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**TARIFF ORDER FOR**

**FY 2013-14**

**FOR THE ENERGY & POWER DEPARTMENT,GOVERNMENT OF SIKKIM**

**SIKKIM STATE ELECTRICITY REGULATORY COMMISSION**

**P.O-DEORALI, GANGTOK,EAST SIKKIM-737101**

**Before the Sikkim State Electricity Regulatory Commission for the State of Sikkim, Gangtok**

**Case No: TR-3 /2013-14**

**Date of Order: 30/03/2013**

**CORAM**

**Shri T. T. Dorji, Chairperson**

**ORDER**

**1. Preamble**

In exercise of the powers vested in it with regard to determination of the Annual Revenue Requirement (ARR) and the Retail Supply of Tariff for the year 2013-14, the Sikkim State Electricity Regulatory Commission undertook the task involving examination of the details reflected in the petitions submitted to it by the Energy & Power Department of the State Govt. (EPDS) (herein after referred to as the Deemed Licensee) and the Sikkim Power Development Corporation (SPDCL). This exercise was undertaken duly taking into consideration the ARR projections submitted by the EPDS and the SPDCL.

Notice for Public hearing on the 14th. & 15th.of March, 2013 had also been published in all the local papers inviting suggestions / objections from all categories of consumers as well as from the public at large. However, the response to the Public Notice was regrettably not forthcoming as in the previous year with the exception of the attendance of one solitary local news reporter. In the present exercise for determination of the Tariff Order including analysis of the ARR petitions, the Commission deemed it prudent to also associate prominent knowledge-based individuals from the civil society to facilitate in the on -going exercise. With that in mind, a meeting had been held to elicit views and suggestions from the nominees enlisted in the panel which had been specifically intended to subsequently serve as the composition of the State Advisory Committee which is in the process of being established as envisaged under the Electricity Act. The suggestions and views offered by the eminent participants during the course of the meeting was indeed worthy of note and have been duly considered by the Commission in the process of framing the Directives appended to this Order.

**Contents of the Order**

1. Preamble
2. Power sector in Sikkim- An over view.
3. ARR and Retail Supply Tariff for the financial year 2013-2014. Analysis and Comments.
4. Directives of the Commission.
5. Tariff Order

2. POWER SECTOR IN SIKKIM – AN OVERVIEW

## 

## 2.1 Introduction

The EPDS is responsible for generation, transmission and distribution of electricity in the State of Sikkim.

The EPDS is a deemed licensee under the provisions of Electricity Act, 2003 in the State. It operates in an area of 7096 sq. KM. The total population of the State is around 6.08 lakhs as per 2011 census.

## 2.2 Power Supply

EPDS has its own installed capacity of 40.692 MW of which 35.7 MW is hydro and about 4.992 MW of Diesel generation as detailed in table 2.1 below. Apart from this, the power supply requirements of EPDS are met from the Sikkim Power Development Corporation (herein after referred to as SPDC) and its share from Central Generating Stations.

Table 2.1: EPDS own installed capacity

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr.**  **No** | **Name of Projects** | **Installed Capacity (MW)** | **Remarks** |
|  | Hydro |  |  |
| 1 | Lower Lagyap Hydel Power (LLHP) | 2 x 6.00 |  |
| 2 | Jali Power House (JPH) | 6 x 0.35 |  |
| 3 | Rimbi-I | 3 x 0.20 |  |
| 4 | Rimbi-II | 2 x 0.50 |  |
| 5 | Rothak | 2 x 0.10 | Power house Abandoned |
| 6 | Rongnichu | 5 x 0.50 |  |
| 7 | Chaten | 2 x 0.05 | Power house Abandoned |
| 8 | Meyongchu | 2 x 2.00 |  |
| 9 | Upper Rongnichu Hydel Project (URHP) | 4 x 2.00 | No Generation due to failure of water conductor system |
| 10 | Kalez | 2 x 1.00 |  |
| 11 | Lachung | 2 x 0.10 |  |
| 12 | Rabomchu | 2 x 1.50 |  |
|  | Diesel |  |  |
| 13 | Diesel Power House Gangtok | 4 x 1.00 |  |
| 14 | DPH LLHP, Ranipool | 4 x 0.248 |  |
|  | **Total** | **40.692** |  |

SPDC owns two hydro stations with an installed capacity of 5.00 MW and the small quantum of power generated from these stations is supplied to EPDS.

EPDS share from central generating stations and other sources as detailed in table 2.2 below

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Table 2.2: Power Allocation from CGS and other sources | | | | |
| **S.No** | **Name of Generating Station** | **Installed Capacity (MW)** | **Share in Percentage** | **Share in Mega Watts (MW)** |
| 1 | Teesta V HEP, NHPC | 510 | 13.19% | 67.27 |
| 2 | Rangit HEP, NHPC | 60 | 13.33% | 8 |
| 3 | Chukha HEP, PTC | 336 | 2.22% | 6.00 |
| 4 | FSTPP, NTPC | 1600 | 1.63% | 26.00 |
| 5 | KHSTPP-I, NTPC | 840 | 1.55% | 13 |
| 6 | KHSTPP-II, NTPC | 1000 | 0.33% | 4.95 |
| 7 | TSTPP, NTPC | 1000 | 2.40% | 24 |
| 8 | Ramam HEP, WBSEDCL | 50 | 20% | 10 |
| **Total** | | | | **159.22** |

EPDS has purchased about 566.45 MU from the Central Generating Stations, PTC – (Chukka HEP) and share in WBSEDCL – (Ramam HEP) during FY 2011-12.

## 2.3 Transmission and Distribution Network

The EPDS owns and operates the transmission and distribution network as given in table 2.3 below

|  |  |  |  |
| --- | --- | --- | --- |
| Table 2.3: Transmission and Distribution Network as on 31st March, 2012 | | | |
| **S.No** | **Details** | **Unit** | **Nos.** |
| **I** | **Substations** |  |  |
| 1 | 132/66 KV | Nos | 1 |
| 2 | 66/11 KV | Nos | 11 |
| **II** | **EHT Lines** |  |  |
| 3 | 132 KV | Ckt.KM | 48.20 |
| **III** | **HT Lines** |  |  |
| 4 | 66 KV D.C | Ckt.KM | 45.26 |
| 5 | 66 KV S.C | Ckt.KM | 234.13 |
| 6 | 11 KV / 3 phase | Ckt.KM | 3037 |
| 7 | 11 KV / 2 phase | Ckt.KM | 337 |
| **IV** | **LT Lines** |  |  |
| 8 | LT / 3 phase | Ckt.KM | 2969 |
| 9 | LT / Single phase | Ckt.KM | 1979 |
| **V** | **Power Transformers** |  |  |
| 10 | 50 MVA | Nos | 2 |
| 11 | 15 MVA | Nos |  |
| 12 | 10 MVA | Nos | 3 |
| 13 | 7.5 MVA | Nos | 2 |
| 14 | 5 MVA | Nos | 9 |
| 15 | 2.5 MVA | Nos | 8 |
| **VI** | **Distribution Transformers** |  |  |
| 16 | 500 KVA | Nos | 97 |
| 17 | 300 KVA | Nos | 119 |
| 18 | 200 KVA | Nos | 96 |
| 19 | 150 KVA | Nos | 42 |
| 20 | 100 KVA | Nos | 176 |
| 21 | 63 KVA | Nos | 425 |
| 22 | 25 KVA | Nos | 726 |
| 23 | 10 KVA | Nos | 389 |

## 2.4 Transmission and Distribution (T & D) Losses

The transmission and distribution (T&D) losses of EPDS were estimated at 63.28% during FY 2011-12. The technical and commercial losses of the system have not been segregated.

## 2.5 Consumer Profile and Energy Sales

The EPDS serves about 88277 consumers as on 31st March, 2012 with an annual consumption of about 208 MU. The category wise number of consumers and energy sales during 2010-11 are given in table 2.4 below

|  |  |  |  |
| --- | --- | --- | --- |
| Table 2.4: Consumer profile and Energy Sales during 2011-12 | | | |
| **S.No** | **Consumer Category** | **No of Consumers**  **(Nos)** | **Energy Sales**  **(MU)** |
| 1 | Domestic | 77707 | 82.77 (39.69%) |
| 2 | Commercial | 9372 | 29.72 (14.25%) |
| 3 | LT Industrial (LTIS) | 298 | 8.63 (4.14%) |
| 4 | Public Lightening | - | 2.30 (1.10%) |
| 5 | Temporary supply | - | 0.30 (0.14%) |
| 6 | HT Supply | 283 | 71.63(34.35 %) |
| 7 | Bulk Supply | 617 | 13.21 (6.33%) |
|  | **Total** | **88277** | **208.56** |

## 

## 2.6 Demand and Supply Position

The demand of the State of Sikkim was about 80 MW during FY 2011-12 and the allocation from various Central Generating Stations (CGS), Chukka (PTC) and share in Ramam HEP in West Bengal was about 159.22 MW as detailed in table 2.4 above. Apparentlyabout 80 MW of Power was available for sale outside the State. However due to mismatch of peaking in demand and supply, the available power for sale outside the state came down to zero during the winter.

## 2.7 Power purchases

The power purchase from various Central Generating Stations and other sources during FY 2011-12 is given in table 2.5 below:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Table 2.5: Power Purchase from Central Generating Stations and other sources during FY 2011-12 | | | | |
| **S.No** | **Generating Station** | **Power Purchased (MU)** | **Cost of Power (Rs. crore)** | **Average Cost (Rs/kWh)** |
|  | **NTPC** |  |  |  |
| 1 | FSTPP | 176.01 | 74.81 | 4.25 |
| 2 | KHSTPP I | 83.46 | 33.54 | 4.02 |
| 3 | KHSTPP II | 26.33 | 10.06 | 3.82 |
| 4 | TSTPP | 159.32 | 46.18 | 2.90 |
|  | NHPC |  |  |  |
| 5 | Rangit | 4.54 | 1.09 | 2.39 |
| 6 | Teesta | 30.07 | 5.51 | 1.83 |
| 7 | WBSEDCL (Ramam HEP) | 48.66 | 7.80 | 1.60 |
| 8 | PTC (Chukka HEP) | 38.06 | 6.19 | 1.63 |
|  | **Sub-Total** | **566.45** | 185.18 | 3.26 |
| 9 | UI Purchases | 27.70 | 5.41 | 1.95 |
| 10 | PGCIL Transmission Charges | -- | 27.16 | - |
|  | **Total** | **594.15** | **217.75** | **3.66** |

## 2.8 Energy Balance

2.8.1 The supply and demand scenario during the FY 2011-12 is given in table 2.6below.

|  |  |  |
| --- | --- | --- |
| Table 2.6: Energy Balance during FY 2011-12 | | |
|  |  | (MU) |
| **S.No** | **Item** | **2011-12** |
| **A** | **Energy Requirement** |  |
| 1 | Energy sale within the State | 208.56 |
| 2 | Sales outside State (UI) | 23.63 |
| 3 | Sales to common pool consumers | 0.00 |
| 4 | Sales to electricity traders | 0.00 |
| 5 | Sales to other distribution licensees | 0.00 |
| 6 | Total Sales | 232.19 |
| 7 | Distribution Losses |  |
| (i) | MU | 359.36 |
| (ii) | % | 63.28 |
| 8 | Total energy requirement (6+7(i)) | 591.55 |
| B | Energy Availability |  |
| 1 | Net Diesel Generation (own) | 0.11 |
| 2 | Net Hydel generation (own) | 21.06 |
| 3 | Power Purchase from |  |
|  | a) Central Stations | 479.73 |
|  | b) PTC | 38.06 |
|  | c) (WBSEDCL) | 48.66 |
|  | d) Others-(UI) | 27.70 |
| 4 | Net Power Purchase (1+2+3) (a+b+c+d) | 594.15 |
|  | Less Pool Loss @ 4% | 23.77 |
|  | Energy available at State periphery | 570.38 |
| 5 | Total Energy Availability | 591.55 |

As mentioned earlier the power supply position in the State is thus comfortable.

3. AGGREGATE REVENUE REQUIREMENT FOR FY 2013-14 COMMISSION’S ANALYSIS AND DIRECTIVES

## 3.1 Energy Sales

Category-wise sales projected by EPDS for FY 2013-14 for approval of ARR are examined in the following sections.

## 3.2 Consumer Categories

The EPDS serves about 88,277 consumers as on 31st March, 2012 in its area of operation and the consumers are broadly categorized as under

**LT category**

* Domestic including BPL
* Commercial
* LT Industrial
* Public Lightening
* Temporary Supply

HT category

* HT Industrial
* Bulk Supply

The EPDS serves the consumers at 11 KV and 440 V levels. Almost all consumers except street lighting are metered. However the unmetered consumers are being metered. But due to some infrastructure problems this work has a low progress.

## 3.2.1 Growth of consumers and Connected Load

Category wise details of consumers and connected load during the last three years 2011-12 (actuals), estimated for FY 2012-13 and projection for FY 2013-14 as obtained from EPDS are given in Table 3.1below:

**Table 3.1: Category wise details of Consumers and connected Load**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl. No.** | **Particulars** | **2011-12 (Actuals)** | **2012-13 (Estimated)** | **2013-14 (Projected)** |
| **1** | **2** | **3** | **4** | **5** |
| 1 | Number of Consumers | 88277 | 90096 | 92070 |
| 2 | Connected load in kW | 107778.13 | 119767.99 | 119767.99 |

## 

## 3.3 Energy Sales

The actual energy sales from FY 2009-10 to FY 2011-12, estimated sales for FY 2012-13 and projections for FY 2013-14 as furnished by EPDS are given in table 3.2 below:

Table 3.2 Energy Sales (MU)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **S. No** | **Category** | **2009-10**  **(A)** | **2010-11**  **(A)** | **2011-12**  **(A)** | **2012-13**  **(E)** | **2013-14** |
| **I** | **LT Supply** |  |  |  |  |  |
| 1 | Domestic | 58.40 | 57.97 | 82.77 | 90.69 | 96.22 |
| 2 | Commercial | 29.30 | 29.23 | 29.72 | 42.01 | 45.08 |
| 3 | LT Industrial (LTIS) | 1.90 | 1.31 | 8.63 | 8.74 | 9.66 |
| 4 | Public Lighting | 2.60 | 2.60 | 2.30 | 3.04 | 3.34 |
| 5 | Temporary Supply | 0.10 | 0.15 | 0.30 | 0.30 | 0.30 |
| **6** | **Total LT** | **92.30** | **91.26** | **123.23** | **144.78** | **155.10** |
| **II** | **HT Supply** |  |  |  |  |  |
| 7 | HT Supply | 59.20 | 58.39 | 71.63 | 91.39 | 93.21 |
| 8 | Bulk Supply | 14.50 | 13.35 | 13.21 | 14.79 | 16.29 |
| **9** | **Total HT** | **73.70** | **71.74** | **84.84** | **106.18** | **109.50** |
| 10 | Others i/c Army Pensioners, Supply to blind, Places of worships. | 0 | 0 | 0 | 0 | 0.53 |
| **11** | **Grand Total**  **(LT + HT)** | **166.00** | **163.00** | **208.07** | **250.96** | **264.63** |

The EPDS has projected the category wise energy sales for FY 2013-14 based on the actual past sales during 2009-10 to 2011-12 and growth rate, new developments on account of Government policies, socio economic changes, industrial growth etc that would effect consumption across various categories of consumers. Year on year growth rate in consumers is also taken as guiding factor to arrive at projections during 2013-14.

## 3.3.1 Analysis of energy sales projections furnished by EPDS and Commission’s view

The category-wise specific consumption during FY 2011-12 worked out is shown in table 3.3 below:

|  |  |  |  |
| --- | --- | --- | --- |
| Table 3.3: Specific consumption during 2011-12 | | | |
|  |  |  |  |
| **S.No** | **Category** | **2011-12**  **kWh/consumer / year** | **2011-12**  **kWh/consumer / month** |
| 1 | Domestic including BPL | 1065 | 89 |
| 2 | Commercial | 3171 | 264 |
| 3 | LT Industrial Consumers | 28960 | 2413 |
| 4 | Public Lightening | 0 | 0 |
| 5 | HT Industrial | 253109 | 21092 |
| 6 | Bulk Supply | 21410 | 1784 |
|  | **Total** | **307715** | **25642** |

The consumption of each category of consumers is discussed below to arrive at reasonable projection of energy sales for FY 2013-14.

**Domestic**:

EPDS has projected energy sales at 96.75 MU (including special categories like Army Pensioners, Supply to blinds, places of worships) for the year 2013-14. Actual sales during 2011-12 are 82.77 MU. EPDS has projected average growth rate of consumers at 8.45% per annum.

The consumption of this category during the years 2009-10& 2010-11 was stable at around 58 MU but there was an increase during FY 2011-12 to 82.77 MU, which was about 42.78% increase from the figure of MU during FY 2010-11. The reason for this is not explained by EPDS. EPDS estimates a growth of 9% during 2012-13 and projects a figure of 6.70% increase in 2013-14. In a developing State like Sikkim demand should be expected to grow at a more healthy rate. The Commission has considered a growth rate of 15% in this category for 2013-14 over 2012-13 and this works out 104MU.

EPDS shall improve the metering, meter reading, billing to record the energy sales properly and also curb pilferage / theft of energy.

**The Commission approves energy sales at 104 MU for domestic category for the year FY 2013-14.**

**Commercial:**

EPDS has projected energy sales at 45.08 MU for the year 2013-14. The actual sales during 2011-12 are 29.72 MU. In this category, the demand has remained static at about 29 MU during 2009-2010 to 2011-2012. EPDS has estimated a demand of 42.01 MU during 2012-13 and projected a figure of 45.08 MU for 2013-14 with a growth rate of 7.30 %. Similar steps as in the case of domestic have to be taken by EPDS to improve the energy sales in commercial category also.

**The Commission approves energy sales of 45 MU for the year FY 2013-2014.**

**LT Industrial (LTIS):**

The EPDS has projected energy sales to this category at 9.66 MU for the year 2013-14. The actual sales during the year 2010-11 are 1.31 MU. The consumption during the years FY 2008-09 to FY 2010-11 was in the range of 1.20 to 1.9 MU. This figure rose to 8.63 MU in 2011-12. The estimated consumption during 2012-13 is 8.74 MU and the projected sales for FY 2013-14 are 9.66 MU.

**The Commission approves energy sales of LT industry at 10 MU for the year FY 2013-14.**

**Public Lighting:**

The EPDS has projected energy sales of 3.04 MU for this category for the year 2012-13. This is an un-metered category. Number of connections and fixtures and their connected load are not physically verified. Billing is being done based on some assumption.

Since the energy consumption in public lighting is estimated and not metered, it is difficult to estimate the consumption. Hence the consumption is considered at 3.34 MU as projected by EPDS for FY 2013-14.

**The Commission approves 3 MU for the year FY 2013-14 for public lighting category.**

**HT Supply:**

The EPDS has projected energy sales of this category at 93.21 MU for the yearFY 2013-14. The consumption during FY 2011-12 was 71.63 MU. It is estimated to be 91.39 MU for 2012-13. The Commission considers that the energy sales projected for FY 2013-14 at 93.21 MU is reasonable.

**The Commission approves energy sales at 93.21 MU to HT Supply category for the year FY 2013-14.**

**Bulk Supply:**

The EPDS has projected energy sales of this category at 16.29 MU for the year 2013-14. The actual sales for the FY 2011-12was 13.21 MU.The estimated sales for FY 2012-13is 14.79 MU. Hence the projected sales at 16.29 MU for FY 2013-14 is considered reasonable.

**The Commission approves energy sales at 16 MU for the year FY 2013-14 to Bulk supply category.**

**Temporary supply:**

EPDS has projected sales under temporary supply at 0.3 MU. Since it is difficult to estimate the sales under this category.

**The Commission approves the sales under temporary supply at 0.3 MU for the FY 2013-2014.**

## 3.3.2 Category wise Energy sales

The category wise energy sales as discussed above and energy sales projected by the EPDS and approved by the Commission are given in table 3.4 below:

|  |  |  |  |
| --- | --- | --- | --- |
| Table 3.4: Category wise energy sales for FY 2012-13 | | | |
|  |  |  | **MU** |
| **S. No** | **Consumer Category** | **Energy sales furnished by EPDS** | **Energy sales approved by Commission** |
| 1 | Domestic | 96.76 | 104.00 |
| 2 | Commercial | 45.00 | 45.00 |
| 3 | LT Industrial | 9.66 | 10.00 |
| 4 | Public Lightening | 3.34 | 3.00 |
| 5 | Temporary supply | 1.00 | 0.30 |
| 6 | HT Industrial | 93.21 | 93.21 |
| 7 | Bulk Supply | 16.29 | 16.00 |
| **8** | **Total** | **265.26** | **271.51** |

## 3.4 Transmission and Distribution (T & D) Losses

The EPDS has furnished T&D losses for FY 2011-12 at 63.25%, which are stated to be actuals and estimated at 53.20% for FY 2012-13 and projected at 50.65% for FY 2013-14. The EPDS has considered a reduction of 15.90 % during FY 2012-13 and 5% during FY 2013-14.

Table 3.5: gives the detail of T & D loss calculated as given by EPDS:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |
| **Sl. No** | **Particulars** | **Calculation** | **Unit** | **2011-12 (Actuals)** | **2012-13 (R.E)** | **2013-14 (Projection)** |
| 1 | Generation (own as well as any other connected generation net after deducting auxiliary consumption) within area of supply of DISCOM | A | MU | 21.17 | 21.17 | 21.17 |
| 2 | Input energy (metered Import) received at interface points of DISCOM network | B | MU | 570.38 | 573.12 | 573.12 |
| 3 | Input energy (metered Export) by the DISCOM at interface point of DISCOM network | C | MU | 23.63 | 58.09 | 58.09 |
| 4 | Total energy available for sale within the licensed area to the consumers of the DISCOM | D=A+B-C | MU | 567.92 | 536.20 | 536.20 |
| 5 | Energy billed to metered consumers within the licensed area of the DISCOM | E | MU | 208.56 | 250.95 | 264.63 |
| 6 | Energy billed to unmetered consumers within the licensed area of the DISCOM | F | MU | 0.00 | 0.00 | 0.00 |
| 7 | Total energy billed | G=E+F | MU | 208.56 | 250.95 | 264.63 |
| 8 | Amount billed to consumer within the licensed area of DISCOM | H | Rs. | 83.24 | 88.23 | 91.33 |
| 9 | amount realized by the DISCOM out of the amount Billed at H# | I | Rs. Cr. | 73.10 | 78.89 | 81.65 |
| 10 | Collection efficiency (%) (=Revenue realized / Amount billed) | J=(I/H)X100 | % | 87.82 | 89.41 | 89.41 |
| 11 | Energy realised by the DISCOM | K=JXG | MU | 183.15 | 224.38 | 236.60 |
| 12 | Distribuition Loss (%) | L={(D-G)/D}x100 | % | 63.28 | 53.20 | 50.65 |
| 13 | AT&C Loss (%) | M={(D-K)/D}x100 | % | 67.75 | 58.15 | 55.87 |

**Commission’s Analysis**

EPDS has projected T & D Loss of 50.65% for FY 2013-14. Which the Commission feels very high. In earlier tariff order for 2012-13 the commission had given a trajectory according to which the T & D Loss at for 2013-14 should be kept at 46 % which is 13.5 % less than the EPDS figure of T & D Loss for 2012-13. With such a high loss in the system, the Commission feels that there is a scope for improvement and fixes the loss level of 46 % for FY 2013-14

The EPDS should analyse the reasons for such high T&D losses and take effective measures to reduce the losses by proper meterings, meter reading and billing and accounting the sales properly, voltage-wise energy audit has to be conducted by providing meters on incoming lines and at distribution transformers and arresting pilferage of energy and replacement of all defective meters and installation of meters to all unmetered connections. EPDS shall concentrate more on Gangtok and other urban distributions where substantial energy is consumed.

Infact these directives were issued in the Tariff Order for FY 2012-2013. The Commission feels that EPDS has failed to focus on these areas which are vital for the reduction of T&D loss.

**The Commission accordingly approves T&D losses within the state at 46% for the year FY 2013-14.**

With the above observations, the trajectory for loss reduction for the years 2014-15 to 2016-17 is fixed as follows:

|  |  |
| --- | --- |
| 2014-15 | 42% |
| 2015-16 | 38% |
| 2016-17 | 34% |

The EPDS shall make all efforts for reduction of losses in the system as above.

## 3.5 Energy Requirement

The energy requirement for Sikkim to meet their demand would be the sum of energy sales to consumers and T&D loss approved as given in Table 3.6 below:

Table: 3.6: Energy requirement for FY 2012-13

(MU)

|  |  |  |
| --- | --- | --- |
| **S. No** | **Particulars** | **2013-14** |
| 1 | Energy sales | 271.51 |
| 2 | T & D loss (46%) | 236.69 |
| 3 | Energy requirement | 508.20 |

## 3.6 Power Procurement for 2013-14

## 3.6.1 Own Generation

The EPDS owns 12 Mini Hydro electric power stations with an installed capacity of 35.70 MW and 2 Diesel generation stations with an installed capacity of 4.992 MW totaling to 40.692 MW as detailed in Table 3.7 below:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Table 3.7: Installed Capacity and Own generation for FY 2010-11 | | | | |
| Sr. No | Generating Stations | Installed Capacity (MW) | 2010-11  (MU) | Remarks |
| A | Hydro Generation |  |  |  |
| 1 | Lower Lagyap Hydel Power (LLHP) (2 x 6.00) | 12.00 | 24.195 |  |
| 2 | Jali Power House (JPH) (6 x 0.35) | 2.10 | 3.163 |  |
| 3 | Rimbi-I (3 x 0.20) | 0.60 | 0.165 |  |
| 4 | Rimbi-II (2 x 0.50) | 1.00 | 0.415 |  |
| 5 | Rothak (2 x 0.10) | 0.20 | 0 | Power house abandoned |
| 6 | Rongnichu (5 x 0.5) | 2.50 | 0.854 |  |
| 7 | Chatan (2 x 0.05) | 0.1 | - | Power house abandoned |
| 8 | Meyongchu (2 x 2) | 4.00 | 6.589 |  |
| 9 | Upper Rongnichu Hydel Project (URHP) (4 x 2) | 8.00 | 0 | No generation due to failure of water conductor system |
| 10 | Kalez (2 x 1) | 2.00 | 0.760 |  |
| 11 | Lachung (2 x 0.1) | 0.20 | 1.025 | Power house abandoned |
| 12 | Rabomchu (2 x 1.50) | 3.00 | 3.522 |  |
| **13** | **Sub-Total** | **35.70** | **40.684** |  |
| **B** | **Diesel Generation** |  |  |  |
| 14 | DPH Gangtok (4 x 1) | 4.00 | 0.153 |  |
| 15 | DPH LLHP Ranipool (4 x 0.248) | 0.992 | - |  |
| **16** | **Sub-Total** | **4.992** | **0.153** |  |
| **17** | **Grand Total** | **40.692** | **40.837** |  |
| 18 | Less Auxiliary |  | 0.137 |  |
| 19 | Net Generation |  | 40.700 |  |

## Most of the generating stations are under renovation post September, 2011 earthquake. The total generation from these generating units for 2011-12 is 21.17 MU. EPDS has kept the same figure for 2012-13 and 2013-14. The Commission feels that expediting the renovation works can reduce the necessity of importing energy to that extent. The following Power Houses are under renovation at present.

1. Lower Lhagap Hydel Project (LLHP)
2. Rimbi-I
3. Rimbi-II
4. Kalez
5. Rabomchu
6. Jali Power House (JPH)
7. Rongnichu stage-II

## 3.6.2 Energy from Central Generating Stations and other sources

The balance energy requirement of EPDS is mainly met from allocation of power from Central Generating Stations, PTC and WBSEB.

The percentage of shares from CGS, Chukka (PTC) and bilateral share from Ramam West Bengal station for FY 2013-14 are as detailed in table 3.8 below

Table 3.8.: Power from Central Generating Stations and other sources for FY 2013-14

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sl. No | Source | Capacity | Allocation | |
| **MW** | **%** | **MW** |
|  | Central Sector |  |  |  |
| 1 | FSTPP, NTPC | 1600 | 1.63% | 26.00 |
| 2 | KHSTPP-I, NTPC | 840 | 1.55% | 13.00 |
| 3 | KHSTPP-II, NTPC | 1500 | 0.33% | 4.95 |
| 4 | TSTPP, NTPC | 1000 | 2.40% | 24.00 |
| 5 | RANGIT-III, NHPC | **60** | 13.33% | 8.00 |
| 6 | TEESTA-V, NHPC | 510 | 13.19% | 67.27 |
|  | Others |  |  |  |
| 7 | CHUKHA, PTC | 270 | 2.22% | 6.00 |
| 8 | WBSEDCL | 50 | 20% | 10.00 |
| **9** | **TOTAL** | 5830 |  | **159.219** |

Energy procurement during 2011-12 (Actuals) and estimated for FY 2012-13 and projected for FY 2012-13 as furnished by EPDS are given in table 3.9 below

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Table 3.9: Station wise Power Purchase as furnished by EPDS  (MU) | | | | |
| Sr. No | Source | 2011-12 (Actual) | 2012-13 (Estimated) | 2013-14 (Projected) |
|  | Central Sector |  |  |  |
| 1 | **FSTPP, NTPC** | 176.01 | 185.00 | 185.00 |
| 2 | KHSTPP-I,NTPC | 83.46 | 78.00 | 78.00 |
| 3 | KHSTPP-II, NTPC | 26.33 | 28.00 | 28.00 |
| 4 | TSTPP,NTPC | 159.32 | 170.00 | 170.00 |
| 5 | RANGIT-III, NHPC | 4.54 | 4.00 | 4.00 |
| **6** | **TEESTA-V,NHPC** | 30.07 | 30.00 | 30.00 |
|  | OTHERS |  |  |  |
| 7 | CHUKHA,PTC | 38.06 | 40.00 | 40.00 |
| 8 | WBSEDCL | 48.66 | 40.00 | 40.00 |
| 9 | UI/over drawn (net) | 27.70 | 22.00 | 22.00 |
| 10 | TOTAL | 594.15 | 597.00 | 597.00 |

## 3.7 Energy Requirement and availability

The energy requirement and availability for the year 2011-12(Actuals) and estimated for 2012-13 and projected for 2013-14 as furnished by EPDS are given in table 3.10 below:

**Table No. 3.10 Energy Balance as furnished by EPDS**

|  |  |  |  |
| --- | --- | --- | --- |
| Energy Balance | 2011-12 (Actual) | 2012-13 (Estimated) | **2013-14 (Projected)** |
| MU’s | MU’s | **MU’s** |
| ENERGY REQUIREMENT | | | |
| Energy Sales within State | 208.56 | 250.95 | 264.63 |
| Sales outside State (UI) | 23.63 | 58.09 | 58.09 |
| **Total Energy Sales** | **232.19** | **309.04** | **322.72** |
|  |  |  |  |
| Overall T & D Losses % | 63.28 | 53.20 | 50.65 |
| Overall T & D Losses (MU’s) | 359.36 | 285.25 | 271.57 |
| **Total Energy Requirement** | **591.55** | **594.09** | 594.29 |
|  |  |  |  |
| ENERGY AVAILABILITY | | | |
| Power Purchase from CGS/UI etc | 594.15 | 597.00 | 597.00 |
| Less :Overall Pool Loss @ 4% | 23.77 | 23.88 | 23.88 |
| Generation | 21.17 | 21.17 | 21.17 |
| Total Energy Availability | 591.55 | 594.29 | 594.29 |
|  |  |  |  |
| Energy Surplus/(GAP) | 0.00 | 0.00 | 0.00 |

The above table gets modified on the basis of analysis as given before, which is given in table 3.11 below:-

**Table 3.11.Energy Balance as approved by the Commission**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **(MU)** | | | | |
| **Sl. No.** | **Item** | **2011-12 (Actuals)** | **2012-13 (Estimated)** | **2013-14 (Projected)** |
| **A)** | **ENERGY REQUIREMENT** |  |  |  |
| 1 | Energy sales within the State | 208.56 | 250.95 | 271.51 |
| 2 | Sales outside State (UI) | 23.63 | 58.09 | 91.49 |
| 3 | Sales to common pool consumers | 0.00 | 0.00 | 0.00 |
| 4 | Sales to electricity traders | 0.00 | 0.00 | 0.00 |
| 5 | Sales to other distribution licensees | 0.00 | 0.00 | 0.00 |
| **6** | **Total Sales** | **232.19** | **309.04** | **363.00** |
| 7 | Distribution Losses |  |  |  |
| (i) | MU | 359.36 | 285.25 | 231.29 |
| (ii) | % | 63.28 | 53.20 | 46.00 |
| **8** | **Total energy requirement (6+7(i))** | **591.55** | **594.29** | **594.29** |
| **B** | **ENERGY AVALABILITY** |  |  |  |
| 1 | Net Diesel Generation (own) | 0.11 | 0.11 | 0.11 |
| 2 | Net Hydel generation (own) | 21.06 | 21.06 | 21.06 |
| 3 | Power Purchase from |  |  |  |
|  | a) Central Stations | 479.73 | 495.00 | 495.00 |
|  | b) PTC | 38.06 | 40.00 | 40.00 |
|  | c)(WBSEDCL) | 48.66 | 40.00 | 40.00 |
|  | d) Others - (UI) | 27.70 | 22.00 | 22.00 |
| **4** | **Net Power Purchase (1+2+3) (a+b+c+d)** | **594.15** | **597.00** | **597.00** |
|  | Less Pool Loss@4% | 23.77 | 23.88 | 23.88 |
|  | Energy available at state periphery | 570.38 | 573.12 | 573.12 |
| **6** | **Total Energy Availability** | **591.55** | **594.29** | **594.29** |

**Commission’s Analysis**

The Commission has examined the energy availability from central generating stations as projected by EPDS. It has revised energy balance statement for FY 2013-14 keeping the T & D Loss at 46 % as per Table No. 3.11 above.

## 3.8 Power Purchase Cost

The Power purchase cost including Transmission & Distribution charges as given by EPDS is in actual for 2011-12, whereas for 2012-13, EPDS has taken the cost approved by the Commission in its tariff order for 2012-13 and the project cost of figures for 2013-14 are 5% increment on the figures for 2012-13.

**Table 3.12 POWER PURCHASE COSTFOR THE YEAR -2011-12**

**(Rs. In Crores)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl. No** | **Source** | **Energy**  **received (MU)** | **Variable Cost**  **(Ps./Unit)** | **Total Variable Cost** | **Total Fixed Cost** | **Others** | **Total Cost i/c supplementary bills (5+6+7)** | **Unit Cost (Rs. /KWH)** |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** |
| **1** | **NTPC** |  |  |  |  |  |  |  |
|  | **a)FSTPP** | **176.01** |  |  | **13.485** |  | **74.81** | **4.25** |
|  | **b) KHSTPP-I** | **83.46** |  |  | **7.87** |  | **33.54** | **4.02** |
|  | **c) KHSTPP-II** | **26.33** |  |  | **3.85** |  | **10.06** | **3.82** |
|  | **d) TSTPP** | **159.32** |  |  |  |  | **46.18** | **2.90** |
| **2** | **NHPC** |  |  |  |  |  |  |  |
|  | **a)RANGIT-III** | **4.54** |  |  |  |  | **1.09** | **2.39** |
|  | **b)TEESTA-V** | **30.07** |  |  |  |  | **5.51** | **1.83** |
| **3** | **Other sources** |  |  |  |  |  |  |  |
|  | **a)PTC** | **38.06** |  |  |  |  | **6.19** | **1.63** |
|  | **b)WBSEDCL** | **48.66** |  |  |  |  | **7.80** | **1.60** |
| **4** | **Other Charges** |  |  |  |  |  |  |  |
|  | **a)Transmission Charge** |  |  |  |  |  | **27.16** |  |
| **5** | **UI Purchase** | **27.70** |  |  |  |  | **5.41** | **1.95** |
|  | **Total** | **594.15** |  |  |  |  | **217.75** |  |

**Table 3.13.POWER PURCHASE COSTFOR THE YEAR -2012-13**

**(Rs. In Crores)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl. No** | **Source** | **Energy**  **received (MU)** | **Variable Cost (Ps./Unit)** | **Total Variable Cost** | **Total Fixed Cost** | **Others** | **Total Cost i/c supplementary bills (5+6+7)** | **Unit Cost (Rs. /KWH)** |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** |
| **1** | **NTPC** |  |  |  |  |  |  |  |
|  | **a)FSTPP** | **185.00** | **3.041** | **56.26** | **12.59** |  | **68.85** | **3.72** |
|  | **b) KHSTPP-I** | **78.00** | **2.393** | **18.67** | **8.33** |  | **27.00** | **3.46** |
|  | **c) KHSTPP-II** | **28.00** | **2.259** | **6.33** | **3.33** |  | **9.66** | **3.45** |
|  | **d) TSTPP** | **170.00** | **2.047** | **34.8** | **8.86** |  | **43.66** | **2.57** |
| **2** | **NHPC** |  |  |  |  |  |  |  |
|  | **a)RANGIT-III** | **4.00** | **0.795** | **0.32** | **0.72** |  | **1.04** | **2.60** |
|  | **b)TEESTA-V** | **30.00** | **0.751** | **2.25** | **2.57** |  | **4.82** | **1.61** |
| **3** | **Other sources** |  |  |  |  |  |  |  |
|  | **a)PTC** | **40.00** | **1.59** | **6.36** | **0** |  | **6.36** | **1.59** |
|  | **b)WBSEDCL** | **40.00** | **1.22** | **4.88** | **0** |  | **4.88** | **1.22** |
| **4** | **Other Charges** |  |  |  |  |  |  |  |
|  | **a)Transmission Charge** |  |  |  |  |  | **28.51** |  |
| **5** | **UI Purchase** | **22.00** |  |  |  |  | **9.15** | **4.16** |
|  | **Total** | **597.00** |  |  |  |  | **203.93** |  |

**Table. 3.14. Power Purchase Cost as projected by EPDS and approved by the Commission for the FY 2013-2014**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl.No** | **Source** | **Energy received (MU)** | **Variable Cost (PS. / Unit)** | **Total variable Cost** | **Total Fixed Cost** | **Others** | **Total cost i/c supplementary bills (5+6+7)** | **Unit Cost (Rs. / KWH)** |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** |
| **1** | **NTPC** |  |  |  |  |  |  |  |
|  | **a)FSTPP** | **185.00** | **3.19** | **59.07** | **12.59** |  | **71.66** | **3.87** |
|  | **b)KHSTPP-I** | **78.00** | **2.51** | **19.60** | **8.33** |  | **27.93** | **3.58** |
|  | **c)KHSTPP-II** | **28.00** | **2.37** | **6.64** | **3.33** |  | **9.97** | **3.56** |
|  | **d)TSTPP** | **170.00** | **2.15** | **36.54** | **8.86** |  | **45.40** | **2.67** |
| **2** | **NHPC** |  |  |  |  |  |  |  |
|  | **a)RANGIT-ii** | **4.00** | **0.83** | **0.33** | **0.72** |  | **1.05** | **2.63** |
|  | **b)TEESTA-V** | **30.00** | **0.79** | **2.37** | **2.57** |  | **4.94** | **1.65** |
| **3** | **Other sources** |  |  |  |  |  |  |  |
|  | **a)PTC** | **40.00** | **1.67** | **6.68** | **0** |  | **6.68** | **1.67** |
|  | **b)WBSEDCL** | **40.00** | **1.28** | **5.12** | **0** |  | **5.12** | **1.28** |
| **4** | **Other Charges** |  |  |  |  |  |  |  |
|  | **a)Transmission Charge** |  |  |  |  |  | **29.94** |  |
| **5** | **UI Purchase** | **22.00** |  |  |  |  | **9.61** | **4.37** |
|  | **Total** | **597.00** |  |  |  |  | **212.30** |  |

**The Commission approves the power purchase cost as projected by EPDS.**

Power purchase cost including Transmission and Distribution charge as given by EPDS is given as under:

## 3.9 Fuel Cost

The EPDS has projected fuel cost at Rs. 0.32crore for the FY 2013-14.

**The Commission approves fuel cost of Rs. 0.32crore for the year 2013-14 as furnished by EPDS.**

## 3.10 Operation and Maintenance Expenses

O&M expenses comprise of Employee expenses, Repair and maintenance expenses and Administration and General expenses.

The EPDS has projected overall O&M expenses at Rs. 102.15crore for the year 2013-14 as detailed in table 3.15 below:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Table 3.15: Operation & Maintenance expenses for 2012-13 | | | | |
|  |  |  |  | **(Rs. crore)** |
| **S.No** | **Particulars** | **2011-12**  **(Actual)** | **2012-13**  **(Estimated)** | **2013-14**  **(Projected)** |
| 1 | Employee Cost | 64.04 | 67.64 | 79.03 |
| 2 | Repairs & Maintenance expenses | 13.83 | 14.16 | 19.41 |
| 3 | Administration & General expenses | 1.36 | 2.96 | 3.71 |
| **4** | **Total operation & Maintenance Expenses** | **79.23** | **84.76** | **102.15** |

## 3.10.1 Employee expenses

The EPDS has projected the Employee expenses at Rs. 79.03 Crore for the year 2013-14. The employee expenses include salaries, allowances, leave encashment, terminal benefits such as pension and gratuity etc. The component wise details of employee expenses for FY 2010-11 (Actuals) estimated for 2011-12 and projected for FY 2012-13 as furnished by the EPDS are shown in table 3.16 below:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Table 3.16: Total Employee Cost in the Department | | | | |
|  |  |  | **(Rs. crore)** | |
| **S.No** | **Particulars** | **201112 (Actuals)** | **2012-13 (Estimated)** | **2013-14 (Projected)** |
| **1** | **2** | **3** | **4** | **5** |
|  | **SALARIES & ALLOWANCES** |  |  |  |
| 1 | Basic Pay | 32.16 | 33.37 | 39.49 |
| 2 | Dearness Pay | 0.00 | 0.00 | 0.00 |
| 3 | Dearness Allowance | 16.09 | 16.69 | 19.75 |
| 4 | House rent Allowance | 4.82 | 5.00 | 5.92 |
| 5 | Fixed Medical Allowance | 0.00 | 5.00 | 0.00 |
| 6 | Medical Reimbursement charges | 1.62 | 1.68 | 1.99 |
| 7 | Overtime Payment | 0.00 | 0.00 | 0.00 |
| 8 | Other Allowance (detailed list to be attached) | 0.00 | 0.00 | 0.00 |
| a) | Spl Border Compensatory Allowances | 3.22 | 3.34 | 3.95 |
| 9 | Generation Incentive | 0.00 | 0.00 | 0.00 |
| 10 | Bonus | 0.00 | 0.00 | 0.00 |
| **11** | **Sub-Total** | **57.91** | **60.09** | **71.10** |
|  | **Terminus Benefits** |  |  |  |
| 12 | Leave Encashment | 1.50 | 2.00 | 2.10 |
| 13 | Gratuity | 2.70 | 3.00 | 3.15 |
| 14 | Commutation of Pension | 1.50 | 2.00 | 2.10 |
| 15 | Workmen compensation | 0.27 | 0.30 | 0.32 |
| 16 | Ex-Gratia | 0.10 | 0.15 | 0.16 |
| **17** | **Sub-Total Pension Payments** | **6.05** | **7.45** | **7.82** |
| **17** | **Pension Payments** |  |  |  |
| 18 | Basic Pension | 0.05 | 0.06 | 0.06 |
| 19 | Dearness Pension | 0.00 | 0.00 | 0.00 |
| 20 | Dearness Allowance | 0.03 | 0.04 | 0.05 |
| 21 | Any Other Expenses (Medical) | 0.00 | 0.00 | 0.00 |
| **22** | **Sub-Total** | **0.08** | **0.10** | **0.11** |
| **23** | **Total (11+17+22)** | **64.04** | **67.64** | **79.03** |
| 24 | Amount Capitalised | 0.00 | 0.00 | 0.00 |
| **25** | **Net Amount** | **64.04** | **67.64** | **79.03** |
| 26 | Add prior period expenses | 0.00 | 0.00 | 0.00 |
| **27** | **Grand Total** | **64.04** | **67.64** | **79.03** |

**Commission Analysis**

Commission advises the EPDS to maintain the expenditure at the projected figure of Rs. 79.03crores for the year 2013-14, which should cover increments and increase in DA etc.

## 3.10.2 Repairs and Maintenance expenses

The EPDS has projected Rs.19.41crore towards repairs and maintenance expenses for the year 2013-14 as detailed in table 3.17 below

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Table 3.17: Repairs & Maintenance expenses | | | | |
|  |  |  |  | **(Rs. crore)** |
| **Sl. No** | **Particulars** | **20112-12 (Actual)** | **2012-13 (Estimated)** | **2013-14 (Projected)** |
| 1 | Plant and Machinery | 3.96 | 4.05 | 5.56 |
| 2 | Building | 0.37 | 0.38 | 0.52 |
| 3 | Hydraulic works & Civil works | 2.14 | 2.20 | 3.01 |
| 4 | Line cable & network | 7.21 | 7.39 | 10.12 |
| 5 | Vehicles | 0.14 | 0.14 | 0.20 |
| 6 | Furniture & fixtures | 0.00 | 0.00 | 0.00 |
| 7 | Office Equipments | 0.00 | 0.00 | 0.00 |
| 8 | Operating expenses | 0.00 | 0.00 | 0.00 |
| 9 | Total | 13.83 | 14.16 | 19.41 |
| 10 | Less capitalized | 0.00 | 0.00 | 0.00 |
| 11 | Net Repair & Maintenance Expenses | 13.83 | 14.16 | 19.41 |

**The Commission feels that the projection made by EPDS is on the higher side. The actual figures at 2011-12 isRs.13.83 crores while in 2013-14 it is Rs. 19.41 crore. It is 40 % increment in two years, in fact from the estimated figure for 2012-13 also it is 37 % higher, Commission advises the EPDS to limit this increment to 20 %. Thus the Repair and Maintenance cost for 2013-14 is fixed at Rs. 17.00 crore.**

## 3.10.3 Administration and General Expenses

The EPDS has furnished administration and general expenses at Rs. 3.71crores for the year 2013-14 as detailed in table 3.18 below.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Table 3.18: Administration and General Expenses | | | | |
|  |  |  | **(Rs. crore)** | |
| **Sl. No** | **Particulars** | **2011.12 (Actuals)** | **2012-13**  **(Estimated)** | **2013-14 (Projected)** |
| **1** | **2** | **3** | **4** | **5** |
| 1 | Rent, rates & taxes | 0.0591 | 0.1287 | 0.1613 |
| 2 | Insurance | 0.0000 | 0.0000 | 0.0000 |
| 3 | Telephone, postage & Telegrams | 0.2362 | 0.5148 | 0.6452 |
| 4 | Consultancy fees | 0.0710 | 0.1544 | 0.1936 |
| 5 | Technical fees | 0.0355 | 0.0772 | 0.0968 |
| 6 | Other professional charges | 0.0000 | 0.0000 | 0.0000 |
| 7 | Conveyance & travel expenses | 0.5913 | 1.2870 | 1.6130 |
| 8 | Electricity & water charges | 0.2838 | 0.6177 | 0.7743 |
| 9 | Others | 0.0237 | 0.0515 | 0.0645 |
| 10 | Freight | 0.0000 | 0.0000 | 0.0000 |
| 11 | Other material related expenses | 0.0591 | 0.1287 | 0.1613 |
| 12 | Total expenses | 1.3600 | 2.9600 | 3.710 |
| 13 | Less Capitalised | 0.0000 | 0.0000 | 0.0000 |
| 14 | Net expenses | 1.3600 | 2.9600 | 3.7100 |
| 15 | Add Prior period | 0.0000 | 0.0000 | 0.0000 |
| 16 | Total expenses charged to revenue | 1.3600 | 2.9600 | 3.7100 |

**The Commission approves administration and general expenses at Rs.3.71 Crore for the year 2013-14 as projected by EPDS as it is considered reasonable.**

## 3.10.4 Capital Investment

The EPDS has projected Capital Investment of Rs.100.97 Crore during 2013-14. Scheme wise details during 2011-12 (Actuals) and estimated for 2012-13 and projected for 2012-13.

**The commission approves the proposed expenditure of Rs. 100.97 crores for the FY 2013-2014.**

**3.10.5.1 Gross Fixed Assets 2013-14:**

In absence of fixed assets register EPDS has taken gross fixed assets (GFA) of Rs. 170.42crores or as approved by the Commission in its order of 2012-13 as the opening balance for 2013-14 and thereafter capitalized during FY 2013-14 has been taken added as in table:

**Table No . 3.19 Gross Fixed Assets Movement**

|  |  |  |  |
| --- | --- | --- | --- |
| **Financial year** | **Opening Balance (Rs. Crores)** | **Addition during the year (Rs. Crores)** | **Closing Balance (Rs. Crores)** |
| **FY 2011-12** | **0.00** | **0.00** | **0.00** |
| **FY 2012-13** | **0.00** | **170.42** | **170.42** |
| **FY 2013-14** | **170.42** | **100.97** | **271.39** |

**The Commission approves Rs. 271.39 Crores as the GFA for 2013-14. But advise EPDS to prepare the fixed assets register.**

## 3.10.5.2 Depreciation

In absence of fixed Assets register EPDS submits that function wise and category wise fixed assets register shall be submitted in subsequent filing.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Table No. 3.20 VALUE ASSETS AND DEPRECIATION 2013-14** | | | | | | | |
|  |  |  |  |  |  |  | **(Rs. Crores)** |
| **Sl. No.** | **Name of the Asset** | **Value of Assets at the beginning of the year** | **Addition during the year** | **Withdrawn during the year** | **Value of Assets at the end of the year** | **Rate of Depreciation (%)** | **Depreciation charges for the year** |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
| 1 | Fixed Assets | 170.42 | 100.97 | 0.00 | 271.39 | 5.28% | 11.66 |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| **Total** | | **170.42** | **100.97** | **0.00** | **271.39** |  | **11.66** |

**The Commission approves the depreciation Rs 11.66 for the year 2013-14**

**3.10.6.1 Capital Based Returns**

EPDS has submitted capital based return as under:

**Table No. 3.21 Capital Based Returns for FY 2013-14**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl.No** | **Particulars** | **2011-12 (Actual)** | **2012-13 (Estimated)** | **2013-14 (Projected)** |
| **1** | **2** | **3** | **4** | **5** |
| 1 | Gross block at beginning of the year | 0.00 | 0.00 | 170.42 |
| 2 | Less accumulated depreciation | 0.00 | 0.00 | 4.50 |
| 3 | Net block at beginning of the year | 0.00 | 0.00 | 165.92 |
| 4 | Less accumulated consumer contribution | 0.00 | 0.00 | 0.00 |
| 5 | Net fixed assets at beginning of the year | 0.00 | 0.00 | 165.92 |
| 6 | Reasonable return @3 % of NFA | 0.00 | 0.00 | 4.98 |

**The Commission approves the Rs. 4.98 crores for the year FY 2013-14.**

**3.10.6.2 Interest and Finance Charges**

The EPDS has considered an Interest on loan at the rate of 14.75% which is SBI PLR as on 1st April, 2012. For calculating, Interest & finance charges, opening loan has been taken as 70% of GFA for the FY 2012-2013as approved in the Tariff order of 2012-2013. Thereafter, 70% of assets proposed to be capitalized during FY 2013-2014 has been added. The interest on loan computed on the above methodology comes to Rs. 21.93 crores for the F 2013-2014.

The details of loans and interest proposed are furnished in table 2.22 below

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Table 3.22: Interest and Finance charges projected by EPDS | | | | |
|  |  |  | **(Rs. crore)** | |
| **S.No** | **REC Loan** | **2011-12** | **2012-13** | **2013-14** |
| **1** | **2** | **3** | **4** | **5** |
| 1 | Opening Balance | 0 | 0 | 119.29 |
| 2 | Loan taken during the year | 0 | 119.29 | 70.68 |
| 3 | Principle paid during the year | 0 | 0.00 | 11.93 |
| 4 | Closing balance | 0 | 119.29 | 178.04 |
| 5 | Rate of Interest | 14.75% | 14.75% | 14.75% |
| 6 | Interest to be paid | 0.00 | 8.80 | 21.93 |

Commission’s Analysis

The Commission feels that most of the capital expenditure made by the EPDS is through Government grants, therefore taking 70% of GFA is not proper for interest & finance charges. In absence of specific information about pure loan component Commission does not entertain the provision for Interest & finance Charges.

## 3.10.7 Interest on Working Capital

The EPDS has computed the interest on working capital for the FY 2013-2014 on normative basis amounting to Rs. 3.50 crores.

Commission’s Analysis

The Commission feels that all the working capital comes to EPDS through Government grant and therefore the Commission does not entertain the provision for Interest on Working Capital.

## 3.10.8 Return on Equity

The EPDS has computed the Return on Equity considering a rate of return at 14% on the Average equity for the fiscal year as per the provisions of the Tariff Regulations. For calculating Return on Equity, opening equity has been taken as 30% GFA for the FY 2013-14. Thereafter 30% of assets proposed to be capitalized during FY 2013-14 have been added amounting to Rs. 9.28 crores.

Commission’s Analysis

Regulation 110 of SSERC (Terms and Conditions for determination of Tariff) Regulations, 2012 provides return on equity at 14% PA on the equity amount appearing in the audited balance sheet or annual accounts.

The EPDS has not produced audited annual accounts such as balance sheet, profit and loss account etc. In addition, since it is a department of the State Government, the expenses are funded by the Government. As such, no separate equity is to be allowed for return on equity.

## 3.10.9 Provision for bad and doubtful debts

The EPDS has not claimed any provision for bad and doubtful debts for the year 2013-14.

## 3.10.10 Non-Tariff Income

The EPDS has projected Rs. 2.40crore towards Non-Tariff income for the year 2013-14.

**Table 3.23: NON TARIFF INCOME**

(Rs. In Crores)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl. No** | **Particulars** | **2011-12 (Actuals)** | **2012-13 (Estimated)** | **2013-14 (Projected)** |
| 1 | 2 | 3 | 4 | 5 |
| 1 | Meter /Service rent | 0.89 | 0.77 | 0.72 |
| 2 | Late payment surcharge | 1.15 | 1.31 | 1.34 |
| 3 | Theft / pilferage of energy charges | 0.01 | 0.02 | 0.01 |
| 4 | Misc. Receipts | 0.75 | 0.32 | 0.33 |
| 5 | Misc. Charges | 0.03 | 0.02 | 0.01 |
| 6 | Wheeling charges | 0.00 | 0.00 | 0.00 |
| 7 | Interest on staff loans & advance | 0.00 | 0.00 | 0.00 |
| 8 | Income from trading | 0.00 | 0.00 | 0.00 |
| 9 | Income from welfare activities | 0.00 | 0.00 | 0.00 |
| 10 | Excess on verification | 0.00 | 0.00 | 0.00 |
| 11 | Investments & bank balances | 0.00 | 0.00 | 0.00 |
| **12** | **Total Income** | **2.83** | **2.44** | **2.40** |
| 13 | Add prior period income | 0.00 | 0.00 | 0.00 |
| **14** | **Total** | **2.83** | **2.44** | **2.40** |

**The Commission approves Non-tariff income at Rs. 2.40 Crore for the year 2013-14.**

## 3.11 Annual Revenue Requirement

Having analyzed the Revenue Requirement furnished by the EPDS for the year 2013-14, as enumerated in preceding paragraphs, the Commission approves the ARR for FY 2013-14 as indicated in table 4.24 below

|  |  |  |
| --- | --- | --- |
| Table 3.24: Aggregate Revenue Requirement approved for FY 2013-14 | | |
|  |  | **(Rs. crore)** | |
| **S.No** | **Particulars** | **Approved by the Commission** | |
| 1 | Fuel Cost | 0.32 | |
| 2 | Power Purchase Cost | 212.30 | |
| 3 | O & M Expenses | 79.03 | |
| 4 | Employee expenses |
| 5 | R & M Expenses | 17.00 | |
| 6 | Adm. & Genl. Expenses | 3.71 | |
| 7 | Depreciation | 11.66 | |
| 8 | Interest & Finance Charges | 00.00 | |
| 9 | Interest on working capital | 00.00 | |
| 10 | Return on Equity | 00.00 | |
| 11 | Provision for bad debts | 00.00 | |
| **12** | **Total Expenditure** | **324.02** | |
| 13 | Less Non Tariff Income | 2.40 | |
| **14** | **Aggregate Revenue Requirement** | **321.62** | |
| 15 | Revenue from Tariff | 101.66 | |
| 16 | Revenue outside State | 33.57 | |
| 17 | Total GAP (14 – (15+16)) | 186.39 | |
| 18 | Revenue surplus carried forward | 00.00 | |
| **19** | **Energy Sales (MU)** | **362.82** | |

## 3.12 Expected revenue from Existing Tariff

Based on the actual energy sales and assessment during 2011-12, category wise average revenue is obtained and the Commission assessed the category wise revenue for the year 2013-14, with the sales approved by the Commission for FY 2013-14. The sales outside the State are also considered and the same is included in the revenue. Average price for sales outside to State is considered at Rs. 3.68 / kWh which is the current average market rate.

Thus the revenue from existing tariff for the year 2013-14 works out to Rs. 126.31crore as detailed in table 4.25 below:

**Table 3.25 – Revenue from sale of power in existing tariff**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl. No** | **Category** | **Energy Sales** | **Total Revenue** |
| 1 | Domestic | 104.00 | 23.18 |
| 2 | Commercial | 45.08 | 19.98 |
| 3 | LT Industrial (LT IS) | 10.00 | 4.31 |
| 4 | Public Lightining | 3.00 | 1.03 |
| 5 | Temporary Supply | 0.30 | 0.53 |
|  | **LT sales** | **162.38** | **49.03** |
| 6 | HT Supply | 93.21 | 35.71 |
| 7 | Bulk Supply | 16.00 | 8.00 |
|  | **HT sales** | **109.21** | **43.71** |
| 8 | Sales within the State | 271.59 | 92.74 |
| 9 | Sales outside the State | 91.23 | 33.57 |
| 10 | Total Sales | 362.82 | 126.31 |
| **11** | **Average tariff(within the state)** |  | **3.41** |

## 3.13 Revenue Gap

Revenue gap after considering revenue from sale of power works out to be Rs. 124.15crore as detailed in Table 4.26 below:

|  |  |  |
| --- | --- | --- |
| Table 3.26: Revenue Gap | | |
|  |  | **(Rs in crore)** | |
| **Sl. No** | **Particulars** | **Approved by the Commission** | |
| 1 | Aggregate Revenue Requirement | 321.62 | |
| 2 | Less Revenue from sale of power | 126.31 | |
| 3 | Less Govt. subsidy | - | |
| 4 | Gap | 195.31 | |
| 5 | Energy sales (MU) including sales outside | 362.82 | |
| 6 | Average cost (Rs/kWh) | 8.86 | |

## 3.14 Determination of Tariff

## 3.15 Annual Revenue Requirement

The Commission has determined the ARR for FY 2013-14 at Rs. 321.62crore considering the revenue from sale of power to the consumers and from outside sales at Rs. 33.57crore, the total revenue is Rs. 126.31crore.

## 3.16 Determination of Retail Supply Tariffs

In determining the retail supply tariffs, the Commission is guided by the principles laid down in Section 61 of the Act, as well as its own Regulations, relevant aspects of National Electricity Policy, National Tariff Policy and inputs received from consumers during the process of public hearing.

As per National Tariff Policy, the tariff for consumers below poverty line upto 30 units / month will be at least 50% of the average cost. The tariff should be within ± 20% of the average cost of supply by the end of FY 2010-11. The average cost of supply is substantially high at Rs. 8.86 / unit in EPDS. In view of this the tariff at 50% average cost of supply to BPL consumers and at ± 20% to the other consumers will result in tariff shock. Since it is being the only second tariff order under Regulatory regime the Commission considered moderate increase in tariffs in this order for FY 2013-14. The revised tariffs are given in Annexure – I.

## 

## 3.17 Revenue from revised tariff

As seen from the above table there is a gap of Rs. 195.31crore between aggregate Revenue Requirement and Revenue from sale of power at existing tariff. The percentage of gap is about 60.6 %. As discussed above a moderate increase of tariff at 9.68%, is considered by the Commission**. The Tariff for Domestic consumers has not been increased because there was substantial increase in the Tariff Order of 2012-2013.**The revenue from revised tariff would be about Rs. 135.23crore.

The revised tariff and the revenue from revised tariffs are given in table 3.27 below.

|  |  |  |  |
| --- | --- | --- | --- |
| Table 3.27: Revenue from revised Tariff for FY 2013-14 | | | |
| **Sl. No** | **Category** | **Energy Sales** | **Total Revenue** | |
| 1 | Domestic | 104.00 | 23.18 | |
| 2 | Commercial | 45.08 | 21.99 | |
| 3 | LT Industrial (LT IS) | 10.00 | 4.65 | |
| 4 | Public Lightining | 3.00 | 1.23 | |
| 5 | Temporary Supply | 0.30 | 0.53 | |
|  | **LT sales** | **162.38** | **51.58** | |
| 6 | HT Supply | 93.21 | 41.40 | |
| 7 | Bulk Supply | 16.00 | 8.68 | |
|  | **HT sales** | **109.21** | **50.08** | |
| 8 | Sales within the State | 271.59 | 101.66 | |
| 9 | Sales outside the State | 91.23 | 33.57 | |
| 10 | Total sales | 362.82 | 135.23 | |
| 11 | Average tariff(within the state) |  | 3.74 | |

With the approved Tariff for 2013-14 the revenue gap will come down to Rs. 186.39 which will be 57.95 % of the ARR. The revenue from the proposed tariff and the revenue gap with the proposed tariffs are given in table 4.28 below:

Table 3.28: Revenue gap with revised tariffs for FY 2012-13 and revenue gap

|  |  |
| --- | --- |
|  | **(Rs. crore)** |
| Particulars |  |
| ARR for FY 2013-14 | 321.62 |
| Revenue from proposed tariff | 135.23 |
| Revenue gap | 186.39 |
| Revenue Gap in the year 2012-2013 | 126.95 |
| **Total revenue Gap** | **313.34** |

The revenue gap is treated as Regulatory Asset and will be recovered in three years FY2014-15, 2015-16 and 2016-17 equally with carrying cost at the interest rate ruling during the year.

**4. DIRECTIVES**

1. During the course of the performance review relating to the Energy and Power Dept., the deemed Licensee in the State, for the financial year 2012-2013, it was observed that with exception of marginal improvements recorded in some areas of operation, the compliance requirements as enjoined in the directives issued by the Commission have not be adequately satisfied by the licensee. The Commission reiterates the directives in this regard for the concerned Licensee to address these pertinent issues with utmost diligence and ensure compliance of the same.
2. The status with regard to outstanding billing arrears in respect of consumer particularly involving Govt. Departments including Public sector Undertakings, Central Govt. / Army establishments, etc. was found to be disturbing. Immediate steps to recover such outstanding arrears needs to be taken up on a war footing. The EPDS is directed to consider the option to seek legal remedies under section 56 of the Electricity Act for realization of all unsettled bills.
3. The EPDS is called upon to institute effective and conscious measures to mitigate revenue shortfalls attributable to T & D losses. In this regard, the concerned deemed licensee is advised to address critical areas viz. institutionalizing an in-built energy auditing mechanism, introduction of pre-paid billing system, unbundling of generation, transmission and distribution as distinct segments, etc. The EPDS is also advised to undertake installation of Remote Sensing Meters in all Bulk load consuming units such as Industrial Units, Star category Hotels, etc. in order to facilitate effective and efficient monitoring and billing of energy consumption. These administrative measures are underlined with the view to bringing about a tangible improvement in the overall performance of the licensees.
4. In the area of energy auditing, the EPDS has reportedly undertaken a pilot project for Gangtok to address issues impacting technical and commercial losses. While appreciating the initiative taken by the EPDS in this regard, it is suggested that appropriate steps be also taken to install meters covering all Feeder 132KV, 66KV and 11KV transmission lines including the distribution Transformer points to facilitate effective monitoring of distribution and consumption of energy load. These measures would contribute to containing the Transmission and Distribution losses.
5. The need for instituting a mechanism for monitoring of all licensees involved in the energy generation and distribution chain vis-à-vis the parameters as envisaged in the respective Project Implementation Agreements needs to be addressed to obviate any omissions and commissions which would be detrimental to the interest of the Govt. as well the consumers.
6. It is recommended that whereas the power tariff in the case of domestic consumers may be maintained status quo, there is abundant scope for enhancing the tariff rates in the case of commercial and industrial consumer categories which may be examined by the EPDS. As a measure of support and incentive for promotion of small industrial units in the State, it is deemed worthy of consideration to undertake a review of the tariff structure in respect of this segment of consumer and for which purpose the EPDS may take appropriate action.
7. The Commission observes that despite specific directives having been issued with regard to maintenance of Asset and Depreciation Register, it is regretted that the EPDS has not complied with the orders. The EPDS is hereby directed to ensure that appropriate action is taken and the requisite Document submitted to the Commission latest by the 30th. Sept. 2013.
8. On the request of the EPDS, the Commission has agreed to permit extension of the time for submission of all the prescribed documents and schedules relating to the Annual Accounts and the Balance Sheets along with the Profit and Loss Accounts as required under the Electricity (Supply/ Annual Accounts) Rules 1985 and submit the same to the Commission by the 30th. Sept. 2013 after having the same duly audited.

**COMMISSION’S ORDER**

Having considered the data furnished by EPDS for approval of Aggregate Revenue Requirement (ARR) and determination of retail tariff for supply of energy, the Commission, in exercise of power conferred by Section 62 of the Electricity Act, 2003; approves the aggregate revenue requirement (ARR) for FY 2013-14 as detailed below:

|  |  |  |
| --- | --- | --- |
| **Sl. No** | **Details** | **Amount** |
| 1 | Fuel cost | 0.32 |
| 2 | Power purchase cost | 212.30 |
| 3 | Employee cost | 79.03 |
| 4 | R & M expenses | 17.00 |
| 5 | Administration and expenses | 3.71 |
| 6 | Depreciation | 11.66 |
| 7 | Total requirement | 324.20 |
| 8 | Less: Non-tariff income | 2.40 |
| 9 | Net revenue requirement | 321.62 |
| 10 | Total revenue from revised tariff | 135.23 |
| 11 | Gap | 186.39 |
| 12 | Revenue Gap in the year 2012-13 | 126.95 |
| 13 | Total Gap | 313.34 |

The approved retail tariff for supply of energy shall ne in accordance with the tariff schedule annexed.

T. T. Dorji,

(Chairperson)

# **TARIFF SCHEDULE FOR FY 2013-2014**

1. **DOMESTIC SUPPLY (DS)**

**Type of consumer**

Power supply to private house; residential flats and Government residential buildings for light. Heating/ electrical appliances, fans etc for domestic purpose. This schedule can also be made applicable to the charitable organization after verifying the genuineness of their non-commercial aspects by the concerned divisional office.

1. **Nature of service:**

Low Tension AC 400/230 volts, 50 cycles/sec (HZ)

1. **Rates:**

|  |  |
| --- | --- |
| **Units Consumption** | **Paisa per KWH (Unit)** |
| Upto 50 | 110 |
| 51 to 100 | 225 |
| 101 to 200 | 345 |
| 201 to 400 | 415 |
| Consumption exceeding 400 units | 440 |

1. **Monthly Minimum Charge:**

|  |  |
| --- | --- |
| Single Phase Supply | Rs. 40.00 |
| Three Phase Supply | Rs. 200.00 |

1. **Monthly Rebate (if paid within due date) :** 5% on Energy Charges
2. **Annual Surcharge(charge on the gross arrear outstanding every March end): 10%**

If electricity supplied in domestic-premises is used for commercial purpose, the entire supply shall be charged under commercial supply.

**Free supply of electricity for consumption upto 50 units applicable to all the domestic consumers in rural areas as per clause 1 of Government Notification No.33/P/GEN/97/PART-V dated 29.11.2003 is now proposed on the basis of assessment recorded through energy meter only and assessment accounted on average basis shall not be entertained for subsidy.**

1. **COMMERCIAL SUPPLY (CS)**

**Type of consumer**

Supply of energy for light, fan, heating and power appliances in commercial and non-domestic establishments such as shops, business houses, hotel, restaurants, petrol pumps, service stations garages, auditoriums, cinema houses, nursing homes, dispensaries, doctors clinic which are used for privates gains, telephone exchange, nurseries, show rooms, x-ray plants, libraries banks, video parlours, saloons, beauty parlours, health clubs or any house of profit as identified by the Assistant Engineer/Executive Engineer concerned of the Department.

1. **Nature of supply:**

Low Tension AC 400/230volts, 50 cycles/Sec(Hz)

1. **Rate:**

|  |  |  |
| --- | --- | --- |
| **Units Consumption** | **Paisa per KWH (Unit)** | |
| Upto 50 | 315 | |
| 51 to 200 | 490 | |
| 201 to 400 | 515 | |
| Consumption exceeding 400 units | 540 | |
| **Demand Charge** – For those establishments whose sanction load is more than 25 KVA & does not have independent transformer but run their unit through shared transformers. | **Rural Areas** | **Urban Areas** |
| Rs. 60/KVA/Month Plus energy charges as shown above | Rs. 100/KVA/ Month plus energy charge as shown above |

1. **Monthly Minimum Charge:**

|  |  |
| --- | --- |
| Single Phase Supply | Rs. 200.00 |
| Three Phase Supply | Rs. 500.00 |

1. **Monthly Rebate (if paid within due date) :** 5% on Energy Charges
2. **Annual Surcharge(charge on the gross arrear outstanding every March end): 10%**
3. **LT INDUSTRIAL SUPPLY (LTIS):**

**Type of consumer**

Power supply to the industries like poultry, Agriculture load or any other units of such kind under small-scale industries having connected load not exceeding 25 KVA in total.

1. **Nature of service:**

Low Tension AC 400/230volts, 3 phase/single phase, 50 cycles/Sec (Hz)

1. **Rate:**

|  |  |  |
| --- | --- | --- |
| **Units Consumption** | **Rural** | **Urban** |
| Upto 500 | 235 | 480 |
| 501 to 1000 | 420 | 550 |
| 1001 & Above | 545 | 620 |
| **Demand Charge** – For those establishment whose sanction load is more than 25 KVA & does not have independent transformer but run their unit through shared transformers. | **Rural** | **Urban** |
| Rs. 60/KVA/Month plus energy charges as shown above | Rs. 100/KVA/Month plus energy charge as shown above |

1. **Monthly Minimum Charge:**

|  |  |
| --- | --- |
| **Rural** | Rs. 60/KVA/Month |
| **Urban** | Rs. 100/KVA/Month |

1. **Monthly Rebate (if paid within due date) :** 5% on Energy Charges
2. **Annual Surcharge(charge on the gross arrear outstanding every March end): 10%**
3. **HIGH TENSION SUPPLY (HTS):**

**Type of consumer**

All types of supply with contract demand at single point having 3 phase supply and voltage above 3.3 KV.

1. **Nature of supply:**

High Tension AC, above 3.3 KV, 3 phase, 50 cycles/Sec(Hz)

Executive Engineer should sanction the demand In the Requisition and Agreement form of the Department before the service connection is issued based on the availability of quantum of Power. The demand sanctioned by the Executive Engineer will be considered as the contract demand. A maximum demand indicator will be installed at the consumer premises to record the maximum demand on the monthly basis. If in a month, the recorded maximum demand exceeds the contract demand, that portion of the demand in excess of the contract demand will be billed at twice the prevailing demand charges. In case recorded maximum demand exceeds the contract demand for three consecutive months the demand charges will be payable on the basis of installed capacity of the transformer.

Energy meters are compulsorily to be installed on HT side. In case energy meters are installed on the LT side the assessed energy consumption shall be grossed up by 4% to account for the transformation loss and billed accordingly.

1. **Rate:**

|  |  |
| --- | --- |
| **Units Consumption** | **Charge** |
| Upto 100 kVA Demand Charge  Plus Energy Charge | Rs. 150/KVA/Month  300 Paisa/Unit |
| Above 100 to 250 kVA Demand Charge  Plus Energy Charge | Rs. 200/KVA/Month  348 Paisa/Unit |
| Above 250 kVA to 500 kVA Demand Charge  Plus Energy Charge | Rs. 230/KVA/Month  396 Paisa/Unit |
| Above 500 kVA Demand Charge  Plus Energy Charge | Rs. 450/KVA/Month  410 Paisa/Unit |

**(c) Monthly Minimum Charge:** Demand Charge

**(d) Monthly Rebate (if paid within due date) :** 2% on Energy Charges

**(e)Annual Surcharge (charge on the gross arrear outstanding every March end): 15%**

1. **BULK SUPPLY (BS): (NON-COMMERCIAL SUPPLY)**

**Type of consumer**

Available for general mixed loads to M.E.S. and other Military Establishments, Borders roads,

SAP, All Government Non residential buildings, Hospitals, Aerodromes and other similar establishments as identified as such supply by the concerned Executive Engineer.

1. **Nature of service:** Low Tension AC 400/230 volts or High tension above 3.3 KV

**Executive Engineer should sanction the demand in the Requisition and Agreement form of the Department before the service connection is issued.**

1. **Rate:**

|  |  |
| --- | --- |
| **All Consumptions** | **Paisa/Unit** |
| LT | 540 |
| HT | 560 |

**(c) Monthly Minimum Charge:**

|  |  |
| --- | --- |
| LT (430/230 Volts) | Rs. 150/KVA of Sanction Load |
| HT (11KV or 66 KV) | Rs. 140/KVA of Sanction Load |

**(d) Monthly Rebate (if paid within due date):** 2% on Energy Charges

**(e)Annual Surcharge(charge on the gross arrear outstanding every March end): 15%**

1. **SUPPLY TO ARMY PENSIONERS**

**Type of Consumer**

Provided to the army pensioners or their surviving widows based on the list provided by Sikkim Rajya Sainik Board.

1. **Nature of service:** Low Tension AC 230/400 volts, 50 cycles/Sec(Hz)
2. **Rate** Domestic supply rate is applicable
3. Upto 100 units To be billed to Secretary, Rajya Sainik Board
4. 101 and above To be billed to the Consumer

Minimum charges, surcharges, and rebate etc will be applicable as per domestic supply category.

1. **SUPPLY TO BLIND**

**Type of consumer**

Service connection provided to a house of a family whose head of the family is blind and the same is certified by the National Association for Blinds.

1. **Nature of service:**

Low Tension AC 230/400 volts, 50 cycles/Sec(Hz)

1. **Rate** Domestic supply rate is applicable
2. Upto 100 units To be billed to Secretary, Social Welfare Department
3. 101 and above To be billed to the Consumer

Minimum charges, surcharges, and rebate etc will be applicable as per domestic supply category.

1. **SUPPLY TO THE PLACES OF WORSHIP (SPW)**

**Type of consumer**

Supply of power to Gumpas, Manilakhangs, Tsamknangs, Mandirs, Churches, and Mosques as identified by the State Ecclesiastical Department.

**(a) Nature of service:**

Low Tension 400/230 volts, 50 cycles/Sec(Hz)

|  |
| --- |
| **(b) Rate**  **Revised tariff as per the order of SERC**  **Paisa per KWH**  **(Unit)** *Domestic rate is applicable.*  *Places of worship having:*  *(1) Having 3 lights points:*  *A) up to 100 units*  *B)Above 101 units*   1. *Having 4 to 6 lights points.*   *A) up to 150 units*  *B)Above 151 units*   1. *Having 7 to 12 points* 2. *up to 300 units* 3. *Above 301 units*   *(iv)Having 13 and more light points*   1. *upto 500 units* 2. *Above 501 units*   *A) To be billed to Secretary, Ecclesiastical Department and to be submitted to the head of Department in the District.*  *B) To be billed to Head of the Place of worship.* |

Minimum charges, surcharges, and rebate etc will be applicable as per domestic supply category.

1. **PUBLIC LIGHTING ENERGY CONSUMPTION CHARGES**

It has been decided that the electrical energy consumption charges of public lightning street light etc in urban area shall be paid by the Urban Development & Housing Department. Similarly the consumption of electrical energy for street fight etc in rural areas shall be paid by the concerned Panchayat / Rural Management & Development department. The necessary meter/metering equipments shall be provided by the Energy & Power Department and for which the standard (Tariff Schedule) charges is also applicable in accordance with rules and regulations of the department.

**Rate:**

|  |  |
| --- | --- |
| **Rural Areas** | 250 Paisa/KWH (Unit) |
| **Urban Areas** | 460 Paisa/KWH (Unit) |

1. **TEMPORARY SUPPLY**

**Type of consumer**

Available for temporary purposes and for the period not exceeding two months in the first instance but can be extended for the further-period not exceeding one month on each occasion. The Assessment of energy consumption shall be on the basis of recorded meter reading and not on average.

Approval of the Temporary Supply and its duration will be the discretion of the Assistant Engineer of the Department.

If the temporary connection is more than approved period, such use of electricity will be treated as theft of power.

1. **Nature of Service:**

Low tension AC 400/230 volts, 50 Hz /H.T.AC 11 KV whichever is applicable and possible at the discretion of the department:

1. **Rate**

Twice the Tariff under schedule DS/CS/LTIS/HT for corresponding permanent supply (Temporary supply connection shall not be entertained without energy meter). Two months assessment on sanction load shall have to be paid in advance as security deposit before taking the connection.

1. **SCHEDULE FOR MISCELLANEOUS CHARGES**

**Service Connection**

Following procedures should be strictly followed while giving the new service connection.

On receipt of written application with requisite, Revenue Stamp from any intending consumer addressed to the Assistant Engineer (Commercial/Revenue) the department will issue the Requisition and Agreement form of the Department. This form will be issued on production of BR for Rs. 5/- (Rupees Five) only. He/ She will complete the form in all respect and submit to the office of the Assistant Engineer. Assistant Engineer will issue the service connection estimate with the approval of the Executive Engineer. If the Sub station of the area or any other connected Electrical network is under capacity, the department can decline the service connection till the capacity is increased as required. If the demand is more than 25 KVA the Department reserves the right to ask the applicant to provide suitable sub station at his/her cost.

The Energy & Power Department also reserves the right to disconnect the service connection of any consumer if he/she increases the load above sanctioned load without written approval of the Department and will treat such cases as theft of power.

Single connection will be provided to the legal landlord of the building. However, in case Government / Semi Government/Government Undertakings offices in the rented buildings/ flats, separate service connection in the name of the head of the office can be provided with the approval of the concerned Executive Engineer.'

1. **METER RENT / Month**

|  |  |  |
| --- | --- | --- |
| (i) | Energy Meter | |
| (a) | Single Phase | Rs. 20.00 |
| (b) | Three phase | Rs. 60.00 |
| (ii) | Maximum demand indicator | Rs.175.00 |
| (iii) | Time switch | Rs.120.00 |

1. **TESTING OF METERS**

|  |  |  |
| --- | --- | --- |
| i) | Energy Meters 1 Ph | Rs. 150 |
| ii) | Other Metering Instruments | Rs. 250 |

1. **DISCONNECTION & RECONNECTION**

|  |  |  |
| --- | --- | --- |
| (i) | DS and CS category | Rs.150.00 |
| (ii) | LTIS, HTS & Bulk category | Rs.250.00 |

Unless otherwise demanded by the department replacement of meters or shifting the position of meter boards etc, can be entertained exclusively on the specific written request of the consumer against a payment of Rs. 100.00 each time which does not include the cost of requirement and labor and the same will be extra.

1. **REPLACEMENT OF FUSES**

Service for replacement of fuses in the main cut-outs available against the following payments: ‑

|  |  |  |  |
| --- | --- | --- | --- |
| (i) | Low tension | Single phase | Rs.15.00 |
| Three phase | Rs.20.00 |
| (ii) | High tension |  | Rs.40.00 |

1. **RESEALING OF METERS**

If by any reason the seal affixed in the meter or cutouts installed and secured by the department are found tempered with, the department reserves the right to disconnect the service connection immediately and impose penalty as applicable under The Electricity Act, 2003. In addition the consumer is liable for payment for resealing charge @ Rs.20.00 per call of such services.

1. **SECURITY DEPOSIT**

Security deposit shall be deposited, by the depositor, by the consumer, in the following rates for the meters provided by the Department.

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | Electronic Meter | 3 phase | Rs.500.00 |
|  |  | 1 phase | Rs.200.00 |

|  |  |  |  |
| --- | --- | --- | --- |
| 2 | Electromagnetic Meters | 3 phase | Rs.150.00 |
|  |  | 1 phase | Rs. 75.00 |

The Security deposit will be forfeited and the line will be disconnected if the consumer tampers the meter. The line will be reconnected only after the fresh security deposit is deposited and other applicable charges are paid.

1. **OTHER CONDITIONS FOR SUPPLY OF ELECTRICAL ENERGY**
2. **Meter found out of order**

In the event of meter being found out of order (which includes meter ceasing to record, running fast or slow, creeping or running reverse direction) and where the actual errors on reading cannot be ascertained the meter will be declared faulty and the correct quantum of energy consumption shall be determined by taking the avenge consumption for the previous three months.

If the average consumption for the three months cannot be taken due to the meter ceasing to record the consumption or any other reason, then the correct consumption will be determined based on the average consumption for succeeding 'three months (after installation of meter) where any differences or dispute arise as to the correctness of meter reading or bill amount etc then the matter shall be decided by the concerned Chief Engineer of the department upon the written intimation either from the concerned Executive Engineer or from concerned consumer. However, the bill should be paid on or before the due date. The amount so paid will be considered as advance to the credit of the consumer's account until such time as the billed amount in dispute are fully settled. After determining the correct consumption due billing will be made and necessary adjustment shall be done in the next bill issued. This method shall be applicable to all categories of consumers.

1. **Defaulting consumer**

The Department shall not give any type of service connection to a defaulting consumer.

1. **Fixing the position of meter/metering equipment**

During the inspection of Assistant Engineer of the Department the point of entry of supply of mains and position of meter, cut-out/metering equipments etc will be decided and should not be changed later on without written permission from department,

The department will in no case fix the meter, main cut-out metering equipments nor allow the same to remain in any position where the employees are prohibited from entering or where there is difficulty of access for employees.

1. **Notification/application before connection**

The consumer must give not less than 2 months notice before the supply or additional supply is required. In the case of HTIS/LTIS/BS consumers, longer notice which may extend to six months or more may be required to enable the department to make necessary arrangement for such supply, which will subject to its availability in the system and seven clear days notice shall be given by the Assistant Engineer of the area to the applicant for the Purpose of inspecting the premises and investigating the feasibility of power supply. If service can be effected by extending service line alone, the consumer will be given a written permission from the office of the Assistant Engineer about providing the service connection to his premises.

1. **Sketch of the premises**

(i) A neat sketch of the premises should also submit the proposed internal electrification of the building showing the light points, light plug points, power plug points, fan/exhaust fan points, main isolator position, distribution Control system location and other fittings etc.

(ii)In the case of industrial/workshop etc the consumer should submit a neat sketch showing the location of all E&M equipments and its motor capacity if any etc in addition to the above.

1. **Load sanction**

Depending on the availability of the quantum of electrical energy in the system, the load shall be sanctioned for all categories of consumers by the authorized officer of the department.

1. **LAND - free of cost for service connection and other association facilities:**

The consumer shall provide the necessary land to the department belonging to his/her on free of cost basis and afford all reasonable facilities for bringing in the direct cables or over head lines from the department's T&D system for servicing the consumers but also cables or overhead lines connecting 'the department's other consumers and shall permit the department to provide all requisite switch gear thereto on the above premises and furnish supply to such other consumers through cables/ overhead lines and terminals situated on the consumer’s premises.

1. **ACCESS TO PREMISES AND APPARATUS**
2. If any consumer obstructs or prevents departments authorized officers/employees in any manner, from inspecting his/her premises at any time to which the supply is afforded or where the electrical installations or equipments belonging to the department or the consumers situated in such premises and if there is scope of suspecting any malpractice, the authorized officer; employees of the department may disconnect the power supply forthwith without notice and keep such power supply disconnected till the consumer affords due facilities for inspection. If such inspection reveals nothing to undertake any malpractice or pilferage, the department then restore the power supply to his/he premises.
3. If such inspection reveals any commission of malpractice as specified in the "Malpractice clauses mentioned below, this may be dealt as per the relevant clauses which are indicated in malpractice.
4. The department shall not be responsible for any loss or damage or inconvenience caused to the consumer on account of such disconnection of supply.
5. **INTERFERENCE WITH SUPPLY MAINS AND APPARATUS**
6. A consumer shall not interfere with the supply main or apparatus including the metering arrangement, which may have been installed in his/her premises.
7. The consumer shall not keep connected to the department supply system if any apparatus to which the department has taken reasonable objection or which the department may consider likely to interfere or affect injudiciously the department's equipments installed in his/her premises or the Department's supply to other consumer.
8. The consumer shall not keep the unbalanced loading of three phase of supply taken by him/her from Department.
9. The consumer shall not make such use of supply given to him/her by the department as to act prejudicially to the department's supply system in any manner whatsoever,
10. **MALPRACTICE**
11. Contravention of any provision of the terms conditions of supply the Indian electricity Act 1910, the Indian Electricity Rules 1956 or any other law/rule governing the supply and use of electricity regulating order shall be treated as malpractice and the consumer indulging in any such malpractice shall be liable at law/rule/order. Subject to generality as above.
12. Cases mentioned hereunder, shall be generally treated as malpractice:‑
13. Exceeding the sanctioned/contract load authorised by the department without the permission of the department.
14. Addition, alteration and extension of electrical installation in the consumer's premises without permission of the department or extension to any premises other than the one for which supply sanctioned/contracted for.
15. Unauthorized supply of electricity to any service which is including the service line

disconnected by the department against electricity revenue arrear or any other offended clauses and the same service line reconnected without permission of the department.

1. Non-compliance of orders in force imposing restriction of use of energy for rational and equatable distribution thereof.
2. Use of electricity for any purpose other than that for which supply is contracted /sanctioned for
3. Resale of energy without the permission of the department,
4. Theft of energy
5. Obstruction to lawful entry of authorised officer/employee of the department into consumer's premises.
6. Interfering and tampering with the meter and metering system.
7. **PAYMENT OF COMPENSATION FOR MALPRACTICES**

Where a consumer is found to be indulging in malpractice with regard to use of electricity and use of device to commit theft of energy etc. the Chief Engineer/ Electrical Inspector of the department will decide about the payment of compensation amount to be imposed against such consumer as per the relevant rules and regulations.

1. **INSTITUTION OF PROSECUTION**

Any officer employee authorised to inspect and deal with cases of malpractice and theft of energy may launch prosecution as an aggrieved person as mentioned in section 50 of the Indian Electricity Act 1910.

1. **READING OF METER AND PREPARATION OF BILL**
2. The meter reading will be taken once in a month. The reading of meter will be recorded by meter reader in a card provided near the meter and open to inspection by consumer. Bill for energy consumption charges will be prepared based on the reading noted in the card
3. Any complaint with regard to the accuracy of the bill the same shall be intimated immediately by the consumer to the Assistant Engineer, who has issued the bill quoting the bill number/ account number date etc.
4. If the consumer does not receive the electricity bill he shall inform the Assistant Engineer concerned about the non-receipt of his bill and on such representation, a copy will be supplied to him.
5. **DISCONNECIION OF SUPPLY FOR NON-PAYMENT OF ELECTRICITY**

**BILL AND LEGAL ACTION**

If the consumer fail to pay any bill presented to him/her the department shall be at liberty to take action under sub- section (1) of section 56 of Indian Electricity Act 2003 for disconnection of supply. The disconnection notice is printed in the bill form and further notice will not be issued by the department for disconnection.

1. **FAILURE OF POWER SUPPLY**

The Department shall not be responsible for loss, damage or compensation what so ever out of failure of supply.

1. **RESTRICTION OF POWER SUPPLY**

The supply of electricity is liable to be curtailed or staggered or cut off all together as may be ordered by the State Government or any other enactment as amended from time to time governing the supply and use of electricity.

1. **CONSUMER NUMBER**

Consumer number is given to all the consumers. The same is written in the Meter reading card also. Consumer must know his/her consumer no and should quote the consumer no. while corresponding with the department for prompt attention by the department.

1. **FUSE CALL**

In case the department's main fuse or fuses fail, the consumer or his representative may give the intimation in the adjacent control room either in person or through phone. Employees bearing the identity cards of the department are allowed to replace those fuses. Consumers are not allowed to replace those fuses and they will render themselves liable to pay heavy penalty if the department's seals are been found broken.

In attending the fuse – off calls. Top most priority will be given to cases of fire due to short circuit, accident, arcing in consumer’s main *etc.*

1. **THEFT OF POWER** Theft of power is a criminal offence under electricity act. Whoever commit the theft of power shall be punishable in accordance with I.E. Act.
2. **SUPPLY WITHOUT METER**

Where a supply to the consumer is given without meter the consumption of Electrical Energy in KWH will be computed in the manner indicated below.

1. Government office building Sanctioned load (KW) x 6 hrs x 30 days x 60 /100

Other Consumers Sanctioned load (KW) x 8 hrs x 30 days x 60 /100

Sd/-

T. T. Dorji,

(Chairperson)