filing and returns.
- Collection and keeping of vouchers.

ACA - VIII

Preparation of payment vouchers of advocate fee, court deposits, land acquisition payments, Adalat settlements, SERC - CERC payments, government funds etc.

ACA - X

- Audit reply.
- General matters of accounts wing.
- Advance to contractors.
- Payments connected with repairs and maintenance works of Vydyuthi Bhavanam.

Vehicle monitoring cell

- Purchase of new vehicles and its registration.
- Accounting of fuel, works and maintenance of registers.
- Maintenance of Log book of vehicles.
- Attending Retest, tax payment, insurance payment and timely reimbursement of insurance claims.
- Arranging vehicles on contract basis.
- Server reporting/ auctioning of old and unused vehicles.

Achievements during last year

- Insurance coverage of vehicles was changed from State insurance department to Nationalised insurance company after collecting competitive quotations there by insurance premium was reduced to a large extent.
- Three old and unused vehicles were survey reported.
- New vehicles were purchased.

Total Staff Strength

Designation	Sanctioned Strength	Working Strength
Secretary (Admin)	1	1
Deputy Secretary	1	1
Personal Assistant	1	0
Sr.Confidential Asst	1	1
Sr. Superintendent	4	3
Divisional Accountant	1	1
Sr. FC Superintend	1	1
FC Superintendent	1	1
Assistant Engineer ©	1	1
Sub Engineer ©	2	2
Senior Assistants	25	25
FC Assistants	9	9
Office Attendants	6	4

Problems facing the department

- Space constraint.
- Lack of space for keeping records.

Suggestions to improve performance

- Workstation arrangements may be considered.
- Separate cabin be arranged for keeping old records.
- Provide required number computers to staff and officers.
- File tracking system be implemented. The software developed by the IT team of KSEB Ltd (E-Office) be extended to board secretariat.
- Old records be digitalized.

KERALA STATE ELECTRICITY BOARD LTD.

LAW WING

Name of the Office	Office of the Legal Adviser and Disciplinary Enquiry officer
Purpose of Office	This office is responsible for all the legal matters related to the Board. The main purpose of this is to render advice to the Board on legal matters viz: Board's cases, contracts, conduct of adalaths, etc. The Office also functions as the Disciplinary Authority and conducts enquiries as per the order of the Chairman & Managing Director.

Staff pattern

Sl. No.	Designation	Sanctioned strength
1	Legal Adviser and disciplinary Enquiry	1
2	Sr. Confidential Asst.	1
3	Senior Law Officer	1
4	Law Officer	2
5	Asst. Accounts Officer	1
6	Sr. Supdtss/Asst. Law Officer	9
7	Sr. Legal Asst./Sr. Asst.	24

Specific duties of each category of employees in the above office.

	Designation	Duties & Functions
1	Legal Adviser and Disciplinary Enquiry Officer Deputed from judicial service of Kerala State, in the rank of an Additional District & Sessions Judge.	Legal Adviser and Disciplinary Enquiry Officer is the head of the office. The officer guides the Section and the board in legal matters. The disciplinary cases are handled by the Legal Adviser and Disciplinary Enquiry Officer as per the order of the Chairman & Managing Director. Advices on legal matters are presented to the Board by the Legal Adviser and Disciplinary Enquiry Officer.

2	Senior Confidential Asst.	• Confidential and other related files as entrusted by LA & DEO. • Take dictation of notes, letters, etc., and related typing works. • Receiving tappals, e-mails, recording the same and putting up it before LA & DEO and transmits them to Section under acknowledgement. • Prepares minutes of the meetings convened by LA & DEO. • Attends disciplinary enquiries and make fair copies of reports. • Custody and maintenance of personal files of LA & DEO. • Make Fair copies of legal opinion rendered by Legal Adviser and Disciplinary Enquiry Officer.
3	Senior Law Officer Joint Secretary (Law), on deputation from Govt. Secretariat	• All the files related to service matters. • Holds the charges of LA & DEO in his absence. • Attends tax related files. • The SLO monitors and attends to cases filed directly before the Hon'ble High Court of Kerala in the matters of contract ,line drawal objection ,tariff related cases ,theft of power, service matters ,etc., • Cases before Lok Ayuktha. • Approval of W.S etc., of cases before Consumer fora, LAR cases Lower Court Cases ,Consumer Grievance Redressal Forum,Ombudsman ,PLA Cases, etc.,

4	Law Officer I	• All the communications related to the cases in lower Courts and various fora • Verification of SFs,W/s Ets. Of Lower Courts prepared by SAs • Arranges for the conduct of Adalaths. • Advocate fee of Lower Courts & fora. • Monitors the progress in the recording the Suit Registers. • Helps the LA & DEO in deciding the course of action to be adopted by the Board in Court cases(Lower). • Law Officer I is also the Appellate Authority of Right to Information Act in the law section.
5	Law Officer II (Deputy Secretary (Law) in Govt. Secretariat on deputation	• Attends to the files related to tax matters Service Tax, Excise Duty cases etc., • The sanctioning of Advocate fee of Counsels in the High Court & Supreme Court. • Assisting the LA & DEO in rendering legal opinion. • Verification of Bid documents Agreement, etc., • Cases before Dist. Labour Officer.(Approval of Sfs etcs)
6	Asst. Accounts Officer	• The Asst.Accounts Officer is also the Public Information Officer of the Law Section. • He monitors all the cases pending before the Hon'ble Supreme Court of India. • Assists the work of Law Officer II in tax matters and in the files of advocate fee.

7	Sr. Superintendents/Asst. Law Officers	The Senior Superintendents in law section having law graduation are designated as Asst. Law Officer. • Supervises all the works of the Senior Assistants. • Attends to the supervisory works of written statements, versions, statement of facts etc • Supervises the updation of Suit Registers. • .Entrusting of cases in various courts/fora with the Counsels of Board. • Brings the outcome of cases to the notice of the Board Liaison with Nodal officers and monitor progress of cases .Formulating Legal opinion for submitting before the LA & DEO.
8	Senior Assistants/Senior Legal Assistants.	Senior Assistants working in Law Section having law degree are re-designated as Senior Legal Assistant • Origination of file consequent on the filing of a petition/suit/complaint before a court/forum/authority against or by the KSEB Ltd. • Preparing statement of facts/written statement/version etc. • Updation of case register. • Follow up and monitoring of pending cases properly. • Obtain and put up orders/decisions/ Judgements for compliance / appeal and in form the officers concerned. • Liason with Nodal Officers ,Advocates , concerned in the follow up of cases. • Preparation and maintenance of Personal Register relating the matters other than court/Fora Cases.

ANNEXURE V: OFFICE OF CHIEF ENGINEER (COMMERCIAL & TARIFF)

Deputy Chief Engineer (Commercial)

Monitoring of all works done by Executive Engineers I and II

EXECUTIVE ENGINEER-I

The works coming under the Executive Engineer I under the control of Deputy Chief Engineer (commercial) from 1st March 2017 are detailed below.

AEE's I to V will be under the control of EE-I.

- Overall Monitoring of all the works carried out by Assistant Executive Engineers (I – V) as detailed below.

ASSISTANT EXECUTIVE ENGINEER-I

Monthly Bills: -

1. Point of Connection charges (PoC Bill -1) of M/s. PGCIL.
2. Adjustments in Yearly Transmission Charges (Bill -3) of M/s. PGCIL.
3. Deviation Bills (Bill -4) of M/s. PGCIL.
4. Debit/Credit Memos of M/s. PGCIL.
5. SRLDC fees and charges of POSOCO Ltd.
6. NON POC Bill – SR-ULDC & Kayamkulam Transmission charges.
7. Bill for Wheeling charges –Payable by KSEB to KPTCL.
8. Payment of fixed Charges of assets of TNEB.
9. Bill for purchase of power from Wind Energy Generators at
    1. Agali = 23 nos WEGs
    2. Koundical = 8 nos WEGS
    3. Ramakkalmedu = 19 nos WEGs
    4. Ahaliya Alternate = 1 no

    Energy Pvt Ltd (Issue of payments started from 2/2016 onwards)
10. Renewable Energy PPA remarks
11. Signing of TSA and RSA and its connected papers
12. Works assigned connected with LA, RIA etc

Assistant Executive Engineer-II

I. Providing admissibility of monthly and supplementary bills of the following stations within the time limit for availing rebate, avoiding surcharge and arranging timely payment.
   1. Rajiv Gandhi Combined Cycle Power Plant, Kayamkulam.
   2. Mejia Thermal power Station
   3. Reghunathpur Thermal power Station
   4. BSES Kerala Power Ltd (BKPL) Plant

II. Preparation of monthly power purchase statement, Performance report, Quarterly Performance report and any other reports called for.

III. Answering questions of LA and RIA and related to the above projects and power purchase statement.

IV. Correspondence with NTPC,DVC,BKPL and with various internal offices of KSEBL and also with Government.

V. Assistance to other offices such as Office of Director (SCM & CP), Office of financial Advisor, Chief Engineer (Transmission System Operation), LA&DEO etc. of KSEBL for settling the current and pending issues.

Assistant Executive Engineer-III

Verification of energy and open access bills from following traders for purchase of power on Short term, Medium term basis upto February 2017 and settling of further issues related to these purchases.

- Purchase of 100 MW from M/s Simhapuri Energy Ltd thru M/s PTC India Ltd. under Short term for the period 01.06.14 to 31.05.15.Short term energy and open access bills are raised **weekly** with 7 days as due date for payment. Forwarding of the admitted Energy and OA bills to Office of FA for arranging timely payment.
- Purchase of 200 MW from M/s JSW Energy Ltd, Karnataka thru M/s JSW Power Trading Company Ltd. under Short term for the period 01.06.14 to 31.05.15. Short term energy and open access bills are raised **weekly** with 7 days as due date for payment. Forwarding of the admitted Energy and OA bills to Office of FA for arranging timely payment.
- Purchase of power (100MW) under Power Swap Arrangement between KSEB Ltd, BRPL & GMRETL for the period 01.06.11 to 31.05.16.Trading Margin and open access bills are raised

weekly with 7 days as due date for payment. Forwarding of the admitted Energy and OA bills to Office of FA for arranging timely payment.

- Purchase of 300 MW from M/s Simhapuri Energy Ltd thru M/s PTC India Ltd. under Short term / Medium Term for the period 01.06.15 to 31.05.16. Short term / Medium Term energy and open access bills are raised **weekly** with 7 days as due date for payment. Forwarding of the admitted Energy and OA bills to Office of FA for arranging timely payment

- Verification of Reconciliation Statement for the power purchased from M/s Simhapuri Energy Ltd thru M/s PTC India Ltd. under Short term / Medium Term for the period 01.06.15 to 31.05.16.
- Purchase of 100 MW Medium term power under case-1 Bidding from M/s BALCO, Chattisgarh thru PTC India Ltd for the period 01.03.14 to 28.02.17. Verification of POC Bills and Energy Bills both **Provisional and Monthly** Bills raised on the last day of the month and 5th of following month respectively with one day as due date for payment . Forwarding of the admitted Energy and POC bills to Office of FA for timely payment so as to avail the applicable rebate.
- Purchase of 300 MW Medium term power under case-1 Bidding from CSPDCL, Chattisgarh thru M/s NVVN Ltd. India Ltd for the period 01.03.14 to 28.02.17. Verification of POC Bills and Energy Bills both Provisional and Monthly Bills raised on the last day of the month and the 5th of following month respectively with one day as due date for payment to avail the applicable rebate. Forwarding of the admitted Energy and POC bills to Office of FA for arranging timely payment.
- Coordinating between Office of the Chief Engineer (Transmission) System Operation & Financial Advisor for arranging payment having huge financial commitment within **1 day** from date of bill to avail **2.25% rebate** for prompt payment of MTOA Bills and **7** days from date of bill resp.to avail **2% rebate** for prompt payment of Short term Bills.
- Verification of the Reconciliation Statement for the above mentioned purchase of power from M/s NVVN Ltd. and M/s PTC India Ltd as the said contract expired in Feb'17.
- Preparation of reply to Audit Queries (Both internal and External) pertaining to aforementioned purchases and also to short term and medium term purchases during the previous years for which the contract period has expired .

Deviation settlement, RE bills, RRAS Bills and related issues.

- Verification and forwarding the admitted **weekly** DSM bills raised by SRPC to Office of FA for timely payment.
- Verification and forwarding the admitted **weekly** Reactive Energy bills raised by SRPC to Office of SOR for timely action based on whether the amount is Receivable / Payable from KPTCL / TNEB.
- Verification and forwarding the admitted **weekly** RRAS bills raised by SRPC to Office of FA for timely action.
- Verification of Revised DSM and Reactive Energy Bills raised by SRPC and forwarding the same to office of FA for necessary action within the time frame to avoid surcharge.
- Verification of **RE bill claims of TNEB and KPTCL** and providing admissibility to Financial Advisor within the time limit and related correspondences. Pending issues related to KPTCL, TNEB and other constituents.
- Pending payment issues related to KPTCL, TNEB and other constituents

Correspondence with IEX & PXIL and membership renewal:

- Preparation of Board Note for renewing the annual membership with M/s IEX & M/s PXIL connected with power purchase transactions carried out thru exchange.

- Verification of Power Purchase from Traders under short term, Medium term and Long term contracts as forwarded from Office of the Chief Engineer (Transmission) System Operation for preparation of the monthly power purchase statements.
- Cross checking of Monthly DVC Bills of Meija and Reghunathpur Stations and RGCCP prepared by AEE II for purchase of power under Long Term Basis.

- Verification of Monthly Power Purchase statements prepared by AEE II.

Assistant Executive Engineer IV (vacant) (This work is done by AEE III at present)

Monthly Bill of following CGS stations viz.

1. Vallur Thermal power plant (VTPP).

- Computation and admissibility of Monthly capacity and energy bill.
- Computation and admissibility of Unit Adjustment of the previous month.
- Computation and admissibility of Monthly RLDC charges.
- Admissibility of Energy charge revision (ECR) Bills due to change in operational norms.
- Monthly supplementary bills (IT, MAT, FERV, Incentive, Water Cess, Electricity Duty etc)
- Revision Bills of above station due to revision of CERC norms.
- Reply to Audit Queries (both internal and external) pertaining to above station.
- Preparation of Reply to LA and RIA.

2. NLC stage II – I&II

- Computation and admissibility of Monthly capacity and energy bill.
- Computation and admissibility of Unit Adjustment of the previous month.
- Computation and admissibility of Monthly RLDC charges.
- Admissibility of Energy charge revision (ECR) Bills due to change in operational norms.
- Monthly supplementary bills (IT, MAT, FERV, Incentive, Water Cess, Electricity Duty etc)
- Monthly Revision Bills of above stations due to revision of CERC norms.
- Reply to Audit Queries (both internal and external) pertaining to above station.
- Preparation of Reply to LA and RIA.

3. NTPL

- Computation and admissibility of Monthly capacity and energy bill.
- Computation and admissibility of Unit Adjustment of the previous month.
- Computation and admissibility of Monthly RLDC charges.
- Admissibility of Energy charge revision (ECR) Bills due to change in operational norms.
- Monthly supplementary bills (IT, MAT, FERV, Incentive, Water Cess, Electricity Duty etc)
- Monthly Revision Bills of above stations due to revision of CERC norms.
- Reply to Audit Queries (both internal and external) pertaining to above station.
- Preparation of Reply to LA and RIA.

4. Koodamkulam (KKNPP) Unit 1 and Unit 2.

- Computation and admissibility of Monthly capacity and energy bill.
- Computation and admissibility of Unit Adjustment of the previous month.
- Computation and admissibility of Monthly RLDC charges.
- Admissibility of Energy charge revision (ECR) Bills due to change in operational norms.
- Supplementary bills (IT, MAT, FERV, Incentive, Water Cess, Electricity Duty etc) .
- Monthly Revision Bills of above stations due to revision of CERC norms.
- Reply to Audit Queries (both internal and external) pertaining to above station.
- Preparation of Reply to LA and RIA.

5. KAIGA

- Computation and admissibility of Monthly capacity and energy bill.
- Computation and admissibility of Unit Adjustment of the previous month.
- Computation and admissibility of Monthly RLDC charges.
- Admissibility of Energy charge revision (ECR) Bills due to change in operational norms.
- Monthly supplementary bills (IT, MAT, FERV, Incentive, Water Cess, Electricity Duty etc)
- Monthly Revision Bills of above stations due to revision of CERC norms.
- Reply to Audit Queries (both internal and external) pertaining to above station.
- Preparation of Reply to LA and RIA.

6. MAPS

- Computation and admissibility of Monthly capacity and energy bill.
- Computation and admissibility of Unit Adjustment of the previous month.
- Computation and admissibility of Monthly RLDC charges.
- Admissibility of Energy charge revision (ECR) Bills due to change in operational norms.
- Monthly supplementary bills (IT, MAT, FERV, Incentive, Water Cess, Electricity Duty etc)
- Monthly Revision Bills of above stations due to revision of CERC norms.
- Reply to Audit Queries (both internal and external) pertaining to above station.
- Preparation of Reply to LA and RIA.

Assistant Executive Engineer-V

Monthly Bill of CGS stations viz.

1.NTPC Stations (a) Ramagundam-I & II (b) Ramagundam III (c) Simhadri II (d) Talcher II

- Computation and admissibility of Monthly capacity and energy bill.
- Computation and admissibility of Unit Adjustment of the previous month.
- Computation and admissibility of Monthly RLDC charges.
- Admissibility of Energy charge revision (ECR) Bills due to change in operational norms.
- Monthly supplementary bills (IT, MAT, FERV, Incentive, Water Cess, Electricity Duty etc)
- Revision Bills of above stations due to revision of CERC norms.
- Reply to Audit Queries (both internal and external) pertaining to above station.
- Preparation of Reply to LA and RIA.
- Ongoing issues related to the monthly energy bills of NTPC stations like :
    1. Difference in computation of capacity charges - NTPC has filed a petition before the Hon'ble CERC during May 2015 seeking clarifications in this regard. The order on the issue is being awaited.
    2. FERV & Hedging of Simhadri station for which supporting documents are to be received from NTPC
    3. In connection with the Electricity Duty of Talcher II station, the % APC claimed by M/s NTPC is greater than the % APC admissible.
    4. Downward revision of AFC, station heat rate (GHR) and the auxiliary consumption (AUX) before the issue of CERC tariff order without giving any interest to KSEBL.
    5. Variation in the value of AFC value taken for the years 2014-15, 2015-16 & 2016-17 with that of CERC order

2. NLC stage stations like NLC TPS I Expansion and TPS II Expansion

- Computation and admissibility of Monthly capacity and energy bill.
- Computation and admissibility of Unit Adjustment of the previous month.
- Computation and admissibility of Monthly RLDC charges.
- Admissibility of Energy charge revision (ECR) Bills due to change in operational norms.
- Monthly supplementary bills (IT, MAT, FERV, Incentive, Water Cess, etc)
- Monthly Revision Bills of above stations due to revision of CERC norms.
- Reply to Audit Queries (both internal and external) pertaining to above station.
- Preparation of Reply to LA and RIA.
- Issues related to the claims of NLC stations like :
    1. IT claim of NLC TPS I Exp
    2. Disallowing of recovery of interest from beneficiaries of NLC station related to stations increase in O&M expenses of the stations on account of wage revision and other pay hikes to employees of NLC mines linked to NLC's power stations, pay revision to CISF personnel posted in mines etc
    3. Guarantee fee claim of NLC TPS I Exp
    4. Change in configuration of NLC stations like Sirkali & NLC TPS II Exp (new)
    5. Appeal petition before APTEL against the CERC order dt 27/7/2016 in petition no.474 of 2014 filed by NLC, in the matter of substitution of the actual secondary fuel oil consumption in lieu of normative secondary fuel oil consumption (SFC_{norm} = 2 ml/kWh) in the energy charge rate.

3. <u>Eastern Region stations like Talcher I, Kahalgaon I and Farakka</u>

Though there is no power purchase from these stations now since April 2013, there are several revision Bills of above stations due to revision of CERC norms.

- Computation and admissibility of these revision bills
- Reply to Audit Queries (both internal and external) pertaining to above stations.
- Preparation of Reply to LA and RIA.

4. <u>Indira Gandhi Super Thermal Power Station, Jhajjar of Aravalli Power Company Private Ltd</u>

Upto March 2016 :

- Computation and admissibility of Monthly capacity and energy bill.
- Computation and admissibility of Unit Adjustment of the previous month.

- Computation and admissibility of Monthly RLDC charges.
- Admissibility of Energy charge revision (ECR) Bills due to change in operational norms.
- Monthly supplementary bills (IT, MAT, FERV, Incentive, Water Cess, Electricity Duty etc)
- Revision Bills of above stations due to revision of CERC norms.
- Reply to Audit Queries (both internal and external) pertaining to above station.
- Preparation of Reply to LA and RIA.

And various other ongoing issues and correspondences for allocation of power from this station, depending on our requirement, being costly power.

Now, though there is no power purchase from this station since March 2016, there are several revision Bills of this station due to revision of CERC norms. Also, the tariff order as per 2014-19 Regulations, of this station is yet to come, there will be computation and admissibility of these revision bills

5. <u>New stations of NLC for which PPA has already been executed like Sirkali in Tamilnadu and NLC II Exp (2nd exp)</u>

- Taking up with Board issues related to the change in location of the Thermal Power Project of NLC from Sirkali in Tamil Nadu to Talabira Mining Block in Odisha and the matters associated with that.
- Finalisation of issues related to change in configuration of NLC II Exp (2nd exp).

In addition to the above, details have to be prepared and furnished to TRAC in connection with the above Central Generating stations for taking up with CERC and KSERC.

Other additional works like correspondence with Ministry of Power for providing remarks to the matters relating to new CGS guidelines etc.

Works Allocation under Executive Engineer II (Commercial) as on 1st March 2017

Assistant Executive Engineer-6

- Providing admissibility of monthly and supplementary bills of SHEPs within the time limit for availing rebate and avoiding surcharge as per the respective PPAs.
    - Palakkad Small Hydro Company Limited
    - Ullungal(EDCL)
    - Viyatt(StageI&II)
    - Karikkayam(AHPL)
    - Mankulam Mini HEP
    - Philips Carbon Black Ltd (PCBL)
    - Kuthungal(INDSIL)
    - MPS steel castings (P) Ltd.
    - Kallar Micro HEP

I. Answering questions of LA and RIA related to the above SHEP & IPP.
II. Correspondences with above SHEP & IPP and with various internal offices of KSEB.
III. Preparation of Board note, Board orders for the above.
IV. Assistance to other offices such as office of FA, SOR, CE(SO), CE(CP), CE(Transmission), LA & DEO etc. of KSEB for settling the current and pending issues for the above.
V. Pending issues related to Kasaragod Power Corporation Limited.
VI. Pending issues related to Philips Carbon Black Ltd (PCBL).
VII. Pending issues related to Kuthungal (INDSIL).

Assistant Executive Engineer-7 , APIO (*vacan*t) (This work shared between AEE 6 and AEE 8 at present)

- Short term power procurement- Purchase of short term power through DEEP e bidding Portal – preparation of RfP (AEE 8)
- Execution of PPA for short term purchases(AEE 8)
- Analysis of Load Generation Balance (AEE 8)
- Analysis of Swap proposals. (AEE 8)
- Purchase of power through Swap and execution of swap agreement and related issues. (AEE 8)
- Administration of PPAs of short term contracts (AEE 8)

- Weekly billing of short term contracts. (AEE 6)
- Replying to audit queries (AG Audit and KSEB Internal Audit) for all the executed PSAs. (AEE 6)
- Furnishing details for power position meeting. (AEE 8)
- Preparation of comments on SRPC /TCC Agenda (AEE 8)
- Preparation of comments for Standing committee meeting, LTOA connectivity meeting, (AEE 8)
- Monitoring of transmission corridor and open access issues (AEE 8)
- Compilation of Audit replies, LA, Right Information Act (AEE 6)
- Furnishing reports to COPU, Estimate committee, Petitions committee etc. (AEE6)
- All General files.
- Monitoring of BGs(AEE 6).

Assistant Executive Engineer 8

- Long term power procurement — bidding route- preparation of RfP, RFQ and execution of PPAs
- Preparation of new Standard Bidding Documents for long term hydro power procurement.
- Administration of PSAs
    - East Coast Energy Pvt Ltd
    - Bharat Aluminium Company Ltd
    - Jindal India Thermal Power Ltd
    - Maithon Power Ltd I
    - Maithon Power Ltd II
- Monthly Billing of PSA executed with
    - Maithon Power Ltd I

▪ Provisional monthly Billing
▪ Final Monthly Billing

- Maithon Power Ltd II

▪ Provisional monthly Billing
▪ Final Monthly Billing

- East Coast Energy Pvt Ltd from 01-10-2017 onwards
- Bharat Aluminium Company Ltd from 01-10-2017 onwards
- Jindal India Thermal Power Ltd from 01-10-2017 onwards

- Verification of Form 15 in respect of quantity and cost of coal and cost of transportation of Maithon Power Ltd
- Replying to audit queries (AG Audit and KSEB Internal Audit) for all the above PSAs.
- Verification and Reimbursement of ERLDC charges and fees in respect of Maithon Power Ltd PPA 1 and PPA 2
- Reconciliation - Quarterly and annual of Monthly bills of the all the executed PSAs.
- Processing the new proposals received from IPPs .
- Processing the new proposals received from central generating stations for long term power purchases and execution of new PPAs.
- Analyzing of new hydro proposals through traders and generators- long, medium and short term through MoU route.
- Proposal from DVC for medium term- MoU Route

- Preparation of reply to LA and RIA

Assistant Executive Engineer 9

- Medium term power procurement – bidding route- preparation of RfQ, RfP and execution of PPAs.
- Taking up the issues related to DBFOO contracts with MoP, GoK and KSERC.
- Preparing reply to AG Audit and KSEB Internal Audit for DBFOO contracts.
- Conduct of meetings of Coordination Cell, preparation of minutes, Action taken report etc.
- Furnishing reports of Coordination Cell to the High powered Committee at Government level.
- Administration of PSAs
    - Jindal Power Ltd under Bid 1
    - Jhabua Power Ltd under Bid 1
    - Jindal Power Ltd under Bid 2
    - Jhabua Power Ltd under Bid 2

- Monthly Billing of PSA executed with
    - Jindal Power Ltd under Bid 1
    - Jhabua Power Ltd under Bid 1
    - Jindal Power Ltd under Bid 2 from 01-10-2017 onwards
    - Jhabua Power Ltd under Bid 2 from 01-10-2017 onwards

- Replying to audit queries (AG Audit and KSEB Internal Audit) for all the above PPAs
- Power Purchase Agreement administration of Case-I bidding – contracts executed with NVVN – CSPDCL and PTC - Balco
- Replying to audit queries (AG Audit and KSEB Internal Audit) of Case 1 contracts executed with NVVN and PTC.
- Conduct of Core Committee meetings, preparation of minutes, Action taken report etc.
- Power sale proposals received from Andhra Pradesh, Telangana, Karnataka, Railways etc.
- Short term/long term proposals received from Uduppi Power Corporation Ltd. and related issues.
- Preparation of reply to LA and RIA

Assistant Engineer I (*vacant*)

- Custodian of all Power Purchase Agreements transferred from Office the Chief Engineer (Corporate Planning),
- Assisting AEE-VII for the execution of the above assigned works.
- Verification of bills related to the supply of power from Maithon Power Ltd I
- Verification of bills related to the supply of power from Maithon Power Ltd II
- Assisting AEE VIII in all works.
- Assisting AEE IX for arranging Core Committee meetings and meetings of Co ordination Cell.
- Preparation of reports for Power Position Meeting.
- Preparation of monthly Performance Report.

- Furnishing monthly progress reports to Planning Wing and TRAC.
- Furnishing reports called for by KSERC, CEA etc.
- Compilation of replies to LA and RIA
- Procuring Digital Signature for e bidding
- Custodian of office equipment like computers, printers, Photo copier, their maintenance and related matters

In addition to the above all officers are bound to do the works assigned to them by senior officers from time to time

Work Allocation of O/O Deputy Chief Engineer(TRAC)

1. **Work Assigned to AEE (CG)**

a. CERC Related Works:

Regulations/Tariff orders related to Generation and Transmission issued by CERC from time to time:

- Tariff regulations/orders,
- Open Access, Sharing of Transmission Charges, wheeling charges etc.
- Regulations on Renewable Energy and related matters
- Deviation settlement mechanism
- Ancillary services, REC
- Trading, Power market, PSDF etc…
- Regulations & Rules issued by CEA, MOP etc…

(i) Petitions related to generation

- Filing petitions before CERC
- Appeal petitions against orders issued by CERC
- Filing counter affidavit before CERC against tariff petitions filed by Central Power Sector Utilities
- Petitions before APTEL and Supreme Court

(ii) Miscellaneous Petitions before

- CERC,
- APTEL and
- Supreme Court

(iii) Comments on the agenda items for the SRLDC/SRPC/TCC

b. KSERC Related Works

- KSERC Tariff regulation.
- Intrastate Open access regulation/orders, issues connected with open access

- Regulations/orders related to generation
- Regulations/orders of KSERC related to Renewable and its implementation
- Solar regulations notified by KSERC

  - Implementation

- Filing petitions before KSERC on Tariff/other matters of renewables.
- RPO - Compliance & Furnishing details to KSERC, ANERT etc… Comments on renewable to SAC
- License Fee and related issues.
- Dispute between KPCL& KSEB
- Karikkayam SHP
- Viyyat Power Pvt Ltd, EDCL

ARR related

Preparation ARR(Transmission) of KSEB Ltd

- Monitoring the compliance of the various directives issued by KSERC
- Comments on the objections raised by stake holders on ARR &tariff petition

Any other work assigned by Executive Engineer

2. **Work Assigned to AEE (CT)**

(a) CERC Related Works:

- Orders related to Transmission
- Filing petitions related to Transmission before CERC/APTEL/Supreme Court.
- Filing counter affidavits to the petitions on transmission filed by PGCIL and various licensees before CERC/APTEL/Supreme Court.

(b) KSERC Related Works:

- Regulation on Standards of Performance
- All matters related to Standards of Performance
- Regulations on reduction of cross subsidy surcharge and related matters
- Regulations on grid code and related matters
- Voltagewise cost of supply

- Categorywise cost of supply
- Determination of voltagewise loss
- Issuing various clarification on Supply Code

(c) ARR related works

- Chapters connected with introduction and performance of the Board
- Capital investment
- Monitoring the compliance of the various directives issued by KSERC
- Comments on the objections raised by stake holders stake holders on ARR&tariff petition
- Compilation of various data in respect of transmission
- **Preparation of ARR (Transmission)of KSEB Ltd**

(d) **Assisting PIO in disposing applications related to Right to Information.**

Any other work assigned by Executive Engineer

3. **Work Assigned to AEE (G)**

Data Collection and Compilation of Monthwise, Sourcewise energy generation and Power Purchase
Periodical Report to KSERC on generation & Power Purchase
Fuel Surcharge Regulations and Orders of KSERC
Filing of Fuel Surcharge petitions to KSERC
Obtain approval from KSERC for the Power Purchase on short term, medium term and long term basis from traders and generators
Getting approval from KSERC on PPA to be executed between KSEB with Generators/Traders
Comments on PPA
Seeking approval for PPA with SHEP
Implementation of Power restrictions – Filing petition to KSERC

ARR related works
Projection of energy Demand (Generation and PP) and estimation of generation & Power Purchase cost and related Chapters, Annexures etc…
Preparing additional information/clarifications sought by KSERC on ARR & ERC
Comments on the objections raised by stake holders on ARR&tariff petition
Assisting in consolidation and filing of ARR&ERC
Assisting in preparingTariff petition/Review petition/Appeal petition/truing up petition etc
Assisting in preparing appeal petition before ATE on truing up etc…

Monitoring Compliance of directives issued by KSERC
Preparation of ARR(Generation) of KSEB Ltd

Implementation of Tariff order

Billing procedure and other instructions to field offices on implementation of Tariff Order, Fuel Surcharge and other related issues

Preparation of schedule and terms & Conditions of Tariff based on the Tariff orders issued by KSERC
Preparation of Ready Reckoner
LA Interpolation.

Any other work assigned by Executive Engineer

4. **Work Assigned to AE (AE-D)**

Data collection, analysis and updation of LT consumer details including category wise consumer, monthly consumption and connected load etc.

Data collection, analysis and updation of HT&EHT consumer details including category wise consumer, monthly consumption and connected load etc

Arriving actual T&D loss for each FY after compilation of actual energy consumption, & energy sales etc…

Compilation of various data in respect of Distribution wing.

Preparation of Technical Particulars for Annual Accounts of Board.

Correspondence with CEA on matters relating to consumption,Tariff etc.

Assisting in preparation of fuel surcharge petitions.

ARR- related works

a) Estimation of categorywise Energy Consumption

b) Estimation of Category wise revenue projection.

c) Preparation of chapters related to energy sales, revenue projection and annexures

d) Estimation of T&D loss and related chapters.

e) Capital Investment and related chapters.

f) Assisting in consolidation and filing of ARR& ERC

g) Additional Information/Clarifications sought by KSERC on ARR & ERC & related matters.

h) Preparation of comments on the objection raised by stake holders on ARR &tariff petition

Assisting in Preparing Tariff Petitions, appeal/review petition

CARE rating details, Preparation.

General matters

Any other work assigned by Executive Engineer

5. **Work Assigned to AEE (AEE-D)**

Checking, analysis and approval of LT consumer details including category wise consumer, monthly consumption and connected load etc.

Checking, analysis and approval of HT&EHT consumer details including category wise consumer, monthly consumption and connected load etc

Finalisation of actual T&D loss for each FY after checking of actual energy consumption, & energy sales etc…

Checking& approval of various data in respect of Distribution wing.

Finalisation of Technical Particulars for Annual Accounts of Board.

Correspondence with CEA on matters relating to consumption,Tariff etc.

ARR-

a) Collection & Compilation of ARR& ERC of other utilities-Collection of inputs from ARR&ERC of other utilities.

b) Collection& Comparison of Tariff of various categories of other utilities.

c) Estimation& Finalisation of of categorywise Energy Consumption

d) Estimation & Finalisation of Category wise revenue projection.

e) Preparation of chapters related to energy sales, revenue projection and annexures.

f) Estimation of T&D loss and related chapters.

g) Capital Investment and related chapters.

h) Assisting in consolidation and filing of ARR&ERC

i) Additional Information/Clarifications sought by KSERC on ARR & ERC & related matters.

j) Preparation of Comments on the Objections raised by Stake holders on ARR&tariff petition

k) Monitoring the compliance of the various directives issued by KSERC.

l) **Preparation of ARR (Distribution) of KSEB Ltd**

Assisting in Preparing Tariff Petitions, appeal/review petition

Finalisation of CARE rating details

General matters

Any other work assigned by Executive Engineer

Work Assigned to AEE (AEE-General)

- All petitions related to Tariff before KSERC.
- Issuing clarification on the Tariff related complaints raised by the consumers
- Issuing clarification on the Tariff related complaints received from field offices.
- Handling Petitions filed by stake holders before High Court/ other legal forums on Tariff related matters.
- Tariff concession to Life Supporting System.
- Street light –metered supply and related issues.
- Centralised billing and related issue.
- Revenue Adalath/Janakeeya Adalath and other related issues
- Matters related to arrear collection

<u>ARR</u>

- **Consolidation and filing of ARR & ERC before KSERC**
- Preparing and filing Tariff Petition before KSERC
- Monitoring the compliance of the various directives issued by KSERC
- Comments on the objections raised by stake holders on ARR&tariff petition

Any other work assigned by Executive Engineer

Work Assigned to AEE R1(Vacant) (Now handled by AEE R3)

- Matters related to Licensees
- ARR Petitions of Licensees
- Handling Petitions Filed before KSERC by various stakeholders like HT& EHT Industrial Electricity Consumers Association, Small Scale Industrial Electricity Consumers Association etc. The work includes filing of counter petition after

obtaining approval of Board,appearance before KSERC,implementation of consequent orders,handling the same process before Appellate Tribunal in case the matter escalates to appeal stage.

- Handling Petitions Filed by consumers before High Court and remanded to KSERC for disposal. The work includes filing of counter after obtaining approval of Board,appearance before KSERC,implementation of consequent orders,handling the same process before Appellate Tribunal in case the matter escalates to appeal stage.
- Responding to various complaints/suggestions received from consumers, stakeholders etc through Govt, KSERC through appropriate measures

ARR

- Projection of Revenue from Tariff of **Licensees** for ARR&ERC of KSEB.
- Monitoring the compliance of the various directives issued by KSERC
- Comments on the objections raised by stake holders on ARR &tariff petition

Any other work assigned by Executive Engineer

Work Assigned to AEE(R2)

- Regulation on Supply Code
- All matters related to Supply Code
- Handling Petitions Filed before KSERC by various stakeholders like HT& EHT Industrial Electricity Consumers Association, Small Scale Industrial Electricity Consumers Association etc. The work includes filing of counter petition after obtaining approval of Board,appearance before KSERC.,implementation of consequent orders.,handling the same process before Appellate Tribunal in case the matter escalates to appeal stage.
- Handling Petitions Filed by consumers before High Court and remanded to KSERC for disposal. The work includes Filing of counter petition after obtaining approval of Board,appearance before KSERC.,implementation of consequent orders.,handling the same process before Appellate Tribunal in case the matter escalates to appeal stage.
- Coordination among various wings of KSEB on implementation of new systems and procedures as a result of implementing orders of KSERC or changes in regulations. This includes matters related with implementation of TOD metering as a part of extension of TOD billing., implementation of Supply Code 2014.,Proposing Special schemes for electric connections to disadvantaged sections of the society etc…
- Responding to various complaints/suggestions received from consumers, stakeholders etc through Govt, KSERC through appropriate measures

- Regulation CGRF,Ombudsman
- General issues related to Distribution

ARR

- Monitoring the compliance of the various directives issued by KSERC
- Comments on the objections raised by stake holders on ARR &tariff petition

Any other work assigned by Executive Engineer

Work Assigned to AEE (R3)

- Preparation of estimate rates for distribution works for KSERC approval
- Preparation of estimate rates for transmission works for KSERC approval
- Schedule of miscellaneous charge for KSERC approval
- Handling Petitions Filed before KSERC by various stakeholders like HT& EHT Industrial Electricity Consumers Assosiation, Small Scale Industrial Electricity Consumers Assosiation etc. The work includes filing of counter petition after obtaining approval of Board,appearance before KSERC.,implementation of consequent orders.,handling the same process before Appellate Tribunal in case the matter escalates to appeal stage.
- Handling Petitions Filed by consumers before High Court and remanded to KSERC for disposal. The work includes Filing of counter petition after obtaining approval of Board,appearance before KSERC.,implementation of consequent orders.,handling the same process before Appellate Tribunal in case the matter escalates to appeal stage.
- Coordination among various wings of KSEB on implementation of new systems and procedures as a result of implementing orders of KSERC or changes in regulations. This includes implementation of SOP
- Coordination of awareness program on various regulations issued by KSERC through RPTIS/ Circle level.
- Responding to various complaints/suggestions received from consumers, stakeholders etc… through Govt, KSERC through appropriate measures
- Preparation of special estimates related to distribution works carried out during Sabarimala Season and obtaining approval of Board
- Formulation of one time settlement scheme of long pending arrears from consumers. Seeking approval of Board and KSERC on the same.

ARR

Depreciation- projection for ARR&ERC

- Monitoring the compliance of the various directives issued by KSERC
- Comments on the objections raised by stake holders on ARR &tariff petition

Any other work assigned by Executive Engineer.

Work Assigned to Finance Officer

1. Preparation of ARR& ERC-estimating all the financial related matters of

ARR&ERC Petition.
-Interest & Finance Charges
-Depreciation
-R&M Expenses, Employee cost.
-A&G Expenses
-Equity
-Etc.

2.**Consolidation of ARR&ERC** and filing before SERC

3.Filing of tariff petition before KSERC

4. Preparation & Filing of Truing Up Petitions of KSEB & its follow up.
5. Preparing & Filing review petitions before KSERC against orders on ARR& Truing Up petitions issued by KSERC.
6. Preparing appeal petitions before Appellate Tribunal for Electricity against KSERC orders on ARR&ERC, Truing Up Petitions.
7. Preparing Counter affidavit against appeal petitions filed by HT&EHT associations and other generators against KSERC orders.

8. Compilation of Norms adopted by other SERC's and CERC.

9. Appraisal of all finance related matters like depreciation, financial

norms ,RoE etc.

9. Financial matters related to re-vesting

10. Electricity duty & related matters.

11. Comments on the objections raised by stake holders on ARR.&tariff petition

Subsidy from Government etc

Any other work assigned by Deputy Chief Engineer.

ANNEXURE VI: OFFICE OF THE CHIEF ENGINEER (SCM)

TENDERING & CONTRACT MANAGEMENT

1. **Direction for Purchase**: Receive request with specifications / Board Order : Based on a Board order, the materials for the annual plan of works, centrally aided project works, etc., are purchased from the Supply Chain Management.
2. **Data Collection**: Collect data for calculating probable amount of contract from previous purchase orders: The previous purchase orders are collected and based on the data, the probable amount of the tender is calculated. The technical specification is also collected from the previous purchase orders. In some cases, the previous purchase orders will not be available. In such cases, the specification for the materials are obtained from the field offices.
3. **Verification of Collected Data with Standards**: Verification with the Indian Standards: The available specification is compared with the relevant Indian Standard and checked in order to avoid errors. If there is any change required, it is brought into the attention of the specification committee constituted by the KSEB Limited.
4. **Tender Documents**: Preparation of Tender Documents (Quotation/Single Part Tender/ Two Part Tender)- Note / Draft / Fair copy . The documents for publicity are prepared. The tender documents contain technical particulars, financial particulars, delivery details, payment conditions etc.,
5. **Upload the Tender Documents**: The tender documents are uploaded to the to e-tender site of the Government of Kerala.
6. **Publicity**: The Public Relation Department is informed to give publicity through news papers, KSEB Limited's website.
7. **Pre-Bid Meeting:** Pre-Bid meeting is conducted to clarify the doubts of the bidders minutes of the meeting is prepared and uploaded.
8. **Corrigendum:** Corrigendum is issued, if needed based on the meeting / clarifications etc.
9. **Monitoring**: The number of tenderers participating in the tender are monitored and if the number is less than three, the opening time is extended.
10. **Tender Opening**: Tender open / Prequalification Bid Open: In the case of two part tenders, the technical details and financial details except the price is opened which is called the prequalification bid opening. In single part tenders, the price bid, the technical particulars etc are opened simultaneously.
    While opening the bid documents, the Earnest Money Deposit, Bid Form and Bid Agreement are verified and the technical bid is opened. If any of these were found not ok, then the particular tender is rejected. In the case of two part tenders, the price bid is not opened.
11. **Correspondence with NIC:-** Correspondence is made with NIC in case of anomalies like payment failure etc

12. **Technical Evaluation**: The technical bid is opened and it is evaluated with respect to the tender documents, eligibility conditions and the relevant Indian standards. The deviations in type test values, the technical particulars, delivery etc., are noted in the comparison statement.
13. **Sample testing:** The testing of samples furnished by bidders is done by the Technical Committee in cases where sample testing is applicable.
14. **Technical and Commercial Deviations:** The deviations quoted by the bidders are placed before the finance/ technical committee and acceptance of the same is decided.
15. **Clarification**: Based on the evaluation, clarifications are sought from the tenderers. Also, the missing documents are collected from the bidders if any.
16. **Comparative Statement**: After receiving the missing documents and clarifications, the comparative statement is updated. Based on the comparison statement, the Pre qualification note is prepared.
17. **Pre qualification Note**: Pre qualification note is sent for the remarks of the Financial Advisor. Based on the remarks, the bidders are again asked to supply any details.
18. **Reply to remarks of FA**: After getting sufficient details from the bidders, the reply to remarks of the Financial Advisor is prepared.
19. **Pre Qualification Committee**: The Pre qualification note, remarks of FA & Reply to remarks are given to the members of the Prequalification committee. The decision of the Pre qualification committee is received. The decision clearly specifies the pre qualified vendors whose price bids are to be opened.
20. **Inform the Tenderers**: Information regarding the price bid opening date is sent to the qualified tenderers.
21. **Price Bid Opening**: Price bid is opened in the presence of the representatives of the tenderers.
22. **Price Evaluation**: The price bid is evaluated and compared. The lowest quoted tenderer is found out. Also the calculation mistakes, deviations in the percentage of applicable taxes etc., is noted.
23. **Rock Bottom Price**: The lowest bidder is requested to reveal the rock bottom price.
24. **Negotiation for matching with L1 rate**: On receiving the rock bottom price, if required, the L2 ofL3 bidders are requested to match with the L1 rock bottom rate. It is done in anticipation that the L1 firm could supply the fast moving items in a time bound manner. Also in the case of public sector undertakings, the price matching is allowed.
25. **Purchase Committee Note:** Based on the comparison of the price, and financial conditions, Purchase committee note is prepared. Purchase committee note is sent for remarks of the Financial Advisor

26. **Remarks of the Financial Advisor**: Based on the remarks of the Financial Advisor, the firms are requested to supply the details.
27. **Reply to remarks of the FA**:- Based on the remarks and information from the firms, reply to remarks of the Financial Advisor is prepared, if within financial delegation of the PC. Further negotiation of rates is also done if required.
28. **Updation of Purchase Committee Note**: The updated Purchase committee note including remarks of FA and Reply to remarks are submitted to the purchase committee for a decision.
29. **Purchase Committee**: The Purchase Committee considers the note and Purchase committee decision is obtained. The committee directs the Chief Engineer (SCM) to issue purchase order to the firms selected, if the purchase value is within the financial limit of the purchase committee.
30. **Board Note**: If the purchase value is above the financial limit of the purchase committee, then the decision is to referred to the Full Board. Based on the decision of the purchase committee, the Board Note is prepared and submitted. **Board Order**: The Board order is prepared presented, get signed by Secretary, numbered by Management Information System and released,.
31. **Purchase Order:** After Board meeting, Proceedings of the Board of Directors is received
    Based on the Board Order, the Purchase order/ Purchase Orders is/ are issued to the selected firm/firms. The purchase order contains all relevant details pertaining to supply, delivery, payment, security deposit, forms of agreement, form of bank guarantee etc., The purchase order is sent to the firm and consignees.
32. **Agreement**: After issuing the purchase order, the firms are requested to submit the accepted Purchase order, security deposit, Power of attorney and agreement executed in stamp paper etc., as per the purchase order conditions if they are not done in time. On getting the agreement and the bank guarantee, it is verified with the standard documents and the documents are forwarded to the Assistant Finance Officer for keeping under safe custody. The issuance of BG is got confirmed from the Bank before acceptance.
33. **Award of Contract**: The Award of contract details is entered in the e-Tender site whereby the EMD non-selected bidders are released.
34. **Return of the EMD:** The Earnest Money Deposit submitted by all the bidders selected for the Award of Contract are returned to them on executing the agreement.
35. **Drawing Approval**:- Drawings furnished by the contractor is verified and Approval issued.

36. **Inspection Offer:** On receiving Inspection offer from the firm, the Director concerned is requested for deputing a competent inspecting officer.
37. **Tour Programme of the deputed officer from the concerned authority:** In case of pre-dispatch inspection outside the state.
38. **Intimation to inspecting officer**:- The inspecting officer is sent the details of purchase order, specifications, inspection offer etc.
39. **Tour Programme Approval from the concerned Director:-:-** Tentative tour programme is got sanctioned by the concerned director.
40. **Preparation of Board Order for Tour Programme:** The Board Order is prepared for the sanctioned Tour Programme and got approved by the Secretary, KSEBL.
41. **Issue of Board Order:** The Board Order is numbered and published in KSEBL website.
42. **Inspection Report:** On getting the inspection report of the inspecting officer, it is verified with technical specifications and the purchase order. The relevant Indian standards are also referred for arriving at a conclusion. Confirmation / clarification is sought from the supplier , if needed for compliance.
43. **Revised Drawing Approval:** In case of any changes in approved drawing after inspection, Approval of revised drawings / as-built drawing is issued .
44. **Material Despatch Clearance Certificate:** Based on the successful inspection, Material Despatch Clearance Certificate (MDCC) is issued. In the MDCC, the quantity and the delivery points will be mentioned.
45. **Multiple lot delivery** will lead to cyclic repetition of the procedures from inspection offer onwards.
46. **Delivery Schedule extension** , if required **.**
47. **Acceptance of Materials:** After the date of delivery, it is verified whether the materials are delivered to the stores and the store authorities have accepted the materials.
48. **Material Accounting in SCM software:** The details of MDCC in entered in SCM software.
49. **Allocation:** On accepting the materials by the consignees at their stores, an allocation order is prepared so that the material can be utilized for various other stores.
50. **Performance Guarantee:** On completion of the acceptance of the materials, the firm is asked to furnish the Performance Bank Guarantee so that 100% payment is released. On submission of the performance guarantee, the matter is informed to the consignees.
51. **Monitoring of Performance within Guarantee Period:** For rejected materials taken back by the firm also the cycle from inspection offer is repeated.
52. **Additional Purchase Orders are placed if** required with sanction from PC / Board , if required.

53. **Defects & Replacement**: On getting information regarding the defects notified by the field officers in the particular material, the firm is informed to replace the material or get it repaired as mentioned in the purchase order.
54. **Price Variation**: In the case of certain items such as conductors, transformers, G I wire, Tower etc., the price variation is applicable. The prices of raw materials vary during the purchase and accordingly, it is to be considered while making payment for the supplier based on the indices published by the IEEMA.
55. **Price Refixation**: In the case of belated supply, the price of the material supplied is refixed to the lowest rate of that material quoted/purchased at the specific period by the other officers of the KSEB Ltd.
56. **Bank Guarantee Extension**: The Security Deposit and Performance Guarantee is kept extended till the guarantee period is completed and the contract is performed in all respects.
57. **Non Liability Certificate**: On completion of the guarantee period, the consignees are requested to issue the non liability certificate in connection with the supply of the material.
58. **Release of Bank Guarantee:** On getting the non liability certificate, the bank guarantee is released.
59. **Closing of the File:** The file is closed and sent to the record room.
60. **Review and updation of Technical Specification:** The technical Specification of various items is updated based on pre-bid meeting, feedback from field/ industry/ Deviations stated by bidders in co-ordination with Technical Committee.

The above mentioned are the minimum events happen in a purchase process. Usually, no purchase process will complete with the above events. There are events which will occur due to unforeseen factors. They are also to be attended. Some of them are elaborated below:

1. **Single Tender**: When only one tenderer submits the bid, then it is to be retendered.
2. **Litigation**: At any time of the purchase process, there will arise a dispute between the purchaser and the supplier even though the purchase order specifies almost all the conditions. It will consume a lot of time to tackle.
3. **Rejection of Materials**: In the case of rejection of materials by the consignees, the firms who do not supply the materials in time may be black listed. Alternate purchase may be arranged. The risk and cost may be recovered from the firms who have violated the contract etc.
4. **Penalty**: In the case of imposing penalty, it may be calculated based on the data available from the consignees.

5. **Progress Reports(Monthly and weekly)**
6. **Reply to Audit** (AG Audit, Internal Audit)
7. **LA Interpellation**
8. **Right to Information**
9. **Bid Validity Extension**
10. **Liasioning work with consignees /firms**
11. **Any additional works as assigned**

STORE VERIFICATION

ASST. EXE. Engineer I

Store verification is a statutory requirement as per Indian Govt. Accounts and Audit.

In order to ensure that the stock consists of efficient and necessary articles and that the quantity balances as shown in the accounts are correct, the articles are verified periodically at least once a year by a responsible Officer, and any discrepancies are brought to the notice of the Divisional Officer. Necessary adjustments are made on receipt of orders of competent authority

1. **Current manpower**

At present- 38 Nos.(25 SRS, 4 GC stores,1 Tr.st.Dn,Agly,3MFs&5TMRs) are annually verified by

1) Sri. Xavier D. AEE @ 3 stores/ month &
2) Sri. Brijesh S.,AEE @ 1 store/month.

<u>Number of Stores under KSEB Limited as on 31/03/2017:-</u>

1)	Sub Regional Store	-	25 Nos.
2)	Generation Circle Stores	-	4 Nos.
3)	TMR Division Stores	-	5 Nos.
4)	Manufacturing Facilty Stores (MF)	-	3 No.
5)	Transmission Division Store	-	1 No.
6)	L.D. Circle Store	-	1 No.
7)	Stationary Store, Trivandrum	-	1 No.

As part of implementation of supply Chain Management Board vide Order No.B.O. (FB) No.3201/2010/CE (TC&M/XM/SCM Consultancy/2009 dated 07/12/2010 has decided to abolish 3 Regional Store, Transmission Circle Store and all Civil Stores (10 Nos.) except Civil Store at Angamali & Pallom. As per this, the stores presently functioning are 25 Sub Regional Stores, 5 TMR, 3 MF and 4 Generation Circle Stores (KDPP,BDPP, Chithirapuram & Moolamattom) and one Transmission Store Division, Angamali.

2. **Job Description.**

Main Functions of Store verification are:

1) Physical Verification of materials in the stores annually. Annual stock verification of materials with respect to numerical store ledger balance and bin cards, for detecting any variation in physical stock such as excess/ shortage etc.
2) Identifying any unaccounted materials in the store.
3) Identifying the dead stock.
4) Reporting of any discrepancies in transaction, mal practices etc. in the store, to the Chief Engineer (SCM).
5) Follow up action of the report.
6) Reporting of variation in physical and SCM stock in the Store to the Chief Engineer (SCM).
7) Surprise inspection at two Electrical Section (as per direction) in connection with Sub Regional Store verification for finding whether the physical stock of materials are tallied with the SCM Stock.

This includes

1) Physical verification of materials in stores and comparing with concerned store ledger and reporting any excess or deficiency to the Dy.CE/ EE for taking further steps.
2) Reporting of Dead Stock found at site and give direction through SCM to divert these items to the destinations where it may be required in future.
3) Inspection of unaccounted materials at site & reporting to the store authorities for including them in the store ledger, so as to issue these items from store.
4) Inspection of Bin card for each item of material and comparing with numerical ledger and materials at site.
5) Inspection of scrap items available at store and report the matter to the Dy CE/EE concerned for taking urgent action for Survey reporting and conducting auction.
6) Pointing out descrepancies in SCM stock & ledger stock, if any ,and to include new items in SCM etc.

Along with the store verification 1or 2 Ele. Section stores are also verified.

At present KSEBL has 788 Electrical sections upto March 2016.

3. **Quantum of workload for last 3 years.**

Store Verification conducted for 2014-15 to 2016-17

Sl. No.	Name of Store	Date of Physical Verification proposed for 2014-15	Date of Physical verification proposed for 2015-16	Date of Physical verification proposed for 2016-17
1)	Sub Regional Store, Pathanamthitta	13/05/2014 to 15/05/2014	19/05/2015 to 21/05/2015	8/03/16 to 10/03/16
2)	Sub Regional Store, Kottarakkara	19/05/2014 to 20/05/2014	11/05/2015 to 12/05/2015	3/03/16 to 4/03/16

3)	Sub Regional Store, Alappuzha	22/05/2014 to 24/05/2014	19/05/2015 to 21/05/2015	16/03/16 to 18/03/16
4)	Generation Circle Store, Chithirapuram	27/05/2014 to 30/05/2014	08/06/2015 to 11/06/2015	20/04/16 to 24/04/16
5)	Sub Regional Store, Kozhikode	10/06/2014 to 13/06/2014	26/05/2015 to 29/05/2015	18/05/16 to 21/05/16
6)	Generation Circle, Moolamattom	17/06/2014 to 20/06/2014	26/05/2015 to 29/05/2015	25/05/16 to 28/05/16
7)	Sub Regional Store, Vadakara	24/06/2014 to 27/06/2014	09/06/2015 to 12/06/2015	4/04/16 to 7/04/16
8)	Sub Regional Store, Thiruvananthapuram (Rural)	01/07/2014 to 02/07/2014	16/06/2015 to 17/06/2015	15/04/16 to 16/04/16
9)	Sub Regional Store, Shornur	08/07/2014 to 11/07/2014	23/06/2015 to 26/06/2015	18/05/16 to 21/05/16
10)	Sub Regional Store, Thiruvananthapuram (Urban), Andoorkonam	15/07/2014 to 16/07/2014	02/07/2015 to 03/07/2015	4/05/16 to 5/05/16
11)	Sub Regional Store, Ernakulam	22/07/2014 to 24/07/2014	07/07/2015 to 09/07/2015	6/06/16 to 8/06/16
12)	Sub Regional Store, Pala	16/09/2014 to 18/09/2014	14/05/2015 to 16/05/2015	16/06/16 to 18/06/17
13)	Sub Regional Store, Pallom, Kottayam	19/09/2014, 20/09/2014 to 22/09/2014	21/07/2015 to 23/07/2015	20/06/16 to 22/06/16
14)	Sub Regional Store, Sreekantapuram, Kannur	24/09/2014 to 27/09/2014	14/07/2015 to 17/07/2015	15/06/16 to 18/06/16
15)	TMR Division Store, Pallom, Kottayam	07/10/2014 to 09/10/2014	11/08/2015 to 13/08/2015	19/07/16 to 21/07/16
16)	Sub Regional Store, Thodupuzha, Vazhathoppe, Idukki	14/10/2014 to 17/10/2014	18/08/2015 to 21/08/2015	13/07/16 to 16/07/16
17)	Manufacturing Facility, Kolathara, Kozhikode	28/10/2014 to 31/10/2014	04/08/2015 to 07/08/2015	26/07/16 to 29/07/16
18)	TMR Division Store, Thirumala,	11/11/2014 to	24/08/2015 to	7/07/16 to 8/07/16

	Thiruvananthapuram	12/11/2014	25/08/2015	
19)	Sub Regional Stoe, Kollam	18/11/2014 & 19/11/2014	29/10/2015 to 30/10/2015	25/08/16 to 26/08/16
20)	Manufacturing Facility under CM Division, Pallom, Kottayam	20/11/2014 to 22/11/2014	04/08/2015 to 06/08/2015	9/08/16 to 11/08/16
21)	Sub Regional Store, Kalpetta, Padinjarethara, Wayanad	25/11/2014 to 28/11/2014	08/09/2015 to 11/09/2015	26/04/16 to 29/04/16
22)	Transmission Store Division, Angamaly	03/12/2014 to 06/12/2014	07/09/2015 to 09/09/2015	16/08/16 to 19/08/16
23)	Generation Circle Store, BDPP	09/12/2014 to 12/12/2014	17/11/2015 to 20/11/2015	19/10/16 to 22/10/16
24)	Sub Regional Store, Kasaragode	16/12/2014 to 19/12/2014	08/09/2015 to 11/09/2015	17/08/16 to 20/08/16
25)	Sub Regional Store, Manjeri	13/01/2015 to 16/01/2015	15/09/2015 to 18/09/2015	5/09/16 to 8/09/16
26)	TMR Division Store, Angamaly	19/01/2015 to 22/01/2015	24/11/2015 to 27/11/2015	19/09/16 to 23/09/16
27)	Sub Regional Store, Kannur	28/01/2015 to 31/01/2015	15/12/2015 to 18/12/2015	27/09/16 to 30/09/16
28)	Sub Regional Store, Palakkad	10/02/2015 to 13/02/2015	17/11/2015 to 20/11/2015	4/10/16 to 7/10/16
29)	Sub Regional Store, Perumbavoor	18/02/2015 to 20/02/2015	11/11/2015 to 13/11/2015	13/10/16 to 15/10/16
30)	Generation Circle, K.D.P.P, Nallalam	24/02/2015 to 27/02/2015	15/12/2015 to 19/12/2015	19/10/16 to 22/10/16
31)	Manufacturing Facility Angamali	10/03/2015 to 12/03/2015	08/13/2015 to 10/12/2015	22/11/16 to 24/11/16
32)	Sub Regional Store, Thrissur	17/03/2015 to 20/03/2015	28/12/2015 to 30/12/2015	15/11/16 to 18/11/16
33)	Sub Regional Store, Tirur	24/03/2015 to 27/03/2015	05/01/2016 to 08/01/2016	27/12/16 to 30/12/16

34)	TMR Division Store, Shornur	07/04/2015 to 10/04/2015	11/01/2016 to 14/01/2016	6/12/16 to 9/12/16
35)	Sub Regional Store, Irinjalakuda	16/04/2015 to 18/04/2015	15/01/2016 to 18/01/2016(17/01/2016-Holiday)	14/12/16 to 17/12/16
36)	TMR Division, Kannur	21/04/2015 to 24/04/2015	12/01/2016 to 15/01/2016	15/11/16 to 18/11/16
37)	Sub Regional Store, Haripad	New	16/02/2016 to 18/02/2016	10/01/17 to 12/01/17
38)	Sub Regional Store, Nilambur	New	16/02/2016 to 19/02/2016	17/01/17 to 20/01/17

Assistant Engineer I(Stores & Logistics)

Job Description

1 Monitoring the stock of distribution materials purchased / fabricated under the control of Corporate office.
2 Allocation of these materials for emergency field works under distribution works.
3 Consolidation of monthly material requirement of 25 Electrical Circles from the monthly requirement received from four Distribution Chief Engineers.
4 Allocation line materials, almost 25 number of items to 25 Electrical Circles (namely CROSS ARM GI 2 LINE, CROSS ARM GI 4 LINE, V CROSS ARM 11 kV-GI, CLAMP FOR V CROSS ARM, CLAMP GI FOR LT CROSS ARM, CLEAT GI FOR DISC INSULATOR, CROSS ARM CHANNEL 75X40 mm 1.8 M, CROSS ARM CHANNEL 100X50 mm 3 M, CROSS ARM GI CHANNEL 75X40mm 2.4m, CLAMP GI FOR HT CROSS ARM, CLAMP GI FOR STAY / STRUT (LT), CLAMP GI FOR STAY / STRUT (HT), EARTH PIPE GI 40 mm DIA, PIN INSULATOR 11 kV, STAY ROD 16 mm DIA GI (LT Stay Rod) etc.)
5 Transfer of above allocated materials in SCM Application Software from Manufacturing Stores to Sub Regional Stores.
6 Allocation of Distribution Transformers and energy meters to 25 Electrical Circles.
7 Approval for Tranfer of any material except PSC Poles from one Electrical Circle(Sub Regional Store) to another during emergency field works.

8 Addition of Items in SCM Application Software

Identification of item group, selection of required parameters and naming of the item .

9 Approval for issue (of repaired items (Meters, transformers, CTPT Units etc.,) from TMR to Electrical Circles in SCM S/W.

10 Procurement of Digital Signature Certificate for Officers of Purchase Wing.

Job Description of Assistant Executive Engineer-2 under XM

The main functions of this section includes procurement as well as contract management.

The main work dealt with is the purchase of computer systems &accessories,purchase of laptops,purchase of computer peripherals such as different types of printers,scanners etc.for various offices of KSEB Ltd throughout Kerala. The procurement is arranged either through tenders or quotations as per the situation/requirement.

The work includes different stages from tendering to closure of POs,monitoring of Bank Guarantees(renewal,claims&release etc),Reply to Audit queries,Reply to LA questions, Reply to Right to Information Act questions etc.

In addition to this, monthly Progress Report of tenderes invited/POs issued from this section is to be prepared.

Files relating to purchase orders issued after 2/2010 are dealt with in this section. These files includes purchase arranged through tenders as well as quotations. The current number of files kept in this section is 56.

An over view of the normal flow of works being done from this section relating to a procurement process is as follows:

1.The requirement from various offices of KSEB Ltd are forwarded to the o/o the Chief Engineer(IT&CR).

2.The requirement collected annually will be placed before the Board for administrative sanction .

3.The Board order sanctioning the procurement along with the consignee list,no.of each item required for the consignee,the specification of various items etc will be forwarded by the Chief Engineer(IT&CR).

4.Based on the above,PAC has to be arrived at and e-tender documents has to be prepared accordingly.

5.These e-tender documents has to be uploaded in the kerala government e-tender site.

6.Notice inviting tenders has to be uploaded in the website of KSEB Ltd &wide publicity has to be given in news papers through the Public Relations Dept of KSEB Ltd.

7.Pre-bid meeting has to be conducted and minutes of pre-bid meeting to be uploaded in the e-tender site.

8.Extension of bid submission & opening has to be done ,if required.

9.PQ Bids has to be opened at the date&time mentioned in the notice.

10.Evaluation of the PQ bids submitted on-line by the firms has to be done.

11.Clarification, if any, required has to be sought for regarding any deviations found in financial,legal,technical matters ,etc.

12.Missing documents if any has to be collected with a cut off date.

13.Technical evaluation&demonstration of items to be conducted by the bidders at IT wing of KSEB Ltd.

14.Pre-qualification committee(PQ) note has to be prepared.

15.Financial vetting by Financial Adviser has to be done for the documents submitted on-line by bidders with PQ note.

16.Based on the remarks of FA,further clarifications if any needed has to be obtained from the bidders.

17.Legal vetting by LA&DEO has to be done ,if required.

18.Reply to remarks of FA has to be prepared.

19.PQ meeting will be conducted for the pre-qualification of bidders.PQ minutes has to be uploaded in the e-tender site.

20.Based on the decision of prequalification committee the price bids of prequalified bidders has to be opened after giving intimation to the qualified bidders.

21.Evaluation of price bids has to be done in all respects including arithmetical calculations, the existing rates of taxes etc.Then find out the lowest price quoted firm(L1).

22.Negotiation has to be done with the L1 bidder to offer their rockbottom matching price.

23.Vetting by FA has to be done for the price bids with PC note.

24.Further clarifications if any based on the report of FA has to be collected from the prequalified firms.

25.Reply to remarks of FA has to be prepared.

26.PC meeting will be conducted for the selection of firm for the award of contract.

27.Purchase Order will be awarded for the lowest price quoted firm with the approval of the higher authority of the Board according to the delegation of powers.

28.Contract agreement has to be executed with the firm including necessary security deposit.

29.EMD shall be returned to the bidders after execution of agreement by the L1 bidder.

30.Pre-despatch inspection of items at firm's premises has to be arranged at the request of the firm.

31.MDCC has to be issued on acceptance of items.

32.Delivery has to be monitored .ARUs has to arrange release of eligible 95% bills to the firm after completion of supply&installation of items at the office of the consignees.

33.After completion of supply&installation,performance guarantee has to be accepted from the firm

34.Upon the submission of Performance guarantee by the firm,intimation regarding the same has to be given to the various ARUs for release of the balance portion of payments due to the firm.

35.Follow up of payments is needed.

36. Normally, the systems purchased are under warranty for a period of 3years and continued AMC for a further period of 3 years.

37. So follow up of rectification of defects reported from consignees has to be done with the firm.

38. Action regarding the execution of AMC as soon as the 3years warranty period expires has to be done

39. After the completion of the above said 6years,NLC has to be collected from all consignees through the ARUs to take action regarding the release of BGs towards SD&PBG.

40.The file has to be closed and transferred to the record room.

In addition to the above ,any unforeseen events that may occur during the process may be attended accordingly.

Job Description of Assistant Executive Engineer III and Assistant Engineer of Vendor Registration wing of SCM

The full Board in its meeting held on 06/11/2010 had decided to re- introduce vendor registration in KSEB Ltd in order to reduce the tender processing time by avoiding pre-qualification process. The vendor registration was carried out in KSEB Ltd during the period from September 2012 to December 2013, utilizing the service of a team of Board Engineers for verification of the credential and assessment of the capacity and capability of the manufactures and to categorize them as vendors. Later KSEB Ltd had decided to entrust M/s.CPRI, Bangalore for Vendor Analysis/Assessment and inspection. M/s.CPRI shall evaluate the firm and the item offered for registration after verification of all documents, ascertaining the financial capability of the firm and inspection of the factories/manufacturing unit. Based on the recommendation of M/s CPRI , Bangalore financial vetting over the documents submitted by the firms will be carried out by the Financial wing of KSEB Ltd. After that the matter will be placed before the Vendor Qualification Committee which will finally qualify or disqualify the firms. Vendor registration code and number will be issued for the qualified firms.

KSEB Ltd vide order No.B.O.(FTD)No.624/2017(SCM/VR/CPRI/2016-17)dated Tvpm 10.03.2017 has decided to cancel the extension of the Memorandum of Understanding executed with M/s CPRI. The Board vide Order NoB.O.(FTD) No.808 /2017 (SCM/ Pre-Proc/Vendor-Regn./2016-17/) Dated Thiruvananthapuram, 28.03.2017 KSEB Ltd has decided to form technical committees in both Transmission and Distribution wings for evaluation/assessment and factory inspection in connection with the vendor registration process.

Process of vendor registration

Every year from the month of January to March, KSEBL invites Request of Vendor Registration from reputed manufacturers with BIS/ISO certification, fulfilling the minimum eligibility criteria , for getting themselves registered with KSEB Ltd under various categories of materials and requirement by giving publicity in the website of KSEB Ltd.

The following documents are to be collected from each applicant firm.

1) Valid Factory license/Trade license along with necessary certificates.

2) Financial capability of the firm along with audited reports of the company for previous three years along with income tax clearance certificate.

3) Quality Assurance Plan being followed by the firm at various stages of manufacturing of the item including inspection of raw materials from the source of their procurement.

4) Technical specification of material with drawing for which vendor approval is sought.

5) Guaranteed Technical Particulars of the same.

6) History of blacklisting of the firm by any other utility.

7) Attested copies of the valid type test certificate of respective products (each item with rating).

8) Production capability per Month

9) Infrastructure and Machinery details available in the firm

10)Testing facilities and Testing equipments available in the firm with the valid calibration certificates.

11) List of the order executed by the firm for the last four year for respective products with client (Furnish attested copies of Purchase Orders for each item with rating).

12)Company financial position, Balance sheet for the prevailing three years (Attested copies of Audited Financial Statements).

13) Factory NPV (Net Profit Value)

14) Details of man power including the number of Engineers/Post Graduate/ Graduates /Diploma /Skilled & Unskilled in the company(Attach organization chart)

15) Valid Total Quality Certification or approval of the product from BVQI or BIS for applicable items.

16) Valid power of attorney duly attested by Notary Public.

17) Performance certificate issued by the purchasing authority in proper format to prove satisfactory performance of the materials/ Equipment's for a period of three years.

18) Details of registration with DGS & D, if any, and any other utilities.

Job Description of Assistant Engineer II

I)All the above documents collected from the firms vide Request for Vendor Registration notice should be verified in Vendor section and evaluation sheet is to be prepared based on that
II) The documents are to be sent to the Financial Advisor of KSEB Ltd for financial vetting.
III) After that the documents should be sent to the office of The Legal Advisor and Disciplinary Enquiry Officer for legal vetting.

IV)Board Sanction for deputing the technical committee for inspecting the factories of the firms has to be obtained by the vendor registration wing.

V) The vendor qualification note will be prepared by the vendor registration wing, after incorporating the suggestions and recommendations of the technical committee and matter will be placed in the Vendor Qualification Committee for final decision.

VI)Based on the decision of the Vendor Qualification Committee, the name of the vendor and the item for which it is considered as the registered vendor of KSEB will be published in the KSEB for 15 days to facilitate the prospective bidders for raising any objections/suggestion/opinion prior to finalization of the list of approved vendors.

VII)Registration letters will be issued to the qualified vendors after assigning vendor registration code and number.

VIII)If the registered vendor does not participate in three consecutive tenders invited for the registered item, the vendor will be deleted from the empanelled list . The vendor registration wing has to strictly monitor and collect the details regarding the above from tendering section of both distribution and transmission wing.

IX)Since the initial validity for vendor Registration is for Three Years provided the registration is not cancelled by KSEB during that period, on expiry of the validity of the registration of the current vendors, the process of vendor registration detailed above, are to be carried out for renewal of registration of the firms.

X) Since the vendors should apply for reregistration 6 months prior to the expiry of the validity, the vendor registration wing should monitor that the vendors are applying for re registration on time.

XI)During the registration period if the validity of the documents expires, especially type test, the same shall be strictly monitored and informed to the firm to revalidate the same, in advance.

Job Description of Assistant Executive Engineer III

The Assistant Executive Engineer will scrutinize and monitor all the works of Assistant Engineer.

In addition to the above, The Assistant Executive Engineer deals with the following also.

I)Preparation of purchase plan

1) The distribution plan for centrally procured items and decentrally procured items(264nos) is prepared using planning module of SCM software. The material requirement as per annual plan is generated from the SCM software for capital and maintenance works. The above requirement is to be forwarded to the concerned Distribution Chief Engineers(Chief Engineer Distribution South/Central/North/North Malabar) to review the requirement once again considering factors such as excluding the materials for turn key projects inadvertently included earlier etc. Based on the revised requirement obtained from the Distribution Chief Engineers a consolidated statement of quantities of items to be procured during the concerned financial year is to be prepared and purchase plan is to be prepared accordingly.

Receive the offer for inspection of ACSR conductors from the 9nos of SSI units and one number PSU, from whom the procurement of ACSR conductors is carried out and fix the delivery schedule on monthly basis.

II) Arrange/conduct inspection of the above conductors utilizing the service of field engineers of the concerned regions.

III) Collect the inspection reports from the inspecting officers.

IV) Handover the reports to the concerned wing of SCM who is authorised to issue Material Despatch Clearance Certificates.

8) If there is any diversion of conductors, from one Electrical Circle to another among the 25 Electrical Circles, based on the direction from the DIstribution Director based on the necessity of the field, the same has to be done through the SCM Software.

9) Attending general matters, reply to audit querry etc

Quantum of works for the last three years

I)The process of vendor registration described in the first part is carried out for 74 nos of firms participated and the 74 firms were empanelled as the temporary/permanent registered vendors of KSEB Ltd.

II)The vendor registration process is to be carried out for 33nos of new firms. The vendor registration wing of SCM has to follow the new procedure detailed above, since MoU executed with M/s CPRI, Bangalore is discontinued.

III)Details of inspection of ACSR conductors for distribution wing is attached.

Purchase Order Details of ACSR Conductors

2016-17

10) **Bid No.SCM/eP.25/2016-17 dated 05/08/2016**

1. P.O.No.SCM.102/2016-17 dated 02/12/2016.
   ACSR Rabbit – 505 km, Raccoon – 74 km & Weasel – 100 km
2. P.O.No.SCM.103/2016-17 dated 02/12/2016.
   ACSR Rabbit – 698 km & Raccoon – 244 km
3. P.O.No.SCM.104/2016-17 dated 02/12/2016.
   ACSR Rabbit – 639 km & Weasel – 142 km
4. P.O.No.SCM.105/2016-17 dated 02/12/2016.
   ACSR Rabbit – 652 km, Raccoon – 62 km & Weasel – 219 km
5. P.O.No.SCM.106/2016-17 dated 02/12/2016.
   ACSR Rabbit – 754 km, Raccoon – 219 km & Weasel – 295 km
6. P.O.No.SCM.107/2016-17 dated 02/12/2016.
   ACSR Rabbit – 730 km & Raccoon – 150 km
7. P.O.No.SCM.108/2016-17 dated 02/12/2016.
   ACSR Rabbit – 738 km & Raccoon – 48 km
8. P.O.No.SCM.109/2016-17 dated 02/12/2016.
   ACSR Rabbit – 725 km, Raccoon – 205 km & Weasel – 70 km
9. P.O.No.SCM.110/2016-17 dated 02/12/2016.
   ACSR Rabbit – 335 km, Raccoon – 80 km & Weasel – 20 km
10. P.O.No.SCM.111/2016-17 dated 02/12/2016.
    ACSR Rabbit – 7785 km, Raccoon – 1278 km & Weasel – 875 km

11) **Bid No.SCM/eP.25/2016-17 dated 05/08/2016 – 25% Additional – Weasel**

1. P.O.No.SCM.174/2016-17 dated 07/03/2017.
   ACSR Weasel – 6 km
2. P.O.No.SCM.175/2016-17 dated 07/03/2017.
   ACSR Weasel – 115 km
3. P.O.No.SCM.176/2016-17 dated 07/03/2017.

ACSR Weasel –33 km

4. P.O.No.SCM.177/2016-17 dated 07/03/2017.
   ACSR Weasel – 104 km

5. P.O.No.SCM.178/2016-17 dated 07/03/2017.
   ACSR Weasel – 46 km

6. P.O.No.SCM.179/2016-17 dated 07/03/2017.
   ACSR Weasel – 109 km

7. P.O.No.SCM.180/2016-17 dated 07/03/2017.
   ACSR Weasel – 62 km

8. P.O.No.SCM.181/2016-17 dated 07/03/2017.
   ACSR Weasel – 29 km

9. P.O.No.SCM.182/2016-17 dated 07/03/2017.
   ACSR Weasel – 389 km

10. P.O.No.SCM.06/2015-16 dated 28/04/2015.
    ACSR Squirrel – 800 km

11. P.O.No.SCM.07/2015-16 dated 28/04/2015.
    ACSR Squirrel – 250 km

2015-16

12) **Bid. No.SCM/eP.35/2014-15 dated 29/12/2014.**

2) P.O.No.SCM.27/2015-16 dated 17/07/2015.
– ACSR Rabbit – 135 km & Weasel – 254km

3) P.O.No.SCM.28/2015-16 dated 17/07/2015.
– ACSR Weasel – 489km

4) P.O.No.SCM.29/2015-16 dated 17/07/2015.
– ACSR Rabbit – 97 km & Weasel – 249km

5) P.O.No.SCM.30/2015-16 dated 17/07/2015.
– ACSR Weasel – 358 km

6) P.O.No.SCM.31/2015-16 dated 17/07/2015.
– ACSR Rabbit – 202 km & Weasel – 25 km

7) P.O.No.SCM.32/2015-16 dated 17/07/2015.
– ACSR Rabbit – 95 km & Weasel – 204 km

8) P.O.No.SCM.37/2015-16 dated 28/07/2015.
– ACSR Rabbit – 887 km & Weasel – 2382 km (M/s.Traco Cable)

9) P.O.No.SCM.49/2015-16 dated 19/08/2015.
– ACSR Rabbit – 70 km & Weasel – 327 km

13) **Bid No.SCM/eP.34/2015-16 dated 16/09/2015**

1. P.O.No.SCM.87/2015-16 dated 14/12/2015.
   ACSR Rabbit – 922 km, Raccoon – 165 km & Weasel – 806 km
2. P.O.No.SCM.88/2015-16 dated 14/12/2015.
   ACSR Rabbit – 1052 km, Raccoon – 270 km & Weasel – 96 km
3. P.O.No.SCM.89/2015-16 dated 14/12/2015.
   ACSR Rabbit – 1045 km, Raccoon – 342 km & Weasel – 486 km
4. P.O.No.SCM.90/2015-16 dated 14/12/2015.
   ACSR Rabbit – 1282 km, Raccoon – 221 km & Weasel – 415 km
5. P.O.No.SCM.91/2015-16 dated 14/12/2015.
   ACSR Rabbit – 1025 km, Raccoon – 105 km & Weasel – 510 km
6. P.O.No.SCM.92/2015-16 dated 14/12/2015.
   ACSR Rabbit – 1622 km & Weasel – 132 km
7. P.O.No.SCM.93/2015-16 dated 14/12/2015.
   ACSR Rabbit – 955 km, Raccoon – 120 km & Weasel – 425 km
8. P.O.No.SCM.94/2015-16 dated 14/12/2015.
   ACSR Rabbit – 1445 km
9. P.O.No.SCM.95/2015-16 dated 14/12/2015.
   ACSR Rabbit – 517 km, Raccoon – 80 km & Weasel – 227 km
10. P.O.No.SCM.96/2015-16 dated 14/12/2015.
    ACSR Rabbit – 9487 km, Raccoon – 2525 km & Weasel – 4179 km

14) **Bid No.SCM/eP.34/2015-16 dated 16/09/2015 – 25% Additional P.O.**

1. P.O.No.SCM.13/2016-17 dated 10/06/2016.
   ACSR Raccoon – 30 km & Weasel – 106 km
2. P.O.No.SCM.14/2016-17 dated 10/06/2016.
   ACSR Raccoon – 55 km & Weasel – 104 km
3. P.O.No.SCM.15/2016-17 dated 10/06/2016.
   ACSR Raccoon – 68 km & Weasel – 106 km
4. P.O.No.SCM.16/2016-17 dated 10/06/2016.
   ACSR Raccoon – 42 km & Weasel – 202 km
5. P.O.No.SCM.18/2016-17 dated 10/06/2016.
   ACSR Raccoon – 73 km & Weasel – 244 km

6. P.O.No.SCM.19/2016-17 dated 10/06/2016.
   ACSR Raccoon – 85 km & Weasel – 121 km

7. P.O.No.SCM.20/2016-17 dated 10/06/2016.
   ACSR Weasel – 33 km

8. P.O.No.SCM.30/2016-17 dated 16/07/2016.
   ACSR Raccoon – 631 km

9. P.O.No.SCM.48/2016-17 dated 22/08/2016.
   ACSR Rabbit – 120 km & Weasel – 192 km

10. P.O.No.SCM.50/2016-17 dated 22/08/2016.
    ACSR Rabbit – 130 km & Weasel – 210 km

11. P.O.No.SCM.51/2016-17 dated 22/08/2016.
    ACSR Rabbit – 105 km & Weasel – 185 km

12. P.O.No.SCM.52/2016-17 dated 22/08/2016.
    ACSR Rabbit – 132 km & Weasel – 212 km

13. P.O.No.SCM.53/2016-17 dated 22/08/2016.
    ACSR Rabbit – 202 km & Weasel – 325 km

14. P.O.No.SCM.54/2016-17 dated 22/08/2016.
    ACSR Rabbit – 128 km & Weasel – 205 km

15. P.O.No.SCM.55/2016-17 dated 22/08/2016.
    ACSR Rabbit – 65 km & Weasel – 105 km

16. P.O.No.SCM.56/2016-17 dated 22/08/2016.
    ACSR Rabbit – 180 km & Weasel – 289 km

17. P.O.No.SCM.73/2016-17 dated 03/10/2016.
    ACSR Rabbit – 1186 km

2014-15

15) **Additional Order**

1. P.O.No.SCM.18/2014-15 dated 26/06/2014.
   ACSR Weasel – 23 km

2. P.O.No.SCM.19/2014-15 dated 26/06/2014.
   ACSR Weasel – 59 km

3. P.O.No.SCM.20/2014-15 dated 26/06/2014.
   ACSR Weasel – 90 km

4. P.O.No.SCM.21/2014-15 dated 26/06/2014.
   ACSR Weasel – 62 km

5. P.O.No.SCM.22/2014-15 dated 26/06/2014.
   ACSR Weasel – 91 km

6. P.O.No.SCM.23/2014-15 dated 26/06/2014.
   ACSR Weasel – 25 km

7. P.O.No.SCM.24/2014-15 dated 26/06/2014.
   ACSR Weasel – 200 km

8. P.O.No.SCM.35/2014-15 dated 24/07/2014.
   ACSR Raccoon – 60 km & Weasel – 144 km

9. P.O.No.SCM.36/2014-15 dated 24/07/2014.
   ACSR Raccoon – 185km & Weasel – 445 km

10. P.O.No.SCM.37/2014-15 dated 24/07/2014.
    ACSR Raccoon – 105 km & Weasel – 252 km

11. P.O.No.SCM.38/2014-15 dated 24/07/2014.
    ACSR Raccoon – 215 km & Weasel – 516 km

12. P.O.No.SCM.39/2014-15 dated 24/07/2014.
    ACSR Raccoon – 625 km & Weasel – 181 km

13. P.O.No.SCM.40/2014-15 dated 24/07/2014.
    ACSR Raccoon – 170 km & Weasel – 408 km

16) **Bid No.SCM.35/2013-14**

1. P.O.No.SCM.84/2014-15 dated 08/12/2014.
   ACSR Rabbit – 302 km, Raccoon – 15 km & Weasel – 36 km

2. P.O.No.SCM.85/2014-15 dated 08/12/2014.
   ACSR Rabbit – 250 km, Raccoon – 46 km & Weasel – 111 km

3. P.O.No.SCM.86/2014-15 dated 08/12/2014.
   ACSR Rabbit – 262 km, Raccoon – 26 km & Weasel – 63 km

4. P.O.No.SCM.87/2014-15 dated 08/12/2014.
   ACSR Rabbit – 200 km, Raccoon – 43 km & Weasel – 102 km

5. P.O.No.SCM.88/2014-15 dated 08/12/2014.
   ACSR Rabbit – 250 km

6. P.O.No.SCM.89/2014-15 dated 08/12/2014.
   ACSR Rabbit – 415 km

7. P.O.No.SCM.90/2014-15 dated 08/12/2014.
   ACSR Rabbit – 63 km, Raccoon – 54 km & Weasel – 129 km

8. P.O.No.SCM.91/2014-15 dated 08/12/2014.
   ACSR Raccoon – 81 km & Weasel – 195 km

9. P.O.No.SCM.92/2014-15 dated 08/12/2014.
   ACSR Rabbit – 2008 km, Raccoon – 235 km & Weasel – 564 km

17) **Bid No.SCM/eP.35/2014-15 dated 29/12/2014**

1. P.O.No.SCM.108/2014-15 dated 24/02/2015.
   ACSR Rabbit -280 km, Raccoon – 275 km & Weasel – 640 km
2. P.O.No.SCM.109/2014-15 dated 24/02/2015.
   ACSR Rabbit – 390 km, Raccoon – 310 km & Weasel – 255 km
3. P.O.No.SCM.110/2014-15 dated 24/02/2015.
   ACSR Rabbit - 540 km, Raccoon – 360 km & Weasel – 155 km
4. P.O.No.SCM.111/2014-15 dated 24/02/2015.
   ACSR Raccoon – 330 km & Weasel – 165 km
5. P.O.No.SCM.112/2014-15 dated 24/02/2015.
   ACSR Rabbit - 382 km, Raccoon – 275 km & Weasel – 160 km
6. P.O.No.SCM.113/2014-15 dated 24/02/2015.
   ACSR Rabbit - 508 km & Weasel – 100 km
7. P.O.No.SCM.114/2014-15 dated 24/02/2015.
   ACSR Rabbit - 3550 km, Raccoon – 2410 km & Weasel – 3730 km

Assistant Executive Engineer IV

The following are the functional duties & responsibilities;

- Deals with the files related to the review of progress of disposal of scrap and other unserviceable items In KSEB Ltd.
  - The Board had constituted various Scrap Disposal Committees in Distribution, Transmission and Generation wings for identification, assessment and disposal of scrap and other unserviceable items.
  - Co-ordinate the findings of Convenors of all Scrap Disposal Committee and take up the same with the Board for sanction.
  - Monitor the progress of scrap disposal and prepare consolidated report of scrap disposal in all regions.
  - Co-ordinate for convening the review meeting of the Convenors of Scrap Disposal Committees to review the progress of scrap disposal in KSEBLtd
  - Take up the relevant matters with the Board as recommended by the Scrap Disposal Committees.
  - The followings functions are carried out in co-ordinating and liasoning works in connection with the conducting of e-auction in KSEB Ltd.

- M/s.MSTC Ltd, Bangalore, a Govt. of India Enterprises has been appointed as the service provider in KSEB Ltd. E-auction is being carried out for disposal of selected items of scrap through the web portal of M/s.MSTC Ltd.
- The Assistant Executive Engineer (Monitoring) as the nodal officer of KSEB Ltd, liaise/facilitate with the contact person/nodal officer of M/s.MSTC Ltd and the Chairpersons/Convenors of Scrap Disposal Committees for conducting E-auction.
- View, monitor and input relevant details/records to the web portal of M/s MSTC Ltd to facilitate the e-auction event as a Seller on behalf of CE(SCM).
- The modus operandi followed by M/s.MSTC Ltd for this purpose is to put only a selected number of items on auction, which can be offered on a regular and sustained basis.
- Advance notice of selling events is sent by e-mail to the registered customers by M/s.MSTC Ltd intimating the same to the seller, i.e., KSEB Ltd for information and follow up.
- Scrutinize the list of scrap items submitted by the respective Chairperson/Convenors of Scrap Disposal Committees with respect to the specification, location, quantity, quality, unit of measurement, applicable rate of sales tax, excise duty, IT and any other applicable statuary taxes or levies.
- Communicate with the Convenors of Scrap Disposal Committees for getting clarification if any.
- Consolidate the list of scrap items in the specified e-auction proforma and forward the same to M/s.MSTC Ltd with copy to the Convenors of Scrap Disposal Committees and field officers concerned.
- The list of scrap items along with notice to bidders is also forwarded to the Chief Public Relations Officer (CPRO) of KSEB Ltd for arranging wide publicity through the web site of KSEB Ltd and Government of Kerala.
- Co-ordinate with the contact person/nodal officer of M/s.MSTC Ltd for scheduling the auctions.
- Verify the auction catalogue in the web portal published in advance by M/s.MSTC Ltd.
- Entry of Reserve Price (RP) & % Tolerance for Subject to Approval (STA) for each scrap item is to be done in the web portal of M/s.MSTC Ltd at least one day prior to the commencement of e-auction.

- M/s.MSTC will conduct E-auction through their web portal as per schedule intimating the same to the registered bidders and seller in advance.
- The nodal officer/contact person of KSEB Ltd is given access to the web portal of M/s.MSTC Ltd to view the live auction and all other relevant details published in the web portal.
- The scrap lot is automatically sold to the bidder who quoted highest rate above the reserve price at the closing of the auction
- M/s.MSTC will issue a sale intimation letter to the successful bidder to remit the security deposit (25% of material) for sold lots with a copy to the Seller.
- In the case of Subject to Approval (STA), i.e., if the price obtained is within the tolerance limit (10%), the decision on whether the sale is approved is to be entered in the web site of M/s.MSTC Ltd within a week after obtaining the sanction of the Chief Engineer (SCM). In this case M/s.MSTC will intimate the bidder to pay 10% of the material value within 7days from the date sanctioning of STA.
- All payments are to be made in favour of Chief Engineer (SCM), KSEB Ltd, either by DD or through e-payment.
- The nodal officer/contact person of KSEB Ltd is responsible for communicating the payment made in favour of Chief Engineer (SCM), KSEB Ltd through e-payment (by RTGS/NEFT) directly to the Bank account of Chief Engineer (SCM).
- M/s.MSTC Ltd will issue acceptance letter (sale order) to the successful bidder or confirmation of the receipt of security deposit, with intimation to the bidder to remit the balance amount including all taxes and service charge of M/s.MSTC Ltd directly to M/s.MSTC Ltd.
- M/s.MSTC Ltd will issue delivery order to the bidder with copy to the seller on receipt of the balance amount and service charge.
- Prepare the sale release order to the Deputy Chief Engineer of concerned circle with copy to the Convenor, Scrap Disposal Committee, the successful bidder and all concerned for arranging the lifting of the material within the last date of free delivery as per the terms and conditions of e-auction.The remarks of the Accounts/ Finance Section is being collected on the remittance of full amount of sale vale to the account of KSEB Ltd.
- The amount received is then transferred to the concerned Circle office/ARU through IUTN from the accounts section.

- The Deputy Chief Engineer of Circle/head of ARU issues lifting order to the bidder intimating the date of removal of the scrap items co-ordinating with members of Scrap Disposal Committee and vigilance wing of KSEB Ltd.
- The disputes/claims and any other matters related with scrap disposal/E-auction including litigations.

Quantum of workload:

The Selling Agency Agreement with M/s MSTC Ltd was executed on 31/03/2012 for a period of one year and subsequently renewed on yearly basis as per the terms and conditions in the original agreement.

E-auction is being conducted for the disposal of following scrap materials reported by the Convenors/Chairpersons of the respective Scrap Disposal Committees in Generation, Transmission & Distribution wings.

1) Scrap Aluminum Conductor (ACSR, AAC & AAAC)
2) Scrap Copper
3) Scrap Copper Power Cable
4) Distribution Transformer with Aluminium windings
5) Distribution Transformer with Copper winding
6) Scrap Power Transformers
7) Scrap Aluminium winding
8) Scrap Copper winding
9) Iron Scrap.

In addition to the above e-auction is also being arranged for the disposal of certain scrap and unserviceable items with higher sale value as per Board's sanction.

The e-auction of scrap items of all regions are being arranged/facilitated from the office of the Chief Engineer (SCM) at Corporate office.

E-auction at KSEB Ltd is a centralized scrap disposal process in which the selected scrap items of all regions are being disposed off through the web portal of M/s MSTC Ltd. The volume of sale through this method has increased over the past years enabling the organization to achieve better revenue realization. The scope of E-auction in KSEB Ltd had already been widened with the addition of more scrap items such as old and unserviceable DG units of BDPP & KDPP, MS angle scrap at Transmission Store Division Angamaly, iron scrap available at various Sub Regional Stores, CM Division and MF units, unserviceable

heavy machineries such mobile crane, diesel locomotive and Derrick crane at B&S Division, Angamaly.

The implementation of E-auction has already been turned out as a faster, transparent and efficient method of conducting auction with participation of large no.of bidders registered with M/s MSTC Ltd.

For proper control on inventory it is essential that an effective system is needed in the organization to identify all assets and materials which have ceased to be useful to the organization. Immediate follow up action is needed for the timely disposal of these scrap and unserviceable items to recover maximum return from materials which would have been otherwise lost.

In the day to day operations of the organization, considerable quantities of scrap are accumulated which have no further use. Prompt and proper disposal of such scrap materials and other unserviceable items are essential for the effective functioning of the organization.

The Assistant Executive Engineer (Ele) under executive Engineer (Monitoring) is the co-ordinating officer for conducting e-auctions of scrap materials belonging to Distribution, Transmission and Generation wings. He is the contact person of KSEB Ltd, liaising with M/s MSTC Ltd and concerned officials of KSEB Ltd for proper scheduling of auctions and timely disposal of scrap items through E-auction.

Over the past years KSEBLtd has witnessed a major transition in scrap disposal process, ie, from the conventional mode to the e-auction, thereby garnering the inherent advantage of this system such as simplification of the process of scrap disposal, prevention of cartel formation, better revenue realization, saving time of officers and staff etc. E-auction is transparent, efficient and economic method for speedy disposal of scrap items. The scope of E-auction has already been widened in KSEB Ltd over the past 5 years since it's inception. Considering the steady progress in E-auction for the past years the E-auction wing at corporate office may be strengthened.

Job Description of Assistant Executive Engineers--Project under XM

The main functions of this section include material consolidation and procurement under centrally aided projects DDUGJY and IPDS. Deen Dayal Upadhyaya Gram Jyoti Yojana(DDUGJY) was recently launched by Govt. Of India with the objective of 24X7 power, AT & C Loss reduction and rural House Hold Electrification. A total project cost of Rs.485.37 Crore for Kerala was sanctioned. The Integrated Power Development Scheme(IPDS) was launched by Govt. Of India for urban/semiurban areas. A total project cost of Rs.592.07 Crore was sanctioned for IPDS.

The main work dealt with is the purchase of transmission and distribution materials under DDUGJY/IPDS such as different types of insulators, meters, fuse units, transformers, CT, PT etc.for various offices of KSEB Ltd. The procurement is arranged through tenders or quotation as per the situation/requirement. In addition to this, consolidation of materials

received from office of CE(CAPS&S) for DDUGJY and IPDS works and seeking clarifications on specification and quantity as and when required. Around 97 items to be tendered/Purchase order to be issued for DDUGJY works and 138 items to be tendered/Purchase order to be issued for IPDS works.

The work includes different stages from tendering to closure of POs, monitoring of Bank Guarantees(renewal,claims&release etc),Reply to Audit querries etc.

In addition to this, monthly Progress Report of tenders invited/POs issued from this section under DDUGJY/IPDS is to be prepared.

Files relating to purchase orders issued for DDUGJY/IPDS are dealt with in this section. The number of files currently kept in this section is approximately 20 and is expected to be approximately 100 on completion of the project.

An over view of the normal flow of works being done from this section relating to a procurement process is as follows:

1. The requirement from various offices of KSEB Ltd for DDUGJY/IPDS are forwarded to the O/o the Chief Engineer(CAPs & S).

2. The requirement collected by CE(CAPs & S) is forwarded to this office for procurement .

3. The list of materials (transmission and distribution) for DDUGJY/IPDS is verified and consolidated at this office and forwarded to CE(CAPs & S) for issuing B.O.

4. After receiving the Board order, PAC has to be arrived at and e-tender documents has to be prepared accordingly.

5. These e-tender documents has to be uploaded in the kerala government e-tender site.

6. Notice inviting tenders has to be uploaded in the website of KSEB Ltd &wide publicity has to be given in news papers through the Public Relations Dept of KSEB Ltd.

7. Pre-bid meeting has to be conducted and minutes of pre-bid meeting to be uploaded in the e-tender site.

8. Extension of bid submission & opening has to be done ,if required.

9 .PQ Bids has to be opened at the date&time mentioned in the notice.

10. Evaluation of the PQ bids submitted on-line by the firms has to be done.

11. Clarification, if any, required has to be sought for regarding any deviations found in financial,legal,technical matters ,etc.

12. Missing documents if any has to be collected with a cut off date.

13. Pre-qualification /tender evaluation committee note has to be prepared.

14. Financial vetting by Financial Adviser has to be done for the documents submitted on-line by bidders.

15.Based on the remarks of FA,further clarifications if any needed has to be obtained from the bidders.

16.Legal vetting by LA&DEO has to be done ,if required.

17.Reply to remarks of FA has to be prepared.

18.PQ meeting will be conducted for the pre-qualification of bidders.PQ minutes has to be uploaded in the e-tender site.

19. Based on the decision of prequalification commitee the price bids of prequalified bidders has to be opened after giving intimation to the qualified bidders.

20. Evaluation of price bids has to be done in all respects including arithmetical calculations, the existing rates of taxes etc.Then find out the lowest price quoted firm(L1).

21. Negotiation has to be done with the L1 bidder to offer their rockbottom matching price.

22.Vetting by FA has to be done for the price bids with PC note.

23.Further clarifications if any based on the report of FA has to be collected from the prequalified firms.

24.Reply to remarks of FA has to be prepared.

25.PC meeting will be conducted for the selection of firm for the award of contract.

26.Purchase Order will be awarded for the lowest price quoted firm with the approval of the higher authority of the Board according to the delegation of powers.

27.Contract agreement has to be executed with the firm including necessary security deposit.

28.EMD shall be returned to the bidders after execution of agreement by the L1 bidder.

29.Pre-despatch inspection of items at firm's premises by REC has to be arranged at the request of the firm.

30.MDCC has to be issued on acceptance of items.

31.Delivery has to be monitored and necessary allocation to be issued .

32.After completion of supply&installation,performance guarantee has to be accepted from the firm

33.Upon the submission of Performance guarantee by the firm,intimation regarding the same has to be given to the various ARUs for release of the balance portion of payments due to the firm.

34.Follow up of payments is needed.

35. Normally, the items purchased are under warranty for a period of 2 years .

36. After the completion of the above guarantee period ,NLC has to be collected from all consignees through the ARUs to take action regarding the release of BGs towards SD&PBG.

37.The file has to be closed and transferred to the record room.

In addition to the above ,any unforeseen events that may occur during the process may be attended accordingly.

Tender was invited for the following items- 9KV 5KA Distribution class Lightning Arrestor, LT Pin Insulator with Pin, LT Stay Insulator, HT Stay insulator, LT Stay wire and HT Stay Wire and purchase orders issued for LT Pin Insulator with Pin, LT Stay Insulator and for HT Stay Insulator. Purchase orders were also issued as part of the quantity from tender under normal works for ACSR Raccoon, Rabbit and Weasel Conductor, 11KV Pin Insulator, 11KV Station Class Lightning arrestor and for 110V,100AH VRLA Battery, Single phase meter, LT XLPE cable, LTCT of various ratings etc

Job Description of Assistant Engineer-Projects under Executive Engineer (M)

The main functions of this section include material consolidation and procurement under centrally aided projects DDUGJY and IPDS. Deen Dayal Upadhyaya Gram Jyoti Yojana(DDUGJY) was recently launched by Govt. Of India with the objective of 24X7 power, AT & C Loss reduction and rural House Hold Electrification. A total project cost of Rs.485.37 Crore for Kerala was sanctioned. The Integrated Power Development Scheme(IPDS) was launched by Govt. Of India for urban/semiurban areas. A total project cost of Rs.592.07 Crore was sanctioned for IPDS.

The main work dealt with is the purchase of transmission and distribution materials under DDUGJY/IPDS such as different types of insulators, meters, fuse units, transformers, CT, PT, control cables etc.for various offices of KSEB Ltd. The procurement is arranged through tenders or quotation as per the situation/requirement. In addition to this, consolidation of materials received from office of CE(CAPS&S) for DDUGJY and IPDS works and seeking clarifications on specification and quantity as and when required. Around 97 items to be tendered/Purchase order to be issued for DDUGJY works and 138 items to be tendered/Purchase order to be issued for IPDS works.

The work includes different stages from tendering to closure of POs, monitoring of Bank Guarantees(renewal,claims&release etc),Reply to Audit querries etc.

In addition to this, monthly Progress Report of tenders invited/POs issued from this section under DDUGJY/IPDS is to be prepared.

Files relating to purchase orders issued for DDUGJY/IPDS are dealt with in this section. The number of files currently kept in this section is approximately 20 and is expected to be approximately 100 on completion of the project.

An over view of the normal flow of works being done from this section relating to a procurement process is as follows:

1. The requirement from various offices of KSEB Ltd for DDUGJY/IPDS are forwarded to the O/o the Chief Engineer(CAPs & S).

2. The requirement collected by CE(CAPs & S) is forwarded to this office for procurement .

3. The list of materials (transmission and distribution) for DDUGJY/IPDS is verified and consolidated at this office and forwarded to CE(CAPs & S) for issuing B.O.

4. After receiving the Board order,PAC has to be arrived at and e-tender documents has to be prepared accordingly.

5. These e-tender documents has to be uploaded in the kerala government e-tender site.

6. Notice inviting tenders has to be uploaded in the website of KSEB Ltd &wide publicity has to be given in news papers through the Public Relations Dept of KSEB Ltd.

7. Pre-bid meeting has to be conducted and minutes of pre-bid meeting to be uploaded in the e-tender site.

8. Extension of bid submission & opening has to be done ,if required.

9. PQ Bids has to be opened at the date & time mentioned in the notice.

10. Evaluation of the PQ bids submitted on-line by the firms has to be done.

11. Clarification, if any, required has to be sought for regarding any deviations found in financial, legal, technical matters ,etc.

12. Missing documents if any has to be collected with a cut off date.

13. Pre-qualification committee(PQ)/Tender Evaluation Committee note has to be prepared.

14. Financial vetting by Financial Adviser has to be done for the documents submitted on-line by bidders.

15. Based on the remarks of FA,further clarifications if any needed has to be obtained from the bidders.

16. Legal vetting by LA&DEO has to be done ,if required.

17. Reply to remarks of FA has to be prepared.

18. PQ meeting will be conducted for the pre-qualification of bidders.PQ minutes has to be uploaded in the e-tender site.

19.Based on the decision of prequalification committee the price bids of prequalified bidders has to be opened after giving intimation to the qualified bidders.

20. Evaluation of price bids has to be done in all respects including arithmetical calculations, the existing rates of taxes etc.Then find out the lowest price quoted firm(L1).

21. Negotiation has to be done with the L1 bidder to offer their rockbottom matching price.

22. Vetting by FA has to be done for the price bids with PC note.

23. Further clarifications if any based on the report of FA has to be collected from the prequalified firms.

24. Reply to remarks of FA has to be prepared.

25. PC meeting will be conducted for the selection of firm for the award of contract.

26. Purchase Order will be awarded for the lowest price quoted firm with the approval of the higher authority of the Board according to the delegation of powers.

27. Contract agreement has to be executed with the firm including necessary security deposit.

28. EMD shall be returned to the bidders after execution of agreement by the L1 bidder.

29. Pre-despatch inspection of items at firm's premises by REC has to be arranged at the request of the firm.

30. MDCC has to be issued on acceptance of items and creating LPO No. and MDCC No. In SCM Software and inform the same to all consignees.

31. Monthly price variation calculation to be done where applicable.

32. Delivery has to be monitored and necessary allocation to be issued .

33. After completion of supply & installation, performance guarantee has to be accepted from the firm.

34. Upon the submission of Performance guarantee by the firm, intimation regarding the same has to be given to the various ARUs for release of the balance portion of payments due to the firm.

35. Follow up of payments is needed.

36. Normally, the items purchased are under warranty for a period of 2 years .

37. After the completion of guarantee period, NLC has to be collected from all consignees through the ARUs to take action regarding the release of BGs towards SD & PBG.

38. The file has to be closed and transferred to the record room.

In addition to the above, any unforeseen events that may occur during the process may be attended accordingly.

Tender was invited for the following items- 11kV D.O Fuse units, LT Shackle Insulator,3x 120sqmm Cable,300A Fuse unit,200A Fuse units,100A Fuse unit. 11kV D.O Fuse unit was retendered. Purchase orders were also issued as part of the quantity from tender under normal works for ACSR Raccoon, Rabbit and Weasel Conductor, WP wire 2.5 sqmm , 3X300 sqmm XLPE cable,11kV G.I pin for pin Insulator etc.

Current man power

In the office of the Chief Engineer (SCM), there is one post of Executive Engineer (Civil) assisted by one Assistant Executive Engineer (Civil) and two Assistant Engineers (Civil)

Job descriptions

The works relating to the procurement of 8m and 9m PSC poles and steel raw materials required for the fabrication of line materials sport billing machines and accessories etc for 25 Electrical Circles under Distribution and Transmission wings of KSEB Limited are handled under Civil wing of Chief Engineer (SCM). Pending cases in respect of old contracts, renewal of Bank Guarantees furnished by the Contractors/ Suppliers towards Security Deposit and Performance Guarantee before expiry period, release of Bank Guarantee when works are completed and NLC obtained from concerned officers etc are also attended.

Settlement of various claims put forth by the pole casting contractors then and these regarding the existing contracts such on condonation of delay, waiver of penalty, refixation of monthly target, issues on Excise duty and KVAT, monitoring the supply of poles from various yards, taking up proposal with the pre qualification and Purchase Committee, Full Time Directors and Director Board and issuance of Board Orders based on Full Time Directors and Director Board decisions etc are other works are also attended.

(3)Quantum of workload at eash position

(i)Works handled by Executive Engineer (Civil)

All files related to the Procurement of PSE poles for capital and repair works under Distribution and Transmission Wings of KSEBL. Steel raw materials required for the fabrication of line materials for 3 M F units of KSSEBL, spot billing machines, supply of PSC poles for DDUGJY,IPDS and total Electrification work etc. originated by the Assistant Executive Engineer/ Assistant Engineers are submitted to the Executive Engineer (Civil). The Executive Engineer, after detailed scrutiny submit the files together with remarks/ suggestions to the Deputy chief Engineer (SCM) and then to the Chief Engineer (SCM), to the pre qualification committee, to the Purchase Committee, to the full Time Director, to the Board of Directors for approval/ orders . In addition, scrutiny of works such as answers to Audit paras , LA interpellations, Right to information Act, Collection of details / field data for review meetings of the Directors, Tendering of PSC poles to DDUGJY IPDS & total Electrification works submitted by Assistant Executive Engineer, Assistant Engineer Civil-1 & Assistant Engineer Civil-2are also are also attended by the Executive Engineer (Civil).

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(ii)Works handled by the Assistant Executive Engineer (C)

The Assistant Executive Engineer (Civil) is attending all works related to the contracts for the supply of PSC poles to Northern and North Malabar Regions (is, supply of poles to Electrical Circles at Palakkad, Manjeri, Nilambur, Kozhikode, Kalpetta, Kannur, Kasargod, Tirur, Vadakara, Sreekandapuram and Shornur) in addition, there are three Departmental Pole casting yards for supplying PSC poles to KSEBL ie, at Mangattuparamba (Kannur), Choolissery (Thrissur) and Mananthavady (Wayanad). All works related to the contracts for the supply of PSC Poles fram the departmental Pole casting yards are also being attended by the Assistant Executive Engineer (Civil). Renewal of Bank Guarantee's ,court cases in respect of old as well as 5 year contracts, diversion of PSC Poles to certain Electrical Circle, where there is shortage of Poles, from circles where there is excess supply and placing additional orders to existing Contractors also would become necessary to complete the targeted works and in such cases, timely proposals have to be taken up with the Purchase Committee/Full Time Directors for necessary approval.

In addition, works such as preparation of answers to Audit paras , LA interpellations, Right to information Act, Collection of details / field data for review meetings of the

Directors, Supply of PSC poles to DDUGJY IPDS & total Electrification works are also attended by the Assistant Executive Engineer (Civil).

(iii) Works handled by Assistant Engineer (Civil-I)

The works attend by Assistant Engineer (Civil-I), include the origination of files related to the procurement of steel raw materials required for the fabrication of line materials in three MF units (ie, Pallom, MF1 Angamaly and MF2 Kolathara, Kozhikode), spot billing machines and its accessories etc. Regarding steel raw materials, monthly requirement has to be obtained from field offices and based on the same and the approved purchase plan, e tenders and quotations were in vited and Purchase orders are placed accordingly. The work for the transportation of raw materials and finished goods to and from the MF units is also arranged by Assistant Engineer (Civil –I). Extending the SD/BG upto the Guarantee period Renewal of Bank Guarantees in connection with "Registration of firm are also attended. In addition, works such as preparation of answers to Audit paras , LA interpellations, Right to information Act, Collection of details / field data for review meetings of the Directors, Procurement of raw materials for DDUGJY, IPDS & total Electrification works etc. are also attended by the Assistant Engineer (Civil-I).

(iv) Works handled by the Assistant Engineer (Civil –II)

The Assistant Engineer (Civil-II) is attending all works related to the contracts for the supply of PSC poles to Central and Southern Regions(ie, supply of poles to Thiruvananthapuram, Kottakkada, Pathanamthitta, Kollam, Kothamangalam, Thodupuzha, Ernakulam, Perumbavoor, Thrissur and Irinjalakuda Circles). Settlement of various claims put forth by the pole casting contractors then and there, timely diversion of PSC poles, placing additional Purchase Orders, submitting timely proposals to the Purchase Committee/ Fill Time Directors for necessary approval, renewal of Bank Guarantees, release of Bank Guarantees, pending issues/ cases in respect of old contracts, supply of poles to DDUGJY, IPDS & total Electrification works, Preparation of answers to Audit paras, LA interpellation, Right to information Act, Collection of details/ field data for review meetings of the Directors. are also attended by Assistant Engineer (Civil –II).The work carried out by the Technical Assistant (Asst. Exe. Engineer-Ele)

Co-ordinate Purchase Committee meetings, Pre-qualification (Transmission), Pre-qualification (Distribution) meetings, scrutiny of notes to Purchase Committee and

Pre-qualification Committee from other offices, preparation of minutes of Purchase Committee meetings, preparing transmission cost data, preparing standard rate for distribution materials to be furnished to O/o the Commercial & Tariff, furnishing consolidated reply to audit replies, furnishing information to Annual Administration report, monthly performance report, E- letter, replies to LA interpolation, Action taken report on the decision of Board meeting, General matters to be taken up with Board like corporate guarantee, concession to SSI units etc, furnishing reply to Govt. Letter, purchase of office stationery items, registering complaints and maintaining AMC of computer, maintaining permanent Imprest of Chief Engineer etc.

The following files are maintained by the technical Assistant (Asst. Exe. Engineer-Ele)

1. Inspection Report on the audit of accounts of the Chief Engineer (SCM) conducted by the Accountant General, AG's office for each year
2. Committee on Public Undertakings for the various periods
3. Proceedings of the Purchase Committee meetings
4. Transmission cost data carried out twice every year
5. Standard rate for distribution materials carried out every year
6. Monthly performance report, E-letter
7. Action taken report on the decision of Board meeting
8. General file relating to matters taken up with GoK viz. Adoption of Store Purchase Manual in KSEBL, request received from various SSI unit regarding concession granted to them etc
9. LA interpolation file
10. Annual Maintenance of computer

The following registers are maintained.

1. Tender register
2. Purchase order register
3. Purchase Committee Agenda register
4. Pre-qualification Committee (Transmission) register
5. Pre-qualification Committee (Distribution) register
6. Purchase Committee minutes register
7. Imprest book

Job details of Accounts Section (SCM)

AFO

1) Verification of passed bills from all ARU.
2) Verification of bill for passing.
3) Verification of Temporary Imprest and Permanent Imprest for closing and renewing.
4) Bank Guarantee verification and release.
5) Inward of this section.
6) IUTN & IUMIL verification.
7) Cheque payment verification.
8) RTGS/NEFT payment.
9) Verification of Accounts.
10) Tax and allied works (VAT, WCT, Service Tax, IT etc).
11) Allied works of Account.
12) All correspondence of this section.

Senior Superintendent

1) Verify and execute Agreements (around 175-200 agreements are executed annually).
2) To receive and to keep Agreements and Bank Guarantees.
3) Being the custodian of Agreements and Bank Guarantees, up keep Agreement Register.
4) Release of Bank Guarantees.
5) Receipt of tender.
6) To keep tender bids receipt register.
7) Consolidation of non liability certificate of officers worked in this office.
8) To supervise the dispatch wing.

Duties of Senior Assistant (Cash)

1) Passed bill entering in the systems.
2) Bill auditing for all kinds of bills in this office.
3) Auditing the Temporary Imprest and Permanent Imprest.
4) Closing of Temporary Imprest and Permanent Imprest.
5) Disbursement of Cheque and allied works.
6) RTGS & NEFT payment and related works.

Senior Assistant II

Job related to accounting

Sending IUTN, IUMIL to related ARU's

Making yearly accounts etc.

Senior Assistant III

Work related to dispatch works.