

Sikkim State Electricity Regulatory Commission

TARIFF ORDER FY 2014-15

For

Energy & Power Department,
Government of Sikkim

Sikkim State Electricity Regulatory Commission

Gangtok, Sikkim

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LIST OF ABBREVIATIONS

Abbreviation	Description
A&G	Administration & General
ARR	Aggregate Revenue Requirement
ATE	Appellate Tribunal For Electricity
CAGR	Compound Annual Growth Rate
CD	Contract Demand
CERC	Central Electricity Regulatory Commission
CGS	Central Generating Stations
CoS	Cost of Supply
CPSU	Central Power Sector Undertakings
Crs	Crore
D/E	Debt Equity
E&PDS	Energy & Power Department, Govt. of Sikkim
EHT	Extra High Tension
ER	Eastern Region
FAC	Fuel Adjustment Costs
FDR	Fixed Deposits Receipts
FSTPS	Farakka Super Thermal Power Station
FY	Financial Year
GFA	Gross Fixed Assets
HP	Horse Power
HT	High Tension
SSERC	Sikkim State Electricity Regulatory Commission
KHSTPS	Kahalgaon Thermal Power Station
KV	Kilovolt
KVA	Kilo volt Amps
kWh	kilo Watt hour
L.T.M.D.	Low Tension Maximum Demand
LNG	Liquefied Natural Gas
LT	Low Tension
LTC	Leave Travel Concession
MU	Million Units
MVA	Million volt Amps
MW	Mega Watt
NHPC	National Hydroelectric Power Corporation Ltd.
O&M	Operation & Maintenance
PGCIL	Power Grid Corporation of India Limited
PLF	Plant Load Factor
PLR	Prime Lending Rate
PTC	Power Trading Corporation of India Ltd.
R&M	Repairs and Maintenance
RoR	Rate of Return
Rs.	Rupees
S/s	Sub Station

SBI	State Bank of India
SERC	State Electricity Regulatory Commission
SPV	Special Purpose Vehicle
T&D	Transmission & Distribution
TSTPS	Talcher Super Thermal Power Station
UI	Unscheduled Interchange
WBSEDCL	West Bengal State Electricity Distribution Company Ltd.

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

**Case No: TR-1/2014-15
Date of Order: 15.04.2014**

Present

Shri. T.T. Dorji, Chairperson

In the matter of

Aggregate Revenue Requirement (ARR) and Retail Tariff petition of the Energy and Power Department of Sikkim for the FY 2014-15 filed by the Energy and power department, Government of Sikkim herein after referred to as 'EPDS'----Petitioner.

Order

1.1 Introduction

Section 82 (1) of Electricity Act, 2003 (herein after referred to as Act) has made it mandatory that every State by notification, constitute for the purpose of this Act, a Commission for the state to be known as the State Electricity Regulatory Commission.

The Sikkim State Electricity Regulatory Commission (herein after referred to as the 'Commission') was constituted on 15th day of November, 2003 vide Extraordinary Gazette notification no. 28/P/GEN/97/524 dated 15.11.2003.

Even though the Commission had been constituted in 2003, the Commission was not operative till April, 2011. On 11th April, 2011, the Chairperson was appointed on the recommendations of the selection committee constituted as per section 85 of the Act vide Home Department notification no. 34/Home/2011 dated 11.04.2011. Thereafter the secretary and other officials were appointed and the Commission began its work.

The functions of the State Commission have been laid down in section 86 of the Act. Of its many functions the State Commission has to determine the tariff for

generation, transmission and distribution and wheeling of electricity wholesale, bulk or retail as the case may be within the state. Further section 62 (1) of the Act empowers the State Commission to determine the tariff in accordance with the

provisions of the Act as well as the Regulations framed by this Commission, for supply of electricity by a generating company to a distribution licensee, for transmission of electricity, for wheeling of electricity and retail sale of electricity.

The Energy and Power Department of Sikkim (herein after referred to as “EPDS”, a deemed licensee under section 14 of the Act is carrying on the business of distribution and retail supply of electricity in the State of Sikkim.

1.2 **Energy and Power Department Sikkim (EPDS) – ARR and Tariff Petition**

EPDS has filed its petition for approval of provisional true up for FY 2012-13 and review for FY 2013-14 and Aggregate Revenue Requirement (ARR) and determination of tariff for FY 2014-15 according to the conduct of business Regulations 2012 and Determination of Tariff Regulations of SSERC. In the Petition EPDS has estimated ARR of Rs. 408.78 crore and projected a revenue gap of Rs. 180.35 crore for FY 2014-15.

1.3 **Admission of the petition**

The EPDS has filed the petition for FY 2014-15 on 29-11-2013 and the petitioner is admitted on 10-12-2012 and marked as case no. TR-1/2014-15. On preliminary analysis of the petition it is observed that certain data/ information is lacking in the petition. The Commission in its letter dated 23-01-2014 has called for missing data/additional information.

In response to the Commission’s communication the petitioner has submitted the additional data/ information on 17-01-2014, 18-01-2014 and 12-02-2014 which has been considered while analyzing ARR & Tariff petition.

1.4 **Public hearing process**

The Commission directed the EPDS to publish the summary of the ARR and tariff proposal in the abridged form and manner as approved by the Commission in accordance with section 64 of the Act to ensure public participation.

The public notice is published by EPDS in the following newspapers.

Sl. No.	Name of the Newspaper	Language	Date of Publication
1	Sikkim Reporter	English	22-01-2014
2	Purvanchal Koseley	Nepali	22-01-2014

Through the public notice issued in the above newspapers, the public are invited to forward their objections/ suggestions on the petition on or before 18.02.2014.

The Commission received 1 (one) objection on the petition filed by the EPDS and the objection was sent to the EPDS for furnishing its response to the objectors. The EPDS furnished its response to the objection and also informed the objector to take part in the Public Hearing to be held on 25th March, 2014 at “Chintan Bhavan”, Gangtok.

The details of discussions held on the objection during the Public Hearing are discussed in the relevant section of this Tariff Order.

1.5 Notice for Public Hearing

A public notice is published by the Commission in the following leading newspapers on 25-02-2014 giving due intimation to the general public, interested parties, objectors and the consumers about the public hearing to be held at Gangtok on 25.03.2014 & 26.03.2014.

Sl. No.	Name of the Newspaper	Language	Date of Publication
1	Sikkim Express	English	25-02-2014
2	NOW	English	25-02-2014
3	Hamro Prajashakti	Nepali	25-02-2014
4	Samai Dainik	Nepali	25-02-2014

1.6 Public Hearing

In accordance with the prescribed guidelines, Public Hearing was held on 25.03.2014 and 26.03.2014 following the due process of publishing a Public Notice

sufficiently in advance. In view of the State/Parliamentary elections in progress and model code of conduct issued by the State Election Commission, the Commission took appropriate action to obtain the formal clearances from the Offices of the ECI and the Chief Electoral office vide this letters No. 437/SKM/2014, dated 25th March, 2014 and No. 44/2008/1925, dated 24th March, 2014 respectively, prior to conducting the Public Hearing. During public hearing each objector is provided a time slot for presenting before the Commission his/her views on the petition of the EPDS. The main issues raised by the objectors during the public hearing and corresponding response of the EPDS are briefly narrated in chapter 4. The list of objectors and officials who attended the public hearing is appended vide Annexure I.

1.7 **Compliance to Directives**

In its previous tariff orders the Commission had issued certain directives to EPDS in the public interest. A summary of compliance of EPDS to the directives issued along with the comments of the Commission and new directives issued are given in Chapter 8.

1.8 **Contents of the Order**

This order is divided into nine Chapters.

1. The first chapter provides the background regarding ARR and Tariff proposal and details of public hearing process.
2. The second chapter provides summary of ARR and Tariff Proposals and prayer of the Petitioner.
3. The third chapter outlines the power sector in Sikkim- An Overview.
4. The fourth chapter gives brief summary of objections raised, response of EPDS and Commission's comments.
5. The fifth chapter deals with review for FY 2012-13.
6. The sixth chapter deals with review for FY 2013-14.
7. The seventh chapter deals with Annual Revenue Requirement for FY 2014-15 – Commission's analysis and decisions.
8. The eighth chapter deals with EPDS Compliance to previous directives and comments of the Commission and fresh directives to EPDS.

9. The ninth chapter deals with principles of tariff policy and retail supply tariff for FY 2014-15.

2. Summary of Aggregate Revenue Requirement for FY 2014-15

2.1 Aggregate Revenue Requirement (ARR)

The EPDS in its petition has submitted the Aggregate Revenue Requirement for the FY 2014-15 for meeting its expenses and estimated the revenue with the existing tariff. The projected ARR and Revenue gap are shown in Table below:

Table 2.1: Aggregate Revenue Requirement projected by EPDS for FY 2014-15

(Rs. crore)

Sl. No.	Item of expenses	2013-14 (Estimated)	2014-15 (Projected)
1	Cost of fuel	0.16	0.34
2	Cost of power purchase	176.65	176.65
3	Employee Costs	45.15	47.89
4	R&M Expenses	33.93	34.98
5	Administration and General Expenses	3.46	3.51
6	Depreciation	33.99	40.04
7	Interest Charges	62.80	67.81
8	Interest on Working Capital	3.46	3.66
9	Return on NFA/Equity	29.67	34.48
10	Income Tax	0.00	0.00
11	Total Revenue Requirement	389.27	409.37
12	Less: Non-Tariff Income	0.62	0.59
13	Net Revenue Requirement	388.64	408.78
14	Revenue from Tariff	102.54	108.74
15	Revenue from Outside State Sale	119.69	119.69
16	Gap (14-15)	166.42	180.35
	Gap for FY 2012-13	165.73	
17	Gap for FY 2013-14		332.14
18	Total Gap (14+15)	332.14	512.49
19	Revenue surplus carried over	0.00	0.00
20	Additional revenue from proposed tariff	0.00	4.64
21	Regulatory asset	0.00	0.00

2.2 Tariff

The EPDS in its petition has submitted the proposed Tariffs for FY 2014-15 as detailed in Table below:

Table 2.2: Existing Tariffs v/s proposed Tariffs for FY 2014-15

Sl. No.	Consumers Categories	Existing Tariff		Proposed Tariff	
		Demand Charges Rs/KVA/Month	Energy Charges Paisa/KWH	Demand Charges Rs/KVA/Month	Energy Charges Paisa/KWH
1	2	3	4	5	6
1	Domestic (DLT)				
a)	Up to 50 units		110		115
b)	51 to 100 units		225		235
c)	101 to 200 units		345		360
d)	201 to 400 units		415		435
e)	401 & above		440		460
2	Commercial (CLT)				
a)	Up to 50 units		315		325
b)	51 to 200 units		490		505
c)	201 to 400 units		515		530
d)	401 & above		540		555
3	Public Lighting				
	Rural Areas		250		260
	Urban Areas		460		480
4	Industrial				
A	HT				
a)	HT(AC) above 3.3 KV				
b)	Up to 100 KVA	150	300	158	315
c)	100 – 250 KVA	200	348	210	365
d)	250 – 500 KVA	230	396	242	416
e)	500 KVA & above	450	410	472	430
B	LT (Rural)				
a)	Up to 500 units		235		242
b)	501 – 1000 units		420		432
c)	1001 & above		545		560
C	LT (Urban)				
a)	Up to 500 units		480		494
b)	501 – 1000 units		550		566
c)	1001 & above		620		638
5	Bulk Supply				

Sl. No.	Consumers Categories	Existing Tariff		Proposed Tariff	
		Demand Charges Rs/KVA/Month	Energy Charges Paisa/KWH	Demand Charges Rs/KVA/Month	Energy Charges Paisa/KWH
a)	LT		540		550
b)	HT		560		571

Prayer

The EPDS has requested the Hon'ble Commission to

- Consider the submissions and allow the provisional True-up of expenses for the FY 2012-13 and revised estimates for the FY 2013-14.
- Accept the Aggregate Revenue Requirement and Tariff petition for the FY 2014-15 of EPDS formulated in accordance with the guidelines outlined as per the regulations of Sikkim State Electricity Regulatory Commission relating to Distribution Licensee and the principles contained in Tariff Regulations;
- Approve appropriate recovery of ARR of FY 2014-15
- Approve the category-wise tariff including fixed/ demand charges submitted by EPDS to meet revenue requirement for FY 2014-15
- Approve the tariff philosophy suggestions requested by E&PDS;
- Condone any inadvertent delay/ omissions/ errors/ rounding off differences/ shortcomings and EPDS may please be permitted to add/ change/ modify/ alter the petition;
- Permit EPDS to file additional data/information as may be necessary
- Pass such further and other orders, as the Hon'ble Commission may deem fit and proper, keeping in view the facts and circumstances of the case.

3. POWER SECTOR IN SIKKIM – AN OVERVIEW

3.1 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 of Sikkim. It operates in an area of 7096 sq. KM. The total population of the State is around 6.08 lakhs as per 2011 census. The per capita consumption is about 373 kWh for the year 2012-13.

3.2 Transmission and Distribution Network

The EPDS owns and operates the transmission and distribution network as given in Table below:

Table 3.1: Transmission and Distribution Network as on 31st March, 2013

Sl. No	Details	UOM	Nos.	Ckt km	Capacity (MVA)
I	Substations				
1	132/66 KV	Nos.	1		
2	66/11 KV	Nos.	11		
	Total SS		12		
II	EHT Lines				
3	132 KV	Ckt.KM		48.20	
	Total 132 KV lines			48.20	
III	HT Lines				
4	66 KV D.C	Ckt.KM	45.26	45.26	
5	66 KV S.C	Ckt.KM	234.13	234.13	
6	11 KV / 3 phase	KM	3037	3037.00	
7	11 KV / 2 phase	KM	337	337	
	Total HT Lines			3656.39	
IV	LT Lines				
8	LT / 3 phase	KM		2969	
9	LT / Single phase	KM		1979	
	Total LT lines			4948	
V	Power Transformers				
10	50 MVA	Nos.	2		100
11	15 MVA	Nos.			
12	10 MVA	Nos.	3		30
13	7.5 MVA	Nos.	2		15

14	5 MVA	Nos.	9		45
15	2.5 MVA	Nos.	8		20
	Total P. Trs.				210
VI	Distribution Transformers				
16	500 KVA	Nos.	97	48.50	
17	300 KVA	Nos.	119	35.70	
18	200 KVA	Nos.	96	19.20	
19	150 KVA	Nos.	42	6.30	
20	100 KVA	Nos.	176	17.60	
21	63 KVA	Nos.	425	26.78	
22	25 KVA	Nos.	726	18.15	
23	10 KVA	Nos.	389	3.89	
	Total DTRs		2070	176.12	

3.3 Consumer Profile and Energy Sales

The EPDS serves about 92771 consumers as on 31st March 2013 with an annual consumption of about 226.90 MU. The category wise number of consumers and energy sales during 2012-13 are given in Table below.

Table 3.2: Consumer profile and Energy Sales during FY 2012-13

Sl. No.	Consumer Category	No. of Consumer (Nos.)	%	Energy Sales (MU)	%
1	Domestic	81508	87.86%	78.98	34.81%
2	Commercial	9663	10.42%	38.26	16.86%
3	LT Industrial (LTIS)	389	0.42%	1.15	0.51%
4	Public Lighting	31	0.03%	0.43	0.19%
5	Temporary Supply	-	-	0.09	0.04%
6	HT Supply	332	0.36%	91.76	40.44%
7	Bulk Supply	848	0.91%	16.23	7.15%
8	Total	92771	100%	226.90	100.00%

3.4 Transmission and Distribution (T & D) Losses

The transmission and distribution (T&D) losses of EPDS are worked out at 43.70% during FY 2012-13 as detailed in Table below:

Table 3.3: T&D Loss calculation for FY 2012-13

Sl. No.	Particulars	Unit	FY 2012-13
1	Power Purchase from CGS		518.48
2	Free Power		304.11
3	Total Power		822.59
4	Pool Loss	%	2.73
5	Pool Loss	MU	22.46
6	Net Power available	MU	800.13
7	UI Purchases	MU	10.49

Sl. No.	Particulars	Unit	FY 2012-13
8	Own Generation	MU	4.11
9	Total Power available	MU	814.73
10	Sales outside state	MU	411.72
11	Net power available	MU	403.01
12	Sales within State	MU	226.90
13	T&D Losses	MU	176.11
14	T&D Losses	%	43.70

The technical and commercial losses of the system have not been segregated.

3.5 Demand and Supply Position

The demand of the Sikkim was about 70 to 80 MW (Minimum) and 100 to 110 MW (Maximum) during FY 2012-13 and the allocation from various Central Generating Stations (CGS), Chukka (PTC) and share in Ramam HEP in West Bengal is about 158.4 MW as detailed in table below.

Table 3.4: Power Allocation from CGS and other sources

Sl. No	Name of Generating Station	Installed Capacity (MW)	Share (%)	Share (MW)
1	Teesta V HEP, NHPC	510	13.19%	67
2	Rangit HEP, NHPC	60	13.33%	8
3	Chukka HEP, PTC	336	2.22%	7
4	FSTPP, NTPC	1600	1.63%	26.1
5	KHSTPP-I, NTPC	840	1.55%	13
6	KHSTPP-II, NTPC	1000	0.033%	3.3
7	TSTPP, NTPC	1000	2.40%	24
8	Ramam HEP, WBSEDCL	50	20%	10
	Total			158.40

3.6 Power Supply

(a) Own Generation

EPDS has its own installed capacity of 40.692 MW of which 35.7 MW is hydro and about 4.992 MW is Diesel generation as detailed in Table below:

Table 3.5: EPDS own installed capacity

Sl. No	Name of Projects	Installed Capacity (MW)	Remarks
	Hydro		
1	Lower Lhagap 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	

Apart from this, the power supply requirements of EPDS are met from the Sikkim Power Development Corporation (hereinafter referred to as SPDC) and its share from Central Generating Stations.

SPDC owns three hydro stations with an installed capacity of 10 MW and the small quantum of power generated from these stations is supplied to EPDS.

(b) Power purchase

The power purchase from various Central Generating Stations and other sources during FY 2012-13 is given in Table below:

Table 3.6: Power Purchase from Central Generating Stations and other sources during FY 2012-13

Sl. No	Generating Station	Power Purchased (MU)	Cost of Power (Rs. crore)	Average Cost (Rs/kWh)
	NTPC			
1	FSTPP – I	122.32	43.74	3.58
2	FSTPP – II	12.77	6.62	5.19
3	KHSTPP I	75.22	25.61	3.40
4	KHSTPP II	30.41	9.92	3.26
5	TSTPP	160.91	40.00	2.49
	NHPC			
6	Rangit – III	4.23	2.48	5.86
7	Teesta – V	26.38	7.84	2.97
8	WBSEDCL (Ramam HEP)	47.11	5.59	1.19
9	PTC (Chukka HEP)	34.71	5.79	1.67
10	SPDC	4.41	1.32	3.00
	Sub-Total	518.47	148.91	2.87
11	UI Purchases	10.49	3.03	2.89
12	Free Power	304.11	-	-
13	Rebate/ Other Charges		- 2.79	

14	PGCIL Transmission Charges	-	34.09	
	Total	833.08	183.25	2.20

3.7 Energy Balance

3.7.1 The supply and demand scenario during the FY 2012-13 is given in Table below.

**Table 3.7: Energy Balance during FY 2012-13
(MU)**

Sl. No	Particulars	2012-13
I	Energy Requirement	
1	Energy Sales	226.90
2	T & D Loss (%)	43.70%
3	T & D LOSS (MU)	176.10
4	Energy Requirement	403.00
II	Energy Availability	
5	Own Generation	4.11
6	Power Purchase from CGS & Others	518.47
7	Free Power	304.11
8	Less Transmission Loss @ 2.73% on (6&7)	22.46
9	Net Power received at State periphery	804.23
10	UI Purchases	10.49
11	Total Power available (9+10)	814.72
12	Less Energy Requirement	403.00
13	Surplus Power	411.72

4. Summary of Objections raised, Response of EPDS and Commission's comments

The Commission issued a Public Notice soliciting objections, suggestions and views of the consumers and general public on the Tariff Petition filed by the EPDS. The Commission has received only 1 (one) no. of objection jointly signed by residents of Dorji Building, Lall Market, Gangtok, East Sikkim on the Public Notice issued by the EPDS. The details of the joint objectors are as given below:

Sl.No	Name of the Objector & Address
1.	Shri. T.W. Dorji, Dorji Building , Lall Market, Gangtok, East Sikkim.
2.	Shrimati. Tashi D.Acushla, Lall Market, Gangtok, East Sikkim.
3.	Few other residents of Dorji Building, Lall Market, gangtok, East Sikkim (names and signatures illegible)

Issue No. 1: Hike in Tariff.

Objections:

The objectors had submitted a written objection against hike in the Tariff proposed by the EPDS. The Objectors submitted that there has been huge variations in the monthly bills of electricity and stated that their monthly electricity bills have seen huge increase during the period 2005 to 2013. They pleaded that there is huge increase in cost of all essential commodities like LPG, Petrol, Diesel etc and that the common man is bearing the burden of inflation. They felt that Sikkim being an energy surplus State should provide electricity to its citizens at nominal rates. Shri. T.W Dorji also participated in the Public Hearing and voiced the same reasons against the proposal of the EPDS to hike Tariff during FY 2014-15.

Response of the EPDS:

The EPDS gave a written reply to the objection and also requested the objectors to attend the Public Hearing on 25th and 26th of March 2014 at Chintan Bhawan, Gangtok. The EPDS clarified that the increase in the electricity bills of the objectors were not due to the increase in Tariff but attributable to accumulation of arrears due to non-payment of the bills on time by the objectors. EPDS clarified that the objectors should have lodged their complaint to the Grievance Cell of the EPDS instead of referring the matter to the Commission. The EPDS also clarified that Shri.T.W Dorji need to install separate/sub meters in his building as more than 150 numbers of tenants were residing in his building. The EPDS

suggested that installation of sub-meters could be done by the house/building owner for every tenant in his building so that the house owner can keep an eye on the electricity consumption of each tenant and ensure timely collection of monthly bills so as to avoid accumulation of arrears.

Comments of the Commission:

The views expressed by the objectors during the Public Hearing as well as the responses given by the EPDS were taken into consideration by the Commission while determining the Tariff. The Commission noted that most of the consumers are not aware of the Grievance Cell set up in the EPDS due to which the consumers/general public are not clear as to whom to approach for redressal of their grievances. The Commission advised the EPDS to take up awareness campaigns to educate the general public / consumers.

Issue No.2: Lack of Awareness/Lack of Information in Public Domain.

Objection:

Shri. Rohit Pradhan, General Secretary of Federation of Consumers' Association of Sikkim participated in the Public Hearing on 25th March 2014. Shri. Pradhan had no specific objections to the Tariff petition of the EPDS as such. However, Shri. Pradhan opined that there is general lack of awareness amongst the consumers about the process of Annual Revenue Return/Tariff Petition. Shri. Pradhan felt that there is lack of information in the Public domain due to which most of the consumers and general public are not aware of the various relevant Acts, Rules, and Regulations etc under which the ARR/Tariff Petition is covered. Shri. Pradhan submitted that he and other consumers like him are not aware of the fuel cost and other factors which play an important role in cost of electricity generation. Shri. Pradhan desired that a copy of the Public Notice issued by the EPDS be provided to him. He also requested the Commission and the EPDS to enlighten him on the various aspects of the ARR/Tariff petition.

Response of the EPDS:

The EPDS explained in detail the Acts, Rules and Regulations under which the entire process of ARR/Tariff Petition is governed and informed that the EPDS had published a "Public Notice" in two local newspapers seeking the views, suggestions and objections from the consumers/general public and stake holders. The EPDS also clarified that the

details of fuel cost and other items were also specified in the Public Notice. A copy of the Public Notice published by the EPDS was also provided to Shri.Pradhan.

Comments of the Commission:

The Commission took note of the views expressed by the participant as well the responses/clarifications given by the EPDS while fixing the Tariff in this order. The Commission was of the view that the EPDS had complied with the relevant provisions of the Electricity Act, 2003 and the Rules and Regulations framed by the Commission for filing of ARR/Tariff Petition and had given wide publicity of the ARR/Tariff Petition by publishing a Public Notice.

5. Review for FY 2012-13

5.1 Preamble

The Commission had approved the ARR and Tariffs for FY 2012-13 in its order dated 30.3.2012 which was a suo moto order issued based on the projected data collected from the EPDS. Now the EPDS has submitted proposals for provisional True up for FY 2012-13 duly furnishing actuals for the year 2012-13 stating that they are as per provisional accounts prepared by them.

“Regulation 14(1) & (2) of the SSERC (Terms and conditions for determination of Tariff) Regulation 2012 provides as follows:

- (a) The Commission shall undertake a Review of the expenses and revenues approved by the commission in the tariff order. While doing so the Commission shall consider variation between approvals and revised estimates / pre actuals of sale of electricity, income and expenditure for the relevant year and permit necessary adjustments / charges in case such variations are for adequate and justifiable reasons. Such an exercise shall be called ‘Review’.
- (b) After audited accounts of a year are made available the commission shall undertake similar exercise as above with reference to the final actual figures as the audited accounts. This exercise with reference to the audited accounts shall be called ‘Truing up’. The Truing up for any year will ordinarily not be considered after more than one year after ‘Review’.
- (c) In as much as the EPDS has not submitted audited accounts for FY 2012-13 true up cannot be done. However the Commission considers it appropriate and fair to revisit and review the approvals granted by it in the tariff order of FY 2012-13, with reference to actuals now made available by the EPDS but without altering the principles and norms adopted earlier. These matters are discussed in the succeeding paragraphs.

5.2 Energy Demand (Sales)

The energy sales approved by the Commission in Tariff order for FY 2012-13, actual sales given by EPDS as per provisional accounts in ARR petition for FY 2014-15 and now approved by the Commission are summarized in Table below.

Table 5.1: Energy Sales approved by Commission for FY 2012-13

Particulars	(In MUs)		
	As Approved by the Commission	Provisional As per Accounts	Now approved by Commission
Domestic	78.00	78.98	78.98
Commercial	45.00	38.26	38.26
Public Lighting	3.00	0.43	0.43
Temporary Supply	1.00	0.09	0.09
HT Industrial Consumers	68.00	91.76	91.76
LT Industrial Consumers	2.00	1.15	1.15
Bulk Supply	16.00	16.23	16.23
Outside State sales	156.00	55.54	55.54
Total	369.00	282.44	282.44
	213	226.90	226.90

The Commission now approves energy sales for FY 2012-13 at 226.90 MU as per actuals furnished by EPDS.

5.3 Transmission & Distribution Losses (T&D Losses)

The Commission in its order of FY 2012-13 has fixed the target of T&D Losses at 50% for FY 2012-13. The EPDS in its ARR & Tariff petition for FY 2014-15 has stated that the actual T&D Losses during FY 2012-13 are at 39.08% as per provisional accounts.

Commission's Analysis

The EPDS has considered sales outside state while calculating T&D Losses within the state, which is not correct. As the sales outside the state will effect at state periphery, T&D Losses within the state have no impact on sales outside the state. As such outside sales should not be considered for purpose of calculation of T&D Losses within the state.

UI purchases are considered in calculation of interstate pool losses. Here also as the UI purchases will take place at state periphery interstate pool losses have no effect on UI purchases. The T&D loss calculation cannot be taken as correct.

As per weekly loss scheduling of ERLDC from 2.4.2012 to 31.3.2013, the average pool loss during the above period is 2.73% (Annexure II). As such the interstate transmission loss (pool loss) for the FY 2012-13 is considered at 2.73% and T&D Loss when recalculated works out to 43.70% as detailed in Table below:

Table 5.2: T&D Loss calculation for FY 2012-13 as approved by the Commission

S. No.	Particulars	Units	FY 2012-13
A	Energy Availability		
1	Own Generation	MU	4.11
2	Power Purchase from CGS		822.58
3	Pool Loss	%	2.73%
4	Pool Loss on (2)	MU	22.46
5	UI Purchases	MU	10.49
6	Sales to Trading	MU	411.72
7	Energy available at State Periphery (1+2 – 4 +5-6)	MU	403
8	Sales within the states	MU	226.90
9	T&D Loss (7-8)	MU	176.10
10	T&D Loss (9-7)/100	%	43.70

The Commission now approves T&D Loss for FY 2012-13 at 43.70%.

5.4 Own Generation

The Commission in its tariff order for FY 2012-13 had approved own generation at 30 MU. Now the EPDS has furnished actual own generation at 4.11 MU during the year 2012-13.

The Commission now approves own generation during FY 2012-13 at 4.11 MU as per actuals furnished by EPDS.

5.5 Power Purchase

The Commission in its tariff order dated 30.3.2012 had approved power purchase quantity at 575 MU. Now the EPDS has furnished actuals for FY 2012-13 at 833.08 MU including UI Purchase of 10.49 MU and free power of 304.11 MU in ARR and Tariff Petition for FY 2014-15 as detailed in Table below:

Table 5.3: Power Purchase by EPDS approved by the Commission during FY 2012-13

Sl. No.	Stations	Approved by the Commission in tariff order dated 30.3.2012	Actuals furnished by EPDS (MU)	Now approved by Commission
1	2		3	
1	NTPC			
	a) FSTPP	185	122.32	122.32
	b) KHSTPP-III		12.70	12.70
	c) KHSTPP-I	78	75.22	75.22
	d) KHSTPP-II	28	30.41	30.41
	e) TSTPP	170	160.91	160.91
2	NHPC			
	a) RANGIT-III	4	4.23	4.23
	b) TEESTA-V	30	26.38	26.38
3	Other Sources			
	a) PTC	40	34.71	34.71
	b) WBSEDCL	40	47.11	47.11
	c) SPDC		4.41	4.41
4	UI Purchase		10.49	10.49
	Free Power		304.11	304.11
	Total	575	833.08	833.08

The Commission now approves power purchase of 833.08 MU including UI purchase of 10.49 MU and free power of 304.11 MU during FY 2012-13 as per actuals furnished by EPDS.

5.6 Energy Balance

The details of energy requirement and availability approved by the Commission for FY 2012-13 and actuals furnished by the EPDS and now approved by the Commission are furnished in Table below:

Table 5.4: Energy Balance approved by the Commission for FY 2012-13

Sl. No.	Stations	Approved by the Commission in tariff order dated 30.3.2012	Actuals furnished by EPDS	Now approved by Commission
I	Energy Requirement			
1	Energy Sales MU	213	226.90	226.90
2	Sales outside state	156	411.72	-

3	Total Sales	369	638.62	226.90
4	T&D Loss (%)	50.00	39.08	43.70
5	T&D Loss MU	-	145.57	176.10
6	Energy Requirement (3+5) (MU)	426	784.19	403.00
II	Energy Availability			
7	Own Generation MU	30	4.11	4.11
8	Energy Purchase MU	575	822.58	822.58
9	UI Purchases (MU)	-	10.49	10.49
10	Pool Loss %	4%		2.73%
11	Pool Loss on (MU)	23	53	22.46
12	Energy available at State Periphery (7+8+9-11) MU	582	784.19	814.72
13	Energy Requirement	426	784.19	403
14	Surplus Power (12-13) MU	156	-	411.72

5.7 Fuel Cost

The EPDS is having 12 hydro generating stations with installed capacity of 30.70 MW and 2 diesel-generating stations with installed capacity of 4.992 MU. The fuel cost approved by the Commission in tariff order for FY 2012-13 and actuals furnished by EPDS and now approved by the Commission are furnished in Table below:

Table 5.5: Fuel Cost approved by the Commission for during FY 2012-13

Sl. No.	Particulars	Approved by the Commission in tariff order dated 30.3.2012		Actuals furnished by EPDS		Now approved by the Commission	
		Net Generation	Fuel Cost	Net Generation	Fuel Cost	Net Generation	Fuel Cost
1	Hydel	29.85	-	4.06	-	4.06	-
2	Diesel	0.15	0.85	0.05	0.17	0.05	0.17
	Total	30.00	0.85	4.11	0.17	4.11	0.17

The Commission now approves fuel cost of Rs. 0.17 Cr for FY 2012-13 as per actuals furnished by EPDS

5.8 Power Purchase Cost

The Power Purchase Cost approved by the Commission for FY 2012-13 and actuals furnished by the EPDS and now approved by the Commission are furnished in Table below:

Table 5.6: Power Purchase Cost approved by the Commission for FY 2012-13

Sl. No.	Particulars	Approved by the Commission in tariff order dated 30.3.2012		Actuals furnished by EPDS		Now approved by the Commission	
		Qty MU	Rs. Cr.	Qty	Amt	Qty	Amt
1	CGS & others	575	196.66	518.48	180.22	518.48	180.26
2	UI	-	-	10.49	3.03	10.49	3.03
3	Total	575	196.66	528.97	183.25	528.97	183.25

The Commission now approves power purchase cost of Rs 183.25 cr for FY 2012-13 as per actuals furnished by EPDS.

5.9 Employee Cost

The Commission in its order-dated 30.3.2012 has approved employee cost at Rs 49.61cr for FY 2012-13. The EPDS has furnished actuals at Rs 42.72 cr for FY 2012-13.

The Commission accordingly has now approves Rs 42.72 cr towards employee cost for FY 2012-13 as per actuals furnished by EPDS.

5.10 Repairs and Maintenance Expenses

The Commission in its order dated 30.3.2012 had approved R&M expenses at Rs. 8.60 cr for FY 2012-13. The EPDS has furnished actual R&M expenses at Rs 32.30 cr for FY 2012-13.

The Commission accordingly now approves Rs 32.30 cr towards R&M expenses for FY 2012-13 as per actuals furnished by EPDS.

5.11 Administrative and General Expenses

The Commission in its order dated 30.3.2012 had approved Rs 1.95 cr towards Administrative and General Expenses for FY 2012-13. The EPDS has furnished actuals at Rs. 2.82 cr for FY 2012-13.

The commission now approves Rs 2.82 cr towards Administration & General Expenses for FY 2012-13 as per actuals furnished by EPDS.

5.12 Capital Investment & Capitalisation during FY 2012-13

Capital investment and capitalization during FY 2012-13 approved by the Commission in its order dated 30.3.2012 and actuals furnished by EPDS and now

approved by the Commission are furnished in Table below:

Table 5.7: Capital Investment & Capitalisation approved by the Commission for FY 2012-13

Sl. No.	Particulars	Approved by the Commission in tariff order dated 30.3.2012 for FY 2012.13	Actuals furnished by EPDS for FY 2012-13	Now approved by Commission for FY 2012.13
1	Opening Balance of CWIP	89.34	89.34	89.34
2	Capital Investment during the year	190.61	72.44	72.44
3	Total	279.95	161.78	161.78
4	Capitalisation during the year	170.42	98.48	98.48
5	Closing Balance	109.53	63.30	63.30

The Commission now approves capital investment of Rs 72.44 cr and capitalisation of Rs 98.48 cr during the FY 2012.13 as per actuals as furnished by EPDS.

5.13 Gross Fixed Assets

In the absence of valid information regarding gross fixed assets, the Commission in its tariff order dated 30.3.2012, had not approved the value of gross fixed assets. The EPDS in its ARR and tariff petition for FY 2014-15 has stated that the value of gross fixed assets are taken from the asset registers as detailed in Table below:

Table 5.8: Gross Fixed Assets during 2012-13

Sl. No.	Particulars	Rs. Cr.
1	Opening Balances	555.94
2	Additions during the year	98.47
3	Closing Balance	654.41

Commission's Analysis

In the absence of audited annual accounts, the information furnished by EPDS cannot be taken as authenticative. As such depreciation cannot be allowed on the opening GFA furnished by the EPDS.

5.14 Depreciation

The EPDS in its review petition has furnished depreciation of Rs 28.64 cr for the year 2012-13.

Commission's Analysis

The EPDS has not furnished the calculation at which the amount of depreciation is arrived. The Commission in its tariff order dated 30.3.2012 had approved depreciation of Rs 4.50 cr for FY 2012-13 on the proposed capitalization of Rs. 170.42 cr (Average GFA of Rs. 85.21 cr) at the rate of 5.28%. Now the EPDS has stated that Rs 98.47 cr were capitalised during FY 2012-13. The depreciation on this capitalized amount of Rs 98.47 cr works out to Rs 2.60 cr as detailed in Table below:

Table 5.9: Depreciation for 2012-13 approved by the Commission
(Rs. Crore)

Sl.No.	Particulars	Rs. Cr.
1	Opening Balances GFA	-
2	Additions during the year	98.47
3	Closing Balance	98.47
4	Average GFA	49.24
5	Rate of Depreciation	5.28%
6	Depreciation	2.60

The Commission accordingly now approves depreciation at Rs 2.60 crore for FY 2012-13 as against Rs 28.64 cr furnished by the EPDS.

5.15 Interest and Finance Charges

The EPDS has furnished interest and finance charges at Rs 58.40 cr during the year 2012-13.

Commission's Analysis

The Commission in its tariff order dated 30.3.2012 had approved interest and finance charges at Rs 1.87 cr for FY 2012-13 as detailed in Table below:

Table 5.10: Interest and finance charges for 2012-13
(Rs. Crore)

Sl. No.	Particulars	Rs. Cr.
1	Opening Balance of loan	17.44
2	Loan availed during the year	-
3	Loan Repaid during the year	5.00
4	Closing Balance	12.44
5	Average Loan	14.94
6	Rate of Interest	12.5%
7	Interest Amount	1.87

In format 7 (Details of loans for FY 2012-13) the EPDS has furnished NIL data. The same is also confirmed in its letter dated 24.1.2014. As such no interest and

finance charges are allowed for FY 2012-13.

5.16 Interest on Working Capital

The EPDS has not claimed any interest on working capital for the FY 2012-13.

Commission's Analysis

As per Regulations 113 of SSERC (Terms and conditions for determination of Tariff). Regulations 2012 interest on working capital shall be calculated on normative basis not withstanding that the licensee has not taken working capital loan from any outside agency.

1. The Working Capital consists of:
 - (a) Operation & Maintenance expenses for one month
 - (b) Budget for maintenance spares at the rate of 1% of historical cost of GFA escalated at the rate of 6% P.A from the date of commercial operation.
 - (c) Receivables equivalent to 2 months on fixed and variable charges of sale of energy.
2. Rate of interest on working capital shall be equal to the short term prime lending rate of SBI as on 1st April of relevant year.

Accordingly Rs 3.46 cr approved by the Commission for FY 2012-13 in its tariff order dated 30.3.2012.

Now the interest on working capital works out to Rs 6.10 cr on the now approved costs as detailed in Table below:

Table 5.11: Interest on Working Capital approved by the Commission for FY 2012-13

Sl. No.	Particulars	Total Cost Rs / Cr	Amount required for working capital (Rs. cr)
1	O&M Expenses		
	(a) Employee Cost	42.72	3.56
	(b) R&M Expenses	32.30	2.69
	(c) Adm & Gen Expenses	2.82	0.23
2	Maintenance of spares	-	-
3	Receivables	209.18	34.86
4	Total		41.34
5	SBI PLR as on 1.4.2012	%	14.75%
6	Interest on working capital		6.10

The Commission now approves interest on working capital at Rs. 6.10 cr for FY 2012 – 13.

5.17 Return on Equity

The EPDS has claimed Rs 25.42 cr towards return on equity for FY 2012-13.

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 of annual accounts.

The EPDS has not produced audited annual accounts. In addition, since it is a State Government Department, the expenses are funded by the government. As such no separate return is to be allowed for return on equity.

5.18 Non Tariff Income

The EPDS has furnished non tariff income at Rs 1.91 cr during the year 2012-13.

Commission's Analysis

As per Regulation 117 of SSERC (Terms and Conditions for determination of Tariff) Regulations 2012, non tariff income comprises of:

- Meter / metering equipment / service line rentals
- Service charges
- Customer charges
- Revenue from late payment surcharge
- Recovery of theft and pilferage of energy
- Miscellaneous receipts.
- Interest on staff loans and advances
- Interest on advances to suppliers
- Income from other business
- Income from staff welfare activities
- Excess found on physical verification of stores
- Interest on investments fixed and call deposits and bank balances
- Prior period Income.

There are about 92740 service connections existing as on 31.3.2013 with minimum meter rent of Rs. 20/- p.m. the revenue from meter rent works out to over Rs 2 cr. Actual surcharge for late payment collected during FY 2010-11 is Rs 12.40 cr. As the connections are increasing year by year the surcharge amount should also be naturally gets increased. Miscellaneous income and other items specified in the regulation are added income.

While so, non tariff income of Rs 1.91 cr furnished by EPDS is quite meager. It seems that the EPDS is not accounting for all the heads of income under non tariff income. This requires a detailed analysis.

For the present, the Commission retains the already approved amount of Rs 15.19 cr towards non tariff income for FY 2012-13.

5.19 Revenue from existing tariffs for FY 2012-13

Revenue from existing tariffs approved by the Commission for FY 2012-13 in tariff order dated 30.3.2012 and actuals furnished by the EPDS and now approved by the Commission are furnished in Table below:

**Table 5.12: Revenue from the existing Tariff for FY 2012-13
Approved by Commission**

Sl. No.	Particulars	Approved by the Commission In TO dated 30.03.2012		Actuals furnished by EPDS		Now approved by Commission	
		Energy Sales MU	Amount Rs. Cr	Sales	Amt	Energy Sales	Amt
1	Within State	213	82.14	226.90	89.49	226.90	89.49
2	Outside State	156	47.60	411.72	119.69	411.72	119.69
3	Total	369	129.94	638.62	209.18	638.62	209.18

The Commission approves revenue from existing tariff at Rs 209.18 cr for FY 2012-13.

5.20 Aggregate Revenue Requirement (ARR) for FY 2012-13

The ARR for FY 2012-13 approved by the Commission in its tariff order dated 30.3.2012 and actuals furnished by the EPDS and now approved by the Commission are furnished in Table below:

Table 5.13: Aggregate Revenue Requirement and Gap approved by the Commission for FY 2012-13

Sl. No.	Particulars	Approved by the Commission	Actuals furnished by EPDS	Now approved by Commission
1	Cost of Fuel	0.85	0.17	0.17
2	Cost of Power Purchase	196.66	183.25	183.25
3	Employee Costs	52.21	42.72	42.72
4	R&M Expenses	8.60	32.30	32.30
5	Admn & Gen. Expenses	1.95	2.82	2.82
6	Depreciation	4.50	28.64	2.60
7	Int & Fin Charges	1.87	58.40	-
8	Int on W.C.	3.46	3.09	6.10
9	Return on Equity	-	25.42	-
10	Total ARR	270.10	376.82	269.96
11	Less: Non Tariff Income	15.19	1.91	15.19
12	Net ARR	254.91	374.91	254.77
13	Revenue from Tariff	82.14	89.49	89.49
14	Revenue from outside sales	47.60	119.69	119.69
15	Gap	125.17	165.73	45.59

Review for FY 2012-13 indicates that the revenue gap has been reduced to Rs. 45.59 crore as against Rs. 125.17 crore approved in tariff order dated 30.03.2012 for FY 2012-13.

6. Review for FY 2013-14

6.1 Preamble

The Commission had approved the ARR and Tariff order for FY 2013-14 in its order dated 30.3.2013 based on the projected data furnished by the EPDS. Now the EPDS has submitted proposals for review of FY 2013-14 duly furnishing data based on revised estimate for FY 2013-14.

“Regulation 14(1) & (2) of the SSERC (Terms and conditions for determination of Tariff) Regulation 2012 provides as follows:

- (a) The Commission shall undertake a Review of the expenses and revenues approved by the commission in the tariff order. While doing so the Commission shall consider variation between approvals and revised estimates / pre actuals of sale of electricity, income and expenditure for the relevant year and permit necessary adjustments / charges in case such variations are for adequate and justifiable reasons. Such an exercise shall be called ‘Review’.
- (b) After audited accounts of a year are made available the commission shall undertake similar exercise as above with reference to the final actual figures as the audited accounts. This exercise with reference to the audited accounts shall be called ‘Truing up’. The Truing up for any year will ordinarily not be considered after more than one year after ‘Review’.
- (c) The Commission considers it appropriate and fair to revisit and review the approvals granted by it in the tariff order of FY 2013-14, with reference to revised estimate now made available by the EPDS but without altering the principles and norms adopted earlier. These matters are discussed in the succeeding paragraphs.

6.2 Energy Demand (Sales)

The Commission in its tariff order dated 30.03.2013 had approved energy sales within the state at 271.51 MU for FY 2013-14 as against 265.26 MU projected by EPDS.

The EPDS in its review petition for FY 2013-14 has submitted revised estimate at 241.19 MU. Subsequently the EPDS has submitted actual energy sales during first half of the year 2013-14 as detailed in Table below:

Table 6.1: Category Wise actual energy sales during 01.04.2013 to 30.09.2013 (MU)

Sl. No.	Category	Energy Sales
1	Domestic	34.29
2	Commercial	19.00
3	LTIS	1.71
4	HTS	48.37
5	Bulk Supply	7.98
6	Public Lighting	0.18
7	Temp. Supply	0.87
8	Places of worship	0.10
9	Ex-servicemen	0.19
10	Blind	0.01
	Total Sales	112.70

As verified from the actual sales during first half year of FY 2013-14 the revised estimate for FY 2013-14 furnished by EPDS is not in order in respect of some categories as the sales estimated for whole year are less than actual sales during first half of the year. As such keeping in view of the actual sales during FY 2012-13 a reasonable projection for FY 2013-14 is considered by the Commission as detailed below.

Sl. No.	Category	Actual sales during FY 2012-13 (MU)	Actual sales during 1 st half of FY 2013-14 (MU)	RE considered for FY 2013-14
1	Domestic	78.98	34.59	80.00
2	Commercial	38.26	19.00	39.00
3	Public Lighting	0.43	0.18	0.49
4	Temp. Supply	0.09	0.87	1.00
5	LTIS	1.15	1.71	3.00
6	HTS	91.76	48.37	97.00
7	Bulk Supply	16.23	7.98	17.00
	Total	226.90	112.70	237.49

Accordingly comparative statement of category wise energy sales approved by the Commission for FY 2013-14 and revised estimate furnished by EPDS and now approved by the Commission are furnished in table below.

Table 6.2: Energy Sales approved by Commission for FY 2013-14**(In MUs)**

Particulars	As Approved by the Commission in TO for FY 2013-14	Revised estimate furnished by EPDS	Now approved by Commission
Domestic	104	80.10	80.00
Commercial	45.08	39.40	39.00
Public Lighting	3.00	0.49	0.49
Temporary Supply	0.30	0.09	1.00
HT Industrial Consumers	93.21	103.67	97.00
LT Industrial Consumers	10	1.21	3.00
Bulk Supply	16.00	16.23	17.00
Sales within State	271.59	241.19	237.49

The Commission now approves energy sales for FY 2013-14 at 237.49 MU as against RE of 241.19 MU furnished by EPDS.

6.3 Transmission & Distribution Losses (T&D Losses)

The Commission in its order of FY 2013-14 has fixed the target of T&D Losses at 46% for FY 2013-14. EPDS in its review petition for FY 2013-14 has stated that the estimated T&D Losses during FY 2013-14 are at 35%.

Commission's Analysis

The EPDS has considered sales outside state while calculating T&D Losses within the state, which is not correct. T&D Losses within the state have no impact on sales outside the state. As such outside sales should not be considered for purpose of calculation of T&D Losses within the state.

UI purchases are considered in calculation of interstate pool losses. Here also as the UI purchases will take place at state periphery interstate pool losses have no effect on UI purchases. T&D loss calculation cannot be taken as correct.

Further as per weekly loss scheduling of ERLDC from 1.4.2013 to 16.3.2014, the average pool loss during the above period is 2.30%. As such the pool loss for the year 2013-14 is considered at 2.30% (Annexure IV) and T&D Loss when recalculated works out to 40.05% as detailed in Table below:

Table 6.3: T&D Loss calculation during FY 2013-14

S. No.	Particulars	UoM	FY 2013-14
A	Energy Availability		
1	Own Generation	MU	6.23
2	Power Purchase from	CGS	809.82
3	Pool Loss	%	2.30
4	Pool Loss on (2)	MU	18.63
5	UI Purchases	MU	10.49
6	Sales to Trading	MU	411.72
7	Energy available at State Periphery (1+2 – 4 +5-6)	MU	396.19
8	Sales within the state	MU	237.49
9	T&D Loss (7-8)	MU	158.70
10	T&D Loss (9-7)/100	%	40.05%

The Commission now approves T&D Loss for FY 2013-14 at 40.05% as per RE.

6.4 Own Generation

At present EPDS is having 8 Hydro generating stations with installed capacity of 27.20 MW and 2 diesel generating stations with installed capacity of 4.992 MW.

The Commission in its tariff order for FY 2013-14 had approved own generation at 21.17 MU. The EPDS has furnished revised estimate of own generation at 6.23 MU for FY 2013-14.

The Commission now approves own generation during FY 2013-14 at 6.23 MU as per RE furnished by EPDS.

6.5 Power Purchase

The Commission in its tariff order dated 30.3.2013 had approved power purchase quantity at 597 MU. The EPDS has furnished RE for FY 2013-14 at 820.31 MU including UI Purchase of 10.49 MU and free power of 304.11 MU, in review petition for FY 2013-14 as detailed in Table below:

Table 6.4: Power Purchase by EPDS approved by the Commission for FY 2013-14

Sl. No.	Stations	Approved by the Commission in tariff order dated 30.3.2013	RE furnished by EPDS (MU)	Now approved by Commission (MU)
1	2		3	
1	NTPC			
	a) FSTPP	185	122.32	122.32
	b) KHSTPP-III			
	c) KHSTPP-I	78	75.22	75.22
	d) KHSTPP-II	28	30.41	30.41
	e) TSTPP	170	160.91	160.91
2	NHPC			
	a) RANGIT-III	4	4.23	4.23
	b) TEESTA-V	30	26.38	26.38
3	Other Sources			
	a) PTC	40	34.71	34.71
	b) WBSEDCL	40	47.11	47.11
	c) SPDC		4.41	4.41
4	UI Purchase		10.49	10.49
	Free Power		304.11	304.11
	Total	575	820.31	820.31

The Commission now approves power purchase of 820.31 MU including UI purchase of 10.49 MU and free power of 304.11 MU during FY 2013-14 as per RE furnished by EPDS.

6.6 Energy Balance

The details of energy requirement and availability projected by the EPDS and approved by the Commission for FY 2013-14 and RE furnished by the EPDS and now approved by the Commission are furnished in Table below:

Table 6.5: Energy Balance approved by the Commission for FY 2013-14

Sl. No.	Stations	Approved by the Commission in tariff order dated 30.3.2012	RE furnished by EPDS	Now approved by Commission
I	Energy Requirement			

Sl. No.	Stations	Approved by the Commission in tariff order dated 30.3.2012	RE furnished by EPDS	Now approved by Commission
1	Energy Sales MU	271.51	241.19	237.49
2	Sales outside state	91.49	411.72	-
3	Total Sales (MU)	363	652.89	237.49
4	T&D Loss (%)	46%	35.38%	40.05%
5	T&D Loss (MU)	231.29	132.03	158.70
6	Energy Requirement (3+5) MU	594.29	784.92	396.19
II	Energy Availability			
7	Own Generation MU	21.17	6.23	6.23
8	Energy Purchase MU	575	809.82	-
9	UI Purchases	22	10.49	10.49
10	Pool Loss %	4%	4%	2.30%
11	Pool Loss (MU) on (8)	23.88	41.62	18.63
12	Energy available at State Periphery (7+8+9-11) MU	594.29	784.92	807.91
13	Energy Requirement	594.29	784.92	396.19
14	Surplus Power (11-12) MU	-	-	411.72

6.7 Fuel Cost

The fuel cost approved by the Commission in tariff order for FY 2013-14 and RE furnished by EPDS and now approved by the Commission are furnished in table below.

Table 6.6: Fuel Cost approved by the Commission for FY 2013-14

Sl. No.	Particulars	Approved by the Commission in tariff order dated 30.3.2013		RE furnished by EPDS		Now approved by Commission	
		Net Generation	Fuel Cost	Net Generation	Fuel Cost	Net Generation	Fuel Cost
1	Hydel	21.06	-		-		-
2	Diesel	0.11	0.32		0.16		0.16
	Total	21.17	0.32	6.23	0.16	6.23	0.16

The Commission now approves fuel cost of Rs. 0.16 cr for FY 2013-14 as per RE furnished by EPDS

6.8 Power Purchase Cost

The Power Purchase Cost approved by the Commission for FY 2013-14 and RE

furnished by the EPDS and now approved by the Commission is furnished in Table below:

Table 6.7: Power Purchase Cost approved by the Commission for FY 2013-14

Sl. No.	Particulars	Approved by the Commission in tariff order dated 30.3.2013		RE furnished by EPDS		Now approved by Commission	
		Qty MU	Rs. Cr.	Qty MU	Amt	Qty MU	Amt
1	CGS & others	575	202.69	809.82	173.62	859.82	173.62
2	UI	22	9.01	10.49	3.03	10.49	3.03
3	Total	597	212.30	820.31	176.65	820.31	176.65

The Commission now approves power purchase cost of Rs 176.65 cr for FY 2013-14 including UI purchase of 10.49 MU and free power of 304.11 MU as per RE furnished by EPDS.

6.9 Employee Cost

The Commission in its order-dated 30.3.2013 had approved employee cost at Rs 79.03 cr for FY 2013-14. The EPDS has furnished RE at Rs 45.15 cr for FY 2013-14.

The Commission accordingly has now approves Rs 45.15 cr towards employee cost for FY 2013-14 as per RE furnished by EPDS.

6.10 Repair and Maintenance Expenses

The Commission in its order-dated 30.3.2013 had approved R&M expenses at Rs. 17.00 cr for FY 2013-14. The EPDS has furnished RE for R&M expenses at Rs 33.93 cr for FY 2013-14.

The Commission accordingly has now approves Rs 33.93 cr towards R&M expenses for FY 2013-14 as per RE furnished by EPDS.

6.11 Administrative and General Expenses

The Commission in its order dated 30.3.2013 had approved Rs 3.71 cr towards Administration and General Expenses for FY 2013-14. The EPDS has furnished RE at Rs. 3.46 cr for FY 2013-14.

The commission has now approves Rs 3.46 cr towards Administration & General Expenses for FY 2013-14 as per RE furnished by EPDS.

6.12 Capital Investment & Capitalisation during FY 2013-14

Capital investment and capitalization during FY 2013-14 approved by the Commission in its order dated 30.3.2013 and RE furnished by EPDS and now approved by the Commission are furnished in Table below:

Table 6.8: Capital Investment & Capitalisation approved by the Commission for FY 2013-14

Sl. No.	Particulars	Approved by the Commission in tariff order dated 30.3.2013 for FY 2013-14	RE furnished by EPDS for FY 2013-14	Now approved by Commission for FY 2013-14
1	Opening Balance of CWIP	109.53	109.53	109.53
2	Capital Investment during the year	100.97	103.98	103.98
3	Total	210.50	213.51	213.51
4	Capitalisation during the year	100.97	103.98	103.98
5	Closing Balance of CWIP	109.53	109.53	109.53

The Commission now approves capital investment of Rs 103.98 cr and capitalisation of Rs 103.98 cr during the FY 2013-14 as per RE as furnished by EPDS.

6.13 Gross Fixed Assets

In the absence of valid information regarding gross fixed assets, the Commission in its tariff order dated 30.3.2013 had not approved the value of gross fixed assets. The EPDS in its review petition for FY 2013-14 has stated that the values of gross fixed assets are taken from the asset registers as detailed in Table below:

Table 6.9: Gross Fixed Assets furnished by EPDS for FY 2013-14

Sl. No.	Particulars	Rs. Cr.
1	Opening Balances	654.41
2	Additions during the year	103.98
3	Closing Balance	758.39

Commission Analysis

In the absence of audited annual accounts the information furnished by EPDS

cannot be taken as authenticative. As such depreciation cannot be allowed on the opening GFA furnished by the EPDS.

6.14 Depreciation

The EPDS in its review petition has furnished depreciation of Rs 33.39 cr for the year 2013-14.

Commission's Analysis

The EPDS has not furnished the calculation at which the amount of depreciation arrived. The Commission in its tariff order dated 30.3.2013 had approved depreciation of Rs 11.66 cr for FY 2013-14 on the opening GFA of Rs. 170.42 plus proposed capitalization of Rs. 100.97 cr during FY 2013-14 at the rate of 5.28%. The EPDS has stated that Rs. 98.47 crore during FY 2012-13 and Rs 103.98 cr during FY 2013-14 are capitalized. As such the depreciation is regulated accordingly as detailed in Table below:

**Table 6.10: Depreciation for 2013-14 approved by the Commission
(Rs. Crore)**

Sl. No.	Particulars	Rs. Cr.
1	Opening Balances GFA	98.47
2	Additions during the year	103.98
3	Closing Balance	202.45
4	Average GFA	150.46
5	Rate of Depreciation	5.28%
6	Depreciation	7.94

The Commission accordingly now approves depreciation at Rs 7.94 cr for FY 2013-14 as against Rs 33.99 cr furnished by the EPDS.

6.15 Interest and Finance Charges

The EPDS has furnished interest and finance charges at Rs 62.80 cr during the year 2013-14.

Commission's Analysis

The Commission in its tariff order dated 30.3.2013 had not considered interest and Finance charges for FY 2013-14.

The EPDS in its additional information submitted on 24.01.2014 has stated that no

loans were availed during FY 2013-14.

As such the Commission has not considered interest and finance charges during FY 2013-14.

6.16 Interest on Working Capital

The EPDS has not claimed any interest on working capital for the FY 2013-14.

Commission's Analysis

As per Regulations, 113 of SSERC (Terms and conditions for determination of Tariff), Regulations 2012 interest on working capital shall be calculated on normative basis not withstanding that the

Licensee has not taken working capital loan from any outside agency.

3. The Working Capital consists of:

- (a) Operation & Maintenance expenses for one months
- (b) Budget for maintenance of spares at the rate of 1% of historical cost and escalated at the rate of 6% P.A from the date of commercial operations.
- (c) Receivables equivalent to 2 months on fixed and variable charges of sale of energy.

4. Rate of interest on working capital shall be equal to the short term prime lending rate of SBI as
on 1st April of relevant year.

Accordingly the Commission approves interest on working capital for FY 2013-14 as shown below:

The interest on working capital works out to Rs. 3.46 cr as detailed in table below:

Table 6.11: Interest on Working Capital approved by the Commission for FY 2013-14

Sl. No.	Particulars	Total Cost Rs / Cr	Amount required for working capital (Rs. cr)
1	O&M Expenses		

	(d) Employee Cost	45.15	3.76
	(e) R&M Expenses	33.93	2.83
	(f) Admin & Gen Expenses	3.46	0.29
2	Maintenance of spares	-	-
3	Receivables	102.54	17.09
4	Total		23.97
5	SBI PLR as on 1.4.2013		14.45%
6	Interest on working capital		3.46

The Commission now approves interest on working capital at Rs. 3.46 cr for FY 2013-14.

6.17 Return on Equity

The EPDS has claimed Rs 29.67 cr towards return on equity for FY 2013-14.

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 of annual accounts.

The EPDS has not produced audited annual accounts. In addition since it is a State Government Department, the expenses are funded by the government. As such no separate return is to be allowed for return on equity.

6.18 Non Tariff Income

The EPDS has furnished non-tariff income at Rs 0.62 cr during the year 2013-14.

Commission's Analysis

As per Regulation 117 of SSERC (Terms and Conditions for determination of Tariff) Regulations 2012, non-tariff income comprises of:

- Meter / metering equipment / service line rentals
- Service charges
- Customer charges
- Revenue from late payment surcharge
- Recovery of theft and pilferage of energy
- Miscellaneous receipts.
- Interest on staff loans and advances
- Interest on advances to suppliers

- Income from other business
- Income from staff welfare activities
- Excess found on physical verification of stores
- Interest on investments fixed and call deposits and bank balances
- Prior period Income.

About 92740 service connections are existing as on 31.3.2013 and with minimum meter rent of Rs. 20/- p.m. the revenue from meter rent works out to over Rs 2 cr. Actual surcharge for late payment collected during FY 2010-11 is Rs 12.40 cr. As the connections are increasing year by year the surcharge amount should also naturally gets increased. Miscellaneous income on other items specified in the regulation is an addition.

As such, the Commission retains already approved amount of Rs 2.40 cr towards non tariff income for FY 2013-14.

6.19 Revenue from existing tariff for FY 2013-14

Revenue from existing tariff approved by the Commission for FY 2013-14 in tariff order dated 30.3.2013 and actuals furnished by the EPDS and now approved by the Commission are furnished in Table below:

**Table 6.12: Revenue from the existing Tariff for FY 2013-14
Approved by Commission**

Sl. No.	Particulars	Approved by the Commission in TO dated 30.03.2013		RE furnished by EPDS		Now approved by the Commission	
		Energy Sales (MU)	Amount (Rs. Cr)	Energy Sales (MU)	Amount (Rs. Cr)	Energy Sales (MU)	Amount (Rs. Cr)
A	LT Category						
1	Domestic	104.00	23.18	80.10	17.11	80.00	17.09
2	Commercial	45.08	21.99	39.40	19.00	39.00	18.81
3	LT Industrial (LTIS)	10.00	4.65	1.21	0.46	3.00	1.14
4	Public Lighting	3.00	1.23	0.49	0.20	0.49	0.20
5	Temp. Supply	0.30	0.53	0.09	0.51	1.00	5.67
	Total LT Sales (A)	162.38	51.58	121.29	37.28	123.49	42.91
B	HT Category						
6	HT Supply	93.21	41.40	103.67	56.26	97.00	52.64
7	Bulk Supply	16.00	8.68	16.23	8.99	17.00	9.42
	Total HT Sales (B)	109.21	50.08	119.90	65.25	114.00	62.06
8	Total Sales within state (A+B)	271.59	101.66	241.19	102.58	237.49	104.97
9	Sales outside state	91.23	33.57	411.72	119.69	411.72	119.69
10	Total Sales	362.82	135.23	652.91	222.22	649.21	224.66

11	Average revenue		3.74		3.40		3.46
	Average Revenue with sales within the State		3.74		4.25		4.42

The Commission approves revenue from existing tariff at Rs 224.66 cr including revenue from outside sales at Rs. 119.69 crore for FY 2013-14.

6.20 Aggregate Revenue Requirement (ARR) for FY 2013-14

The ARR for FY 2013-14 approved by the Commission in its tariff order dated 30.3.2013, revised estimate furnished by the EPDS and now approved by the Commission are furnished in Table below:

Table 6.13: Aggregate Revenue Requirement and Gap for FY 2013-14

Sl. No.	Particulars	Approved by the Commission	Actuals furnished by EPDS	Now approved by Commission
1	Cost of Fuel	0.32	0.16	0.16
2	Cost of Power Purchase	212.30	176.65	176.65
3	Employee Costs	79.03	45.15	45.15
4	R&M Expenses	17.00	33.93	33.93
5	Admn & Gen. Expenses	3.71	3.46	3.46
6	Depreciation	11.66	33.99	7.94
7	Int & Fin Charges	-	62.80	-
8	Int on W.C.	-	3.46	3.46
9	Return on Equity	-	29.67	-
10	Total ARR	324.02	389.27	270.75
11	Less: Non Tariff Income	2.40	0.62	2.40
12	Net ARR	321.62	38.64	268.35
13	Revenue from Tariff	101.66	102.54	104.97
14	Revenue from outside sales	33.57	119.69	119.69
15	Gap	186.39	166.42	43.69
16	Energy sales within the state	271.59	241.19	237.49
17	Energy sales outside state	91.23	411.72	411.72
18	Total Sales	362.82	652.91	649.21

Review for FY 2013-14 indicates that the revenue gap has been reduced to Rs. 43.69 cr as against Rs. 186.39 crore approved in tariff order dated 30.03.2013 for FY 2013-14.

7. Aggregate Revenue Requirement for FY 2014-15 Commission Analysis and Decisions

7.1 Consumer Categories

The EPDS serves about 92470 consumers as on 31.3.2013 in the area of operation and the consumers are broadly categorized as under:

LT Category

- Domestic including BPL
- Commercial
- Public Lighting
 - (a) Rural
 - (b) Urban
- Industrial
 - (d) Rural
 - (e) Urban
- Temporary Supply

HT Category

- Industrial
- Bulk Supply (LT & HT)

The EPDS serves the consumers at 250 V, 440 V and 11 kV levels. Most of the consumers are metered except public lighting. However unmetered consumers are being provided with meters in a phased manner. But due to infrastructure problems this work is in low progress.

7.1.1 Growth of Consumers and connected load

Category wise growth of consumers and their connected load over the actuals during 2012-13, estimated for FY 2013-14 and projected for FY 2014-15 are

furnished in Table below:

Table 7.1: Category wise growth in consumers and connected load furnished by EPDS

Sl. No.	Category	FY 2012 – 13 (Actuals)		FY 2013 – 14 (Estimates)		FY 2014-15 (Projected)	
		(NO)	KW	(NO)	KW	(NO)	KW
1	Domestic	81508	44378.05	81921	48815.85	82433	53697.44
2	Commercial	9663	21835.42	9863	24018.97	100.63	26420.86
3	Public Lighting	-		-		-	
4	Temp Supply	-		-		-	
5	LT Industrial	389	655.08	402	720.59	409	792.65
6	HT Industrial	332	52373.58	375	57610.94	406	63372.03
7	Bulk Capital	848	9263.97	868	10190.37	877	11209.40
8	Total	92470	129390.26	93429	142329.29	94188	156562.21
			or		or		or
			129.39 MW		142.329 MW		156.56 MW

7.2 Energy Sales

Actual energy sales during FY 2009-10 to 2012-13 and estimated for FY 2013-14 and projected for FY 2014-15 is furnished in Table below:

Table 7.2: Energy Sales Projected for FY 2014-15

(In

MU)

Category	2009-10 (Act)	2010-11 (Act)	2011-12 (Act)	2012-13 (Actual)	2013-14 (Estimated)	2014-15 (Projected)
Domestic	58.40	57.97	82.77	78.98	80.10	84.39
Commercial	29.30	29.23	29.72	38.26	39.40	42.70
Public Lighting	2.60	2.60	2.30	0.43	0.49	0.49
Temporary Supply	0.10	0.15	0.30	0.09	0.09	0.09
HT Industrial Consumers	59.20	58.39	71.63	91.76	103.67	110.67
LT Industrial Consumers	1.90	1.31	8.63	1.15	1.21	1.24
Bulk Supply	14.50	13.35	13.21	16.23	16.23	16.23
Outside State	-	-	-	-	-	-
Total	166.00	163.00	208.56	226.90	241.17	255.79

(Source Table 6.1 of ARR)

The EPDS has projected the category wise energy sales for FY 2014-15 based on actual past sales during FY 2009-10 to 2012-13 and growth rate and new developments on account of Government policies, socio economic changes, industrial growth etc. that would affect consumption across various categories of consumers.

7.2.1 Analysis of energy sales projections furnished by EPDS and Commission's decision.

Reasonable projection of category wise energy sales is essential to determine the energy required to be purchased and likely revenue by sale of electricity sales forecast using the CAGR as the basis for projections is a tried and tested method and is used extensively across the states and accepted by the Regulators. EPDS has projected category wise energy sales for FY 2014-15 based on past trends over a period of four years.

The CAGR of the past energy sales from 2009-10 to 2012-13 is worked out and in Table below:

Table 7.3: CAGR of energy sales

Sl. No.	Energy Sales (MU)	FY 2009-10 (Act)	FY 2010-11 (Act)	FY 2011-12 (Act)	FY 2012-13 (Act)	CAGR for 3 years from FY 09-10 To FY 12-13 (%)	CAGR for 2 years from FY 10-11 To FY 12-13 (%)	CAGR for FY 11-12 To FY 12-13 (%)
1	Domestic	58.40	57.97	82.77	78.98	10.59	16.72	(4.58)
2	Commercial	29.30	29.23	29.72	38.26	9.30	14.41	28.73
3	Public lighting	2.60	2.60	2.30	0.43	(45.11)	(59.33)	(81.30)
4	Temporary Supply	0.10	0.15	0.30	0.09	(3.45)	(22.54)	(70.00)
5	HT Industrial	59.20	58.39	71.63	91.76	15.73	25.36	28.10
6	LT Industrial	1.90	1.31	8.63	1.15	(15.41)	(6.31)	(86.67)
7	Bulk Supply	14.50	13.35	13.21	16.23	3.83	10.26	22.86
8	Total	166	163	208.56	226.90	(24.53)	(21.43)	(162.86)

Table 7.4: Specific Consumption during FY 2012-13

Sl. No.	Category	FY 2011-12	FY 2012-13
1	Domestic	89	80
2	Commercial	264	330

3	Industrial LT	2413	246
4	Industrial HT	21092	23032
5	Bulk Supply	1784	1595

The consumption of each category of consumers is discussed below to arrive at reasonable projection of energy sales for FY 2014-15.

Domestic

The EPDS has projected energy sales to this category at 84.39 MU for FY 2014-15. The sales growth is erratic. Negative growth is observed during FY 2010-11 and FY 2012-13 over the previous year's sales and the EPDS has not furnished reasons for such negative growth. The three year CAGR (FY 10 – FY 12) is 10.59% while 2 year CAGR (FY 11 - FY 13) is 16.72% and YoY growth (FY 12 – FY 13) is (-) 4.58%. The actual specific consumption during FY 2012-13 is 80 kWh. As such the sales of 84.39 MU projected by EPDS are considered reasonable.

The Commission approves energy sales at 84 MU for FY 2014-15 as projected by EPDS.

Commercial

The EPDS has projected the energy sales at 42.70 MU for FY 2014-15. Negative growth observed during FY 2010-11 over FY 2009-10 growth observed during FY 2012-13 over FY 2011-12 of the EPDS has not furnished reasons for the same. The three-year CAGR (FY 10 – FY 13) is 9.30%, while 2 year CAGR (FY 11 – FY 13) is 14.41% and YoY growth (FY 12 – FY 13) is 28.73%.

The Commission considered reasonable to adopt 3 year CAGR of 9.30% P.A over actual sales during FY 2012-13 to project sales during FY 2014-15 which works out to 46 MU.

The Commission approves energy sales at 46 MU for FY 2014 – 15 as against 42.70 MU projected by EPDS.

Public Lighting

The EPDS has projected sales at 0.49 MU for FY 2014-15. This is an unmetered

connection and negative growth observed since FY 2011-12. Sudden fall in sales observed during 2012-13 at 0.43 MU over sales during FY 2011-12 which are at 2.30 MU. The EPDS has not furnished reasons for the same. A growth of 10% P.A. in connected load is projected over the actual connected load during FY 2012-13. Based on the projected connected load of 298 KW for FY 2014-15 the computed consumption at 10 hours usage per day works out to 1 MU.

The Commission approves energy sales at 1 MU for FY 2014-15 as against 0.49 MU projected by EPDS.

Temporary Supply

The EPDS has projected energy sales at 0.09 MU for FY 2014 – 15. As seen from the past sales the consumption is steeply increasing year by year and during FY 2012-13 negative growth is observed. The 3 year CAGR (FY 10 – FY 13) is 118.28% while 2 year CAGR (FY 11 – FY 13) is 163.31% and YoY (FY 12 – FY 13) is 246.67%. This being a temporary supply the growth may not sustain. However a consumption of 1 MU is considered reasonable for FY 2014-15.

The Commission approves energy sales at 1 MU for FY 2014 – 15 against 0.09 MU projected by EPDS.

HT Industrial

The EPDS has projected energy sales at 110.67 MU for FY 2014 – 15. There is a negative growth during FY 2010-11 and the EPDS has not furnished the reasons for the same. Further the year wise growth after FY 2010 – 11 is not uniform. The 3 year growth (FY 10 – FY 13) is 15.73%, while 2 year growth (FY 11 – FY 13) is 25.36% and YoY growth (FY 12 – FY 13) is 28.10%. Rapid growth is observed during FY 2012-13 which may not sustain. As such a normative growth of 10% P.A is considered reasonable which works out to 111 MU for FY 2014 – 15.

The Commission approves energy sales at 111 MU for FY 2014 – 15 as against 110.67 MU projected by EPDS.

LT Industrial

The EPDS has projected energy sales at 1.24MU for FY 2014 – 15. As seen from the past sales negative growth observed during FY 2010-11 and FY 2012-13 over previous years. During FY 2011-12 sudden jumps in sales is observed. The EPDS has not furnished reasons for the same. There is no definite growth trend in energy sales to this category. However keeping in view of the growth in connections and connected load a normative projection of 2 MU is considered reasonable.

The Commission approves energy sales at 2 MU for FY 2014-15 as against 1.24 MU projected by EPDS.

Bulk Supply

The EPDS has projected energy sales at 16.23 MU for FY 2014 – 15. As verified from the past sales negative growth is observed during FY 2010-11 and FY 2011-12 over the previous years. The EPDS has not furnished reasons for the same.

Considering the projected growth in number of connections and connected load a normative projection of 10% PA over the actual sales during FY 2012-13 is considered reasonable, which works out to 19 MU.

The Commission approves energy sales at 19 MU for FY 2014 – 15 as against 16.23 MU projected by EPDS.

7.3 Category Wise Energy Sales

The category wise energy sales for FY 2014 – 15 projected by EPDS and approved by the Commission are given in Table below:

Table 7.5: Category wise energy sales approved by the Commission for FY 2014–15

Sl. No.	Consumer Category	Energy Sales Projected by EPDS	Energy sales approved by the Commission
1	Domestic	84.39	84
2	Commercial	42.70	46
3	Public Lighting	0.49	1
4	Temporary Supply	0.09	1
5	LT Industrial	1.24	2
6	HT Industrial	110.67	111
7	Bulk Supply	16.23	19

		255.79	264
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7.4 Transmission and Distribution Losses (T&D Losses)

EPDS has submitted that it had achieved reduction in T&D losses over the past years owing to improvement works executed every year and projected T&D Losses at 33% for FY 2014-15.

Commission's analysis

The EPDS has arrived the T&D Loss at 33% considering sales outside the state also, which is not correct.

During FY 2012-13 the actual T&D Loss works out to 43.70% while in FY 2013-14 the T&D Losses are estimated at 40.05% as discussed in review of the respective years, with a reduction of 3.65% PA. Considering the same percentage of reduction, the Commission considers it reasonable to fix the T&D losses for FY 2014-15 at 36%.

The Commission accordingly approves T&D Losses at 36% for FY 2014-15 as against 33% projected by EPDS.

As a result the trajectory for loss reduction during the FY 2015-16 to FY 2017-18 is fixed as follows.

Sl. No.	Year	Target (%)
1	2015-16	34%
2	2016-17	32%
3	2017-18	30%

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

Energy Requirement

The energy requirement of EPDS to meet their demand would be the sum of energy sales to consumers within the state and T&D Losses, as worked out in table below

Table 7.6: Energy Requirement of EPDS approved by the Commission for FY 2014-15

Sl. No.	Particulars	2014-15
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1	Energy Sales approved	264
2	T&D Losses approved	36%
3	T&D Losses	148.50
4	Energy Requirement	412.50

7.5 Power Procurement for FY 2014-15

7.5.1 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 40.992 MW as detailed in table below.

Table 7.7: Installed capacity of own generating stations

Sl. No	Name of Projects	Installed Capacity (MW)	Remarks
	Hydro		
1	Lower Lhagap 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	

The EPDS has projected generation of 10.05 MU from its own generating stations during the year 2014-15.

The Commission approves own generation at 10.05 MU (Net) for FY 2014-15 as projected by EPDS.

7.6 Power purchase from Central Generating Stations

The balance energy requirement of EPDS is mainly met from allocation of power from Central Stations of NTPC and NHPC and other sources such as PTC – Chukka and WBSUEDCL and SPDC as detailed in table below:

Table 7.8: Power Allocation from Central Generating Stations

Sl. No.	Source	Capacity	Allocation	
		MW	%	MW
	Central Sector			
1	FSTPP, NTPC	1600.00	1.63%	26.08
2	FSTPP-III, NTPC	500.00	1.40%	7.00
3	KHSTPP-I, NTPC	840.00	1.55%	1302
4	KHSTPP-II, NTPC	1500.00	0.33%	4.95
5	TSTPP, NTPC	1000.00	2.40%	24.00
6	RANGIT-III, NHPC	60.00	13.33%	8.00
7	TEESTA – V, NHPC	510.00	13.19%	67.27
	Others			
8	CHUKHA, PTC	270.00	2.22%	5.99
9	WBSEDCL	50.00	20%	10.00
10	TOTAL	6330.00		166.31

The EPDS has assumed power purchase projection at the merit order dispatch principles while determining power purchase from various generating stations. However in a power deficit scenario these principles do not play a significant role as the utilities will try and purchase all the power that is available at their disposal. Accordingly EPDS has considered purchase of the entire power available from all the possible sources during FY 2014-15 to meet the demand to the extent possible.

Besides the above the EPDS is also entitled for free power of 12% from Teesta V, Rangit and Chuzachen HEP III hydro stations.

The actual power procurement during FY 2012-13 and estimated for FY 2013-14 and projected for FY 2014-15 are furnished in Table below:

Table 7.9: Source wise Power Procurement Projected by EPDS for FY 2014 – 15

Sl. No.	Source	2012-13 (Actuals)	2013-14 (Estimated)	2014-15 (Projected)
	Central Sector			
1	FSTPP, NTPC	122.32	122.32	122.32
	FSTPP-III, NTPC	12.77	0.00	0.00
2	KHSTPP-I, NTPC	75.22	75.22	75.22
3	KHSTPP-II, NTPC	30.41	30.41	30.41
4	TSTPP, NTPC	160.91	160.91	160.91
5	RANGIT-III, NHPC	4.23	4.23	4.23
6	TEESTA-V, NHPC	26.38	26.38	26.38
	Others			
7	CHUKHA, PTC	34.71	34.71	34.71
8	WBSEDCL	47.11	47.11	47.11

9	SPDC	4.41	4.41	4.41
10	UI/over drawn(net)	10.49	10.49	10.49
11	Free Power	304.11	304.11	304.11
12	Total	833.08	820.31	820.31

Commission's Analysis

As seen from the power procurement projection, the EPDS has projected the power drawal during FY 2014-15 at the same level of actual drawal during FY 2013-14. But as per latest data of ERLDC the installed capacity of CGS and others and the percentage of allocation of power has been slightly in variance from the previous years as detailed below:

Table 7.10: Revised allocation of power from CGS and others

Sl. No.	Source	Capacity	Allocation	
		MW	%	MW
	Central Sector			
1	FSTPP, NTPC	1600.00	1.63%	26.10
2	KHSTPP-I, NTPC	840.00	1.55%	13.00
3	KHSTPP-II, NTPC	1000.00	0.33%	3.30
4	TSTPP, NTPC	1000.00	2.40%	24.00
5	RANGIT-III, NHPC	60.00	13.33%	8.00
6	TEESTA – V, NHPC	510.00	13.19%	67.00
	Others			
7	CHUKHA, PTC	336.00	2.22%	7.00
8	WBSEDCL	50.00	20%	10.00
9	TOTAL	5396.00		158.40

The Commission has considered the power procurement projected by EPDS during FY 2014-15 as it is barring UI purchases as there is surplus power. If any contingency arises the same will be considered at the time of true up.

Table 7.11: Power Procurement approved by the Commission for FY 2014-15

Sl. No.	Source	Projected by EPDS	Approved by the Commission
A	NTPC	388.86	388.86
1	FSTPP	122.32	122.32
2	KHSTPP I	75.22	75.22
3	KHSTPP II	30.41	30.41
4	TSTPP	160.91	160.91
B	NHPC	30.61	30.61
5	Rangit III	4.23	4.23
6	Teesta V	26.38	26.38

C	Other Sources	86.23	86.23
7	PTC – Chukka	34.71	34.71
8	WBSEDCL	47.11	47.11
9	SPDC	4.41	4.41
D	Free Power	304.11	304.11
10	Total Power Procurement	809.81	809.81

The Commission approves power procurement of 809.82 MU including free power of 304.11 MU from Teesta-V and Rangit-III for FY 2014-15.

7.7 Energy requirement and availability

The energy requirement and availability for FY 2012-13 (Actuals) and estimated for FY 2013-14 and projected for FY 2014-15 furnished by the EPDS are furnished in Table below:

Table 7.12: Energy Balance Projected by EPDS for FY 2014-15

Energy Balance	2012-13 (Actuals)	2013-14 (Estimated)	2014-15 (Projected)
	MU's		
ENERGY REQUIREMENT			
Energy Sales within State	226.90	241.17	255.79
Sales Outside State	411.72	411.72	411.72
Total Energy Sales	638.62	652.89	667.51
Overall T & D Losses %	39.08	35.38	32.74
Overall T&D Losses (MUs)	145.57	132.03	124.49
Total Energy Requirement	784.19	784.92	792.00
ENERGY AVAILABILITY			
Power Purchase from CGS/UI etc.	833.08	820.31	820.31
Less: Overall Pool Loss	53.00	41.62	38.36
Generation	4.11	6.23	10.05
Total Energy Availability	784.19	784.92	792.00
Energy Surplus/(GAP)	0.00	0.00	0.00

Commission's Analysis

The EPDS has calculated T&D losses on sales outside the state which is not correct for the reason that the sales outside the state will take place at state periphery and as such no bearing on T&D losses within the state. Further the EPDS has calculated interstate transmission losses on UI purchases also which is not correct as the UI purchases will be at state periphery. Further the average interstate transmission

losses in Eastern Region during 50 weeks from 01.04.2013 to 16.03.2014 are 2.30%. Considering this interstate transmission loss at 2.30%, the energy balance is worked out as detailed in Table below:

Table 7.13: Energy Balance approved by the Commission for FY 2014-15

	Particulars	2014-15
A	Energy Requirement	
1	Energy Sales within the State MU	264
2	T & D Losses %	36%
3	T & D Losses MU	148.50
4	Energy Requirement MU	412.50
B	Energy Availability	
5	Power Purchase including free power MU	809.81
6	Pool Losses %	2.30%
7	Pool Losses MU	18.63
8	Net Power available (5-7)	791.18
9	Own Generation MU	10.05
10	Total Power Available (8+9) MU	801.23
11	Surplus Power (10-4) MU	388.73

The energy balance approved above provides surplus energy of 388.73 MU as against 411.72 MU projected by EPDS for FY 2014-15.

7.8 Aggregate Revenue Requirement

The EPDS has projected Aggregate Revenue Requirement at Rs. 408.78 cr for FY 2014-15 as detailed in Table below:

Table 7.14: Aggregate Revenue Requirement for FY 2014-15 projected by EPDS

Sl. No.	Particulars	2014-15
1	Fuel Cost	0.34
2	Power Purchase Cost	176.65
3	Employee Cost	47.89
4	R&M Expenses	34.98
5	Admn & Gen Expenses	3.51
6	Depreciation	40.04
7	Interest & Finance charges	67.81
8	Interest on WC	3.66
9	RoE	34.48
10	Total Revenue Requirement	409.37
11	Less: Non Tariff Income	0.59
12	Aggregate Revenue Requirement	408.78

The expenses projected by EPDS and the Commission analysis is discussed hereunder.

7.9 Fuel Cost

The EPDS has projected fuel cost at Rs 0.34 cr for FY 2014-15.

The Commission approves fuel cost at Rs 0.34 cr for FY 2014-15 as projected by EPDS.

7.10 Power Purchase Cost

The EPDS has projected power purchase cost at Rs 176.65 cr including interstate transmission charges of Rs. 34.11 cr for FY 2014-15. The EPDS has also furnished actual power purchase cost during FY 2012-13 which is at Rs. 183.25 cr for purchase of 833.08 MU including UI purchase of 10.49 MU and free power of 304.11 MU. The details are furnished in the following tables.

Table 7.15: Actual Power Purchase Cost furnished by EPDS for FY 2012-13
(In Rs. 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	122.32	0.00	28.66	13.64	1.44	43.74	3.58
	b) FSTPP-III	12.77	0.00	3.79	2.88	-0.05	6.62	5.19
	c) KHSTPP-I	75.2	0.00	15.43	8.73	1.45	25.61	3.40
	d) KHSTPP-II	30.41	0.00	6.10	3.87	-0.05	9.92	3.26
	e) TSTPP	160.91	0.00	22.43	14.17	3.40	40.00	2.49
2	NHPC							
	a) RANGIT-III	4.23	0.00	0.59	0.69	1.20	2.48	5.86
	b) TEESTA-V	26.38	0.00	2.93	3.40	1.52	7.84	2.97
3	Other sources							
	a) PTC	34.71	0.00	0.00	0.00	5.79	5.79	1.67
	b) WBSEDCL	47.11	0.00	0.00	0.00	5.59	5.59	1.19
	c) SPDC	4.41	0.00	1.32	0.00	0.00	1.32	3.00
4	Other Charges							
	a) Transmission Charge	0.00	0.00	0.00	0.00	0.00	34.09	0.00
5	UI Purchase	10.49	0.00	0.00	0.00	0.00	3.03	2.89
	Free Power	304.11	0.00	0.00	0.00	0.00	0.00	0.00
	Rebate/Other Charges	0.00	0.00	0.00	0.00	0.00	-2.79	0.00
	Total	833.08		81.25	47.37	20.30	183.25	

Table 7.16: Power Purchase Cost projected by EPDS for FY 2014-15
(In Rs. 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)
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1	2	3	4	5	6	7	8	9
1	NTPC							
	a) FSTPP	122.32	0.00	28.66	13.64	1.44	43.74	3.58
	b) KHSTPP-I	75.22	0.00	15.43	8.73	1.45	25.61	3.40
	c) KHSTPP-II	30.41	0.00	6.10	3.87	-0.05	9.92	3.26
	d) TSTPP	160.91	0.00	22.43	14.17	3.40	40.00	2.49
2	NHPC							
	a) RANGIT-III	4.23	0.00	0.59	0.69	1.20	2.48	5.86
	b) TEESTA-V	26.38	0.00	2.93	3.40	1.52	7.84	2.97
3	Other sources							
	a) PTC	34.71	0.00	0.00	0.00	5.79	5.79	1.67
	b) WBSEDCL	47.11	0.00	0.00	0.00	5.59	5.59	1.19
	c) SPDC	4.41	0.00	1.32	0.00	0.00	1.32	3.00
4	Other Charges							
	a) Transmission Charge	0.00	0.00	0.00	0.00	0.00	34.11	0.00
5	UI Purchase	10.49	0.00	0.00	0.00	0.00	3.03	2.89
	Free Power	304.11	0.00	0.00	0.00	0.00	0.00	0.00
	Rebate/Other Charges	0.00	0.00	0.00	0.00	0.00	-2.79	0.00
	Total	820.31		77.47	44.49	20.34	176.65	

Commission Analysis

As seen from the above tables the EPDS has claimed the power purchase cost for FY 2014-15 at the rates actually paid during FY 2012-13. As such the Commission considers it reasonable to adopt the station wise average rate of power purchase arrived during FY 2012-13 to compute power purchase cost for FY 2014-15. Accordingly the power purchase cost for FY 2014-15 is worked out as detailed in Table below:

Table 7.17: Power Purchase Cost approved by the Commission for FY 2014-15

Sl. No.	Source	Energy Purchased MU	Average Cost Rs/kwh	Total Cost Rs/Cr
A	NTPC			119.34
1	FSTPP	122.32	3.58	43.79
2	KHSTPP I	75.22	3.40	25.57
3	KHSTPP II	30.41	3.26	9.91
4	TSTPP	160.91	2.49	40.07
B	NHPC			
5	Rangit III	4.23	5.86	2.48
6	Teesta V	26.23	2.97	7.83
C	Other Sources			
7	PTC-Chukka	34.71	1.67	5.80
8	WBSEDCL	47.11	1.19	5.61
9	SPDC	4.41	3.00	1.32
D	Rebate/other charges			
10	Power Purchase Cost	-	-	(-)2.79
E	Free Power	505.71	-	139.59
F	Other Charges	304.11	-	-
12	Transmission Charges	-	-	34.11
13	Grand Total (A+B+C+D+E+F)	809.82	-	173.70

The Commission approves power purchase cost at Rs. 173.70 Cr for purchase of 809.82 MU energy including free power of 304.11 MU and transmission charges during FY 2014-15.

7.11 Employee Cost

The EPDS has projected employee cost at Rs 47.89 Cr for FY 2014-15. Employee cost comprises of basic pay, dearness allowance House rent allowance, medical allowance reimbursement of medical expenses and other allowances, terminal benefits and pension payment. The details of employee cost projected by EPDS for FY 2014-15 are furnished in Table below:

Table 7.18: Employee Cost for FY 2014-15 projected by EPDS
(Rs. Crore)

Sl. No.	Particulars	2012-13 (Actuals)	2013-14 (Estimated)	2014-15 (Projected)
1	2	3	4	5
	SALARIES & ALLOWANCES			
1	Basic Pay	41.85	44.23	46.93
2	Dearness Pay	0.00	0.00	0.00
3	Dearness Allowance	0.00	0.00	0.00
4	House Rent Allowance	0.00	0.00	0.00
5	Fixed Medical Allowance	0.00	0.00	0.00
6	Medical Reimbursement Charges	0.81	0.86	0.89
7	Over Time Payment	0.00	0.00	0.00
8	Other allowances (detailed list to be attached)			
a)	Spl. Border compensatory Allowance	0.06	0.06	0.07
9	Generation incentive	0.00	0.00	0.00
10	Bonus	0.00	0.00	0.00
11	Sub Total	42.72	45.15	47.89
	TERMINAL BENEFITS			
12	Leave encashment	0.00	0.00	0.00
13	Gratuity	0.00	0.00	0.00
14	Commutation of Pension	0.00	0.00	0.00
15	Workman Compensation	0.00	0.00	0.00
16	Ex-gratia	0.00	0.00	0.00
17	Sub Total	0.00	0.00	0.00
	PENSION PAYMENT			
18	Basic Pension	0.00	0.00	0.00
19	Dearness Pension	0.00	0.00	0.00
20	Dearness Allowance	0.00	0.00	0.00
21	Any other expenses (Medical)	0.00	0.00	0.00
22	Sub Total	0.00	0.00	0.00
23	Total (11+17+22)	42.72	45.15	47.89
24	Amount Capitalised	0.00	0.00	0.00
25	Net Amount	42.72	45.15	47.89

Sl. No.	Particulars	2012-13 (Actuals)	2013-14 (Estimated)	2014-15 (Projected)
26	Add prior period expenses	0.00	0.00	0.00
27	Grand Total	42.72	45.15	47.89

Table 7.19: Employee Cadre Strength

Sl. No.	Particulars	2012-13 (Actuals)	2013-14 (Estimated)	2014-15 (Projected)
1	2	3	4	5
1	Number of employees as on 1 st April	1752	1752	1752
2	Number of employees on deputation/foreign service as on 1 st April	0	0	0
3	Total Number of employees (1+2)	1752	1752	1752
4	Number of employees retired/retiring during the year	0	0	0
5	Number of employees at the end of the year (3-4)	1752	1752	1752

Table 7.20: Employee Productive Parameters

Sl. No.	Particulars	2012-13 (Actuals)	2013-14 (Estimated)	2014-15 (Projected)
1	2	3	4	5
1	Number of Consumers	92470.00	93429.00	94188.00
2	Connected Load in kW	129390.26	142329.29	156562.21
3	Line circuit in KM (LT+HT)	7737.13	7737.13	7737.13
4	Energy Sold in MU	226.90	241.17	255.79
5	Employees per MU of energy sold	0.06	0.06	0.06
6	Employees for 1000 consumers	42.28	42.31	41.89
7	Share of Employees Cost in Total Expenses	42.72	45.15	47.89
8	Employees Cost in paise/kWh of Energy sold	188.28	187.21	187.22
9	Line circuit KM (EHT Lines)	84.20	84.20	84.20
10	Employees per KM of ENT line (Transmission related)	46.57	46.95	46.86
11	Power station installed capacity own generation (MW)	41.59	41.59	41.59
12	Employees per MW of capacity for generating company	94.28	95.05	94.88

Commission's Analysis

The EPDS has claimed employee cost for FY 2014-15 at an escalation of 6% PA over the actual expenses incurred during FY 2012-13. The Commission considers it reasonable.

The Commission approves employee cost at Rs. 47.89 Cr for FY 2014-15 as projected by EPDS.

7.12 Administrative and General Expenses

The EPDS has projected Administrative and General Expenses for FY 2014-15 at Rs. 3.51 Cr. The Administrative and General Expenses include Rent, Rates and Taxes, Travel & Conveyance expenses, Insurance, Telephone and Postage expenses, Electricity and Water charges, Technical and Consultancy fee, freight and notional related expenses etc.

The details of expenses projected by the EPDS are furnished in Table below:

**Table 7.21: Administrative and General Expenses Projected by EPDS
for FY 2014-15
(Rs. Cr.)**

Sl. No.	Particulars	2012-13 (Actuals)	2013-14 (Estimated)	2014-15 (Projected)
1	Rent, Rates & Taxes	0.01	0.01	0.01
2	Insurance	0.00	0.00	0.00
3	Telephone, Postage & Telegrams	0.08	0.12	0.13
4	Consultancy Fees	0.00	0.00	0.00
5	Technical Fees	2.00	2.00	2.00
6	Other Professional Charges	0.00	0.00	0.00
7	Conveyance & Travel Expenses	0.53	0.67	0.69
8	Electricity & Water Charges	0.12	0.14	0.15
9	Others	0.08	0.52	0.53
10	Freight	0.00	0.00	0.00
11	Other material related expenses	0.00	0.00	0.00
12	Total Expenses	2.82	3.46	3.51
13	Less Capitalised	0.00	0.00	0.00
14	Net expenses	2.82	3.46	3.51
15	Add Prior period*	0.00	0.00	0.00
16	Total Expenses Charged to Revenue	2.82	3.46	3.51

Commission's Analysis

Compared to actual expenditure during FY 2012-13 the EPDS has estimated for FY 2013-14 at an escalation of 23% while the projection for FY 2014-15 at an escalation of 1.50% over the estimated expenditure during FY 2013-14. Thus an average 12% escalation is projected by EPDS which is on very high side. The Commission considers it reasonable to allow an escalation of 5% PA over the actual expenditure during FY 2012-13 which works out to Rs. 3.10 Cr.

The Commission approves Rs. 3.10 Cr towards Administrative and General Expenses for FY 2014-15 as against Rs. 3.51 Cr projected by EPDS.

7.13 Repairs and Maintenance Expenses

The EPDS has projected Rs 34.98 Cr towards repairs and maintenance expenses during FY 2014-15 which includes expenses towards operation and maintenance of electrical equipment and distribution system, vehicles, furniture and fixtures, office equipment and Buildings.

The details of expenses projected by EPDS are furnished in Table below:

**Table 7.22: Repairs and Maintenance Expenses projected by EPDS for
FY 2014-15
(Rs. Cr.)**

Sl. No.	Particulars	2012-13 (Actuals)	2013-14 (Estimated)	2014-15 (Projected)
1	Plant and Machinery	30.91	32.47	33.17
2	Building	0.00	0.00	0.00
3	Hydraulic works & Civil works	0.26	0.28	0.30
4	Line, Cable & Network	0.65	0.89	1.20
5	Vehicles	0.48	0.28	0.30
6	Furniture & Fixtures	0.00	0.01	0.01
7	Office Equipments	0.00	0.00	0.00
8	Operating Expenses	0.00	0.00	0.00
9	Total	32.30	33.93	34.98
10	Less Capitalized	0.00	0.00	0.00
11	Net Repair & Maintenance Expenses	32.30	33.93	34.98

Commission's Analysis

The EPDS has projected the expenses at an average escalation of 4% PA over the actual expenditure during FY 2012-13, which the Commission considers reasonable.

The Commission approves Rs. 34.98 Cr towards repairs and maintenance expenses for FY 2014-15 as projected by the EPDS.

7.14 Capital Investment

The EPDS has proposed an investment of Rs. 138.98 Cr during FY 2014-15. Scheme wise details of actual expenditure incurred during FY 2012-13 and estimated during FY 2013-14 and projected for FY 2014-15 are furnished in Table below:

Table 7.23: Investment Plan Projected by EPDS for FY 2014-15

(Rs. Cr)						
Sl. No.	Name of Scheme/ Project	Approved Outlay	2012-13 (Actuals)	2013-14 (Estimated)	2014-15 (Projected)	
1	2	3	4	5	6	
1	Schemes sanctioned under MDs	13.37	2.76	2.00	2.00	
2	Schemes sanctioned under Building/upgradation of Transformers	0.00	0.00	0.00	0.00	
3	MNRE	14.95	0.01	4.09	4.09	
4	State Share of MNRE	4.06	0.00	0.20	0.20	
5	NEC Schemes	42.20	5.34	11.60	4.74	
6	State Share of NEC Schemes	4.74	0.00	1.00	1.00	
7	NLCPR Schemes	137.80	22.08	18.61	51.18	
8	State Share of NLCPR Schemes	41.76	2.00	1.00	2.00	
9	Schemes under SPA	5.25	1.00	3.16	0.00	
10	State share of SPA	0.96	0.36	0.10	0.40	
11	RGVY	196.54	17.60	37.73	24.00	
12	State Share of RGVY	25.55	5.00	1.00	10.00	
13	R-APDRP	74.60	12.09	24.00	32.37	
14	State share of R-APDRP	12.90	0.00	1.00	5.00	
15	Schemes under TSP/SCSP	0.00	1.01	1.03	1.00	
16	Land compensation	0.00	2.69	1.00	1.00	
17	Schemes under CMs 42 days tour prog.	0.00	0.50	0.00	0.00	
18	Others	0.00	0.00	0.00	0.00	
	Total		72.44	107.52	138.98	

Progress in completion of works and their capitalization is furnished in Table below:

Table 7.24: Work in Progress

(Rs. Cr)				
Sl. No.	Particulars	2012-13 (Actuals)	2013-14 (Estimated)	2014-15 (Projected)
1	Opening Balance	89.34	63.30	66.84
2	Add: New Investments	72.44	107.52	138.98
3	Total	161.78	170.82	205.82
4	Less: Investment Capitalised	98.47	103.98	125.28
5	Closing Balance	63.30	66.84	80.54

Commission's Analysis

As seen from the above the EPDS has projected a capital investment of Rs 138.98 cr and capitalization of Rs 125.28 cr during FY 2014-15.

The Commission approves capital investment of Rs 138.98 cr and capitalization of Rs 125.28 cr during FY 2014-15 as projected by the EPDS.

7.15 Gross Fixed Assets

The EPDS has stated that the opening GFA for FY 2014-15 has been taken from the asset register and works capitalized during FY 2014-15 have been added and GFA computed as detailed in Table below:

Table 7.25: Gross Fixed Assets movement

(Rs. Cr)

Financial Year	Opening Balance (Rs. Crores)	Addition during the year (Rs. Crores)	Closing Balance (Rs. Crores)
FY 2012-13	555.94	98.47	654.41
FY 2013-14	654.41	103.98	758.39
FY 2014-15	758.39	125.28	883.68

Commissions Analysis

In the absence of audited accounts the opening GFA as on 1.4.2012 furnished by the EPDS cannot be taken into consideration for the purpose of allowing depreciation or return on equity etc.

7.16 Depreciation

The EPDS has projected depreciation of Rs. 40.04 cr for FY 2014-15. The EPDS has further stated that the depreciation on opening GFA as on 1.4.2014 and 50% of additions during FY 2014-15 has been calculated at the rates prescribed in the SSERC regulations as detailed in Table below:

Table 7.26: Depreciation for FY 2014-15 projected by EPDS

Sl. No.	Particulars	2014-15 (Projected)
1	Gross Block in Beginning of the year	758.39
2	Additions during the Year	125.28

3	Cumulative Depreciation at the Beginning of the Year	321.40
4	Average Rate of Depreciation	NA
5	Depreciation for the Year	40.04
6	Cumulative Depreciation at the End of the Year	361.44
7	Net Block in the Beginning of the Year	436.99
8	Net Block in the End of the Year	522.24

Commissions Analysis

The EPDS has not furnished the rate at which depreciation as discussed in para 7.15 the depreciation on opening GFA as on 1.4.2012 has not been considered. However depreciation is considered on the amount of actual capitalization during FY 2012-13 and estimated during FY 2013-14 and 50% of the amount proposed to be capitalized during FY 2014-15 at an average rate of 5.28% as detailed below:

Table 7.27 Depreciation for 2014-15 approved by the Commission

Sl. No.	Particulars	Amount Rs. Cr
1	Opening GFA as on 1.4.2012	-
2	Additions during FY 2012-13	98.47
3	Closing GFA as on 31.3.013	98.47
4	Additions during FY 2013-14	103.98
5	Closing GFA as on 31.03.2014	202.46
6	Additions during FY 2014-15	125.28
7	Closing GFA as on 31.3.2015	327.74
8	Average GFA for FY 2014-15	265.10
9	Rate of Depreciation	5.28%
10	Depreciation for FY 2014-15	14.00

The Commission approves depreciation at Rs 14 cr for FY 2014-15 as against Rs 40.04 cr projected by the EPDS.

7.17 Interest and Finance Charges

The EPDS has projected interest and Finance charges at Rs. 67.81 cr for FY 2014-15. The EPDS has considered the rate of interest at 14.45% being the SBI PLR as on 1.4.2013 and calculated interest and finance charges taking opening loan as 70% of GFA for FY 2013-14 and proposed capitalization during FY 2014-15 as detailed in Table below:

Table 7.28: Interest and Finance Charges projected by EPDS for FY 2014-15

(Rs. Cr)

Sl. No.	Particulars	2012-13 (Actual)	2013-14 (Estimated)	2014-15 (Projected)
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1	2	3	4	5
1	Opening Loan	389.16	419.17	450.04
2	Loan Additions (70% Capex for the FY)	68.93	72.79	87.70
3	Repayment	38.92	41.92	49.20
4	Closing Loan	419.17	450.04	488.54
5	Average Loan	404.17	434.61	469.29
6	Wt. Avg Interest on Loan	14.45%	14.45%	14.45%
7	Interest on Loan	58.40	62.80	67.81
8	Total Interest & Finance Charges	58.40	62.80	67.81

The EPDS has requested the Commission to allow the above interest on loan for FY 2014-15.

Commission's Analysis

As verified from the format 7 no loan is availed by EPDS during FY 2012.13 nor contemplated during FY 2013-14 or in 2014-15. Further the EPDS in its additional information furnished on 24.01.2014 has confirmed that no loan is outstanding as on the date. As such it is construed that the loan details furnished in Table: 7.28 supra are on normative basis.

As such the Commission has not considered interest and finance charges for FY 2014-15.

7.18 Interest on working capital

The EPDS has projected interest on working capital at Rs. 3.66 cr on normative basis for FY 2014-15 as per SSERC (Terms and conditions for determination of Tariff) Regulations 2012 on one month requirement of:

Employee cost

Adm & General Expenses

R&M Cost and

Two months receivables.

The rate of interest on working capital has been considered as per SBI PLR as on 1st April of the respective year which is 14.45% as on 1.4.2013.

The EPDS has worked out interest on working capital as detailed in Table below:

Table 7.29: Interest on Working Capital Projected by EPDS for FY 2014-15

(Rs. Cr)

Sl. No.	Particulars	2013-14 (Estimated)	2014-15 (Projected)
1	2	3	4

1	One month's Employee Costs	3.76	3.99
2	One month's Administration & General Expenses	0.29	0.29
3	One month's R&M Cost	2.83	2.92
4	Maintenance Spares	0.00	0.00
5	Two month's Receivables	17.09	18.12
6	Total	23.97	25.32
7	Rate of Interest	14.45%	14.45%
8	Interest on Working Capital	3.46	3.66

Commission's Analysis

As per Regulation 113 of SSERC (Terms and Conditions for determination of Tariff) Regulations 2012 interest on working capital shall be calculated on normative basis not withstanding that the licensee has not taken working capital loan from any outside agency.

Accordingly interest on working capital is worked out on the costs approved by the Commission as detailed in Table below:

Table 7.30: Interest on Working Capital approved by the Commission for FY 2014-15
(Rs. Cr)

Sl. No.	Particulars	Total Cost Rs/Cr	Amount Provided for Working Capital
1	O&M Expenses		
	(a) Employment Cost	47.89	3.99
	(b) R&M Expenses	34.98	2.92
	(c) Adm & General Expenses	3.10	0.26
2	Maintenance Spares	-	-
3	Receivables	111.72	18.62
4	Total		25.79
5	SBI PLR as on 1.4.2013		14.45%
6	Interest on Working Capital		3.73

The Commission approves interest on working capital at Rs. 3.73 cr of FY 2014-15 as against Rs 3.66 cr projected by EPDS.

7.19 Return on Equity

The EPDS has projected return on equity at Rs 34.48 cr for FY 2014-15 at 14% on normative equity of 30% of GFA as detailed in Table below.

Table 7.31: Return on Equity for FY 2014-15
(Rs. Cr)

Sl. No.	Particulars	2012-13 (Actual)	2013-14 (Estimated)	2014-15 (Projected)
1	Opening Equity	166.78	196.32	227.52
2	Equity Addition (30% Capex for the FY)	29.54	31.19	37.59
3	Closing Equity	196.32	227.52	265.10
4	Average Equity	181.55	211.92	246.31
5	Rate of Return on Equity	14%	14%	14%
6	Return on Equity	25.42	29.67	34.48

Commissions 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 of annual accounts.

The EPDS has not produced audited annual accounts. In addition since it is a State Government Department, the expenses are funded by the government. As such no separate return is to be allowed for return on equity.

7.20 Return on Capital Base

The EPDS has projected return on capital base at Rs 11.91 cr for FY 2014-15. Any electricity utility can claim either return on equity or return on capital base. In either case audited annual accounts are a must.

In as much as the EPDS has not produced audited accounts return on capital base cannot be considered.

7.21 Provision for Bad Debts

The EPDS has not considered any provision for bad debts during the FY 2014-15.

7.22 Non Tariff Income

The EPDS has projected non-tariff income at Rs. 0.59 cr for FY 2014-15.

Commission's Analysis

As per Regulation 117 of SSERC (Terms and Conditions for determination of Tariff) Regulations 2012, non-tariff income comprises of:

- Meter / metering equipment / service line rentals

- Service charges
- Customer charges
- Revenue from late payment surcharge
- Recovery of theft and pilferage of energy
- Miscellaneous receipts.
- Interest on staff loans and advances
- Interest on advances to suppliers
- Income from other business
- Income from staff welfare activities
- Excess found on physical verification of stores
- Interest on investments fixed and call deposits and bank balances
- Prior period Income.

About 92740 service connections are existing as on 31.3.2013 and with minimum meter rent of Rs. 20/- p.m. the revenue from meter rent works out to over Rs 2 cr. Actual surcharge for late payment collected during FY 2010-11 is Rs 12.40 cr. As the connections are increasing year by year the surcharge amount should also naturally gets increased. Miscellaneous income on other items specified in the regulation is an addition.

As such non tariff income at Rs 2.40 cr as was approved for FY 2013-14 is considered for FY 2014-15 also.

The Commission approves non tariff income at Rs 2.40 cr for FY 2014-15 as against Rs. 0.59 cr projected by EPDS.

7.23 Revenue from Existing Tariff

The EPDS has projected revenue from sale of energy with existing tariff at Rs 108.74 cr for sale by 255.79 MU within the state and with an average rate of Rs 4.25/kwh and Rs 119.698 from sale of energy outside state for sale of 411.72 MU with an average rate of Rs. 2.90/kwh.

Commissions Analysis

With the approved sales of 264 MU within the state and 388.73 MU outside the state, the revenue works out to Rs 224.43 cr as detailed in Table below.

Table 7.32: Revenue from existing tariff as approved by the Commission for FY 2014-15

(Rs. Cr)

Sl. No.	Category	Energy Sales (MU)	Average Rate (Rs/kwh)	Amount (Rs/Cr)	Average Rate
1	Domestic	84	2.13	17.89	
2	Commercial	46	4.69	21.57	
3	LTIS (Rural)	1	2.72	0.27	
4	LTIS (Urban)	1	5.01	0.50	
5	Public Lighting	1	4.18	0.42	
6	Temporary Supply	1	8.00	0.80	
7	HT Supply	111	5.38	59.72	
8	Bulk Supply	19	5.54	10.53	
9	Total Sales within state	264		111.70	4.23
10	Sales outside state	388.73	2.90	112.73	
11	Total Sales (9+10)	652.73		224.43	3.44

The Commission approves revenue from existing tariff at Rs 111.70 cr on sale of 264 MU within the state on average rate of at Rs 4.23/kwh and Rs. 112.73 cr on sale of 388.73 MU outside the state at an average rate of Rs 2.90/kwh.

7.24 Aggregate Revenue Requirement (ARR) and Gap

Based on the approvals of the above projections the ARR of EPDS for FY 2014-15 works out as detailed in Table below:

Table 7.33: Aggregate Revenue Requirement approved by the Commission for FY 2014-15

(Rs. Cr)

Sl. No.	Item of Expense	2013-14 (Estimated)	Projected 2014-15	Approved by the Commission 2014-15
1	2	3	4	5
1	Cost of Fuel	0.16	0.34	0.35
2	Cost of Power Purchase	176.65	176.65	173.70
3	Employee Costs	45.15	47.89	47.89
4	R&M Expenses	33.93	34.98	34.98
5	Administration and General Expenses	3.46	3.51	3.10
6	Depreciation	33.99	40.04	14.00
7	Interest Charges	62.80	67.81	-
8	Interest on Working Capital	3.46	3.66	3.73
9	Return on NFA/Equity	29.67	34.48	-
10	Income Tax	0.00	0.00	-
11	Total Revenue Requirement	389.27	409.37	277.74
12	Less: Non Tariff Income	0.62	0.59	2.40
13	Net Revenue Requirement	388.64	408.78	275.34
14	Revenue from Tariff	102.54	108.74	111.70
15	Revenue from Outside State Sale	119.69	119.69	112.73

16	Gap (13 - 14 - 15)	166.42	180.35	50.92
17	Gap for FY 2012-13	165.73		-
18	Gap for FY 2013-14		332.14	-
19	Total Gap (14+15)	332.14	512.49	50.91
20	Energy Sales within state		255.79	264
21	Energy Sales outside state		411.72	388.73
23	Average Cost of Supply (13/(19+20) Rs/Kwh		6.12	4.22

The Revenue gap of Rs. 50.91 core arrived at above is based on projected data of FY 2014-15, which is about 18.50% of the ARR. The Commission is of the view that the EPDS shall make efforts to make up the gap by improving the operational performance particularly through reduction of distribution losses which in turn would reduce the resource gap. A concerted effort needs to be made to recover the outstanding arrears as well as to identify high end users in the State i.e. Industrial units, Hotels etc. This would increase the energy demand in the State and the potential revenue from energy sales. The Commission observes that a sizeable quantum of power is purchased by the EPDS for meeting the Energy demand of the State (within the State consumption). The EPDS shall make efforts to improve its own generation so that the State demand is met from its own generation. Hence the commission does not propose any increase in tariffs for FY 2014-15.

8. Directives

8.1 Introduction

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 been adequately addressed 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.

Directive – 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 been 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.”

Compliance:

With the observation of the Hon’ble commission regarding directives issued in the order in case No. TR/3/2013-14 care has been taken to ensure compliance of the same as most of the instructions have been complied.

Commission’s Comments:

The compliance is not to the satisfaction of the Commission. EPDS shall make efforts to improve its performance.

Directive 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”

Compliance:

The directive required the department to take steps for recovery of arrears. That the issue was taken up sincerely and the defaulting consumers were approached and the department has started collecting arrears. There has been very positive response from Government Department.

Commission’s Comments:

In regard to the outstanding billing arrears, the EPDS is advised to take recourse to the Legal provisions available in the Electricity Act 2003 in respect of the Govt. Departments including Public sector Undertakings, Central Govt./ Army establishments, etc. In respect of the individual consumers having huge outstanding arrears the EPDS is directed to seek legal remedies under the State Public Demand Recovery Act and to recover the arrears as arrears of Land revenue.

EPDS is directed to furnish a report on the outstanding arrears as on 31.03.2012 amount collected during FY 2012-13, outstanding as on 31.03.2013 and the amount collected during FY 2013-14 as on 31-03-2014.

Directive 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 Licensee.”

Compliance:

Regarding instituting effective & conscious measures to mitigate revenue shortfall from high-end consumers namely Industrial Units, Star category Hotels; it is submitted that these premises are now being billed through high caliber digital energy meters ensuring proper metering; however installation of Remote Sensing Meters in all bulk load could not be taken up.

Commission's Comments:

The action taken is noted.

Directive 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.”

Compliance:

Pilot project in Gangtok for reforms program in enhancing the Transmission Network, Distribution System and billing of energy consumption thereof is in good progress. All the 11KV, 66KV & 132KV Transmission Lines are already installed with the required energy meters & the department feels there is need to improve the system furthermore and all steps shall be taken in this regard.

Commission's Comments:

The results of energy audit on specific feeders shall be provided to the Commission to assess the result of the energy audit. Based on the energy audit, steps should be taken to reduce the losses in high loss areas.

Directive 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.”

Compliance:

It is submitted that for monitoring all licensee involved in energy Generation vis-à-vis project implementation agreements, a mechanism viz. a Hydro project monitoring committee is constituted vide gazette notification number 47/Home/2013 dated 26-07-2013, headed by the financial advisor to the Govt. of Sikkim as resident director and six (6) other members with following terms of reference:

- 1) To look into the progress & other aspect related to all the Hydel Power Project being implemented in the state of Sikkim.
- 2) To review all the earlier projects for information regarding technical aspect of the projects.

Commission’s Comments:

The action taken is noted. EPDS need to have a separate cell/wing to look into the issues/matters pertaining to Hydropower Projects being implemented in the State so as to monitor the projects effectively and to provide regular updates to the Hydro Project monitoring committee for consideration and action. The EPDS will have to ensure that the State’s interest in those Hydropower Projects wherein the State has an equity is adequately protected. This can be done by ensuring that the affirmative rights of the State government is assured through proportionate representation on the Board of Directors of the Company with the Company’s Articles of Association being amended accordingly. In all the other Hydropower Projects being implemented in the State on BOOT basis, EPDS must ensure that the Companies make a provision for the Government to nominate Directors on its Board, so that the Government is aware of the progress of the project, as well as the Company could have the benefit of the Government’s support in all its activities.

Once Government approval is obtained for unbundling the power sector this responsibility can be undertaken by the Generation division.

Directive 6:

“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.”

Compliance:

We are able to submit a well-documented Asset & Depreciation Register along with the Tariff Petition for the year 2014-15 which may kindly be given due consideration by the Hon’ble commission.

Commission’s Comments:

Commission appreciates the effort made by the EPDS.

Directive 7:

“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.”

Compliance:

It is submitted that the Energy & Power Department operates under Govt. Accounting norms. Expenditure is incurred against the grants as indicated in the Demands for Grants & Receipt as per the estimates of the Receipts duly passed by the State Legislative. All Accounts formats, registers etc. used are as per Government Accounting norms. Since it does not operate accounts under Double Entry System as followed in Commercial Accounting by Boards/Corporations, the Balance Sheet, Profit & Loss Accounts etc. are not prepared.

Further, the Accounts are audited by the CAG & no internal auditors like Chartered Accountants are engaged for normal Expenditure & Receipt Accounts operated out of the Budget allocated to the Department.

To achieve the desired report for such Annual accounts, a parallel set of Accounts in commercial format is suggested to be maintained engaging an internal auditor for monthly Concurrent Audit, which may require approval of the CAG & the State Govt. or similar pattern may have to be followed as is in such other states for which the Department may require 4 to 6 more months to submit.

Commission's Comments:

No action seems to have been taken to obtain State Government and clearance to initiate commercial accounting. Even then, from the Comptroller and Auditor General (CAG) report it is abundantly clear that the EPDS has not prepared a State Electricity Plan in line with the National Electricity Plan of 2005. The preparation of a State Electricity plan is important as that would contain complete details of the action plan proposed to be adopted by the State to harness its Hydroelectric potential and also help in coordinating the activities under generation, transmission and the distribution units, so that as and when a Hydroelectric power project is nearing completion the transmission lines would have already been set up to ensure that all the power generated could be evacuated and distributed so that early revenue realization would help in recovery of the expenditure incurred on the project as well as pay for the maintenance of the project itself. EPDS shall segregate the accounts of EPDS from the State Govt. accounts in the formats prescribed in the Electricity (supply) (Annual Accounts) Rules 1985 issued by GoI (MoE) and submit the same to the Commission along with the auditor's report by June 2014.

Fresh Directives

Directive 8: Management Information System (MIS)

The EPDS has not maintained proper data in respect of sales (slab wise), with number of consumers and connected load / demand etc. for proper analysis of the past data based on actual and estimation of proper projections for consideration in the ARR. The EPDS is directed to take steps to build a credible and accurate data base and management information system (MIS) to meet the requirements for filing

ARR & Tariff Petition as per regulatory requirement. The formats, software and hardware may be synchronized with the Regulatory Information and Management System (RIMS) circulated by Central Electricity Regulatory Commission (CERC).

Directive 9: Replacement of Non-Functional / Defective Meters

Section 55 of the Electricity Act makes it mandatory for all consumers to have a meter installed at the place of residence / office. EPDS must ensure that all households in the State be properly metered. EPDS may like to avail of the assistance of the Government Undertakings like State Trading Corporation Sikkim (STCS) and Sikkim State Cooperative Supply and Marketing Federation (SIMFED) for making available standard meters that can be availed off by the consumers at a reasonable price. Metering is a pre-requisite for new service connection and EPDS is directed to complete 100% metering of consumers and shall ensure that no new service connections are provided unless metering is done. Installation of meter shall be a pre-requisite for any new service connection.

The EPDS has submitted report on % of defective meters as follow:

Bulk Supply	31.00%
HTS	7.23%
LTIS	13.11%
Commercial	11.08%
Domestic	20.42%

The situation is quite alarming. Latest information of non-functional meters may be obtained from the field offices and ensure that data is maintained correctly.

Replacement of meters shall be planned on priority wise i.e., meters of Bulk supply, commercial, industrial and high value domestic categories to be replaced on priority. In respect of defective meters billing may be done by adopting standard method. The Data on defective meters, replacement, and pendency shall be filed with the next petition.

Directive 10: Consumer Contribution for Capital Investment

The fact of consumer contribution for capital investment is not brought out in the ARR and Tariff Petition.

The EPDS is directed to furnish the details of contributions being collected from consumers for capital works. The amounts collected from the consumers towards capital investment shall be brought out in the accounts. The depreciation and Return on Equity/ Capital Base should not be claimed on the amount contributed by the consumers towards capital investment.

Directive 11: Investment Plan and approval of Capital Expenditure

Annual Investment Plan shall be submitted to the Commission and approval of Commission should be obtained for all major capital works costing Rs. 5.00 crore and above before execution of the works.

Directive 12: Interest on Consumer Security Deposit

EPDS did not indicate the amount of security deposit collected from the consumers. EPDS is informed that as per section 47 (4) of IE Act 2003, the distribution licensee shall pay interest equivalent to bank rate or more as may be specified by the concerned state Commission on the consumer security deposit.

EPDS is therefore directed to maintain an account of the consumer-wise security deposit collected. Such data shall be furnished with the next filing invariably.

Directive 13: Consumer Awareness/Sensitization

EPDS is directed to carry out “Consumer Awareness /Sensitization” campaigns so as to educate the consumers and the general Public on the various initiatives and subsidies announced by the government and manner of obtaining these benefits.

EPDS is also directed to create awareness and sensitize its employees on the need to be fully aware of various acts, rules & regulations, safety practices etc., EPDS may consider imparting trainings, arranging workshops etc., for its employees.

Directive 14: Power Sector Reforms

Reforms in the Energy sector is absolutely necessary to overhaul the Energy sector to make it more vibrant and commercially viable in view of the huge Hydro power potential in the State. As part of the reforms envisaged the State Government will have to reconsider seriously the huge monopolistic role of the EPDS in the

generation, transmission and distribution of electricity in the State. Most of the States have already initiated the process of unbundling their Energy / Power Departments/SEBs into separate corporate entities covering generation, transmission and distribution, even going to the extent of utilizing the private sector in the distribution of power. This is an important aspect that the State Government will have look at in order to ensure that the Power sector lives up to its expectation of becoming the State's main revenue earner.

In addition the EPDS needs to examine and review the milestones agreed upon in the Memorandum of Understanding (MOU) signed with the Ministry of Power in December 2002 by the Government of Sikkim which have not been fully achieved. Necessary steps and actions need to be taken for achieving the target and commitment for implementation of reforms programme in the power sector

9. Tariff Principles and Design

9.1 Background

(a) The Commission in determining the revenue requirement of EPDS for FY 2014-15 and retail tariff has been guided by the provisions of electricity Act 2003. The National Tariff Policy (NTP), CERC Regulations in this regard and SSERC (Terms and conditions for determination of Tariff) Regulations 2012. Section 61 of the Act lays down the broad principles, which shall guide determination of retail tariff. As per these principles the tariff should “Progressively reflect cost of supply” and also reduce the cross subsidies “within a period specified by the Commission”. The Act lays special emphasis on safeguarding consumer interests and also requires that the costs should be recovered in a reasonable manner. The Act mandates that tariff determination should be guided by the factors, which encourage competition, efficiency, economical use of resources, good performance and optimum investment.

The NTP notified by GOI in January 2006 provides comprehensive guidelines for determination of tariff as also working out the revenue requirement of power utilities. The Commission has endeavored to follow these guidelines as far as possible.

(b) The NTP mandates that Multi Year Tariff (MYT) framework be adopted for determination of tariff from 1st April 2006. However the Commission is not in a position to introduce MYT Regime in the State mainly because of lack of requisite and reliable data. The present MIS and regulatory reporting system of the EPDS is very inadequate for any such exercise at this stage. There has been no study to assess voltage wise losses in the absence of metering of all feeders distribution transformers and consumes. Technical and Commercial loses are yet to be segregated and quantified voltage wise. The Commission has issued directives to EPDS in the tariff order for FY 2012-13 as well as in the present tariff order for FY 2014-15 to chalk out a long term action plan for

reduction of T&D losses for both technical and non-technical with relevant load flow studies and energy audit and submit to the Commission by December 2014. Under these conditions it would not be practicable to implement MYT framework this year. The Commission after taking into account all the factors has decided to introduce MYT in due course, when the data is available.

- (c) The mandate of the NTP is that tariff should be within plus / minus 20% of the average cost of supply by 2010-11. It is not possible for the Commission to implement this at present because of consumers' paying capacity is low. There has been a high level of the fluctuating revenue gap. The gap in the year 2012-13 was 18% and that of 2013-14 is 16%. However, in this tariff order an element of performance target has been indicated by setting target for T&D loss reduction and increasing in sales volume during the period from 2012-13 to 2014-15. The improved performance, by reduction of loss level, and increase in sale will result in substantial reduction in average cost of supply. The existing and proposed tariff of EPDS is single part tariff. The Commission has considered for a nominal increase in tariff in view of the capacity of the consumers to pay higher rates.
- (d) Clause 8.3 of National Tariff Policy lays down the following principles for tariff design:
- (i) In accordance with the National Electricity Policy, consumers below poverty line who consume below a specified level, say 30 units per Month, may receive a special support through cross subsidy. Tariffs for such designated group of consumers will be at least 50% of the average cost of supply. This provision will be re-examined after five years.
 - (ii) For achieving the objective that the tariff progressively reflects the cost of supply of electricity, the SERC would notify the roadmap, within six Months with a target that latest by the end of the year 2010-11 tariffs are within \pm 20% of the average cost of supply. The road map would have intermediate milestones, based on the approach of a gradual reduction in cross subsidy.

For example, if the average cost of service is Rs.3 per unit, at the end of year 2012-13, the tariff for the cross subsidized categories excluding those referred to in para-1 above should not be lower than Rs. 2.40 per unit and that for any of the cross subsidizing categories should not go beyond Rs.3.60 per unit.

(iii) While fixing tariff for agricultural use, the imperatives of the need of using ground water resources in a sustainable manner would also need to be kept in mind in addition to the average cost of supply. The tariff for agricultural use may be set at different levels for different parts of the State depending on the condition of the ground water table to prevent excessive depletion of ground water.

(e) Regulation 16 of JERC for M&M (Terms and Conditions for Determination of Tariff) Regulation specifies.

(i) The cross subsidy for a consumer category means the difference between the average per unit rate based on tariff schedule of the Commission for that Category and the combine average cost of supply per unit expressed in percentage terms as a portion of the combined average cost of supply.

(ii) In the first place, the Commission shall determine the tariff, so that it progressively reflects the combined average cost of supply of electricity and also reduce cross-subsidies within a reasonable period. In the second phase, the Commission shall consider moving towards category wise cost of supply as a basis for determination of tariff.

(f) The Commission has considered special treatment to BPL consumers and agricultural sector. It has also aimed at raising the per capita consumption of the State from 100 kWh in 2010-11 to 144 kWh in 2012-13 to 300 kWh by the end of 2015. The Commission endeavors that the tariff progressively reflects cost of supply in a shortest period and the Government subsidy is also reduced gradually. The tariff has been rationalized with regards to inflation, paying capacity and to avoid tariff shock.

9.2 Tariff Proposed by the EPDS and Approved by the Commission

(a) Existing & Proposed Tariff

EPDS in its tariff petition for FY 2014-15 has proposed for revision of the existing retail tariffs to various categories of consumers to earn additional revenue to meet the expenses fully.

The EPDS has proposed tariff revision as indicated in table – 9.1 placed below.

Table 9.1: Existing Tariffs v/s proposed Tariffs for FY 2014-15

Sl. No.	Consumer categories	Demand Charges Rs/KVA/Month	Existing Rate Paisa/KWH	Demand Charges Rs/KVA/Month	Proposed Rate Paisa/KWH
1	2	3	4	5	6
1	Domestic (DLT)				
a)	Up to 50 units		110		115
b)	51 to 100 units		225		235
c)	101 to 200 units		345		360
d)	201 to 400 units		415		435
e)	401 & above		440		460
2	Commercial (CLT)				
a)	Up to 50 units		315		325
b)	51 to 200 units		490		505
c)	201 to 400 units		515		530
d)	401 & above		540		555
3	Public Lighting				
	Rural Areas		250		260
	Urban Areas		460		480
4	Industrial				
A	HT				
a)	HT(AC) above 3.3 KV				
b)	Upto 100 KVA	150	300	158	315
c)	100 – 250 KVA	200	348	210	365
d)	250 – 500 KVA	230	396	242	416
e)	500 KVA & above	450	410	472	430
B	LT (Rural)				
a)	Up to 500 units		235		242

Sl. No.	Consumer categories	Demand Charges Rs/KVA/Month	Existing Rate Paisa/KWH	Demand Charges Rs/KVA/Month	Proposed Rate Paisa/KWH
b)	501 – 1000 units		420		432
c)	1001 & above		545		560
C	LT (Urban)				
a)	Up to 500 units		480		494
b)	501 – 1000 units		550		566
c)	1001 & above		620		638
5	Bulk Supply				
a)	LT		540		550
b)	HT		560		571

(b) Tariff Categories

The approved tariff categories v/s sub categories are given below:

- Domestic Supply (DS)
- Commercial Supply (CS)
- LT Industrial Supply (LTIS)
 - a. Rural
 - b. Urban
- Public Lighting
 - a. Rural
 - b. Urban
- HT Supply
- Bulk Supply
 - a. LT
 - b. HT
- Temporary Supply

(c) Tariffs approved by the Commission

Having considered the Petition no: TR-1/2014-15 of EPDS for approval of Aggregate Revenue Requirement (ARR) and determination of retail tariff for sale of energy and having approved aggregate revenue requirement under

para 7.24 the Commission retains the existing tariffs revised in FY 2013-14 as given below.

Table 9.2 Tariffs approved by the Commission for FY 2014-15

Sl. No.	Category of Consumers	Demand Charges (HT Supply only) Rs/KVA/Month	Approved Energy Charges Paisa/KWH
1	2	3	4
1	Domestic (DLT)		
a)	Up to 50 units		110
b)	51 to 100 units		225
c)	101 to 200 units		345
d)	201 to 400 units		415
e)	401 & above		440
2	Commercial (CLT)		
a)	Up to 50 units		315
b)	51 to 200 units		490
c)	201 to 400 units		515
d)	401 & above		540
3	Public Lighting		
	Rural Areas		250
	Urban Areas		460
4	Industrial		
A	HT		
a)	HT(AC) above 3.3 KV		
b)	Upto 100 KVA	150	300
c)	100 – 250 KVA	200	348
d)	250 – 500 KVA	230	396
e)	500 KVA & above	450	410
B	LT (Rural)		
a)	Up to 500 units		235
b)	501 – 1000 units		420
c)	1001 & above		545
C	LT (Urban)		
a)	Up to 500 units		480
b)	501 – 1000 units		550
c)	1001 & above		620
5	Bulk Supply		
a)	LT		540
b)	HT		560

Details are given in tariff schedule in the Appendix.

(d) Miscellaneous charges and important conditions of supply

Miscellaneous charges and important conditions of supply furnished by EPDS are examined and approved. These are given in tariff schedule appended as appendix.

This order shall come into force from 1.4.2014 and shall remain effective till revised/ amended by the Commission. The Order shall be given wide publicity by the Petitioner for information of the general public.

**Sd/-
Chairperson**

Place: Gangtok

Date: 15.04.2014

Annexure-I.**List of Participants in the Public Hearing.**

Sl.No	Name	Designation	Department/Agency
1.	Shri.T.T. Dorji	Hon'ble Chairperson	Sikkim State Electricity Regulatory Commission.
2.	Shri. K.L. Gyaltshen	Secretary	Sikkim State Electricity Regulatory Commission.
3.	Shri. Jigme D.Denjongpa	Sr.Law Officer	Sikkim State Electricity Regulatory Commission.
4.	Shri. P.K. Rai	Ombudsman	Sikkim State Electricity Regulatory Commission.
5.	Shri Sonam Palzor	Assistant Director	Sikkim State Electricity Regulatory Commission
6.	Shri. P.B. Subba	Secretary	Energy & Power Department, Government of Sikkim.
7.	Shri. N.R. Bhattarai	Principal Chief Engineer	Energy & Power Department, Government of Sikkim.
8.	Shri. K.B.Kunwar	Chief Engineer	Energy & Power Department, Government of Sikkim.
9.	Shri. K.K.Pradhan	Additional Chief Engineer	Energy & Power Department, Government of Sikkim.
10.	Shri.D.N.Khatiwada	Superintendi ng Engineer	Energy & Power Department, Government of Sikkim.
11.	Shri. Y. Satyanarayana	Consultant	Administrative Staff College of India
12.	Shri. Rohit Pradhan	General Secretary	Federation of Consumers' Association of Sikkim.
13.	Shri. T.W.Dorji	Consumer/Objector
14.	Shri T. P. Dorji	Consumer/Objector

Scheduling Loss Percentage for ER Transmission System

Week	FROM DATE	TO DATE	Update Date	SEM LOSS %	APPLICABLE PoC LOSS %		
					High	Normal	Low
1	02 April 2012	08 April 2012	30 March 2012	2.7	1.65	1.35	1.05
2	09 April 2012	15 April 2012	06 April 2012	2.6	1.60	1.30	1.00
3	16 April 2012	22 April 2012	13 April 2012	2.7	1.65	1.35	1.05
4	23 April 2012	29 April 2012	20 April 2012	2.5	1.55	1.25	0.95
5	30 April 2012	06 May 2012	27 April 2012	2.8	1.70	1.40	1.10
6	07 May 2012	13 May 2012	04 May 2012	2.3	1.45	1.15	0.85
7	14 May 2012	20 May 2012	11 May 2012	2.7	1.65	1.35	1.05
8	21 May 2012	27 May 2012	18 May 2012	2.7	1.65	1.35	1.05
9	28 May 2012	03 June 2012	25 May 2012	2.5	1.55	1.25	0.95
10	04 June 2012	10 June 2012	01 June 2012	2.6	1.60	1.30	1.00
11	11 June 2012	17 June 2012	08 June 2012	2.6	1.60	1.30	1.00
12	18 June 2012	24 June 2012	15 June 2012	2.5	1.55	1.25	0.95
13	25 June 2012	01 July 2012	22 June 2012	2.9	1.75	1.45	1.15
14	02 July 2012	08 July 2012	29 June 2012	2.7	1.65	1.35	1.05
15	09 July 2012	15 July 2012	06 July 2012	2.7	1.65	1.35	1.05
16	16 July 2012	22 July 2012	13 July 2012	2.8	1.70	1.40	1.10
17	23 July 2012	29 July 2012	20 July 2012	2.7	1.65	1.35	1.05
18	30 July 2012	05 August 2012	27 July 2012	3.0	1.80	1.50	1.20
19	06 August 2012	12 August 2012	03 August 2012	3.0	1.80	1.50	1.20
20	13 August 2012	19 August 2012	10 August 2012	2.8	1.70	1.40	1.10
21	20 August 2012	26 August 2012	17 August 2012	3.0	1.80	1.50	1.20
22	27 August 2012	02 September 2012	24 August 2012	2.9	1.75	1.45	1.15
23	03 September 2012	09 September 2012	31 August 2012	2.8	1.70	1.40	1.10
24	10 September 2012	16 September 2012	07 September 2012	2.7	1.65	1.35	1.05
25	17 September 2012	23 September 2012	14 September 2012	2.6	1.60	1.30	1.00
26	24 September 2012	30 September 2012	21 September 2012	2.7	1.65	1.35	1.05
27	01 October 2012	07 October 2012	28 September 2012	2.7	1.65	1.35	1.05
28	08 October 2012	14 October 2012	05 October 2012	2.4	1.50	1.20	0.90
29	15 October 2012	21 October 2012	12 October 2012	2.5	1.55	1.25	0.95
30	22 October 2012	28 October 2012	19 October 2012	2.5	1.55	1.25	0.95
31	29 October 2012	04 November 2012	26 October 2012	2.4	1.50	1.20	0.90
32	05 November 2012	11 November 2012	02 November 2012	2.3	1.45	1.15	0.85
33	12 November 2012	18 November 2012	09 November 2012	2.8	1.70	1.40	1.10
34	19 November 2012	25 November 2012	16 November 2012	2.7	1.65	1.35	1.05
35	26 November 2012	02 December 2012	23 November 2012	2.6	1.60	1.30	1.00
36	03 December 2012	09 December 2012	30 November 2012	2.7	1.65	1.35	1.05
37	10 December 2012	16 December 2012	07 December 2012	2.7	1.65	1.35	1.05
38	17 December 2012	23 December 2012	14 December 2012	2.7	1.65	1.35	1.05
39	24 December 2012	30 December 2012	21 December 2012	3.1	1.85	1.55	1.25
40	31 December 2012	06 January 2013	28 December 2012	3.2	1.90	1.60	1.30
41	07 January 2013	13 January 2013	04 January 2013	3.2	1.90	1.60	1.30
42	14 January 2013	20 January 2013	11 January 2013	3.0	1.80	1.50	1.20
43	21 January 2013	27 January 2013	18 January 2013	3.2	1.90	1.60	1.30
44	28 January 2013	03 February 2013	25 January 2013	3.1	1.85	1.55	1.25
45	04 February 2013	10 February 2013	01 February 2013	3.1	1.85	1.55	1.25
46	11 February 2013	17 February 2013	08 February 2013	3.0	1.80	1.50	1.20
47	18 February 2013	24 February 2013	15 February 2013	3.0	1.80	1.50	1.20
48	25 February 2013	03 March 2013	22 February 2013	3.0	1.80	1.50	1.20
49	04 March 2013	10 March 2013	01 March 2013	2.5	1.55	1.25	0.95
50	11 March 2013	17 March 2013	08 March 2013	2.4	1.50	1.20	0.90
51	18 March 2013	24 March 2013	15 March 2013	2.3	1.45	1.15	0.85
52	25 March 2013	31 March 2013	22 March 2013	2.4	1.50	1.20	0.90

Average 2.73, Maximum 3.2 and Minimum 2.3

Scheduling Loss Percentage for ER Transmission System							
Week	FROM DATE	TO DATE	Update Date	SEMLOSS %	APPLICATION LOSS %		
					High	Normal	Low
1	01 April 2013	07 April 2013	29 March 2013	2.40	1.50	1.20	0.90
2	08 April 2013	14 April 2013	05 April 2013	2.30	1.45	1.15	0.85
3	15 April 2013	21 April 2013	12 April 2013	2.10	1.35	1.05	0.75
4	22 April 2013	28 April 2013	19 April 2013	2.30	1.45	1.15	0.85
5	29 April 2013	05 May 2013	26 April 2013	2.00	1.60	1.30	1.00
6	06 May 2013	12 May 2013	03 May 2013	2.20	1.40	1.10	0.80
7	13 May 2013	19 May 2013	10 May 2013	2.30	1.45	1.15	0.85
8	20 May 2013	26 May 2013	17 May 2013	2.20	1.40	1.10	0.80
9	27 May 2013	02 June 2013	24 May 2013	2.20	1.40	1.10	0.80
10	03 June 2013	09 June 2013	31 May 2013	2.20	1.40	1.10	0.80
11	10 June 2013	16 June 2013	07 June 2013	2.60	1.60	1.30	1.00
12	17 June 2013	23 June 2013	14 June 2013	2.30	1.45	1.15	0.85
13	24 June 2013	30 June 2013	21 June 2013	2.20	1.40	1.10	0.80
14	01 July 2013	07 July 2013	28 June 2013	2.30	1.45	1.15	0.85
15	08 July 2013	14 July 2013	05 July 2013	2.60	1.60	1.30	1.00
16	15 July 2013	21 July 2013	12 July 2013	2.30	1.45	1.15	0.85
17	22 July 2013	28 July 2013	19 July 2013	2.20	1.40	1.10	0.80
18	29 July 2013	04 August 2013	26 July 2013	2.00	1.80	1.60	0.90
19	05 August 2013	11 August 2013	02 August 2013	2.40	1.35	1.05	0.75
20	12 August 2013	18 August 2013	09 August 2013	3.00	1.60	1.50	1.20
21	19 August 2013	25 August 2013	16 August 2013	2.70	1.65	1.35	1.05
22	26 August 2013	01 September 2013	23 August 2013	2.20	1.40	1.10	0.80
23	02 September 2013	08 September 2013	30 August 2013	2.20	1.40	1.10	0.80
24	09 September 2013	15 September 2013	06 September 2013	2.10	1.35	1.05	0.75
25	16 September 2013	22 September 2013	13 September 2013	2.10	1.35	1.05	0.75
26	23 September 2013	29 September 2013	20 September 2013	2.00	1.30	1.00	0.70
27	30 September 2013	06 October 2013	27 September 2013	2.10	1.35	1.05	0.75
28	07 October 2013	13 October 2013	04 October 2013	2.10	1.35	1.05	0.75
29	14 October 2013	20 October 2013	11 October 2013	2.20	1.40	1.10	0.80
30	21 October 2013	27 October 2013	18 October 2013	2.10	1.35	1.05	0.75
31	28 October 2013	03 November 2013	25 October 2013	2.00	1.30	1.00	0.70
32	04 November 2013	10 November 2013	01 November 2013	2.20	1.40	1.10	0.80
33	11 November 2013	17 November 2013	08 November 2013	2.00	1.30	1.00	0.70
34	18 November 2013	24 November 2013	15 November 2013	2.00	1.30	1.00	0.70
35	25 November 2013	01 December 2013	22 November 2013	2.00	1.30	1.00	0.70
36	02 December 2013	08 December 2013	29 November 2013	2.00	1.30	1.00	0.70
37	09 December 2013	15 December 2013	06 December 2013	2.30	1.45	1.15	0.85
38	16 December 2013	22 December 2013	13 December 2013	2.30	1.45	1.15	0.85
39	23 December 2013	29 December 2013	20 December 2013	2.50	1.55	1.25	0.95
40	30 December 2013	05 January 2014	27 December 2013	2.70	1.65	1.35	1.05
41	06 January 2014	12 January 2014	03 January 2014	2.90	1.75	1.45	1.15
42	13 January 2014	19 January 2014	10 January 2014	2.90	1.70	1.40	1.10
43	20 January 2014	26 January 2014	17 January 2014	2.80	1.70	1.40	1.10
44	27 January 2014	02 February 2014	24 January 2014	2.40	1.50	1.20	0.90
45	03 February 2014	09 February 2014	31 January 2014	2.40	1.50	1.20	0.90
46	10 February 2014	16 February 2014	07 February 2014	2.32	1.46	1.16	0.86
47	17 February 2014	23 February 2014	14 February 2014	2.30	1.45	1.15	0.85
48	24 February 2014	02 March 2014	21 February 2014	2.50	1.55	1.25	0.95
49	03 March 2014	09 March 2014	28 February 2014	2.12	1.36	1.06	0.76
50	10 March 2014	16 March 2014	07 March 2014	2.36	1.48	1.18	0.88

50 weeks average transmission loss is 2.3%

Average 2.73 – MAX 3.2 – MIN 2.3

Sikkim- Revenue from existing Tariff for FY 2014-15

Sl. No.	Category	Connected Load	Sales (MU)	Demand Charges	Energy Charges (Rs. kWh)	Demand Charges	Energy Charges (Rs. cr)	Total	Average
I	Domestic								
	Upto 50		39.34		1.10		4.33	4.33	1.10
	51-100		23.38		2.25		5.26	5.26	2.25
	101-200		8.58		3.45		2.96	2.96	3.45
	201-400		8.16		4.15		3.39	3.39	4.15
	> 400		4.54		4.40		2.00	2.00	4.40
	Total Domestic		84.00				17.93	17.93	2.13
II	Commercial								
	upto 50		11.00		3.15		3.47	3.47	3.15
	51-200		11.00		4.90		5.39	5.39	4.90
	201-400		10.00		5.15		5.15	5.15	5.15
	>400		14.00		5.40		7.56	7.56	5.40
	Total Commercial		46.00				21.57	21.57	4.69
III (a)	LTIS (Rural)								
	upto 500		0.80		2.35		0.19	0.19	2.35
	501-1000		0.20		4.20		0.08	0.08	4.20
	>1000		-		5.45			0.00	
	Total LTIS (Rural)		1.00				0.27	0.27	2.72
III (b)	LTIS (Urban)								
	upto 500		0.70		4.80		0.34	0.34	4.80
	501-100		0.30		5.50		0.17	0.17	5.50
	> 1000		-		6.20			0.00	
	Total LTIS (Urban)		1.00				0.50	0.50	5.01
	Total LTIS		2.00				0.77	0.77	3.87
IV	Public Lighting								
	Rural		0.20		2.50		0.05	0.05	2.50
	Urban		0.80		4.60		0.37	0.37	4.60
	Total Public Lighting		1.00				0.42	0.42	4.18

V	HT Supply								
	upto 100 KVA	21,000	27.00	150	3.00	3.78	8.10	11.88	4.40
	101-250 KVA	25000	30.00	200	3.48	6.00	10.44	16.44	5.48
	251 - 500 KVA	9000	20.00	230	3.96	2.48	7.92	10.40	5.20
	>500 KVA	13000	34.00	450	4.10	7.02	13.94	20.96	6.16
	Total HT		111.00			19.28	40.40	59.68	5.38
VI	Bulk Supply								
	LT		6.00		5.40		3.24	3.24	5.40
	HT		13.00		5.60		7.28	7.28	5.60
	Total Bulk Supply		19.00				10.52	10.52	5.54
	Temp. Supply		1		8.00		0.80	0.80	8.00
	Total Sales within the state		264.00				92.41	111.69	4.23
	Outside Sale		388.73		2.90		112.73	112.73	2.90
	Total Revenue		652.73			19.28	205.14	224.42	3.44

Domestic	Domestic	Army	Blind	Worship	Total
upto 50	35.34	-	-	-	35.34
51-100	24.4	0.63	0.01	0.34	25.38
101-200	8.53	-	-	0.15	8.68
201-400	7.14	-	-	0.02	7.16
> 400	3.42	0.11	-	0.01	3.54
Total	78.83	0.74	0.01	0.52	80.1

TARIFF SCHEDULE – FY 2014-15**I. DOMESTIC SUPP (DS)****Type of**

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.

(a) Nature of service:

Low Tension a.c. 430/230 volts, 50 cycles/sec (hz)

(b) Rates:

Units Consumption	Paisa per kWh (Unit)
Up to 50	1 1 0
51 to 100	2 2 5
101 to 200	3 4 5
201 to 400	4 1 5
Consumption exceeding 400 units	4 4 0

(c) Monthly Minimum Charge:

Details	Rate
Single Phase Supply	Rs. 40.00
Three Phase Supply	Rs 200.00

- (d) Monthly Rebate (if paid within due date) : 5% on Energy Charges**
- (e) 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 up to 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 shall be determined on the basis of assessment recorded through energy meter only and assessment accounted on average basis shall not be entertained for subsidy.

II. 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 parlors, saloons, beauty parlors', health clubs or any house of profit as identified by the Assistant Engineer/Executive Engineer concerned of the Department. In the event of exceeding connected load beyond 25 KVA, the Demand charge at the following rates shall be imposed. The seasonal consumers are allowed to install MDI meter for assessment of their monthly load profile.

(a) Nature of supply:

Low Tension a.c. 430/230volts, 50 cycles/Sec (hz)

(b) Rate:

Consumption range	Paisa per Kwh (Unit)
Upto 50	315
51 to 200	490
201 to 400	515
Consumption exceeding 400 units	540

Demand Charges- 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.

(d) **Monthly Minimum Charge:**

(e)

Details	Rate
Single Phase Supply	Rs. 200.00
Three Phase Supply	Rs. 500.00

(d) **Monthly Rebate (if paid within due date) :** 5% on Energy Charges

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

10%

III. LOW TENSION 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. In the event of exceeding connected load beyond 25 kVA, the Demand charge at the following rates shall be imposed.

(a) **Nature of service:**

Low Tension a.c. 430/230volts, 3 phase/single phase, 50 cycles/Sec (hz)

(b) **Rate:**

Units Consumption	Paisa per kWh	
	Rural	Urban
Up to 500	2	4
	3	8
	5	0
501 to 1000	4	5
	2	5
	0	0

1001 & Above	5 4 5	6 2 0
Demand Charges – For those establishment 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. /kVA/Month plus energy charge as shown above
	Rs. 60 /Kva/Month plus energy charges as shown above	Rs. 100/Kva/Month Plus Energy charges as shown above.

(c) Monthly Minimum Charge:

Rural Areas	Rs. 60 /KVA/Month
Urban Areas	Rs.100 /KVA/Month

(d) Monthly Rebate (if paid within due date) : 5% on Energy Charges

(e) Annual Surcharge(charge on the gross arrear outstanding every

March end): 10%

**IV. 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.

(a) Nature of supply:

High Tension a.c, 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.

(b) Rate:

Units Consumption	T a r i f f
Up to 100 kVA: Demand Charges plus Energy Charges	Rs. 150 /kVA/Month 300 Paisa/Unit
101 to 250 kVA: Demand charges Plus Energy Charges	Rs. 200/Kva/Mo nth 348Paisa/ Unit
251 kVA to 500 kVA Demand Charges Plus Energy Charges	Rs. 230 /kVA/Month 396 Paisa/Unit
Above 500 kVA Demand Charges Plus Energy Charges	Rs. 450 /kVA/Month 410Paisa/ Unit

(c) Monthly Minimum Charges: Demand Charges

(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

V. BULK SUPPLY (BS): (NON-COMMERCIAL SUPPLY) Type of consumer

Available for general mixed loads to M.E.S. and other Military Establishments, Borders roads, Sikkim Armed Police Complex (SAP), all Government Non residential buildings,

Hospitals, Aerodromes and other similar establishments as identified as such supply by the Concerned Executive Engineer.

(a) Nature of service: Low Tension a.c. 430/230 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.

(b) Rate:

All Consumptions	Paisa/Unit
LT	5 4 0
HT	5 6 0

(c) Monthly Minimum Charge:

Details	Tariff
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%

Power Factor Adjustment charges:

(a) Penalty for poor Power Factor: The Power factor adjustment charges shall be

Levied at the rate of 1% on the total Energy charge for the month for every 1% drop or part thereof in the average power factor during the month below 95%.

- (b) **Power factor rebate:** If the power factor of the consumer's installation in any month is above 95% the consumer will be entitled to a rebate at the rate of 0.5% in excess of 95 % power factor on the total amount of energy charge for that month for every 1% Rise or part thereof in the average power factor during the month above 95%.

VI. 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.

(a) Nature of service: Low Tension a.c. 230/430 volts, 50 cycles/Sec (hz)

(b) Rate Domestic supply rate is applicable

(i) Up to 100 units To be billed to Secretary, Rajya Sainik Board

(ii) 101 and above To be billed to the Consumer

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

VII. 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.

(a) Nature of service:

Low Tension a.c. 230/430 volts, 50 cycles/Sec (hz)

(b) Rate Domestic supply rate is applicable

- (i) Up to 100 units** **To be billed to Secretary, Social Welfare Department**
- (ii) 101 and above** **To be billed to the Consumer**

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

VIII. SUPPLY TO THE PLACES OF WORSHIP (PW) Type of consumer

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

(a) Nature of service:

Low Tension 430/230 volts, 50 cycles/Sec (hz)

b) Rate

Unit Consumption slab	Paisa per kWh (Unit)
<p>Places of worship:</p> <p>(i) Having 3 lights points: A) up to 100 units B) Above 101 units</p>	<p>Domestic rate is applicable.</p>

(ii) Having 4 to 6 lights points.

A) Up to 150 units

B) Above 151 units

(iii) Having 7 to 12 points

A) Up to 30 units

B) Above 301 units

(iv) Having 13 and more light points

A) Up to 500 units

B) 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.

IX. 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 light 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:

Category	Rate
Rural Areas	250 Paisa/KWH
Urban Areas	460 Paisa/KWH

X. 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, however if the connection is being taken for less than one month, an advance payment should be taken from the consumer as per his/her connected load based on the average system of calculation shown in the tariff schedule.

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.

(a) Nature of Service:

Low tension a.c. 430/230 volts, 50 Hz /H.T. 11 kV whichever is applicable and possible at the discretion of the department:

(b) 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.

XI. SCHEDULE FOR MISCELLANEOUS CHARGES

1. 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. 10/- (Rupees ten) 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 Substation 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 substation 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.

(a) Single connection will be provided to the legal landlord of the building. However,

an additional connection can also be given in the name of his legal heir subject to production of valid agreement by the landlord stating that he/she shall take the

responsibility to clear all the electricity dues created thereof by his legal heir before the close of every financial year.

- (b) In case the flat or part of the private building is occupied by Government / Semi Government/Government Undertakings offices, separate service connection in the name of head of office can be given with the approval of the concerned Executive Engineer.

2. Rs 50 per certificate shall be charged for issuing NDC(No dues certificate) , NOC(No objection certificate) or any other kind of certificate to be issued to the consumer by the Department.

XII. METER RENT / Month

(i)	Energy Meter	
(a)	Single Phase	Rs. 20.00
(b)	Three phase	Rs. 60.00
(i i)	Maximum demand indicator	Rs.175. 00
(ii i)	Time switch	Rs.120. 00

XIII. TESTING OF METERS

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

XIV. DISCONNECTION & RECONNECTION

(i)	DS and CS category	Rs.150. 00
(i i)	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. 150.00 each time which does not include the cost of requirement and labor and the same will be extra.

XV. 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
(i i)	High tension		Rs.40.00

XVI. RESEALING OF METERS

If by any reason the seal affixed in the meter or cutouts installed and secured by the Department are found tampered, the Department reserves the right to disconnect the service connection immediately and impose penalty as applicable under The Indian Electricity Act, 2003. In addition the consumer is liable for payment for resealing charge @ Rs.30.00 per call of such services.

XVII. SECURITY DEPOSIT

Security deposit shall be deposited, 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.

XVIII. OTHER CONDITIONS FOR SUPPLY OF ELECTRICAL ENERGY (a) 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 average 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 is 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.

(b) Defaulting consumer

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

(c) 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.

(d) 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 affected 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.

(e) 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.

(f) 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.

XIX. 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 overhead 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.

XX. ACCESS TO PREMISES AND APPARATUS

(a) 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.

(b) 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 the sub-head of malpractice.

(c) The department shall not be responsible for any loss or damage or inconvenience caused to the consumer on account of such disconnection of supply.

XXI. INTERFERENCE WITH SUPPLY MAINS AND APPARATUS

(a) A consumer shall not interfere with the supply main or apparatus including the metering

arrangement, which may have been installed in his/her premises.

- (b) 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.
- (c) The consumer shall not keep the unbalanced loading of three phase supply taken by him/her from the Department.
- (d) 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,

XXII. MALPRACTICE

(i) Contravention of any provision of the terms conditions of supply the Indian electricity Act 2003, 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.

(ii) Cases mentioned hereunder, shall be generally treated as malpractice:-

- (a) Exceeding the sanctioned/contract load authorised by the department without the permission of the department.
- (b) 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.
- (c) 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.
- (d) Non-compliance of orders in force imposing restriction of use of energy for rational and equitable distribution thereof.
- (e) Use of electricity for any purpose other than that for which supply is contracted /sanctioned for
- (f) Resale of energy without the permission of the

department, (g) Theft of energy

(h) Obstruction to lawful entry of authorized officer/employee of the department into consumer's premises.

(i) Interfering and tampering with the meter and metering system.

XXIII. 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 Assessing Authority of the department will decide about the payment of compensation amount to be imposed against such consumer as per the relevant rules and regulations.

XXIV. INSTITUTION OF PROSECUTION

Any officer employee authorized to inspect and deal with cases of malpractice and theft of energy may launch prosecution as an aggrieved person as mentioned in section 135 & 150 of the Indian Electricity Act 2003.

XXV. READING OF METER AND PREPARATION OF BILL

(a) 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

(b) 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.

(c) 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.

XXVI. DISCONNECTION 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.

XXVII. FAILURE OF POWER SUPPLY

The Department shall not be responsible for loss, damage or

compensation what so ever out of failure of supply.

XXVIII. 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.

XXIX. 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.

XXX. 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.*

XXXI. 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 2003.

XXXII. 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

2. Other Consumers:

Sanctioned load (kW) x 8 hrs x 30 days x 60 /100