



**ORDER  
ON  
TRUE UP FOR THE F.Y. 2020-21,  
REVIEW FOR THE F.Y. 2021-22 &  
AGGREGATE REVENUE REQUIREMENT  
AND  
TARIFF FOR THE F.Y. 2022-23**

**For**

**Power Department,  
Government of Sikkim**

**March, 2022**

**Sikkim State Electricity Regulatory Commission  
Gangtok, Sikkim**

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**ABBREVIATIONS**

<b>Abbreviation</b>	<b>Description</b>
A&G	Administration & General
ARR	Aggregate Revenue Requirement
ATE	Appellate Tribunal For Electricity
CAGR	Compounded 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

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₹	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.
MYT	Multi Year Tariff

## 1. BACKGROUND

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

**Case No.: P-01/PDS/2021-22.**

**In the matter of**

Petition for True Up for the F.Y.2020-21, Review for the F.Y.2021-22, Annual Revenue Requirement (ARR) and Tariff for F.Y 2022-23 filed by the Power Department, Government of Sikkim, herein after referred to as ‘PDS’---Petitioner.

**Coram**

**Shri K. B. Kunwar, Chairperson**

**ORDER**

**Date of Order:14<sup>th</sup> March, 2022.**

### 1.1 INTRODUCTION

This order relates to the Petition filed by the Power Department, Government of Sikkim (PDS), the only Deemed Distribution Licensee in Sikkim for True-Up for F.Y.2020-21, Review for F.Y. 2021-22 and approval of Tariff for F.Y. 2022-23 in terms of Sikkim State Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year



Tariff Framework) (Second Amendment) Regulations, 2017 and Sikkim State Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2020.

## **1.1 SIKKIM STATE ELECTRICITY REGULATORY COMMISSION**

Sikkim State Electricity Regulatory Commission (hereinafter referred to as 'Commission') came into existence on 15<sup>th</sup> November, 2003, after the notification constituting the Commission was issued by the Government of Sikkim in Sikkim Government Extraordinary Gazette Notification No. 28/P/GEN/97/524 dated 15.11.2003. The Commission however became operational from April, 2011.

Section 86 of the Electricity Act, 2003 (36 of 2003) lays down the functions of the State Commission. These functions include: determination of tariff for generation, transmission, 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 tariffs, both in accordance with the provisions of the Act and also under the Regulations framed by the State Regulatory 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 within the State.

In the discharge of its functions, the Commission is guided by National Electricity Plan, the National Tariff Policy and other Acts/Policies and guidelines issued by the Government of India and the State Government from time to time.

## **1.2 POWER DEPARTMENT, GOVERNMENT OF SIKKIM**

Power Department, Government of Sikkim is a State Government Department and is engaged in Distribution, Transmission and Generation & Retail Supply of Electricity in the State of Sikkim. PDS is the sole Distribution Licensee in the State and is a Deemed Distribution as per the provisions of the Electricity Act, 2003.

## **1.3 MULTI YEAR TARIFF REGULATIONS**

The Commission had notified the Sikkim State Electricity Regulatory Commission (Terms

and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework)(Second Amendment)Regulations,2013 on 21<sup>st</sup> May 2014 whereby the 1<sup>st</sup> 3 year Control Period for Multi Year Tariff Regime was fixed from F.Y. 2015-16 to F.Y. 2017-18 . However, due to various reasons, the ARR and Tariff proposals of the PDS could not be taken up under the Multi Year Tariff Regime. Therefore, the Commission amended the said regulations thereby re-fixing the 1<sup>st</sup> 3 year Control Period from F.Y.2018-19 to F.Y. 2020-21. Thus , the ARR and Tariff were brought under Multi Year Tariff Regime from the F.Y. 2018-19.

The Commission notified the Sikkim State Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2020 on 9<sup>th</sup> September 2020 , fixing the 2<sup>nd</sup> 3 year Control Period from F.Y. 2021-22 to F.Y.2023-24.

#### **1.4 FILING OF PETITION BY PDS**

The PDS filed its Petition on 30<sup>th</sup> November 2021 before the Hon'ble Commission for True Up for F.Y. 2020-21, Review for F.Y. 2021-22 and approval of Tariff proposed for F.Y 2022-23 in accordance with the provisions of the Sikkim State Electricity Regulatory Commission (Conduct of Business) Regulations, 2012 and Sikkim State Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2020.

The Commission admitted the Petition on 10<sup>th</sup>December, 2021 subject to the condition that the PDS shall provide additional data/information and clarifications as and when sought by the Commission. The Petition was registered as Case No. P-01/PDS/2021-22.

#### **1.5 INTERACTION WITH THE PETITIONER**

After preliminary scrutiny and analysis of the Petition submitted by the PDS, the Commission observed data gaps and sought additional data, information and clarifications from the PDS. The Commission,through letters and emails sought additional information/data and clarifications from the PDS. The details of communications made by the Commission and the responses/replies given by the PDS are as given below:

Communications made by the Commission		Communications received from PDS	
Letter no. / E-mail	Date	Letter no. / E-mail	Dated
318/SSERC/2017-28/Part-II/293	13.12.2021	05/P/REV/NODAL/2014-15/410	06.12.2021
29/SSERC/318/2017-18	10.02.2022	05/P/REV/NODAL/2014-15/Part-II/511	17.02.2022
E-mail	10.02/2022	Email	17.02.2022
			23.02.2022
			23.02.2022
			24.02.2022
			24.02.2022

In addition to the above communications, the Commission also had many rounds of interactions with the PDS wherein the different aspects of the Petition were taken up for discussion focusing on the basis/justifications for the estimations and projections made in the Petition.

## 1.6 PUBLIC HEARING PROCESS

The Commission vide its letter dated 13.12.2021 directed the PDS to issue Public Notice in local newspapers soliciting comments/views and objections of the public and other stakeholders on the Petition for approval of ARR and Tariff proposal as required by the Section 64 of the Electricity Act, 2003.

PDS issued Public Notices in the local newspapers giving an abridged form of its ARR and Tariff Petition and invited objections, suggestions, comments and views of the members of the public, consumers and stakeholders. The PDS had issued the Public Notices in the following newspapers, requesting submission of the objections, suggestions, comments and views to the Commission latest by **17<sup>th</sup> January, 2022**.

1. **Sikkim Express (English Daily) ----- 22<sup>nd</sup> December 2021**
2. **HamroVarta (Nepali)----- 22<sup>nd</sup> December 2021**

The copies of the Tariff Petition were made available by the PDS to the general public, consumers and interested persons free of cost at the following offices:

1. Chief Engineer (West) cum Nodal Officer (Revenue), Power Department, Govt. of Sikkim, Kazi Road, Gangtok, East Sikkim.

2. Additional Chief Engineer (SLDC) cum Assistant Nodal Officer, (Revenue), Power Department, Govt. of Sikkim, Kazi Road, Gangtok, East Sikkim.

The ARR and Tariff petition were also uploaded in the official website of the Power Department “[power.sikkim.gov.in](http://power.sikkim.gov.in)” in downloadable format for the ease of the public and stake holders.

No written objections, comments or suggestions were received by the Commission from the consumers and general public in response to the Public Notice issued by the PDS.

## 1.7 NOTICE FOR PUBLIC HEARING

As required by the provisions of the Electricity Act, 2003, wide publicity was given by the PDS on the ARR and the proposed tariff for F.Y.2022-23 by issuing ‘Public Notice’ in local newspapers. The notices were published in the local newspapers on 22<sup>nd</sup> December 2021. PDS sought the views/opinions/suggestions and objections of general public, interested parties, stakeholders and the consumers on the proposed ARR and Tariff proposal. Through the Public Notice, PDS placed the ARR and Tariff proposals in public domain and set 17<sup>th</sup> January 2022 as the last date for receipt of comments/suggestions/views and objections on the ARR and proposed Tariff for F.Y. 2022-23.

Thereafter, the Commission issued a separate Public Notice in local newspapers giving date, time and venue of the public hearing to be conducted by the Commission. The Public Notice was also placed in the official website of the Commission (“[www.sserc.in](http://www.sserc.in)”). The Commission through the Public Notice appealed the general public and the stake holders to participate in the Public Hearing and for placing their views/comments/suggestions on the ARR & Tariff proposals and that interested individuals & parties shall be heard by the Commission.

The Commission published the Public Notice for the Hearing in the following newspapers:

- **Sikkim Express (English)-----26<sup>th</sup> January 2022**
- **Hamro Prajashakti (Nepali)-----26<sup>th</sup> January 2022**

## 1.8 PUBLIC HEARING

Hearing on the Petition of the PDS was held on 23<sup>rd</sup> February 2022 in the Courtroom of the Commission at Deorali, Gangtok, Sikkim from 10.30 AM onwards till 2.30 PM for all categories of consumers. The Hearing was held under the Chairmanship of the Chairperson of the Commission.

1. The Officials of the PDS and Commission attended the Public Hearing. Compared to the previous years, there was good participation of the public in the hearing. In addition to the public, the representatives of the Indian Army also actively participated in the hearing and placed their submission/comments/requests before the Hon'ble Commission. The views, comments, requests and suggestions given by the Public and representatives of the Indian Army, the replies/clarifications given by the PDS in response to the submissions of the Public and the Indian Army and the comments/views of the Commission are dealt with in Chapter 4.

## **2.1 STATE ADVISORY COMMITTEE MEETING**

In order to obtain the views/suggestions/comments of the Members of the State Advisory Committee on the Petition filed by the PDS and especially the Tariff proposed for F.Y.2022-23, a meeting of the Committee was held on 25<sup>th</sup> February 2022 from 11.00 am onwards in the Chamber of the Hon'ble Chairperson. The meeting was chaired by the Hon'ble Chairperson.

The Committee discussed the ARR and Tariff proposal of the PDS for F.Y. 2022-23 including True Up for F.Y. 2020-21 and Review for F.Y. 2022-23. The views, comments, observations and suggestions of the Committee are given hereunder:

### **I. True Up for F.Y.2020-21**

The Committee observed that similar to the past years, the two main items contributing the ARR for F.Y. 20220-21 are 'Cost of Power Purchase' and 'Employee' cost. The Committee further observed that unless measure are taken to curtail the cost of power purchase and arrest the growing employee cost, it will be difficult for the PDS to bring down the revenue gap. The Committee however appreciated the fact that the PDS had been able to bring down the power purchase cost and drastically reduced the gap as against review figures approved by the Commission.

The Committee also noted the significant rise in the actual revenue from sale of power within the State as against projection/estimation and felt that reduction in losses after installation of pre-paid metering will further improve the revenue of the PDS. The Committee felt that the drop in revenue from sale of power outside State could be attributed to Covid-19 pandemic, due to which businesses had come to a standstill severely affecting the electricity consumption in the country as a whole.

The Committee stressed on the need for taking effective measures by the PDS for reducing the losses and opined that reduction in T&D losses will also help the PDS to bridge the revenue gap. The Committee also stressed on the necessity of proper human resource planning and skill development

of the employees of the PDS. The Committee opined that the huge number of temporary employees working in the PDS need to be trained so that their productivity increases and suggested that the PDS should explore the possibilities of engaging the huge manpower in other State Government Departments to bring down the employee cost in Power Department.

The Committee also opined that the PDS needs to focus on timely restoration of power outages, repair and maintenance of transformers including standby transformers and availability of spares to avoid delay in power restoration works.

## **II. Review for F.Y. 2021-22**

The Committee opined that since the revised estimations/projections submitted by the PDS in its review petition for F.Y. 2021-22 are based on the actuals of the previous year, the PDS must try to achieve the projected/estimated figures submitted in the review and try to avoid huge variations.

The Committee observed the drastic reduction in the cost of generation and also the reduction in the cost of power purchase, which resulted in the reduction in the revenue gap for F.Y.2021-22. The Committee noted the increase in the estimated revenue from sale of power from both within and outside the State and opined that it as a good indicator for the PDS. The Committee opined that the PDS should work hard to ensure that the estimated/projected targets are achieved.

## **III. Projected ARR and Tariff for F.Y.2022-23**

The Committee observed that the tariff proposed by the PDS for Domestic and Commercial category consumers are same as the tariff that had been approved by the Commission during F.Y.2019-20. The Committee also observed that the hike in tariff proposed by the PDS is not unreasonable considering the fact that the cost of all commodities have increased over the years and thus it is natural that electricity cost too will go up with time. The Committee opined that electricity has become the most important need for people in the present age of technology and as such quality and reliability of power supply are the two areas that need to be given priority by the PDS. The Committee also observed that consumers are ready to pay but what they expect is quality supply and reasonable price. The Committee noted that the PDS proposes to recover only a meagre portion of the revenue gap by way of proposed tariff hike and the PDS is absorbing the balance gap so that the entire burden is not passed on to the consumers. The Committee also observed that the additional revenue to be generated by way of hike in tariff proposed by the PDS is very miniscule (around ₹ 1.85 Crores) and will not any major impact on reducing the revenue gap.

The Committee was of the view that the PDS has been showing good signs of improvement in the recent years and it is reasonable for the PDS to expect some incentive by way of hike in tariff. The Committee also discussed the requests made by the Indian Army for reduction in the tariff for Bulk Category consumers and opined that relief had been already given to the Bulk Category consumers in the past years by substantially reducing the tariff and opined that if status quo can be maintained,

the Army should be happy. The Committee opined that not hiking of tariff every year and being able to keep the tariff unchanged is itself a good relief for the consumers.

The Committee suggested that the Commission may take into account the submissions and views given by the public in the public hearing held on 23<sup>rd</sup> February 2022 and pass the tariff order keeping in view the interests of both the PDS and the consumers.

## 2. SUMMARY OF AGGREGATE REVENUE REQUIREMENT FOR F.Y. 2020-21

### 2.1 Aggregate Revenue Requirement (ARR)

The Petitioner has submitted the Aggregate Revenue Requirement for the F.Y. 2022-23 for meeting its expenses and estimated revenue with the existing tariff and also the True Up for F.Y 2020-21 and Review for F.Y 2021-22. The True Up ARR for F.Y 2020-21, Review for F.Y 2021-22 and the projected ARR and Revenue gaps for F.Y 2020-21 to F.Y 2022-23 are shown in the table below:

**Table 2.1: Aggregate Revenue Requirement Projected by PDS (₹ in Crore)**

Sl. No.	Particulars	FY 2020-21 (Provisional)	FY 2021-22 (Estimated)	FY 2022-23 (Projected)
1	Cost of Fuel	0.12	0.2	0.20
2	Cost of Generation	0.34	0.17	0.00
3	Cost of Power Purchase	279.88	198.13	204.71
4	Employee Costs	157.97	174.78	193.38
5	Repair and Maintenance Expense	30.33	32.76	35.38
6	Administration and General Expenses	5.33	5.4	7.56
7	Depreciation	31.03	32.75	34.85
8	Interest Charges	-	-	0.00
9	Interest on Working Capital	4.83	4.57	3.44
10	Return on NFA/Equity	-	-	0.00
11	Transmission Charge ( Intra State)	35.17	31.25	33.55
<b>12</b>	<b>Total Revenue Requirement</b>	<b>545</b>	<b>480.01</b>	<b>513.07</b>
13	Less: Non-Tariff Income	1.31	1.32	1.35
<b>14</b>	<b>Net Revenue Requirement</b>	<b>543.69</b>	<b>478.69</b>	<b>511.72</b>
15	Revenue from Tariff	354.23	268.54	282.33
16	Revenue from Outside State Sales	121.78	189.16	200.00
<b>17</b>	<b>Gap (14-15-16)</b>	<b>68.46</b>	<b>20.99</b>	<b>29.39</b>

### 2.2 Tariff – Existing vs. Proposed

In its Petition, PDS has submitted the proposed Tariffs for the FY 2022-23, as detailed in the table below:



Table 2.2: Existing Tariffs v/s Proposed Tariffs for the FY 2022-23

SI No	Category of Consumers	Existing Rate Paisa/KWH	Proposed Rate Paisa/KWH
1	2	3	4
<b>1</b>	<b>Domestic</b>		
a)	Up to 50 units	100	120
b)	51 to 100 units	200	240
c)	101 to 200 units	300	370
d)	201 to 400 units	350	460
e)	401 and above	400	500
<b>2</b>	<b>Commercial</b>		
a)	Up to 50 units	300	330
b)	51 to 100 units	400	400
c)	101 to 200 units	500	560
d)	201 to 400 units	600	600
e)	401 and above	630	640
<b>3</b>	<b>Public Lighting</b>		
a)	Rural Areas	400	400
b)	Urban Areas	500	500
<b>4</b>	<b>Industrial</b>		
<b>A</b>	<b>HT</b>		
a)	HT (AC) above 3.3 KV		
b)	Upto 100 KVA	520	520
c)	100 to 250 KVA	570	570
d)	250 to 500 KVA	620	620
e)	500 KVA and above	670	670
<b>B</b>	<b>LT (Rural)</b>		
a)	Up to 500 units	360	360
b)	501 to 1000 units	440	440
c)	1001 and above	580	580
<b>C</b>	<b>LT (Urban)</b>		
a)	Up to 500 units	530	530
b)	501 to 1000 units	620	620
c)	1001 and above	715	715
<b>5</b>	<b>Bulk Supply</b>		
a)	LT	550	550
b)	HT	550	550

### 2.3 Prayers of PDS

The PDS has in its Petition prayed for the following:

- To consider and approve the Provisional True-up of expenses for the FY 2020-21.
- To Review the estimates for the FY 2021-22.
- To admit the Petition and approve the ARR and Tariff for the FY 2022-23.
- To approve category-wise tariff, including fixed/demand charges submitted by PDS to meet revenue requirement for the FY 2022-23.
- To approve the suggestions regarding the tariff philosophy.
- Pass such orders as the Commission may deem fit and proper, keeping in view the facts and circumstances of the case.

### 3. POWER SECTOR – AN OVERVIEW

#### 3.1 Introduction

With a total geographical area 7,096 Sq Km and population of 6,10,577 as per 2011 census, Sikkim is one of the smallest and least populated States in India. Sikkim share its boundaries with three countries namely Bhutan in the East, Nepal in the West and China in the North and also the State of West Bengal in the South.

Prior to joining the Indian mainstream in 1973, Sikkim was an independent Kingdom ruled by the Chogyals or Dharma Kings. Being a landlocked Himalayan kingdom, it took many years before any major development works began in the State. Development of all major infrastructure works like roads, power projects, electricity supply and other industries began late in the State in comparison to its counterparts. Although Sikkim started its journey of developmental activities very recently, it has been able to make significant progress in all areas in a span of few decades and today, Sikkim stands shoulder to shoulder with the rest of country and even leads the other States in many fields/areas. Sikkim is known the world over not only for its pristine beauty but also for being the First Organic State, Chemical & Pesticide Free State, Ban on Use of Plastic etc.

One of the primary reason for its rapid growth and development can be attributed to its small population but surprisingly, Sikkim has one of the lowest per capita power consumption in the country. The reason for very low per capita power consumption being its small population and absence of heavy power consuming industries. The major industries operating in Sikkim are the pharmaceutical units, breweries/distilleries and construction power. In addition there are few small scale industries, poultry farms, hotels, home stays, resorts and food processing units operating in the State but the power demand from this group is very small. A major chunk of the consumers as such falls under the Domestic category followed by commercial, Bulk Supply, LT Industrial and HT Industrial.

PDS is the only deemed licensee engaged in transmission, distribution and supply of electricity in the State. PDS is a deemed licensee under the provisions of Electricity Act, 2003. The PDS is also a generation utility and owns a few number of small hydropower projects and diesel generating stations. The PDS, being a State Government Department

functions with budgetary support from the State Government and also many of its schemes are funded by the Government of India.

Sikkim Power Development Corporation Limited (SPDCL), A Government of Sikkim Enterprise is another State Government Generating Company with 51% stake of the State Government and is engaged in the development and operation of small hydropower projects in the State. The SPDCL presently owns and operates 3 (three) small hydropower projects with total installed capacity of 10 MW. SPDCL is implementing 3 MW Chatten Hydropower Project in North Sikkim and the project is expected to commission shortly.

### 3.2 CONSUMER PROFILE

As on 31<sup>st</sup> March 2021, the total number of registered consumers stood at 1,19,203 with an annual power consumption of 403.36 MUs. The category-wise consumer profiled is as given in the table below:

Category	No. of consumers 2020-21	Percentage of break up
Domestic	1,04,134	87.36
Commercial	12,156	10.20
Public Lighting	37	0.031
Temporary Supply	-	-
HT Industrial Consumers	534	0.45
LT Industrial Consumer	636	0.53
Bulk Supply	1,706	1.43
<b>Total</b>	<b>1,19,203</b>	<b>100</b>

### 3.3 HYDRO POWER PROJECT DEVELOPMENT

Central Water Commission (CWC), Government of India, had assessed the total hydropower potential of Sikkim to be around 8000 MW. CWC had conducted surveys and feasibility studies of various hydropower projects and prepared Pre-Feasibility Reports (PFRs). The PFRs were later submitted to the State Government and based on the PFRs prepared by the

CWC, decision was taken by the State Government to tap the hydropower potential of the State. Accordingly, the State Government initiated the process for implementation of the projects through NHPC Limited and private power developers on Build, Own and Operate (BOO) and Build, Own, Operate and Transfer (BOOT) basis . The projects commissioned in the State so far are given below:

Sl.No	Name of the Project	Installed Capacity (MW)	Developer
1	Teesta -III HEP	1200	TeestaUrja Ltd (A Govt. of Sikkim Undertaking)
2	Dikchu HEP	96	Sneha Kinetics Power Projects Pvt Ltd
3	Chujachen HEP	110	Gati Infrastructures Pvt Ltd
4	Teesta –V HEP	510	NHPC Ltd
5	Rangit –III HEP	60	NHPC Ltd
6	Tashiding HEP	97	Shiga Energy Pvt Ltd
7	Jorethang Loop HEP	96	DANS Energy Pvt Ltd
8	Rongnichu HEP	96	Madhya Bharat Power Corporation Pvt Ltd

In addition to the above, some more projects are under implementation and are as indicated below:

**Projects under Implementation/to be implemented**

Sl.No	Name of the Project	Installed Capacity (MW)	Developer
1	Teesta -IV HEP	520	NHPC Ltd
2	Teesta-VI HEP	500	NHPC Ltd
3	Rangit- IVHEP	120	NHPC Ltd

### 3.4 TRANSMISSION & DISTRIBUTION NETWORK IN THE STATE

As the deemed licensee for Distribution and Transmission of electricity within the State, the PDS owns and operates Transmission and Distribution network in the State. The details of the Transmission and Distribution network owned and being operated by the PDS as on 31<sup>st</sup> March, 2021 are as given below:

**I. Power Transformers**

Sl No	Description (MVA)	Quantity (No)	Total Capacity (in MVA)
1	2.5 MVA	10	2.50
2	5 MVA	7	35.00
3	7.5 MVA	3	22.5
4	10 MVA	20	200.00
5	12.50 MVA	2	25.00
6	13.50 MVA	2	27.00
7	15 MVA	7	105.00
8	20 MVA	10	200.00
9	32.50 MVA	3	97.50
9	100 MVA	2	200.00
	<b>Total</b>	<b>66</b>	<b>914.50</b>

**II. Distribution Transformers**

Sl No	Description KVA	Quantity (No)	Total Capacity (in KVA)
1	3000	1	3000.00
2	2500	6	15000.00
3	2000	3	6000.00
4	1600	4	6400.00
5	1500	3	4500.00
6	1250	5	6250.00
7	1000	9	9000.00
8	800	2	1600.00

9	750	15	11250.00
10	630	3	1890.00
11	600	2	1200.00
12	500	132	66000.00
13	400	7	2800.00
14	315	86	27090.00
15	300	36	10800.00
16	250	53	13250.00
17	200	156	31200.00
18	160	14	2240.00
19	150	48	7200.00
20	125	8	1000.00
21	100	245	24500.00
22	63	565	35595.00
23	50	15	750.00
24	25	947	23675.00
25	16	1	16.00
26	10	401	4010.00
	<b>Total</b>	<b>2767</b>	<b>316216.00</b>

### III. EHT Lines, HT Lines and LT Lines

Sl No	Description	Length
A	<b>EHT Lines</b>	(Ckt.Km)
1	132KV	55.00
2	66 KV	413.00

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	<b>Total EHT Lines</b>	<b>468 Ckt.Km</b>
<b>B</b>	<b>HT Lines</b>	<b>(Ckt.Km)</b>
1	11 KV	3204 Ckt.Km
<b>C</b>	<b>LT Lines</b>	
3	LT	5012 Ckt.Km



## **4. BRIEF SUMMARY OF OBJECTIONS RAISED, RESPONSE OF PDS AND COMMENTS OF THE COMMISSION**

In order to obtain the views, suggestions, objections and comments of the consumers and stake holders, Power Department, Government of Sikkim, issued a Public Notice in local newspapers on 22<sup>nd</sup> December 2022 soliciting views, comments, suggestions on the ARR and Tariff for the F.Y. 2022-23 and True UP and Review for F.Y. 2020-21 and F.Y. 2021-22 respectively. The last date for filing of the objections and suggestions before the Commission was fixed as 17<sup>th</sup> January 2022 by the Power Department. The PDS also placed the ARR and Tariff Petition in its official website and made the copies of the ARR and the Tariff Petition were made available to the public free of costs at designated offices. The Commission also uploaded the ARR and Tariff Petition in its official website.

As mandated and required by the provisions of the Electricity Act, 2003, The Commission also issued notice for Public Hearing on the ARR and Tariff Petition filed by the PDS. The Commission gave wide publicity regarding the time, date and venue of the Public Hearing and called upon all to participate in the hearing. The Public Hearing was held on 23<sup>rd</sup> February 2022 in the Court Room of the Commission, Deorali, Gangtok from 10.30 AM to 2.30 PM for all categories of consumers. The primary aim of conducting the Public Hearing was to obtain the views of the general public and other stake holders on the ARR/Tariff proposals and to ensure public participation in the regulatory process. The details of the Public Notice published in local newspaper by the Commission are as under:

- **Sikkim Express (English)-----26<sup>th</sup> January 2022**
- **Hamro Prajashakti (Nepali)-----26<sup>th</sup> January 2022**

### **Proceedings of the Public Hearing**

The Public Hearing started at 10.30 AM in the Court Room of the Commission and was presided by the Hon'ble Chairperson. The Hearing was attended by the Officers of the Commission, Officers of the PDS and also by public and representatives of the Indian Army. As already narrated under "Public Hearing "at Chapter-3, there was good participation by the general public and other stake holders in the Public Hearing as compared to the past years.

The list of participants, who attended the Public Hearing, is as under:

Sl.No	Name	Department/Agency/Address
1	Mr. K.B.Kunwar	Hon'ble Chairperson,SSERC
2	Mrs. SherapShenga, IAS	Secretary, SSERC
3	Mr. Ganesh Chettri	Principal Chief Engineer cum Secretary , Power Department, Govt. of Sikkim
4	Brigadier VikramBhan, VSM	Dy. GOC, Black Cat Division, Indian Army
5	Col. Rahul Koul	Black Cat ,Division Engineers
6	Lt.Col.GauravBangari	Black Cat Division
7	Mr. BikashDeokota	Chief Engineer, Power Department, Govt. of Sikkim
8	Mr. Dilip K. Sharma	Chief Engineer, Power Department, Govt. of Sikkim
9	Mr. Jigme Namgyal	Chief Engineer, Power Department, Govt. of Sikkim
10	Ms. Shova Thapa	Addl. Chief Engineer, Power Department, Govt. of Sikkim
11	Mr. T.T.Bhutia	Addl. Chief Engineer, Power Department, Govt. of Sikkim
12	Mr. KalyanDewan	Additional Director (Accounts), Power Department, Govt. of Sikkim
13	Mr. Dinesh K. Chettri	D.O (Revenue) ,Power Department, Govt. of Sikkim
14	Mr. PalchenD.Chaktha	Director (T&T),SSERC
15	Mr. Jigme W. Bhutia	Joint Director (IT), SSERC
16	Mr. P.P. Sharma	Financial Advisor, SSERC
17	Mr. PemaR.Gyansapa	Assistant Director (Tariff), SSERC
18	Mr. Sonam G.Bhutia	Assistant Director (Law) , SSERC
19	Ms. RadhikaDhakal	Assistant Director (Revenue),Power Department, Govt. of Sikkim
20	Mr. Arbind Rai	Divisional Engineer, SREDA
21	Mr. Ankit Sharma	Consultant to SSERC
22	Mr. NirmalBhattarai	Khamdong, East Sikkim
23	Miss Jamyang P.Bhutia	Scientist –B, Science & Technology Department, Govt. of Sikkim
24	Ms. Prela Lepcha	Bojoghari, Gangtok
25	Ms. PurnimaBasnet	Bojoghari, Gangtok
26	Mr. Bhanu B Sharma	Gyalshing, West Sikkim
27	Mr. Lekhuk Sharma	Gyalshing, West Sikkim
28	Mr. RupenKarki	SadamSuntalay, South Sikkim

### **Views, Comments, Objections and Suggestions Given by the Public/Indian Army in the Public Hearing**

The details of the views, comments and objections raised by the Public and representatives of the Indian Army (Black Cat Division) during the Public Hearing, the Clarifications/Replies given by the Power Department and the Comments/Observations of the Commission are discussed hereunder:

- 1. Brigadier Vikram Bhan, VSM, Deputy GoC and Col. Rahul Koul , Indian Army (Black Cat Division):**

Speaking on behalf of the Army they submitted that the representatives of the Indian Army have already submitted an application before the Hon'ble Commission in November 2021 seeking relief for the Army in the electricity tariff applicable to them under 'Bulk Category' and also for consideration of creating a separate consumer category for the Army. They added that the representatives of the Army had met and discuss the matter several times with the PDS and also with the Commission in the past. They further added that they are very thankful to the Commission and the PDS for considering the request of the Army during F.Y. 2021-22 and for reducing the tariff applicable to them. They again requested the Commission and the PDS that their submissions made in the application dated 21.11.2021 be considered and the tariff for the Bulk Category be further reduced. Brigadier Bhan said that the submissions of the Indian Army have been already made in detail in their letter dated 21.11.2021 and prayed that their submissions/requests be favorably considered by the Commission.

The key submissions/requests made by the Army in their application dated 21.11.2021 and also during their interaction with the Commission are as under:

- That the Black Cat Formation of the Indian Army is deployed in East Sikkim at many places like Gangtok, 17<sup>th</sup> Mile, Men La, Tshomgu, Nakchok, Haryana Bend, Thegu, Nathula, Sherathang, Tamze and further beyond as close proximity to civil population. The civil population in these areas are being charged tariff under Domestic Category (₹ 4.00 per unit) but Military establishments are being charged under Bulk category (₹ 5.50 per unit).
- That the Army had petitioned for review of tariff in the previous financial year and the Bulk Tariff applicable to the army establishment was reduced to ₹ 5.50 per unit from ₹ 7.00 per unit during the year 2021-22 by the SSERC duly considering the submissions of the Army.
- That the military pattern of power consumption is restricted to basic lighting and warming and therefore akin to domestic use.
- That a significant portion of army fund goes towards payment of power bills ( ₹ 168.00 lakhs in 2019-20 and ₹ 139.96 Lakhs in 2020-21) and the Army is very regular and punctual in payment of the bills.
- That the Army has taken up many electrification projects in forward areas to reduce its dependency on generators and projects worth ₹ 448.48 lakhs have been executed

or are under progress in forward areas as deposit works with the Power Department, Govt. of Sikkim. With addition of more electrification projects, the power consumption of the Army is going to grow and will further boost the revenue of the Department.

- That the serving army personnel are deployed in forward/far flung border areas of altitude 16000 feet and are guarding the borders under harsh climate conditions for majority of the year.

With the above submissions, the Army prayed that:

- Tariff for army in the forward areas, bills being paid through operational works head be brought under Domestic Category from existing Bulk category. In case of non-feasibility of the same, a separate tariff category for the Army be created.
- Change in tariff category as requested above will go a long way in saving of the Operational Works Fund and creating more avenues for taking up of electrical infrastructural projects in forward areas thereby adding to the revenue of the Power Department.

Brigadier Bhan, reiterated the above submissions and requests during the Public Hearing held on 23<sup>rd</sup> February 2022 and prayed that their case be considered by the Commission/PDS duly keeping in view the facts highlighted in their application.

**Responses/Replies/Clarifications furnished by the Power Department:**

The summary of responses/clarifications and replies given by the Power Department representatives to the Army were as under:

- Considering the submissions made by the Army, the Power Department reduced the energy charges for the Bulk Category Consumer during F.Y. 2021-22 and same was approved by the Commission and big relief was given to the Army and other consumers falling under the Bulk Category.
- Bulk Supply category has many other consumers like the Sikkim Armed Police, IRB, Hospitals etc. and reducing the tariff of the Bulk category will have major impact on the revenue of the Power Department.
- The Department is aiming to ultimately bring the Army under Domestic Category but the same can't be done overnight as it involves policy decisions and many other factors which needs to be taken into consideration. Any decision to change the tariff

category or further reduction of tariff needs to be done in a well-planned and phased manner to minimize the impacts.

- Due to Covid 19 pandemic, the countries world over faced serious economic problems and so has India and its States. Sikkim too has been severely impacted and revenue generation has been hit hard. Therefore, it is very difficult for the Department to make changes that would further aggravate the financial health of the State and joint effort of all is needed to tide over the situation.
- PDS being a Government Department needs to discuss and place any proposal for changes before the State Government and therefore it is not proper for the PDS to give any kind of assurance. However, the Department is considering to give special package to the Army in near future.
- Considering the kind of consumption of the Army, it is not feasible to bring the entire Army connections under Domestic Category but a feasibility study on the possibility of bringing the ' Forward Areas/Posts' under Domestic Category will be done duly considering its impact on the revenue in near future.
- The Department suggested/advised that if the Army desires the Department will install Maximum Demand Indicator (MDI) for the Army connections. MDI will ensure that the consumer will pay the Demand Charges as per his actual demand, which will significantly reduce the electricity bill of the Army establishments.

**Comments/Views/Opinion of the Commission:**

- The Commission well endorsed the fact that the soldiers posted in the forward areas have to do their duty under extreme weather conditions and providing good lighting and warming/heating facilities in the difficult forward areas should be given priority to boost the morale of the jawans and the Officers. The Commission also opined that the Army is selflessly working for the protection, safety and security of the nation and the citizens. The nation and the people are all proud of our Army and all possible help and cooperation have to be extended to the Army.
- The Commission noted that that relief to the extent possible had been already given to the Army in the past and Commission can't arbitrarily bring down the tariff or change the tariff category. Tariff determination is done taking into many factors and as such neither the Commission nor the PDS can act in an arbitrary manner while proposing any change in tariff structure or changing tariff category. The Commission is guided by various principles, guidelines, rules and regulations and has to safeguard the interests of both the PDS and the

consumers and so it can't give preferential treatment to a particular class of consumer and thereby put burden on rest of the consumers.

- Government of India has been emphasizing on the need for adopting/determining cost reflective tariff by the SERCs/JERCs and therefore the Commission has to ensure that any decrease or increase in tariff is done so as to reflect the actual costs of power being supplied. The Commission observed that no hike in tariff of Bulk Category has been proposed by the PDS and opined that maintaining status quo should be seen as relief by the Army and other consumers.
- The Commission felt that both the Army and the PDS are working for the country and its people and therefore both should interact, discuss and explore options/ways to work out technically and financially viable models for restructuring of the tariff applicable in the future and thereafter approach the Commission. Commission observed that before putting up petition for any modification/change in tariff category, detailed study and analysis of its impact on the revenue and on other consumers need to be done by the PDS.
- The Commission has taken into consideration the submissions of the Army and the clarifications given by the PDS while finalizing the tariff order duly keeping in view the interests of the other consumers, PDS and the Army.

## **2. Miss Jamyang P. Bhutia, Upper Burtuk, Gangtok.**

Miss Jamyang P Bhutia submitted that she is attending the hearing on behalf of the Public of not only her area but also to speak for the consumers in general. The main points raised by her were as under:

- She observed that the PDS has proposed to raise the tariffs of only 'Domestic' and 'Commercial' category consumers in their Petition whereas there is no proposed hike in tariffs of other consumers. This, she felt is injustice to the domestic and commercial category consumers.
- She submitted that being a hilly and difficult area, the cost of living is very high in Sikkim as compared to other parts of the country and apprised the house that there are many students, workers and other poor people who live in rented buildings and it is very difficult for them to meet the high costs of rent, electricity, water, food and other basic necessities and requested that the electricity tariff should not be increased rather it should be decreased to give relief to the poor consumers of the State. She apprised the house that in New Delhi, few years back when she was staying there, only minimum monthly electricity bill was charged to her and felt that if Delhi can do so, Sikkim should also be able to bring down the tariff.
- She submitted that there are many local entrepreneurs who have set up small business units, eateries, Tours and Travel etc, whose consumption fall under the 'Commercial' category and any increase in tariff will hugely impact our local entrepreneurs. She further

submitted that local entrepreneurs are trying to re-group, re-focus and rebuilt their businesses after difficult phase of Covid-19 and increase in tariff will seriously impact the budding local entrepreneurs and requested that the tariff should not be hiked. She added that the local firms/business units are also providing employment opportunities for locals and therefore they need to be incentivized by way of reducing the electricity tariff.

- She further submitted that there are many private companies operating in the State, who are using and exploiting the natural resources of Sikkim and making handsome profit and therefore it would be appropriate that good tariff is levied from the Industrial consumers and reasonably increasing their tariff. She felt that the huge private companies are using our resources and making good profit but they hardly give anything in return to either the State or the people. So increasing the tariff of industrial consumers would indirectly benefit the local people by way of cross subsidy, which she felt is reasonable and justifiable considering the 'CSR' that they owe to the State and its people.
- She also submitted that Sikkim can't be compared to other States as Sikkim has only recently shifted from monarchy to democracy and Sikkim also enjoys special status under the Constitution and therefore it is reasonable, logical and justifiable that people of the State be treated preferentially. She also highlighted the special status enjoyed by Sikkim under Article 371 F of the Indian Constitution and submitted that before any new Acts, Rules, provisions etc are implemented, the special protection guaranteed to Sikkim by Article 371F has to be taken into consideration.
- She also highlighted that tenants from outside the State are using the electricity bills issued by the PDS to get voting cards in the State to illegally buy lands and settle permanently in Sikkim. The PDS need to properly check and verify the documents of an individual before giving electricity connection to avoid misuse of electricity bills by individuals for illegally obtaining voter ID cards. She also submitted that many people with fake Certificate of Identification (CoI) and falsely obtained voter ID cards are found buying lands and settling in the State and therefore the PDS need to properly check the authenticity of the documents submitted by applicants for obtaining power connection.
- She also raised the issue of safety of life due to laying of 'Underground Electric Cables' and 'PHE Water Pipelines' side by side in and around Gangtok and other towns. She requested that the practice of laying electrical cables and water pipelines in the same trench should be stopped and felt that it poses heavy risk to human lives. She requested that PDS and the PHE Department should sit together and make proper plan to avoid loss of precious human lives.
- Miss Jamyang P. Bhutia also raised the issue of overloading/failure of Distribution Transformers and delay in restoration of power after failure in rural areas. She submitted that despite reminders/requests there is immense delay on the part of the PDS to take up power restoration works and repair of faulty/damaged transformers and other equipment. She highlighted that there are power cuts for many days at a stretch and it hampers the

students who are preparing for online exam and requested the PDS for efficient timely action by the PDS.

- Miss Bhutia also pointed out that there is very little information available on Rooftop Solar Power and Renewable Energy (RE) related matters in the Public Domain. Many local youths are desirous of taking up solar power development in the State and therefore the PDS needs to place all Solar /RE related information in the public domain.

### **Responses/Replies/Clarifications furnished by the Power Department:**

The replies/clarifications given by the PDS to the submissions/requests mad by Miss Jamyang P. Bhutia were as under:

- The representatives of the PDS (hereinafter referred to as 'PDS') clarified that it has only filed a Petition before the Commission for proposed hike in tariffs of Domestic and Commercial category consumers for the F.Y 202-23 and the same is yet to be approved by the Commission. Therefore it is incorrect to assume that the PDS has already hiked the tariff for the said categories of consumer. The PDS further added that it has only made submissions before the Commission to consider the proposed tariff hike and it is the prerogative of the Commission to ultimately decide whether the tariff is to be increased or not.
- The PDS further clarified that earlier tariff fixation was done by the power generation, distribution and transmission companies purely to fill their revenue gap, which was done arbitrarily. In view of that the Government of India has enacted the Electricity Act, 2003 and thereby mandating the task of tariff determination to autonomous/statutory bodies known as State Electricity Regulatory Commissions (SECRs). PDS is required to place all details like expenditures, business plans, investments, losses, revenue etc before the Commission in the form of tariff petition duly indicating annual revenue requirement and the revenue shortfall. The Commission thoroughly scrutinizes and verifies the details submitted by the PDS to determine the Tariff in a very transparent manner. Thus, it would be incorrect to assume that the PDS increases the tariff in an arbitrary manner.
- The PDS added that unlike Private Distribution companies, the Power Department is a State Government Department and all its accounts are subject to audit by the Office of the Accountant General, Govt. of India as well as State Government Internal Audit and therefore all its expenses and revenues are transparent and subject to public scrutiny. Therefore the proposed revenue, sales and expenses etc filed by the PDS before the Commission are based on ethical practices and no wrong intention is involved.
- The PDS submitted that the tariff proposed by it for FY 2022-23 are same as the tariff that was earlier approved by the Commission for FY 2019-20 and as such the PDS is only requesting the Commission to restore the tariff to that of FY 2019-20, which the consumers had accepted and paid in the past. PDS further added that it proposes to recover only a



meagre amount of its revenue gap by hiking the tariff and has not proposed to recover its entire revenue gap to avoid taxing the consumers. PDS added that out of estimated revenue gap of ₹ 29.39 crores for the F.Y 2022-23, it proposes to recover only ₹ 1.85 crores through hike in tariff, which works out to an average hike of ₹ 0.04 per unit instead of average hike needed of ₹ 0.71 per unit to recover the estimated revenue gap of ₹ 29.39 crores. Thus, it has not proposed any unreasonable hike nor its intention is to make profit but only to try and minimize the revenue gap, the PDS further submitted.

- The PDS further added that the rate at which power is being purchased by the PDS from outside is quite high (₹ 5 to 5.50 per unit) compared to the average rate at which the PDS is distributing power in the State. In addition the AT&C losses of the PDS is considerably high at around 30%. The high loss is mainly due to theft of power and reluctance of the rural consumers to pay the electricity bills. The only ways to curtail the losses and the resultant revenue gap is to forcefully collect bills or disconnect the lines, which are difficult to be done as the PDS functions more like a welfare department. So the PDS proposes to go for pre-paid metering in the State but the same is being opposed by the public. Therefore the PDS has the challenging task of providing quality power at reasonable cost and without annoying the public being a Government Department. The PDS submitted that the unique and difficult position of the Department needs to be given consideration by the consumers.
- PDS submitted that Covid 19 has slowed down the economic activities throughout the country and has had serious impact on the growth of almost all sectors. Sikkim too has been impacted by the lockdowns due to Covid 19 and the revenue of the PDS has suffered extensively and post Covid 19 has been challenging times for everybody, the PDS added. PDS further submitted that despite all difficulties and challenges posed by Covid 19, PDS has not wavered from its duties and its Officers and field staff have worked hard to ensure un-interrupted power supply to the consumers and added that it had received tremendous support and appreciation from the public as well.
- The PDS clarified that further raising of the tariffs of Industrial consumers is not feasible as the existing tariffs are already very high and added that the Industrial consumers have to pay the 'Demand Charges' in addition to the energy charges, which make their tariff very high compared to Domestic or Commercial categories. The PDS added that charging too high tariff will result in shifting of the Industrial consumers to 'Open Access' category wherein the consumers have the option of buying power from the open market at the most competitive price. If the industrial consumers opts for Open Access, the PDS will lose its high paying consumers which will ultimately hamper the revenue of the State. Therefore, the PDS has not proposed any further hike in the tariffs of Industrial consumers.
- The PDS stated that it has taken note of the other issues raised like overloading of transformers, need for timely power restoration and keeping spares etc and said that the suggestions and points raised by Miss Bhutia are very well taken and assured that necessary directives shall be issued for immediate resolution. PDS also submitted that electricity supply is dynamic in nature and supply gets affected due to many reasons including rain,

landslides, storms, lightning, falling trees etc especially during the rainy season. The limited field staff have to gather all available limited resources and often use their physical strengths under difficult weather conditions to restore power supply. However, despite all efforts sometimes restoration of power supply can't be done instantly but the Department makes best possible efforts to restore supply within the shortest possible time.

- PDS also submitted that keeping in view the ever increasing power demand, it has prepared Detailed Project Reports (DPRs) for improving, strengthening, expanding and up gradation of the distribution system in the State. The DPRs have been submitted to the Government of India for sanctioning under different schemes. Once the DPRs are approved and sanctioned, it will be possible to make major improvements in supply and distribution of power within the State and thereby minimizing the issues of power failure to a large extent, the PDS further submitted.
- The PDS also assured that it will verify the issue of power cable lines and water supply lines being laid side by side and the supposed threats that it caused to the lives of the people and requested Miss Bhutia to join the PDS team during the inspection that the PDS intends to conduct so that the exact locations can be identified and necessary actions can be taken.
- Clarifying on the issue of applicants using fake COIs and Voter IDs to get electricity connections, the PDS submitted that it is not the authority to verify/check the genuineness of the COIs, Voter IDs or land parchas and felt that the public should raise the issues before the concerned department/agencies dealing with COIs, Voter IDs and Land Parchas. The PDS further clarified that it permits only 'temporary' power connectivity to applicants who don't possess COIs and who are not domicile of Sikkim. The temporary connections are given based on land parcha issued by the concerned department, the PDS further added.
- The PDS submitted that all efforts are being made by it to provide quality service to its consumers but being a State Government Department, the Department has its own limitations and issues and as such it may not be justified to compare it to private distribution companies and Boards. Despite all odds and limitations, Department has been able to slowly and steadily make improvement in its service and will keep doing so in the future, it added.
- The PDS submitted that consumers and general public are welcome to approach the Department right from field engineers to the level of PCE cum Secretary for redressal of their grievances. PDS also informed the house that Offices of the Consumer Grievance Redressal Forums (CGRFs) have been setup in all the districts and the consumers have the option of approaching the CGRFs for resolution of their grievances and issues.
- PDS/SREDA informed the house that Sikkim Renewable Development Agency (SREDA) is the Nodal Agency for development of Solar and other RE in the State and that SREDA, which was earlier under the Rural Management and Development Department has been now brought

under the Power Department. The PDS requested that public can visit the office of SREDA and interact with the officials to obtain all information. SREDA informed that it has developed an online portal for registration for solar power development and the public can visit the SREDA website to access all information.

- SREDA representatives assured that they will try to create awareness among the public regarding initiatives taken by it and provide all necessary information regarding solar power development in the Public Domain shortly.

### **Comments/Views/Opinion of the Commission:**

- The Commission noted that the issues raised by Miss Bhutia vis-à-vis her suggestions are very pertinent and relevant for overall interest of the public and appreciated her for speaking on behalf of the public. The Commission was of the view that all the issues raised by Miss Bhutia don't fall under the scope of the subject matter being heard in the hearing and the issues raised by her are of general nature, the PDS needs to take note of the genuine issues raised by her and initiate timely actions for overall interest of the public.
- The Commission apprised the house that tariff determination is a very complex process involving analyzing and processing of many data, figures, projections, estimations etc and is done without any fear or favour. The process is based on very transparent guidelines, rules, regulations and based on well-defined parameters and therefore the Commission can't act arbitrarily to either please the PDS or the consumers. The Commission being a statutory and an autonomous body has to take a very well balanced approach while finalizing the tariff order ensuring that no undue favour is given either to the PDS or the consumers. The Commission has to maintain the delicate balance of protecting not only the interest of the consumers by ensuring reasonable and justifiable tariffs but also to ensure that the PDS is able to recover the actual cost of power being supplied and is able to meet its requirements for providing quality power supply in the State.

- The Commission apprised the house that the PDS has filed a Petition for approval of the Annual Revenue Requirement (ARR) and Tariff proposed for the ensuing year 2022-23, as mandatorily required by the provisions of the Electricity Act, 2003. Presently, the Commission is scrutinizing the details filed/submitted by the PDS in its Petition and is conducting the hearing to obtain the views and suggestions of the public on the proposal of the PDS. The Commission will finalize the ARR and the tariff duly considering the views and suggestions received from the public and will shortly issue the Order. Thus, it is incorrect to assume that the tariff proposed by the PDS has been already approved by the Commission. The Commission expressed its happiness that unlike past years, this year there is good public participation in the hearing and felt that public involvement/participation in the regulatory process not only helps improve the regulatory framework in the State but also assists the Commission in adopting a balanced approach while finalizing the Order.
- The Commission observed that what the consumers want is quality/regular power supply at reasonable price and therefore onus lies with the PDS to improve its service. The Commission opined that the PDS must work hard and try to bring its service quality at par to that of private distribution companies and Boards in the present times of cut throat competition. The Government of India has come out with landmark decisions and rule/acts whereby the consumers have been given the option of choosing the best service and most competitive tariff and therefore the PDS has no option but to improve itself or else lose its consumers, the Commission further opined.
- The Commission also endorsed the fact that the PDS being a State Government Department has its limitations and difficulties in taking prompt decisions and the fact that it operates more like a welfare department than a commercial organization. The Commission felt that the major cause of power failure is due to lack of planning in the past and also sudden changes in the pattern of power consumption in the State. The Commission observed that earlier the consumption was mostly for domestic purposes but today commercial activities have increased significantly in the rural areas due to which there is sudden hike in power demand but the capacities of the transformers and the distribution systems have not been upgraded in tandem with the growth in demand.

The Commission felt that the PDS can't however excuse itself by saying so and must plan and strengthen its infrastructures keeping in view the foreseeable increase in power demand.

- The Commission was of the view that other issues and grievances raised by Miss Jamyang P. Bhutia on behalf of the public need to be taken up by the PDS in appropriate forums like the CGRFs, complaint cells etc and stressed on the need for creating awareness among the public regarding functioning and roles of such Forums.
- The Commission assured the house that all the suggestions, comments and views expressed by the consumers/public in the hearing are being noted and recorded in writing by the Commission and they will be taken into consideration while finalizing the tariff order.

### **3. Ms PurnimaBasnet, Bojoghari, Gangtok**

Ms Basnet submitted and placed the following issues before the House:

- There is leakage of power in many areas in Bojoghari area and especially in the Parking Lots, which poses great threat to the people. The Public of the area have informed the PDS and also submitted application for rectification of the problem many times but no action has been taken so far by the PDS.
- Power leakages and sparks are also observed and seen in the electric poles in the villages. Leakage of electricity from poles is posing great threat to school going children and villagers and therefore the PDS is requested to look into the matter urgently.
- She also raised the issue of frequent power failure and the difficulties being faced by the public and submitted that power supply is very erratic and students attending online classes are having a tough time. She added that there is shortage of field staff and lineman due to which it is very difficult for the lone lineman to attend to power breakdown related problems and felt that department must concentrate on increasing the technical field staff.

- She apprised the house that commercial organizations like BSNL and SMART city projects are also drawing power from the Distribution Transformers resulting in overloading and frequent power failure. The PDS should consider installing separate transformers for such consumers having high power demand to avoid inconvenience to the public.

**Responses/Replies/Clarifications furnished by the Power Department:**

- PDS submitted that matter related to power leakage in Bojoghari Parking Lot has come to the notice of the Department and necessary actions have been initiated already. The PDS added that they are well aware of the leakages of power/sparking on electric poles and informed that heating of the overhead conductors due to excess load is one of the main reasons. The PDS further added that initially the power connections in the rural areas/semi urban areas were given for domestic purposes but most of the houses have now been converted into hotels and homestays due to which there is sudden and unplanned increase in power demand due to which the PDS's transformers and distribution systems are unable to cope with the sudden change in power consumption pattern.
- PDS informed that most of the distribution networks in the State were laid many decades ago and the overhead conductors have become weak/thin and also developed sags resulting in frequent power failure during bad weather conditions. The PDS submitted that efforts are being made to upgrade the transformers and to strengthen the distribution networks in the State but it may take some time before the actual works begin, as the PDS doesn't have the necessary fund to take up the works.
- The PDS requested that consumers should immediately report to the field staff, JEs/AEs and Divisional Engineer of any abnormality that people see be it fire or leakage of power so that the department can immediately take action.

**Comments/Views/Opinion of the Commission:**

- The Commission was of the view that the issues raised by Ms. Basnet are outside the scope of the matter being heard in the hearing yet are important in view of safety of the public/students and therefore the PDS needs to take note of the issues raised and take remedial actions immediately to avoid any untoward accidents and loss of lives.
- The Commission advised that consumers have the right to approach the PDS to resolve issues and if they are still not satisfied by the actions taken by the PDS then they should file petitions before the CGRFs. If the grievances still remain unresolved, the consumer can further appeal before the Electricity Ombudsman. The Commission observed that the public are unaware of the existence and functions/roles of the CGRFs and the Ombudsman and the PDS needs to carry out awareness campaigns to enlighten the public. Once the public are aware of the various forums available for resolution of their grievances, it will be easy for them to place their grievances before the correct forums for timely redressal.

**4. Mr. Nirmal Bhattarai, Khamdong, East Sikkim**

The issues raised by Mr Bhattarai were as under:

- In Urban areas we use power for purely domestic purposes only but we are being charged domestic tariff, which is unjustifiable. Levying commercial tariff even if a consumer has a small shop also is unjust.
- Shri Bhattarai also queried as to whether an individual consumer can get two power connections i.e. domestic and commercial connections in the same premises.
- Sikkim has many hydropower projects and also gets around 450 MW free power but the PDS is still buying power from outside. Why can't the PDS buy power from the hydro projects which have been already commissioned since last many years within Sikkim? He opined that with so many hydropower projects and also a power surplus State, why the PDS is proposing to hike the tariff?

- MrBhattarai pointed out that the types/class/categories of consumers is not well defined by the PDS and suggested that very clear and well defined parameters need to be developed/set for classifying the consumer category so as to prevent unjustified charging of tariff especially to economically weak people living in both Urban and rural areas.
- The Government of India has provided huge investments (₹ 1700 crores) for power distribution related works but still the distribution network/system in the State has not improved nor have the losses been reduced. High AT&C losses are due to the department's own fault and so the losses should not be passed onto the consumers and the consumers should not be asked to pay higher tariff to cover the losses.
- Being an engineer himself, Shri Bhattarai added that he had keen interest in solar power development since long time back and had made efforts to explore the support available in Sikkim for Solar Power development. He further added that till few years the subsidy for solar power was quite high (around 60%) but now the subsidy has been reduced considerably and viability/sustainability of solar power is very low in Sikkim. He opined that both the PDS and SREDA did not make tangible efforts for solar power development when the subsidy was good and therefore we may have missed the opportunity. He suggested that SSERC should direct all Government office buildings to install Rooftop solar so that more green power can be added to the State's power portfolio.
- Shri Bhattarai felt that the people of Sikkim are already facing difficult times post Covid 19 and can't afford to pay high electricity bills. He submitted that the PDS must make efforts to curtail the high AT&C losses, which will automatically bring down the revenue gap and there will be no need for hiking the tariff. He submitted that the tariff for all consumers should be kept unchanged and strongly objected any hike in tariff.

**Responses/Replies/Clarifications furnished by the Power Department:**

The following relies/clarifications were furnished by the PDS to Mr. Nirmal Bhataarai:

- PDS apprised and submitted that all consumers are being charged both in Urban and Rural areas as per their 'nature of consumption' and there is no instance of charging



commercial rate to a 'domestic' category consumer. PDS opined that it could be possible that at the initial time of applying for new connection, the applicant must have taken 'commercial' connection and subsequently the nature of consumption changed to 'domestic'. As a result, the connection might be still 'commercial' category in the records of the PDS. The consumer has to approach the PDS with documentary support and request for changing the consumer category in the records.

- PDS advised that if there are commercial activities in a household mainly in rented buildings, shops etc then the owner has to segregate the lines and obtain separate connections for his domestic use and for commercial use by his tenants. The PDS clarified that it is possible for an individual to get more than one power connections of different consumer category subject to submission of necessary documents by the applicant.
- PDS submitted that the State Government has not developed any major hydropower projects in the State due to lack of huge investments needed. The State Government also feels that it is not the business of the state Government to do business. The existing small projects owned by the State are aged and need sizeable investments for repair and maintenance and there is also the burden of huge manpower. Considering all these factors, the State Government brought in private investors for development of power projects in the State and therefore all the major projects in Sikkim have been developed either by NHPC Ltd or private developers. The State gets 12% free power from the Hydropower projects already commissioned and the free power is sold outside the State.
- PDS has also leased out 7 of its existing small hydropower projects to a Technical partner, who will be solely investing in the projects and provide 12% free power to the State. These projects are planned to be operationalized from March 2022 and the power will be injected into the state grid thereby improving the State's power availability to large extent.
- PDS is bound by the Power Purchase Agreements it has executed with the Government of India agencies like PTC, NTPC etc for purchasing thermal power from

Central Generating Stations (CGS). The high cost thermal power being purchased by Sikkim is as per the allocation given by the Government of India and Sikkim can't deny it. Even if Sikkim decides to surrender the share of power allocated, it is bound to pay the fixed charges. As such, PDS has no option but to continue buying high cost thermal power from CGS though cheaper hydropower is available. The excess power after meeting the demands of the State is then sold/traded outside often at rates much less than the buying rate.

- PDS clarified that Hydropower is seasonal and the power generation drops drastically during the lean (dry) seasons and to meet the high power demand during the lean season, power back up in the form of thermal power is necessary to avoid shortage of power during the lean season. PDS further clarified that the dynamics of power generation and power demand is unique because when there is ample generation of power during the rainy season, there is less demand of power and when the generation is less during lean season, the power demand goes up. This unique situation compels the Distribution Companies including PDS to sell power at cheap rates when there is good generation and buy costly thermal power when there is low generation.
- PDS submitted that it is one of the revenue earning Departments of the State Government and revenue targets are fixed for it by the Finance Department every financial year. A revenue target of almost ₹ 400 crores has been fixed by the Finance Department for FY 2022-23 for the PDS and planning of various schemes/programs of the State Government for the ensuing year is done based on the total expected revenue. As a State Government Department, the PDS is expected to fulfil the revenue target set by the State Government and to do so, the PDS has proposed to slightly hike the tariff.
- SREDA submitted that it is working hard to ensure that solar power development happens in a big way in the State and it is ready to provide all information needed by the interested parties. It added that only for Grid Connected Rooftop Solar Power applications have to be made through the SREDA/PDS and for Off Grid Systems an

individual can set up the solar power at his/her discretion. SREDA also apprised that anyone interested in solar power can visit the SREDA office or the official website of SREDA to get the necessary information.

- SREDA/PDS apprised that steps have been taken to install roof top solar power in Government buildings and identification of buildings/roofs etc is being done. Further the State Solar Policy has been notified and provision has been made that all Government buildings coming up in the future have to mandatorily install solar power.
- PDS submitted that the consumer category has been very comprehensively defined and the kind/type of connections falling under each category can be viewed in the Tariff Order issued by the Commission.
- PDS submitted that one of the steps taken by the Department to reduce the AT&C losses is installation of pre-paid meters in the State. Pre-paid meter will not only reduce wastage of power but will also prevent power theft and help reduce the losses of the Department, the PDS further submitted. However, the PDS apprised the house that public are already opposing the installation of prepaid meters and therefore the targeted commercial loss reductions may not be achieved any time soon. PDS submitted that it is making efforts to convince the public on the benefits of prepaid meter and has started installing the meters in the houses of the Officers of the PDS to begin with and to in still a sense of faith among the consumers.
- PDS submitted that may proposals have been submitted before the Government of India for improving the Distribution/Transmission systems in the State with the aim of reducing the technical losses in the coming days. The financial health of the Department is not good and therefore it is not possible for it to take up the improvement works immediately. However, the Department is very positive and will not spare any efforts to improve the quality of its services in the coming days, the PDS added.

**Comments/Views/Opinion of the Commission:**

- The Commission was of the view that power generation, supply and transmission is a complex subject involving technical aspects that are difficult to be understood by the laymen but the whole idea of the regulatory process is to see that the consumers get quality power at competitive rates. The Commission observed that one of the key conclusion arising out of the discussions is that there is lack of awareness among the public and also unavailability of information in the public domain. The Commission felt that the PDS and the SREDA need to work in tandem make people aware of the various schemes/facilities and support available to the consumers be it power distribution or development of solar power.
- The Commission took note of the facts submitted by the PDS and endorsed the fact that being a State Government Department, it is not 100% possible for the Department to show instant results. The Commission is aware of the limitations and difficulties of the PDS but at the same time the PDS must buckle up and raise to occasion. The PDS must keep making efforts and win the confidence of the consumers, the Commission opined.
- The Commission felt that as observed earlier, most of the issues raised by MrBhattarai are also of general in nature but very pertinent ones and the PDS has to take note of the suggestions given by him.
- As clarified earlier, tariff determination is not done arbitrarily but is done based on established norms and principles. Further all the views and suggestions given by the public including the objections raised will be taken into account by the Commission while finalizing the Order.

**5. Mr. RupenKarki, Sadam, South Sikkim**

Mr. Karki submitted the following points for consideration by the PDS and the Commission.

- He thanked the Commission for conducting the hearing and expressed his happiness that he and his friends are able to participate in the hearing. He added that the points being raised by him are not only for his village but also for the general public.
- He highlighted that there is frequent power failure in his village and surrounding areas and restoration takes lot of time due to which the villagers are suffering. He added that lack of regular power supply is affecting the students taking online classes.
- He felt and submitted that there is lack of proper medium or platform through which the villagers can contact the PDS for lodging their complain during power failure and suggested that either a 24x7 telephone number or a Whatsapp contact has to be provided by the PDS for ease of communicating. He further added that there are Whatsapp Groups of the PDS in the Districts and similar Whatsapp Group can be started for the villages so that the villagers can share real-time status of power supply and other issues to the PDS.
- Mr. Karki also felt that there is utter lack of information among the rural people about the reality of 100 units free power and requested the PDS to explain the whole thing in detail for the information of the public.
- Endorsing the views of Mr. Karki, Mr. Nirmal Bhattarai informed the house that Organizations like Banks, BSNL, railways etc have a very well managed and efficient consumer care/service number and What Sapp number through which they interact with the consumers. He suggested that PDS should consider replicating such system for the ease and benefit of the consumers. He further added that social media is an effective medium and the PDS should consider opening Groups on Facebook to provide information to the public and also to receive complaints from the public.
- Mr. Karki suggested that regular interactions between the PDS and the public are needed in the villages wherein the PDS can enlighten the public on new schemes, safety, efficiency measures, energy saving etc.

- Companies have set up huge hydropower projects in Sikkim and they are using our resources yet Sikkim has to buy costly power from outside and the PDS proposes to hike tariff, which is not justifiable, Mr. Karki added. He submitted that with so much of hydropower generation in the State, electricity should be provided free of cost or at minimal rate to the public and desired to know why giving free power to public is not possible.
- Mr. Karki submitted that power has become one of the most important need in the present times and as such tariff needs to be fixed so that power is affordable even by the poorest consumer. He added that the PDS must explore other ways and means to cover its revenue gap and there should be no hike in tariff.
- Mr. Karki opined that the revenue gap of PDS can be brought down if the AT&C losses are reduced. The PDS should not pass the burden of losses and the loan taken for purchase of high cost thermal power to its consumers. He reiterated that there should be no hike in tariff.

**Responses/Replies/Clarifications furnished by the Power Department:**

- The PDS accepted that power failures keep on occurring in one or other parts of the State and informed that the failures occur due to various reasons. The reasons of failure are both of controllable and uncontrollable in nature. Factors like storms, landslides, lightning and falling of trees are often the cause of power failure during rainy season whereas overloading and failure of plants, equipment and parts are the reason during the winter.
- PDS submitted that most of the power distribution and transmission lines are very old (30 to 40 years) whereas the living standard of the people has gone up and so has the power demand even in the rural areas. Due to increased load, the old and aged power network and equipments are unable to take the load especially during the winter that results interruption in power supply. PDS added that plans have been made for strengthening of the network and proposals have been placed before the Government of India. Once the requisite funds are sanctioned and released, the PDS intends to revamp and improve the power networks throughout the State.

- PDS apprised the house that in rural areas, one of the major cause in power disruption is due to the vegetation touching the overhead lines. The PDS has difficulties in convincing the villagers for clearing of the vegetation and often the villagers don't cooperate. PDS further added that the power lines in the rural areas are very long and it is very difficult to locate the faults inside the thick forests. PDS has to therefore resort to shutting down of the entire supply in order to trace the faults resulting in disruption of supplies for long duration.
- PDS welcomed the suggestion for opening of Whatsapp group and informed that Whatsapp Group are already there in the Districts and assured that the consumers of the villages will be included in the group.
- Clarifying the concept of 100 units free power in rural areas, the PDS submitted that consumption upto 100 units are free but as soon as the consumption exceeds 100 units, bill is charged for the entire consumption as per the tariff approved by the Commission. PDS further added that the State Government has taken a decision to directly transfer the subsidy for 100 units free power into the bank accounts of the consumers in the coming days under 'Direct Benefit Transfer or DBT System' and a notification in this regard will be issued shortly. PDS submitted that once the DBT system is implemented, the Government will transfer the money for entire 100 units to the consumer's bank account in advance irrespective of whether the consumption is 100 units or less. Thus, if a consumer consumes less than 100 units in a month then he or she can make savings from the money deposited by the State Government, the PDS opined. DBT will also ensure prevention of theft and unauthorized connection, the PDS further added.
- PDS apprised the house that as per the directives of the State Government, nowadays the Senior Officers of the Department of rank of Additional Chief Engineer and below have started regularly meeting and interacting with the Panchayats and public in the rural areas to address the grievances of the Public. PDS assured that such interaction with the public is being made a routine and soon the officers of the

PDS will be visiting and interacting with the Panchayats and villagers in all parts of the State.

- PDS submitted that due to Covid-19 restrictions, it was not able to carry out the awareness camps and programs but will now restart the awareness camps on various topic like renewable energy, energy efficiency, safety and other aspects. PDS added that it had carried out a number of awareness programs in the past by involving students, NGOs etc and the same will be once again done in the coming days.
- The PDS clarified that though many hydropower projects are there in the State, they are all developed by the private companies and Sikkim received only 12% free power of the actual generation from the projects. Hydro power generation goes down significantly during the winter season and the PDS has to procure costly thermal power from outside to meet the power demand of the State during the winter/lean season. During the rainy season, there is good hydro generation throughout the country due to which very low rate is available in the market for sale of the surplus power, PDS submitted. Thus we are bound to procure power at high rates but sale the surplus power at low rate, which has a negative impact on the financial health of the Department and the Department runs into loss, PDS further added.
- PDS submitted that being a State Government Department, the Department has no intention of making profits unlike private distribution companies but only intends to meet the revenue target given to it by the Finance Department. Accordingly, the PDS has submitted the Annual Revenue Requirement and proposed tariff hike before the Commission for consideration and approval. PDS has not made any unreasonable or unnecessary claims or projections for increasing the tariff but has only projected/proposed the minimum revenue requirement it needs for it to function and operate, the PDS added.



**Comments/Views/Opinion of the Commission:**

- The Commission observed that the issues raised by Mr. RupenKarki were similar to the ones already raised by others earlier and opined that the issues are mostly related to power failures, lack of awareness among the consumers on most aspects of power distribution/supply and grievance related to delay in power restoration. The Commission further observed that although most of the issues/grievances of the public raised in the hearing are not within the scope of the matter being heard today but considering the interests of the Public, the Commission has deemed it fit to hear all the speakers and permit the PDS to respond on the issues.  
The Commission felt and opined that the issues raised by the public are associated with standard of performances and timely redressal of grievances by the PDS and therefore such issues need to be taken up by the public in the appropriate forums.
- The Commission noted that there is acute lack of information and awareness among the consumers regarding various schemes, proposals, works and initiatives being undertaken by the PDS including pro-consumer initiatives like prepaid metering and energy efficiency measure. The Commission also observed that the consumers are not aware of functioning of important forums like the CGRFs, Consumer Complaint Cells and Electricity Ombudsman available to the public for hearing of their grievances and advised the PDS to undertake mass awareness campaigns so that the consumers can take advantage of the forums created under the Electricity Act, 2003.
- The Commission opined that PDS also needs to educate the consumers on the need for using efficient electrical appliances and star rated equipment. The Commission observed that prepaid meter is very beneficial to the consumers and also to the PDS for reducing the losses but the consumers are reluctant to install prepaid meter. The PDS needs to explain the benefits of prepaid meter through various means and also through actual demonstration to make the consumers see and believe.

- The Commission observed that it is the prerogative of the State Government to provide free power to the public but in reality nothing is free. Cost is involved for generating even a single unit of electricity and it is incorrect to assume that power is free. The State Government is bearing the cost of 100 units free power being given to the rural consumers and thus in reality there is no free power, the Commission added.
- The Commission apprised that it has already issued regulations and provided the necessary regulatory frameworks for development of solar and other renewable energy in the State. The Commission added that a new grid connected rooftop solar power regulations have been recently notified and very pro-consumer provisions have been made in the said regulations to encourage rooftop solar power development in the State.
- The Commission observed that the PDS in its Petition has proposed significant reduction in import of costly thermal power for FY 2022-23, which is a good way forward and opined that it will help in reducing the revenue gap to a large extent in the coming days. Reduction in gap is a good indication and it will automatically avoid the need for hike in tariff, the Commission added.
- The Commission observed that the replies/responses and clarifications given by the PDS were reasonable and felt that the public are also convinced to a large extent by the facts and figures given. However, the Commission noted that there is much needed to be done by the PDS to further improve its quality of service as well as the quality of power supply in the State.
- The Commission reiterated the fact that tariff determination is a process based on established principles, laws of the land, standard commercial practices, rules and regulations and therefore both the consumers and the PDS need to have faith in the Commission. The Commission added that all the suggestions, points and objections raised by the public in the hearing will be given due consideration at the time of issue of the Tariff order by the Commission

## 5. TRUE UP FOR THE FY 2020-21

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### 5.1 Preamble

The Commission had approved the ARR and Tariff for the FY 2020-21 vide its Order dated 26.02.2021 based on the projected data submitted by the PDS. Now, the PDS has submitted proposals for True up for the FY 2020-21, duly furnishing the actuals for the FY 2020-21, stating that these are as per the provisional accounts prepared by them.

*“Regulation 5.1 of the SSERC (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) (Second Amendment) Regulations, 2017, contains the following provisions:*

- b) *From the first year of the Control Period and onwards, the Petition shall comprise of:*
  - i. *Truing Up for FY 2017-18 to be carried out under Sikkim State Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2012 and Truing Up for FY 2018-19 and onwards accordance with these regulations;*
  - ii. *Revenue from the sale of power at existing tariffs and charges for the ensuing year;*
  - iii. *Revenue gap for the ensuing year calculated based on ARR approved in the Tariff Order or MYT Order and truing up for the previous year;*
  - iv. *Application for determination of tariff for the ensuing year.”*

The PDS has submitted the audited accounts for the FY 2020-21. PDS has stated that the data furnished for the FY 2020-21 are the actual.

### 5.2 Energy Demand (Sales)

The energy sales approved by the Commission, vide its Tariff Order for the FY 2020-21, the actual sales given by PDS, as per provisional accounts with the True up Petition for the FY 2020-21 and now approved by the Commission, are summarised in the table below.

**Table 5.1: Energy Sales approved by Commission for FY 2020-21 (MUs)**

Sl. No.	Particulars	As Approved by Commission in Tariff Order Dated 26.2.2021	Provisional As per Accounts	Now Approved by Commission
1	Domestics	98.40	112.78	112.78
2	Commercial	26.02	34.11	34.11
3	Public Lighting	0.32	0.31	0.31
4	Temporary Supply	1.92	3.06	3.06
5	HT Industrial Consumers	189.88	223.39	223.39
6	LT Industrial Consumers	1.44	2.02	2.02
7	Bulk Supply	24.54	27.69	27.69
9	Outside State	606.55	608.47	608.47
<b>10</b>	<b>ENERGY SURPLUS/ (GAP)</b>	<b>949.07</b>	<b>1011.83</b>	<b>1011.83</b>

The Commission now approves energy sales for the FY 2020-21 at 1011.83 MUs, as per the actuals furnished by PDS.

### 5.3 Transmission & Distribution Losses (T&D Losses)

The Commission in its order for the FY 2020-21, had fixed the target of T&D Losses at 20.00% for the FY 2020-21. The PDS in its True up Petition for the FY 2020-21, has stated that the provisional T&D losses during the FY 2020-21 is 25.92% as per provisional accounts.

#### Commission's Analysis:

The inter-state transmission loss (pool loss) for the FY 2020-21 has been considered at 2.14% and T&D Loss, when recalculated, is as shown in table below.

**Table 5.2: T&D Loss calculation approved by the Commission for FY 2020-21**

Sl. No.	Particulars	Units	As Approved by Commission in Tariff Order Dated 26.2.2021	Actual As per Provisional Accounts	Revised worked out
1	Own Generation	Mus	8.00	2.71	2.71
2	Energy Purchased form NTPC	Mus	481.55	548.38	548.38

<b>3</b>	Energy Purchased from WBSEDCL	<b>Mus</b>	48.92	47.87	47.87
<b>4</b>	Energy Purchased form NHPC	<b>Mus</b>	58.37	58.38	36.38
<b>5</b>	Energy Purchased ( 2+3+4)	<b>Mus</b>	588.84	654.63	632.63
<b>6</b>	Pool Loss	<b>%</b>	2.14	2.14	2.14
<b>7</b>	Pool Loss	<b>Mus</b>	12.60	23.06	13.54
<b>8</b>	Net Energy Available (5-7)	<b>Mus</b>	576.24	628.47	619.09
<b>9</b>	Energy Purchased from PTC	<b>Mus</b>	47.43	46.07	46.07
<b>10</b>	Energy Purchased from SPDC	<b>Mus</b>	41.53	37.67	37.67
<b>11</b>	UI purchased	<b>Mus</b>	20.83	6.86	6.86
<b>12</b>	Free Energy	<b>Mus</b>	340.65	496.63	496.63
<b>13</b>	Total Energy Available at state periphery ( 1+8+9+10+11+12)	<b>Mus</b>	1034.70	1218.41	1209.05
<b>14</b>	Outside State Sale through UI/Trading	<b>Mus</b>	606.55	673.92	608.47
<b>15</b>	Net Energy Available for sale within the state (13-14)	<b>Mus</b>	428.15	544.49	600.58
<b>16</b>	Energy Sale within the State	<b>Mus</b>	342.52	403.36	403.36
<b>17</b>	T & D loss ( 15-16)	<b>Mus</b>	85.63	141.13	197.22
<b>18</b>	<b>T &amp; D loss</b>	<b>%</b>	20.00	25.92	32.84

Though the Revised T& D losses worked out as 32.84%.however, the Commission now approves T&D Loss at 25.92% for the FY 2020-21 as claimed by the petitioner only.

#### 5.4 Own Generation

The Commission in its Tariff Order dated 26.2.2021 had approved Own Generation for the PDS at 08.00 MUs for the F.Y. 2020-21. Now, the PDS has furnished actual own generation as 2.71 MUs during the F.Y.2020-21, as detailed in the table below:

**Table 5.3: Own Generation approved by the Commission during F.Y.2020-21**

( MUs)				
Sl. No.	Particulars	As Approved by Commission in Review Order Dated 26.2.2021	Actual As per Provisional Accounts	Now Approved by Commission
1	Total Generation	8.00	2.71	<b>2.71</b>
<b>2</b>	<b>Total</b>	<b>8.00</b>	<b>2.71</b>	<b>2.71</b>

The Commission now approves Own Generation of PDS during the FY 2020-21 at 2.71 MUs, as per actuals furnished by PDS.

## 5.5 Power Purchase

The Commission in its Tariff Order dated 26.2.2021 had approved the power purchase quantity of 1039.79 MUs including free power quantity of 340.65 MUs. Now, the PDS has furnished actual for the FY 2020-21 at 1219.86 MUs including free power of 496.63 MUs in the ARR and Tariff Petition for the FY 2022-23, as detailed in table below.

**Table 5.4: Power Purchase approved by the Commission during F.Y.2020-21( ₹ in Crore)**

Sl. No.	Particulars	As Approved by Commission in Tariff Order Dated 26.2.2021	Actual As per Provisional Accounts	Now Approved by Commission
<b>1</b>	<b>NTPC</b>			
a)	FSTPP	129.28	121.28	121.28
b)	KHSTPP-I	68.39	60.01	60.01
c)	KHSTPP-II	31.34	24.03	24.03
d)	BSTPP	88.33	106.32	106.32
e)	TSTPP	136.28	173.37	173.37
f)	KBUNL	16.10	10.72	10.72
g)	Darlapali	1.48	31.85	31.85
h)	NPCGL	10.35	20.8	20.8
<b>2</b>	<b>NHPC</b>			
a)	RANGIT- III	4.60	3.74	3.74
b)	TEESTA - V	53.78	32.64	32.64
<b>3</b>	<b>Other Source</b>			
a)	PTC	47.93	46.07	46.07
b)	WBSEDCL	48.92	47.87	47.87
c)	SPDC	41.53	37.67	37.67
<b>4</b>	UI/Deviation	20.83	6.86	6.86
<b>5</b>	Free Power	340.65	496.63	496.63
<b>6</b>	<b>Total</b>	<b>1039.79</b>	<b>1219.86</b>	<b>1219.86</b>

The Commission now approves power purchase of 1219.86 MUs, including free power of 496.63 MUs during the FY 2020-21, as per the actuals furnished by PDS.

## 5.6 Energy Balance

The details of energy requirement and availability approved by the Commission in its Tariff Order dated 26.2.2021 for the FY 2020-21 and the actuals furnished by the PDS, and now approved by the Commission, are presented in table below:

**Table 5.5: Energy Balance approved by the Commission for F.Y. 2020-21 (MUs)**

Sl. No.	Particulars	Units	As Approved by Commission in Review Order Dated 26.2.2021	Actual As per Provisional Accounts	Now Approved by Commission
<b>A.</b>	<b>ENERGY REQUIREMENT</b>				
1	Energy Sale within the state	Mus	342.52	403.36	403.36
2	Outside State sale through UI/ Trading	Mus	606.55	608.47	608.47
3	Total Energy Sale ( 1+2 )	Mus	949.07	1011.83	1011.83
4	Overall T & D losses	%	20.00	25.92	25.92
5	Overall T & D losses	Mus	85.63	141.13	141.13
6	Total Energy Requirement (3+5)	Mus	1034.70	1152.97	1152.97
<b>B.</b>	<b>ENERGY AVAILABILITY</b>				
1	Own Generation	Mus	8.00	2.71	2.71
2	Power Purchase from CGS / UI etc.	Mus	698.64	723.23	723.23
3	Free Power	Mus	340.65	496.63	496.63
4	Overall pool loss	%	2.14	2.14	2.14
5	Overall pool loss	Mus	12.59	26.16	13.54
6	Total Energy Availability ( 1 + 2 +3 -5)	Mus	1034.70	1196.41	1209.03
<b>C</b>	<b>ENERGY SURPLUS/ (GAP)</b>	<b>Mu</b>	<b>0.00</b>	<b>43.45</b>	<b>56.06</b>

## 5.7 Fuel Cost

PDS is having 12 hydro generating stations, with a total installed capacity of 35.70 MWs and 2 diesel-generating stations, with a total installed capacity of 4.99 MWs. The fuel cost approved by the Commission in its Tariff Order dated 26.2.2021, actuals furnished by PDS and the cost now approved by the Commission are given in table below.

**Table 5.6: Fuel Cost approved by the Commission for FY 2020-21(₹ in Crore)**

Sl. No.	Particulars	As Approved by Commission in Review Order Dated 26.2.2021	Actual As per Provisional Accounts	Now Approved by Commission
1	Cost of Fuel	0.18	0.12	0.12
2	<b>Total</b>	<b>0.18</b>	<b>0.12</b>	<b>0.12</b>

The Commission now approves the fuel cost of ₹ 0.12 Crores for the FY 2020-21, as per actuals furnished by PDS.

## 5.8 Power Purchase Cost

The Power Purchase Cost approved by the Commission in the Tariff Order for the FY 2020- 21, actuals furnished by PDS and the cost now approved by the Commission are given in table below.

**Table 5.7: Power Purchase Cost approved by the Commission for FY 2020-21(₹ in Crore)**

Sl. No.	Particulars	As Approved by Commission in Review Order Dated 26.2.2021	Actual As per Provisional Accounts	Now Approved by Commission
1	Power Purchase Cost	341.43	279.88	267.02
2	<b>Total</b>	<b>341.43</b>	<b>279.88</b>	<b>267.02</b>

The petitioner has claimed the power purchase cost of ₹279.88 Crore, however due to excess losses, the Commission has reduced the power purchase cost to ₹ 267.02 Crore. The Commission now approves power purchase cost of ₹ 267.02 Crores for the FY 2020- 21.

## 5.9 Employee Cost

The Commission vide its Order dated 26.2.2021, had approved employee cost at ₹112Crores for the FY 2020-21. The PDS has furnished actuals at ₹157.97Crores for the FY 2020-21 and the cost now approved by the Commission for PDS as a whole due to non-availability of segregated audited accounts are given in table below.

**Table 5.8: Employee Cost approved by the Commission for FY 2020-21(₹ in Crore)**

Sl. No.	Particulars	As Approved by Commission in Review Order Dated 26.2.2021	Actual As per Provisional Accounts	Now Approved by Commission
1	Employee Cost	112	157.97	157.97
2	<b>Total</b>	<b>112</b>	<b>157.97</b>	<b>157.97</b>

The Commission, now approves ₹157.97 Crores towards employee cost for the FY 2020- 21.



### 5.10 Repair and Maintenance Expenses

The Commission vide its Order dated 26.2.2021 had approved Repair & Maintenance Expenses of ₹22.20 Crores for the FY 2020-21. The PDS has furnished actual Repair & Maintenance Expenses at ₹ 30.33 Crores for the FY 2020-21 and the cost now approved by the Commission for PDS as a whole due to non-availability of segregated audited accounts are given in table below.

**Table 5.9: Repair & Maintenance Expenses approved by the Commission for FY 2020-21**

(₹ in Crore)

Sl. No.	Particulars	As Approved by Commission in Review Order Dated 26.2.2021	Actual As per Provisional Accounts	Now Approved by Commission
1	Repair & Maintenance Expenses	22.20	30.33	30.33
2	<b>Total</b>	<b>22.20</b>	<b>30.33</b>	<b>30.33</b>

**The Commission, accordingly, now approves ₹ 30.33 Crores towards Repair & Maintenance Expenses for the FY 2020-21.**

### 5.11 Administrative and General Expenses

The Commission vide its Order dated 26.2.2021 had approved ₹4.42 Crores towards Administrative and General Expenses for the FY 2020-21. The PDS has furnished actuals at ₹5.33 Crores for the FY 2020-21 and the cost now approved by the Commission for PDS as a whole due to non-availability of segregated audited accounts are given in table below.

**Table 5.10: A & G Expenses approved by the Commission for FY 2020-21(₹ in Crore)**

Sl. No.	Particulars	As Approved by Commission in Review Order Dated 26.2.2021	Actual As per Provisional Accounts	Now Approved by Commission
1	Administration & General Expenses	4.42	5.33	5.33
2	<b>Total</b>	<b>4.42</b>	<b>5.33</b>	<b>5.33</b>

**The Commission now approves ₹5.33 Crores towards Administrative & General Expenses for the FY 2020-21.**

## 5.12 Gross Fixed Assets

In the absence of valid information regarding gross fixed assets, the Commission in its Tariff Order dated 26.2.2021, had not approved the value of gross fixed assets. The PDS in its True up Petition for the FY 2020-21, PDS has stated that the values of gross fixed assets performance accounts, as detailed in table below:

**Table 5.11: Gross Fixed Assets during FY 2020-21 (₹ in Crore)**

Sl. No.	Particulars	Amount
1	Opening Balance	1303.01
2	Addition During The Year	100.97
3	<b>Closing Balance of CWIP ( 1+2)</b>	<b>1403.98</b>

### Commission's Analysis:

Depreciation allowed on the GFA as furnished by the PDS and admitted in this order is as under

## 5.13 Depreciation

The PDS in its True up Petition for the FY 2020-21, has furnished actuals at ₹31.03Crores for the FY 2020-21.

### Commission's Analysis:

The Commission in its Tariff Order dated 26.2.2021 had approved a depreciation of ₹16.53Crores for the FY 2020-21.

Now based on the performance accounts, the Commission calculated Depreciation is shown in the table below:

**Table 5.12: Depreciation approved by the Commission for FY2020-21 (₹ in Crore)**

Sl. No.	Particulars	Amount
1	Opening Balance of NFA as on 01.04.2020	464.37
2	Addition During the Year	100.97
3	Closing Balance to end of 31.03.2021(1+2)	565.34
4	Average GFA	514.86
5	Rate of Depreciation	5.28%
<b>6</b>	<b>Depreciation</b>	<b>27.18</b>

**The Commission accordingly now approves a depreciation of ₹ 27.18 Crores for the FY 2020-21.**

### 5.14 Interest and Finance Charges

The PDS in its True Up Petition for the FY 2020-21, has not furnished interest and finance charges during the FY 2020-21.

#### Commission's Analysis:

The Commission in its Tariff Order dated 26.2.2021 had not approved any interest and finance charges. PDS has not shown any loans and interest. No interest is allowed in Tariff Order for the FY 2020-21. **The Commission therefore, does not consider any interest.**

### 5.15 Interest on Working Capital

The PDS in its True up Petition for the FY 2020-21, has furnished Interest on Working Capital at ₹4.83 Crores during the FY 2020-21.

#### Commission's Analysis:

As per Regulations, 32.3 of SSERC (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) (Second Amendment Regulations), 2017, interest on working capital shall be calculated on normative basis notwithstanding that the Licensee has not taken working capital loan from any outside agency.

- (a) The Distribution Licensee shall be allowed interest on the estimated level of working capital for the Distribution Wires Business for the financial year, computed as follows:
- (i) Operation and maintenance expenses for one month; plus
  - (ii) Maintenance spares at one (1) per cent of the historical cost escalated at 6% from the date of commercial operation; plus
  - (iii) Receivables equivalent to two (2) months of the expected revenue from charges for use of Distribution Wires at the prevailing tariffs; minus
  - (iv) Amount, if any, held as security deposits under clause (b) of sub- section (1) of

Section 47 of the Act from Distribution System Users except the security deposits held in the form of Bank Guarantees.

- (b) Interest shall be allowed at a rate equal to the State Bank Advance Rate (SBAR) as on 1<sup>st</sup> April of the financial year in which the Petition is filed.

Accordingly, the Commission has arrived at the interest on working capital as shown in the Table below.

**Table 5.13: Interest on Working Capital calculated by the Commission for FY 2020-21(₹ in Crore)**

Sl. No.	Particulars	Total Cost	Working Capital & Interest
1	O & M Expenses		
a)	Employee Cost	157.97	13.16
b)	Repair & Maintenance Expenses	30.33	2.53
c)	Administration & General Expenses	5.33	0.44
2	Maintenance of Spares		
3	Receivables	494.28	82.38
	Less: Security Deposited		11.87
4	Total		86.65
5	SBAR as on 01.04.2020		7.30%
6	<b>Interest on Working Capital</b>		<b>6.33</b>

**Table 5.14: Interest on Working Capital now approved by the Commission for FY 2020-21**

(₹ in Crore)

Sl. No.	Particulars	As Approved by Commission in Review Order Dated 16.02.2021	Actual As per Provisional Accounts	Now Approved by Commission
1	Interest on Working Capital	8.11	4.83	6.33
2	<b>Total</b>	<b>8.11</b>	<b>4.83</b>	<b>6.33</b>

The Commission now approves interest on working capital at ₹ 6.33 Crores for the FY 2020-21 as against the ₹4.83 Crores furnished by PDS.

### 5.16 Return on Equity

PDS has not claimed any amount towards Return on Equity for the FY 2020-21.

#### Commission's Analysis:

Regulation 29 of SSERC (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) (Second Amendment Regulations), 2017, provides for return on equity at 14% PA on the equity amount appearing in the audited balance sheet of the annual accounts.

The PDS 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 as return on equity.**

### 5.17 Non-Tariff Income

PDS has projected non-tariff income at ₹1.31 Crores during the FY 2020-21

#### Commission's Analysis:

As per Regulation 69 of SSERC (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) (Second Amendment Regulations), 2017, non-tariff income comprises of:

- Meter /metering equipment/service line rentals
- Service charges
- Customer charges
- Revenue from late payment surcharge
- Recoveries on account 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.

Keeping in view the above types of income the Commission had approved a non-tariff income of ₹1.28 Crores in its Tariff Order dated 26.2.2021. PDS now submits a non-tariff Income of ₹1.31 Crores as the actuals.

**Table 5.15: Non-Tariff Income approved by the Commission for FY 2020-21(₹ in Crore)**

Sl. No.	Particulars	As Approved by Commission in Review Order Dated 26.2.2021	Actual As per Provisional Accounts	Now Approved by Commission
1	Non- Tariff Income	1.28	1.31	1.31
2	<b>Total</b>	<b>1.28</b>	<b>1.31</b>	<b>1.31</b>

The Commission therefore considers ₹1.31 Crores towards Non-Tariff Income for the FY2020-21, as per the actuals furnished by PDS.

#### 5.18 Revenue from Existing Tariffs for the FY 2020-21

Revenue from existing tariffs approved by the Commission for the FY 2020-21 in the Tariff Order dated 26.2.2021 and actuals furnished by the PDS and now approved by the Commission are furnished in the table below.

**Table 5.16: Revenue from Sales approved by Commission for FY 2020-21 (₹ in Crore)**

Sl. No.	Particulars	As Approved by Commission in Review Order Dated 26.2.2021	Actual As per Provisional Accounts	Now Approved by Commission
1	Domestics	24.90	25.99	25.99
2	Commercial	18.11	19.47	19.47
3	Public Lighting	0.14	0.15	0.15
4	Temporary Supply	4.00	2.02	2.02
5	HT Industrial Consumers	170.38	187.25	187.25
6	LT Industrial Consumers	2.95	1.25	1.25
7	Bulk Supply	30.26	23.58	23.58
8	Outside States	118.19	121.00	121.00
9	Revenue from IPP		54.18	54.18
10	Government Non Residential Building Arrear		40.34	40.34
<b>11</b>	<b>Total</b>	<b>368.93</b>	<b>475.23</b>	<b>475.23</b>

The Commission now approves revenue from existing tariff at ₹ 475.23 Crores including revenue from outside sales at ₹ 121.00 Crores for the FY 2020-21, as per the actuals furnished by PDS.

### 5.19 Aggregate Revenue Requirement (ARR) for the FY 2020-21

The ARR for the FY 2020-21 approved by the Commission in its Tariff Order dated 26.2.2021, actuals furnished by the PDS and now approved by the Commission are furnished in the table below.

**Table 5.17: Aggregate Revenue Requirement approved by Commission for FY 2020-21( ₹ in Crore)**

Sl. No.	Particulars	As Approved by Commission in Review Order Dated 26.2.2021	Actual As per Provisional Accounts	Now Approved by Commission
1	Cost of Fuel	0.18	0.12	0.12
2	Cost of Generation	19.19	0.34	0.00
3	Cost of Power Purchase (including Transmission)	296.92	279.88	267.02
4	Employee Costs	112.00	157.97	157.97
5	Intra State Transmission Charge	44.51	35.17	0.00
6	Repair and Maintenance Expense	20.36	30.33	30.33
7	Administration and General Expenses	4.42	5.33	5.33
8	Depreciation	16.53	31.03	27.18
9	Interest Charges	0.00	0.00	0.00
10	Interest on Working Capital	13.77	4.83	6.33
11	Return on NFA/Equity	0.00	0.00	0.00
<b>12</b>	<b>Total Revenue Requirement</b>	<b>527.88</b>	<b>545</b>	<b>494.28</b>
13	Less: Non-Tariff Income	1.28	1.31	1.31
<b>14</b>	<b>Net Revenue Requirement</b>	<b>526.6</b>	<b>543.69</b>	<b>492.97</b>
15	Revenue from Tariff	250.74	354.23	354.23
16	Revenue from Outside State Sales	118.19	121	121
<b>17</b>	<b>Gap/( Surplus )</b>	<b>157.67</b>	<b>68.46</b>	<b>17.74</b>

True up for the FY 2020-21 indicates that the revenue gap has been arrived to ₹17.74 Crores, as against ₹157.67 Crores revenue deficit approved by the Hon'ble Commission in the Tariff Order dated 26.02.2021.

## 6. REVIEW FOR THE FY 2021-22

### 6.1 Preamble

The Commission had approved the ARR and Tariffs for the FY 2021-22 in its order dated 26.2.2021 based on the projected data furnished by the PDS. Now the PDS has submitted proposals for review of the FY 2021-22 duly furnishing data based on the revised estimates for the 2021-22.

### 6.2 Energy Demand (Sales)

Vide its Tariff Order dated 26.2.2021, the Commission had approved energy sales of 910.47 Mus for the FY 2021-22. The PDS in its Review Petition for the FY 2021-22 has submitted the estimated sales considering actual for a certain period and estimate for the balance period.

Accordingly comparative statements of category-wise energy sales approved by the Commission for the FY 2021-22, estimate by PDS and approved by the Commission are shown in table below:

**Table 6.1: Energy Sales approved by the Commission for FY 2021-22 ( MUs)**

Sl. No.	Consumer Category	As Approved by Commission in Order Dated 26.2.2021	Review Estimate	Now Approved by Commission
1	Domestics	129.53	114.46	114.46
2	Commercial	44.57	34.62	34.62
3	Public Lighting	0.41	0.30	0.30
4	Temporary Supply	2.60	3.10	3.10
5	HT Industrial Consumers	208.04	226.74	226.74
6	LT Industrial Consumers	2.17	2.04	2.04
7	Bulk Supply	34.28	32.10	32.10
	Total			
	Outside State	488.87	547.58	547.58
<b>8</b>	<b>Total</b>	<b>910.47</b>	<b>960.94</b>	<b>960.94</b>

**The Commission now approves energy sales for the FY 2021-22 of 960.94 MUs as projected by PDS.**



### 6.3 Transmission & Distribution Losses (T&D Losses)

The Commission in its order for the FY2021-22 had fixed the target of T&D Losses at 20.00%. PDS in its Review Petition for the FY 2021-22, has stated that the estimated T&D Losses during the FY 2021-22 is at 28.05%.

#### Commission's Analysis:

The pool loss for the FY2021-22 is considered at 2.14% and T&D Loss is shown as detailed in table below:

**Table 6.2: T&D Loss calculation approved by the Commission for FY 2021-22**

Sl. No.	Particulars	Units	As Approved by Commission in Order Dated 26.2.2021	Review Estimate	Now Approved by Commission
1	Own Generation	Mus	8	1.37	1.37
2	Energy Purchased form NTPC	Mus	481.55	274.58	274.58
3	Energy Purchased from WBSEDCL	Mus	48.92	46.82	46.82
4	Energy Purchased form NHPC	Mus	58.38	43.38	43.38
5	Energy Purchased ( 2+3+4)	Mus	588.84	364.78	364.78
6	Pool Loss	%	2.14	2.14	2.14
7	Pool Loss	Mus	12.60	21.19	7.81
8	Net Energy Available (5-7)	Mus	576.24	340.59	356.97
9	Energy Purchased from PTC	Mus	47.43	44.71	44.71
10	Energy Purchased from SPDC	Mus	41.53	41.53	41.53
11	UI purchased	Mus	20.83	7.00	7.00
12	Free Energy	Mus	340.65	507.90	507.90
	Energy Purchased from Teesta PTC	Mus		172	172
13	<b>Total Energy Available at state periphery ( 1+8+9+10+11+12)</b>	Mus	<b>1034.68</b>	<b>1122.10</b>	<b>1131.48</b>
14	Outside State Sale through UI/Trading	Mus	<b>606.55</b>	547.58	615.00
15	Net Energy Available for sale within the state (13-14)	Mus	<b>428.13</b>	<b>574.52</b>	<b>516.48</b>
16	Energy Sale within the State	Mus	342.52	413.36	413.36
17	T & D loss ( 15-16)	Mus	85.61	161.16	103.12
18	<b>T &amp; D loss</b>	%	<b>20.00</b>	<b>28.05</b>	<b>20.00</b>

**The Commission now approves T&D Loss for the FY 2021-22 at 20%.**

## 6.4 Own Generation

At present, PDS is having 12 small Hydro generating stations with a total installed capacity of 35.70 MWs and 2 diesel generating stations with a total installed capacity of 4.99 MWs. The Commission in its Tariff Order for the FY 2021-22 had approved own generation at 10.00 MUs. The PDS has revised for the FY 2021-22 and approved by the Commission are shown in table below.

**Table 6.3: Own Generation approved by the Commission for FY 2021-22 ( MUs)**

Sl. No.	Stations	As Approved by Commission in Order Dated 26.2.2021	Review Estimate	Now Approved by Commission
1	Total Generation	10	1.37	1.37
2	<b>Total</b>	10	1.37	1.37

The Commission now approves Own Generation during the FY 2021-22 at 1.37 MUs, as per RE furnished by the PDS.

## 6.5 Power Purchase

The Commission in its Tariff Order dated 26.2.2021 had approved power purchase quantity at 1028.81 Mus including free power quantity at 340.65 MUs. The PDS has furnished RE for the FY 2021-22 at 1130.20 Mus including free power of 507.90 MUs in Review Petition for the FY 2021-22 as detailed in table below:

**Table 6.4: Power Purchase approved by the Commission for FY 2021-22 (₹ in Crore)**

Sl. No.	Particulars	As Approved by Commission in Order Dated 26.2.2021	Review Estimate	Now Approved by Commission
1	<b>NTPC</b>			
a)	FSTPP	88.33	0.00	0.00
b)	KHSTPP-I	68.39	0.00	0.00
c)	KHSTPP-II	31.34	0.00	0.00
d)	BSTPP	129.28	110.53	110.53
e)	TSTPP	136.28	0.00	0.00
f)	KBUNL	16.10	20.48	20.48
g)	DARLAPAPLI	1.48	112.32	112.32
h)	NPGCL	10.35	31.25	31.25
2	<b>NHPC</b>			

a)	RANGIT- III	4.60	2.88	2.88
b)	TEESTA – V	53.78	40.50	40.50
<b>3</b>	<b>Other Source</b>			
a)	PTC	47.43	44.71	44.71
b)	WBSEDCL	48.92	46.82	46.82
c)	SPDC	<b>41.53</b>	33.81	33.81
<b>4</b>	UI/Deviation	10.35	7.00	7.00
<b>5</b>	Free Power	340.65	507.90	507.90
	PTC Teesta		172.00	172.00
<b>6</b>	<b>Total</b>	<b>1028.81</b>	<b>1130.20</b>	<b>1130.20</b>

The Commission now approves power purchase of 1130.20 MUs including free power of 507.90 MUs during the FY 2021-22.

## 6.6 Energy Balance

The details of energy requirement and availability projected by the PDS and approved by the Commission for the FY 2021-22 and now approved by the Commission are furnished in table below.

**Table 6.5: Energy Balance approved by the Commission for FY 2021-22 (MUs)**

Sl. No.	Particulars	Units	As Approved by Commission in Order Dated 26.02.2021	Review Estimate	Now Approved by Commission
<b>A.</b>	<b>ENERGY REQUIRMENT</b>				
1	Energy Sale within the state	Mus	421.59	413.36	413.36
2	Outside State sale through UI/ Trading	Mus		547.58	
3	Total Energy Sale ( 1 +2 )	Mus	421.59	960.94	413.36
4	Overall T & D losses	%	20.00	28.05	20.00
5	Overall T & D losses	Mus	105.40	161.16	224.75
6	Total Energy Requirement (3+5)	Mus	526.99	799.78	638.11
<b>B.</b>	<b>ENERGY AVAILABILITY</b>				
1	Own Generation	Mus	10.00	1.37	1.37
2	Power Purchase from CGS / UI etc.	Mus	677.81	622.30	622.30
3	Free Power	Mus	340.65	507.90	507.90
4	Overall pool loss	%	2.14	2.14	2.14
5	Overall pool loss	Mus	12.60	24.19	7.81
6	Total Energy Availability ( 1 + 2 +3 -5)	Mus	1015.86	1107.38	1123.76
<b>C</b>	<b>ENERGY SURPLUS/ (GAP)</b>	Mus	<b>488.87</b>	<b>89.82</b>	<b>485.65</b>

## 6.7 Fuel Cost

The fuel cost approved by the Commission in Tariff Order for the FY 2021-22, RE furnished by PDS and now approved by the Commission are furnished in table below.

**Table 6.6: Fuel Cost approved by the Commission for FY 2021-22 (₹ in Crore)**

Sl. No.	Stations	As Approved by Commission in Order Dated 26.2.2021	Review Estimate	Now Approved by Commission
1	Cost of Fuel	0.18	0.20	0.20
2	<b>Total</b>	<b>0.18</b>	<b>0.20</b>	<b>0.20</b>

The Commission now approves fuel cost of ₹ 0.20 Crores for the FY 2021-22, against the same projected in RE by PDS.

## 6.8 Cost of Generation

The cost of generation approved by the Commission in Tariff Order for the FY 2021-22, RE furnished by PDS and now approved by the Commission are furnished in table below.

**Table 6.7: Cost of Generation approved by the Commission for FY 2021-22 (₹ in Crore)**

Sl. No.	Particulars	As Approved by Commission in Order Dated 26.2.2021	Review Estimate	Now Approved by Commission
1	Cost of Generation	22.30	0.17	0.17
2	<b>Total</b>	<b>22.30</b>	<b>0.17</b>	<b>0.17</b>

The Commission now approves cost of generation of ₹ 0.17 Crores for the FY 2021-22 as the same projected in RE by PDS.

## 6.9 Power Purchase Cost

The Power Purchase Cost approved by the Commission for the FY 2021-22, RE furnished by the PDS and now approved by the Commission are furnished in table below.

**Table 6.8: Power Purchase Cost approved by the Commission for FY 2021-22 (₹ in Crore)**

Sl. No.	Particulars	As Approved by Commission in Order Dated 26.2.2021	Review Estimate	Now Approved by Commission
1	Power Purchase Cost	249.26	198.13	198.13
2	<b>Total</b>	<b>249.26</b>	<b>198.13</b>	<b>198.13</b>

The Commission now approves the power purchase cost of ₹198.13 Crores for the FY

2021-22, as per RE furnished by PDS.

### 6.10 Intra State Transmission Charges

The Intra State Transmission Charges approved by the Commission in Tariff Order for the FY 2021-22, RE furnished by PDS and now approved by the Commission are furnished in table below.

**Table 6.9: Intra State Transmission Charges approved by the Commission for FY 2021-22**

(₹ in Crore)

Sl. No.	Particulars	As Approved by Commission in Order Dated 26.2.2021	Review Estimate	Now Approved by Commission
1	Intra State transmission Charge	48.18	31.25	31.25
2	<b>Total</b>	<b>48.18</b>	<b>31.25</b>	<b>31.25</b>

The Commission now approves Intra State Transmission Charges of ₹31.25 Crores for the FY 2021-22 against the same projected in RE by PDS.

### 6.11 Employee Cost

The Commission in its Order dated 26.2.2021 had approved employee cost at ₹105.34 Crores for the FY 2021-22. The PDS has furnished RE at ₹174.78 Crores for the FY 2021-22. The details shown in the table below:

**Table 6.10: Employee Cost approved by the Commission for FY 2021-22 (₹ in Crore)**

Sl. No.	Particulars	As Approved by Commission in Order Dated 26.2.2021	Review Estimate	Now Approved by Commission
1	Employee Cost	105.34	174.78	174.78
2	<b>Total</b>	<b>105.34</b>	<b>174.78</b>	<b>174.78</b>

The Commission now approves the employee cost of ₹174.78 Crores for the FY 2021-22, against same RE furnished by PDS.

### 6.12 Repair and Maintenance Expenses

The Commission in its Order dated 26.2.2021 had approved Repair & Maintenance Expenses at ₹22.02 Crores for the FY 2021-22. The PDS has estimated at ₹32.76 Crores for the FY 2021-22 and now approved by the Commission are furnished in table below.

**Table 6.11: Repair & Maintenance Expenses approved by the Commission for FY 2021-22**

(₹ in Crore)				
Sl. No.	Particulars	As Approved by Commission in Order Dated 26.2.2021	Review Estimate	Now Approved by Commission
1	Repair & Maintenance Expenses	22.02	32.76	32.76
2	<b>Total</b>	22.02	32.76	32.76

The Commission now approves ₹32.76 Crores towards Repair & Maintenance Expenses for the FY 2021-22, as per RE furnished by PDS.

### 6.13 Administrative and General Expenses

The Commission in its Order dated 26.2.2021, had approved ₹3.49 Crores towards Administrative and General Expenses for the FY 2021-22. The PDS has furnished RE at ₹6.44 Crores for the FY 2021-22 and now approved by the Commission are furnished in table below.

**Table 6.12: A & G Expenses approved by the Commission for FY 2021-22 (₹ in Crore)**

Sl. No.	Particulars	As Approved by Commission in Order Dated 26.2.2021	Review Estimate	Now Approved by Commission
1	Administration & General Expenses	3.49	6.44	6.44
2	<b>Total</b>	3.49	6.44	6.44

The Commission now approves ₹6.44 Crores towards Administrative & General Expenses for the FY 2021-22 as per RE furnished by PDS.

### 6.14 Gross Fixed Assets

In the absence of valid information regarding gross fixed assets, the Commission in its Tariff Order dated 26.2.2021, had not approved the value of gross fixed assets. The PDS in its

review petition for the FY 2021-22 has stated that the values of gross fixed assets have been taken from the Performa accounts, as detailed in table below.

**Table 6.13: Gross Fixed Assets furnished by PDS for FY 2021-22 (₹ in Crore)**

Sl. No.	Particulars	Amount
1	Opening Balance	1403.98
2	Addition During The Year	28.6812
3	<b>Closing Balance ( 1+2)</b>	1432.66

**Commission Analysis:**

In the absence of audited annual accounts the information furnished by PDS cannot be taken as authentic.

**6.15 Depreciation**

The PDS in its review petition has furnished depreciation of ₹32.75 Crores for the FY 2021-22.

**Commission's Analysis:**

The PDS has not furnished the calculation at which the amount of depreciation was arrived at. %. As such the depreciation has been worked out accordingly as detailed in table below.

**Table 6.14: Depreciation approved by the Commission for 2021-22 (₹ in Crore)**

Sl. No.	Particulars	Amount
1	Opening Balance of NFA as on 01/04/2021	565.34
2	Addition During the Year	28.68
3	Closing Balance to end of 31/03/2022(1+2)	594.02
4	Average GFA	579.68
5	Rate of Depreciation	5.28%
6	<b>Depreciation</b>	<b>30.61</b>

**The Commission accordingly approves depreciation at ₹30.61Crores for the FY 2021-22.**

**6.16 Interest and Finance Charges**

The PDS has not projected interest and finance charges during the FY 2021-22.

**Commission's Analysis:**

The Commission in its Tariff Order dated 26.2.2021 had not approved any interest and

finance charges for the FY 2021-22. PDS has not shown any loans and interest. **As such the Commission has not considered interest and finance charges during the FY 2021-22.**

### 6.17 Interest on Working Capital

The PDS has furnished interest on working capital at ₹4.57 Crores during the FY 2021-22.

#### Commission's Analysis:

As per Regulations, 32.3 of SSERC (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) 2020, interest on working capital shall be calculated on normative basis notwithstanding that the Licensee has not taken working capital loan from any outside agency.

- (a) The Distribution Licensee shall be allowed interest on the estimated level of working capital for the Distribution Wires Business for the financial year, computed as follows:
- (i) Operation and maintenance expenses for one month; plus
  - (ii) Maintenance spares at one (1) per cent of the historical cost escalated at 6% from the date of commercial operation; plus
  - (iii) Receivables equivalent to two (2) months of the expected revenue from charges for use of Distribution Wires at the prevailing tariffs; minus
  - (iv) Amount, if any, held as security deposits under clause (b) of sub-section (1) of Section 47 of the Act from Distribution System Users except the security deposits held in the form of Bank Guarantees.
- (b) Interest shall be allowed at a rate equal to the State Bank Advance Rate (SBAR) as on 1st April of the financial year in which the Petition is filed.

Accordingly, the interest on working capital works out to ₹ 6.24 crores, as detailed in table



below:

**Table 6.15: Interest on Working Capital calculated by the Commission for FY 2021-22**  
(₹ in Crore)

Sl. No.	Particulars	Total Cost	Working Capital & Interest
1	O & M Expenses		
a)	Employee Cost	174.78	14.57
b)	Repair & Maintenance Expenses	32.76	2.73
c)	Administration & General Expenses	5.4	0.45
2	Maintenance of Spares		
3	Receivables	477.38	79.56
	Less: Security Deposited		11.87
4	Total	690.32	85.44
5	SBAR as on 01.04.2020		<b>7.30%</b>
6	<b>Interest on Working Capital</b>		<b>6.24</b>

**Table 6.16: Interest on Working Capital approved by the Commission for FY 2021-22**  
(₹ in Crore)

Sl. No.	Particulars	As Approved by Commission In Order Dated 26.2.2021	Review Estimate	Now Approved by Commission
1	Interest on Working Capital	7.71	4.57	6.24
2	<b>Total</b>	<b>7.71</b>	<b>4.57</b>	<b>6.24</b>

The Commission now approves interest on working capital at ₹ 6.24 Crores for the FY 2021-22 against the RE furnished by PDS at ₹4.57 Crores.

### 6.18 Return on Equity

The PDS has not projected return on equity for the FY 2021-22.

#### Commission's Analysis:

Regulation 29 of SSERC (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) (Second Amendment Regulations), 2020, provides for return on equity at 14% PA on the equity amount appearing in the audited balance sheet of the annual accounts.

The PDS 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.**

### 6.19 Non-Tariff Income

The PDS has furnished non-tariff income at ₹1.32 Crores during the FY 2021-22

#### Commission's Analysis:

**Table 6.17: Non-Tariff Income approved by the Commission for FY 2021-22 ( ₹ in Crore)**

Sl. No.	Particulars	As Approved by Commission in Order Dated 26.2.2021	Review Estimate	Now Approved by Commission
1	Non- Tariff Income	0.81	1.32	1.32
2	<b>Total</b>	<b>0.81</b>	<b>1.32</b>	<b>1.32</b>

The Commission now approves Non-Tariff Income at ₹ 1.32 Crores for the FY 2021-22, as per the RE furnished by PDS.

### 6.20 Revenue from tariff for the FY 2021-22

Revenue from the tariff approved by the Commission for the FY 2021-22 in its Tariff Order dated 26.2.2021 and revised estimates furnished by the PDS and now approved by the Commission are shown in table below.

**Table 6.18: Revenue from the Tariff approved by the Commission for FY 2021-22(₹ in Crore)**

Sl. No.	Particulars	As Approved by Commission in Order Dated 26.2.2021	Review Estimate	Now Approved by Commission
1	Domestics	29.54	26.36	26.36
2	Commercial	21.43	19.76	19.76
3	Public Lighting	0.19	0.16	0.16
4	Temporary Supply	2.60	2.04	2.04
5	HT Industrial Consumers	180.56	193.04	193.04
6	LT Industrial Consumers	0.93	1.26	1.26

7	Bulk Supply	22.09	25.92	25.92
8	Outside States	0.00	189.16	189.16
9	<b>Total</b>	<b>257.34</b>	<b>457.70</b>	<b>457.70</b>

The Commission approves the Revenue from Tariff at ₹457.70 Crores including Revenue from outside sales at ₹189.16 Crores for the FY 2021-22.

#### 6.21 Aggregate Revenue Requirement (ARR) for the FY 2021-22

The ARR for the FY 2021-22 approved by the Commission in its Tariff Order dated 26.2.2021, Revised Estimate furnished by the PDS and now approved by the Commission are furnished in table below.

**Table 6.19: Aggregate Revenue Requirement and Gap approved for FY 2021-22 (₹ in Crore)**

Sl. No.	Particulars	As Approved by Commission in Order Dated 26.2.2021	Review Estimate	Now Approved by Commission
1	Cost of Fuel	0.18	0.20	0.20
2	Cost of Generation	22.30	0.17	0.17
3	Cost of Power Purchase	278.01	198.13	198.13
4	Intra State Transmission Charge	48.18	31.25	31.25
5	Employee Costs	105.34	174.78	174.78
6	Repair and Maintenance Expense	22.02	32.76	30.61
7	Administration and General Expenses	3.49	5.40	5.40
8	Depreciation	23.12	32.75	30.61
9	Interest Charges	0.00	0.00	0.00
10	Interest on Working Capital	7.32	4.57	6.24
11	Return on NFA/Equity	0.00	0.00	0.00
12	<b>Total Revenue Requirement</b>	<b>509.96</b>	<b>480.01</b>	<b>477.38</b>
13	Less: Non-Tariff Income	1.3	1.32	1.28
14	<b>Net Revenue Requirement</b>	<b>508.66</b>	<b>478.69</b>	<b>476.10</b>
15	Revenue from Tariff	259.32	268.54	268.54
16	Revenue from Outside State Sales	146.66	189.16	189.16
17	<b>Gap/( Surplus )</b>	<b>102.68</b>	<b>20.99</b>	<b>18.40</b>

Review for the FY 2021-22 indicates that the revenue gap has arrived to ₹18.40 Crores as against ₹102.69 Crores revenue deficit approved in the Tariff Order for the FY 2021-22.

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## 7. AGGREGATE REVENUE REQUIREMENT FOR THE FY 2022-23, COMMISSION'S ANALYSIS AND DECISIONS

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### 7.1 Consumer Categories

The PDS was serving 1,19,203 consumers as on 31.03.2021 in its area of operation. The consumers could be broadly categorised as under:

#### LT Category

- Domestic - Rural, Urban
- Commercial - Rural, Urban
- Public Lighting
- Industrial - Rural, Urban
- Temporary Supply

#### HT Category

- Industrial

#### LT & HT Category

- Bulk Supply

The PDS serves the consumers at 250 V, 440 V and 11 kV levels. It is reported that, except public lighting, most of the consumers are metered. However the unmetered consumers are being provided with meters in a phased manner.

#### 7.1.1 Growth of Consumers

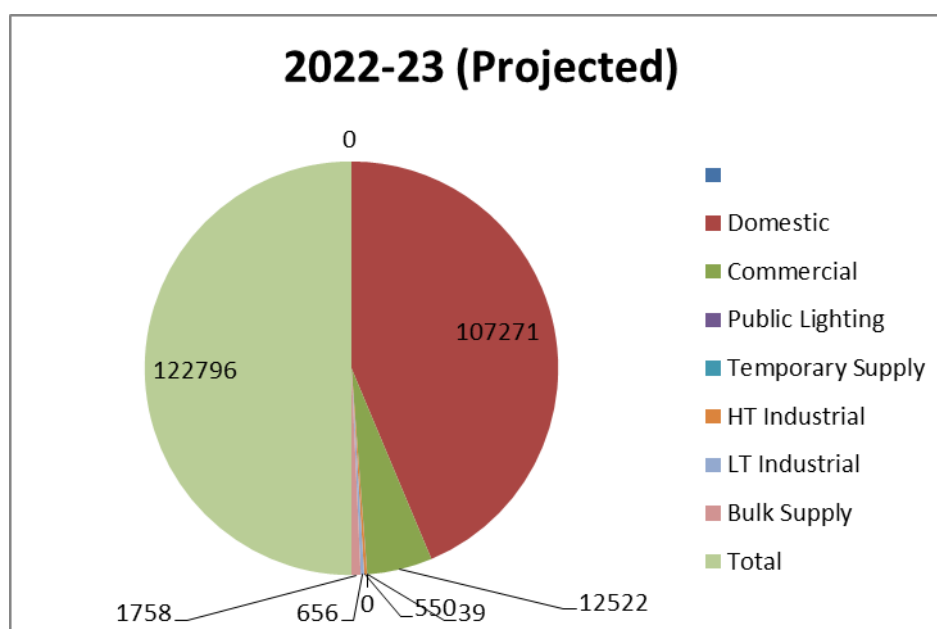
Details of the category-wise growth of consumers over the actuals during the FY 2020-21, the estimated figures for the FY 2021-22 and the projections for the FY 2022-23 are furnished in table below:

Table 7.1: Projected of no. of consumers

(In No)

Sl. No.	Category	2020-21 (Actual)	2021-22 (Estimated)	2022-23 (Projected)
1	Domestic	104134	105696	107271
2	Commercial	12156	12338	12522
3	Public Lighting	37	38	39
4	Temporary Supply	-	-	0
5	HT Industrial	534	542	550
6	LT Industrial	636	646	656
7	Bulk Supply	1706	1732	1758
8	<b>Total</b>	<b>119203</b>	<b>120991</b>	<b>122795</b>

Chart 7.1: No. of consumers projected by PDS for FY 2022-23



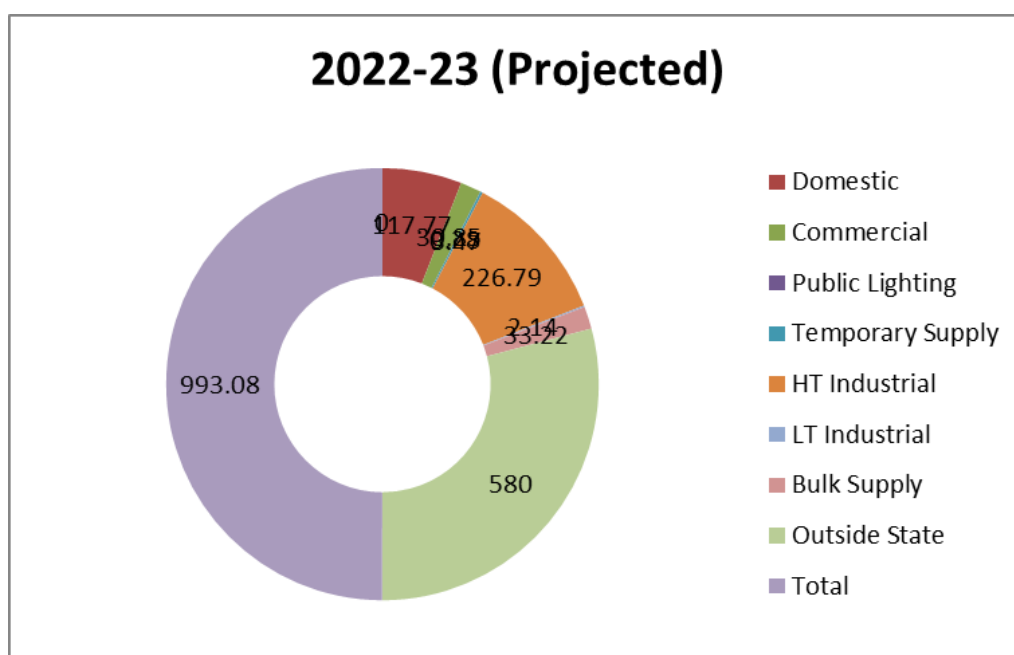
## 7.2 Category-wise Energy Sales

Category-wise energy sales approved by the Commission for the FY 2022-23 vide Tariff Order dated 26.2.2021 and the projected energy sales to various categories of consumer for the FY 2022-23 as given in table below:

Table 7.2: Energy Sales projected by PDS for the FY 2022-23 ( MUs)

Sl. No.	Category	As Approved by Commission in MYT ORDER DATED 26.2.2021	2022-23 (Projected)
1	Domestic	141.89	117.77
2	Commercial	45.89	30.85
3	Public Lighting	0.44	0.28
4	Temporary Supply	2.73	3.47
5	HT Industrial	240.78	226.79
6	LT Industrial	2.36	2.14
7	Bulk Supply	36.54	33.22
	Outside State	443.92	580.00
8	<b>Total</b>	<b>914.55</b>	<b>993.08</b>

Chart 7.2: Energy Sales projected by PDS for FY 2022-23



The PDS has projected the category-wise energy sales for the FY 2022-23 based on the actual past sales and growth rate and new developments on account of Government policies, socio-economic changes, industrial growth etc., which would affect consumption across various categories of consumers. In addition to this, the growth trend in number of consumers have been taken as guiding factors in arriving at the requirement of demand and energy.

### 7.2.1 Analysis of Energy Sales Projections by PDS and the Commission's decision

Reasonable projection of category-wise energy sales is essential for determining 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.

The CAGR of the past energy sales from the FY 2015-16 to FY 2020-21 is worked out and shown in table below:

**Table 7.3: CAGR of energy sales**

Sl. No	Category	2015-16 (Actual)	2016-17 (Actual)	2017-18 (Actual)	2018-19 (Actual)	2019-20 (Actual)	2020-21 (Actual)	CAGR for 5 years from FY 2015-16 to FY 2020-21	CAGR for 4 years from FY 2016-17 to FY 2020-21	CAGR for 3 years from FY 2017-18 to FY 2020-21	CAGR for 2 years from FY 2018-19 to FY 2020-21	CAGR for 1 years from FY 2019-20 TO fy 2020-21	
		(In MUs)						(In %)					
1	Domestic	74.96	96.74	98.72	107.46	107.94	112.78	8.51%	3.91%	4.54%	2.45%	4.48%	
2	Commercial	37.43	39.68	38.38	40.91	42.05	34.11	1.84%	3.71%	3.86%	8.69%	-18.88%	
3	Public Lighting	0.15	0.26	0.17	0.25	0.34	0.31	15.63%	4.50%	22.17%	11.36%	-8.82%	
4	Temporary Supply	1.16	2.92	3.38	4.69	2.36	3.06	21.41%	1.18%	3.26%	19.23%	29.66%	
5	HT Industrial	126.3	156.16	174.43	197.67	226.64	223.39	12.08%	9.36%	8.60%	6.31%	-1.43%	
6	LT Industrial	1.34	1.31	4.43	4.89	1.85	2.02	8.55%	11.43%	23.03%	35.73%	9.19%	
7	Bulk Supply	23.37	26.4	24.16	24.94	30.17	27.69	3.45%	1.20%	4.65%	5.37%	-8.22%	
8	<b>Total</b>	<b>264.71</b>	<b>323.47</b>	<b>343.67</b>	<b>380.81</b>	<b>411.35</b>	<b>403.36</b>						

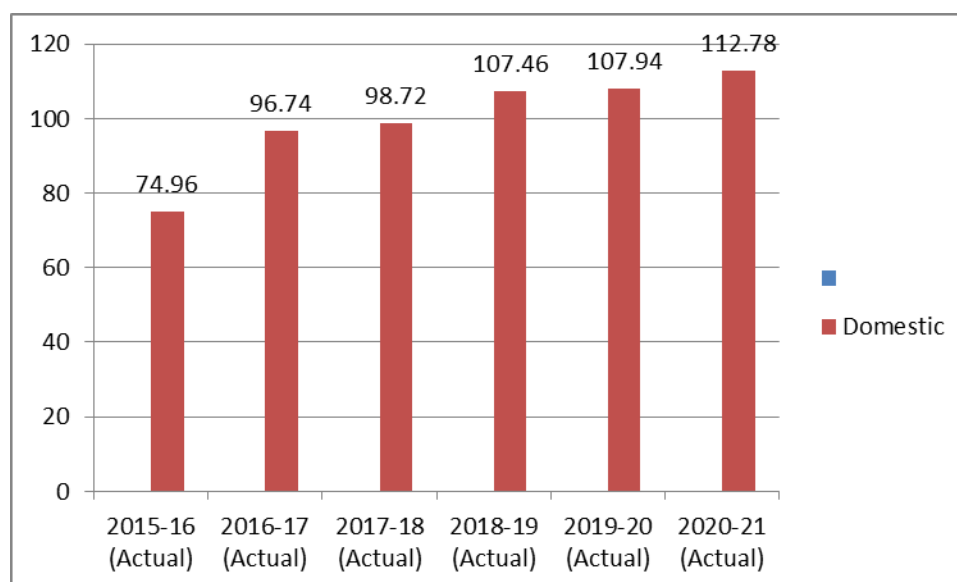
**Table 7.4: Specific monthly consumption/consumer (MUs)**

Sl. No.	Category	2020-21 (Actual)
1	Domestic	108
2	Commercial	281
3	HT Industrial	41833
4	LT Industrial	318
5	Bulk Supply	1623

The consumption of each category of consumers is discussed below, so as to arrive at a reasonable projection of energy sales for the FY 2022-23.

### **Domestic**

The PDS has projected energy sales to this category at 117.77 MUs for the FY 2022-23. The trend of the actual consumption in the category for the FY 2015-16 to FY 2020-21 is shown in the chart below:

**Chart 7.3: Trend of actual consumption – Domestic Category**

On analysis of the above trend and CAGR over different periods it is seen that the 5 years CAGR FY 2015-16 to FY 2020-21 is 8.51%, 4 years CAGR (FY 2016-17 to FY 2020-21) is 3.91%, the 3 years CAGR (FY 2017-18 to FY 2020-21) is 4.54%, 2 years CAGR (FY 2018-19 to



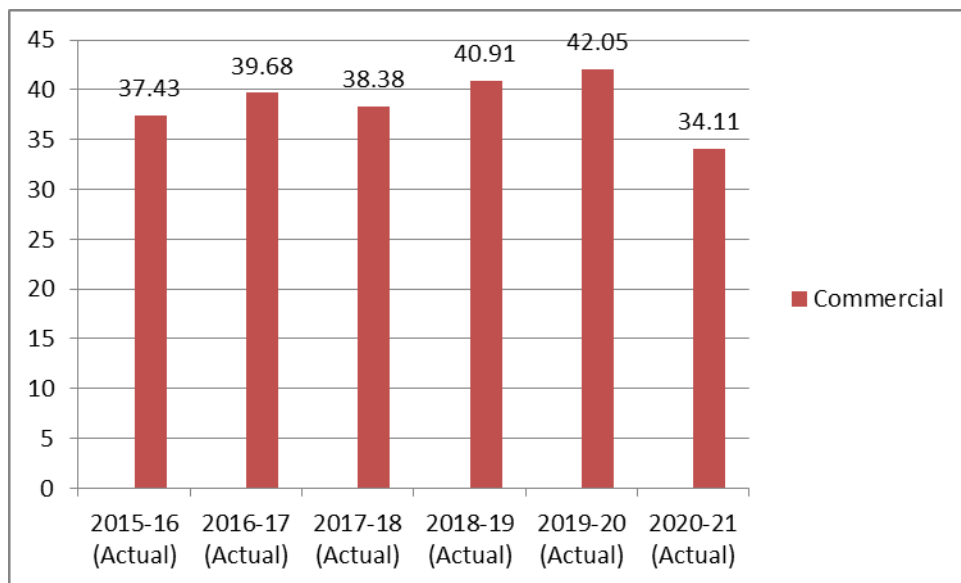
FY 2020-21) is 2.45% and the YoY growth (FY 2019-20 to FY 2020-21) is 4.85%. The actual specific consumption during the FY 2020-21 is 108 Kwh. On analysis of the above trend, the CAGR for 4 years of 3.91 % is considered reasonable & consumption work out to 121.77 MUs for the FY 2022-23.

**The Commission approves energy sales at 121.77 MUs against 117.77 MUs projected by PDS for the FY 2022-23.**

**Commercial**

The PDS has projected energy sales to this category at 30.85 MUs for the FY 2022-23. Negative growth is observed during the FY 2015-16 & FY 2020-21 over the previous year’s sale and PDS has not furnished reasons for such negative growth The trend of the actual consumption in the category for the FY 2015-16 to FY 2020-21 is shown in the chart below:

**Chart 7.4: Trend of actual consumption – Commercial Category**



On analysis of the above trend and CAGR over different periods it is seen that the 5 years CAGR for FY 2015-16 to FY 2020-21 is -1.84%, 4 years CAGR (FY 2016-17 to FY 2020-21) is -3.71%, the 3 years CAGR (FY 2017-18 to FY 2020-21) is -3.86%, 2 years CAGR (FY 2018-19 to FY 2020-21) is -8.69% and the YoY growth (FY 2019-20 to FY 2020-21) is -18.88%. The actual specific consumption during the FY 2020-21 is 281 Kwh. On analysis of the above trend, the

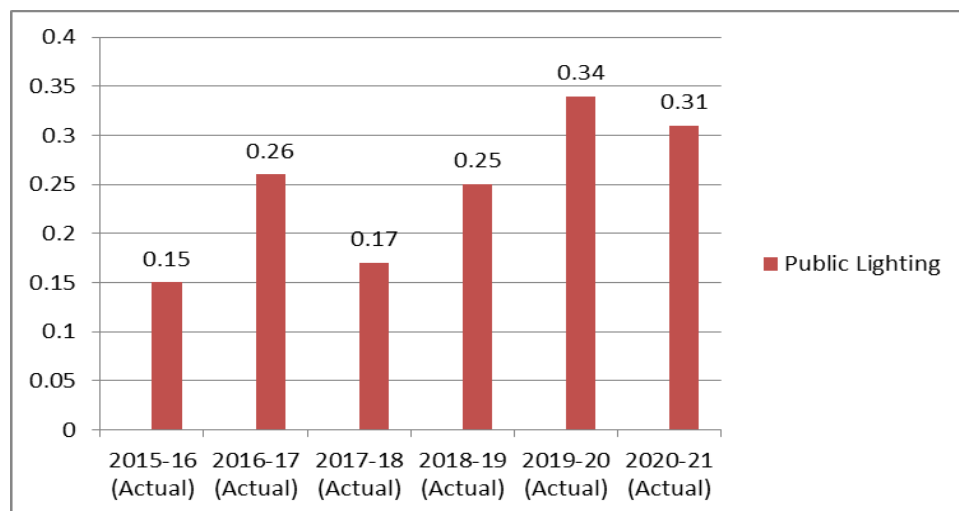
being negative growth & Commission has considered sales at par with FY 2020-21 of 34.11 for the FY 2022-23.

**The Commission approves energy sales at 34.11 MUs against 30.85 MUs projected by PDS for the FY 2022-23.**

**Public Lighting**

The PDS has projected energy sales to this category at 0.28 MUs for the FY 2022-23. The trend of the actual consumption in the category for FY 2015-16 to FY 2020-21 is shown in the chart below:

**Chart 7.5: Trend of actual consumption – Public Lighting Category**



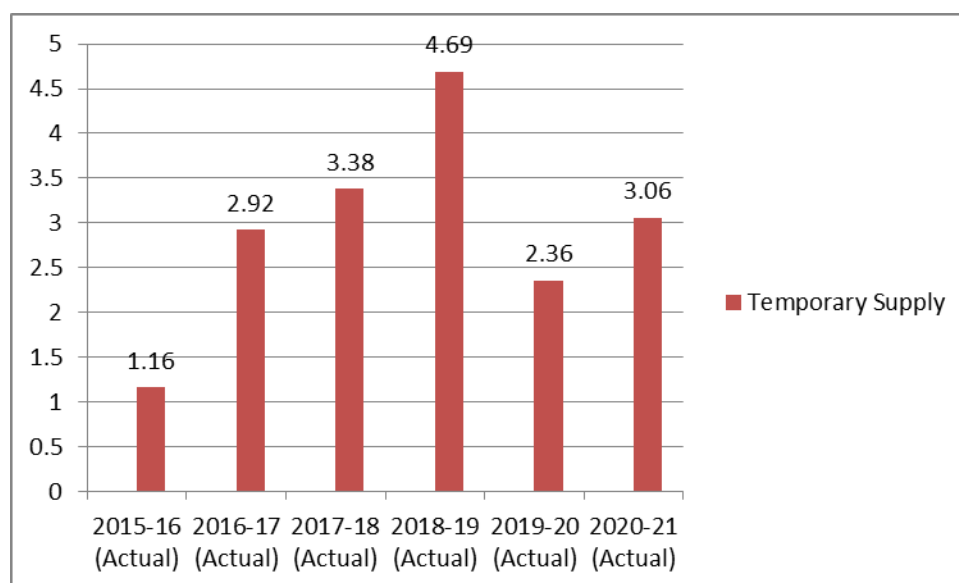
On analysis of the above trend and CAGR over different periods it is seen that the 5 years CAGR for FY 2015-16 to FY 2020-21 is 15.63%, 4 years CAGR (FY 2016-17 to FY 2020-21) is -4.50%, the 3 years CAGR (FY 2017-18 to FY 2020-21) is 22.17%, 2 years CAGR (FY 2018-19 to FY 2020-21) is 11.36% and the YoY growth (FY 2019-20 to FY 2020-21) is -8.82%. On analysis of the above trend, CAGR over different periods and actual consumption of 0.31 MUs in the FY 2020-21, the consumption work out to 0.34 MUs against 0.28 MUs projected by PDS for the FY 2022-23.

**The Commission approves energy sales at 0.34 MUs against 0.28 MUs projected by PDS for the FY 2022-23.**

### Temporary Supply

The PDS has projected energy sales to this category at 3.47 MUs for the FY 2022-23. The trend of the actual consumption in the category for the FY 2015-16 to FY 2020-21 is shown in the chart below:

**Chart 7.6: Trend of actual consumption – Temporary Supply Category**



On analysis of the above trend and CAGR over different periods it is seen that the 5 years CAGR for FY 2015-16 to FY 2020-21 is 21.41%, 4 years CAGR (FY 2016-17 to FY 2020-21) is -1.18%, the 3 years CAGR (FY 2017-18 to FY 2020-21) is -3.26%, 2 years CAGR (FY 2018-19 to FY 2020-21) is -19.23% and the YoY growth (FY 2019-20 to FY 2020-21) is 29.66%. On analysis of the above trend, CAGR over different periods and actual consumption of 3.06 MUs in the FY 2020-21, the consumption work out to 3.13 MUs against 3.47 MUs projected by PDS for the FY 2022-23.

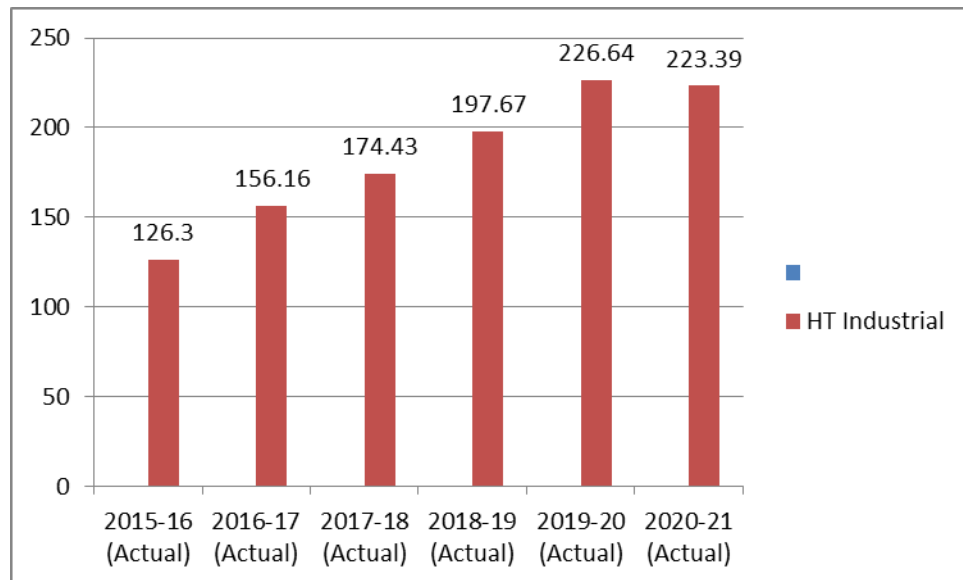
**The Commission approves energy sales at 3.13 MUs against 3.47 MUs projected by PDS for the FY 2022-23.**

### HT Industrial

The PDS has projected energy sales to this category at 226.79 MUs for the FY 2022-23. The trend of the actual consumption in the category for the FY 2015-16 to FY 2019-20 & RE for

the FY 2020-21 is shown in the chart below:

**Chart 7.7: Trend of actual consumption – HT Industrial Category**

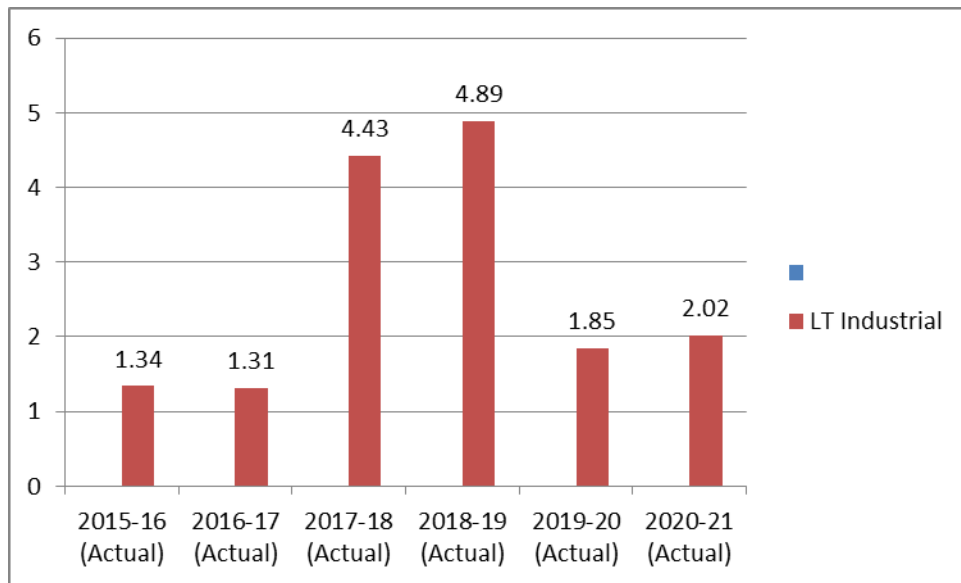


On analysis of the above trend and CAGR over different periods it is seen that the 5 years CAGR for FY 2015-16 to FY 2020-21 is 12.08%, 4 years CAGR (FY 2016-17 to FY 2020-21) is - 9.36%, the 3 years CAGR (FY 2017-18 to FY 2020-21) is 8.60%, 2 years CAGR (FY 2018-19 to FY 2020-21) is 6.31% and the YoY growth (FY 2019-20 to FY 2020-21) is -1.43%. On analysis of the above trend, CAGR over different periods and actual consumption of 223.39 MUs in the FY 2022-23, the consumption work out to 252.46 MUs against 226.79 MUs projected by PDS for the FY 2022-23.

**The Commission approves energy sales at 252.46 MUs against 226.79 MUs projected by PDS for the FY 2022-23.**

### **LT Industrial**

The PDS has projected energy sales to this category at 2.14 MUs for the FY 2022-23. The trend of the actual consumption in the category for the FY 2015-16 to FY 2020-21 is shown in the chart below:

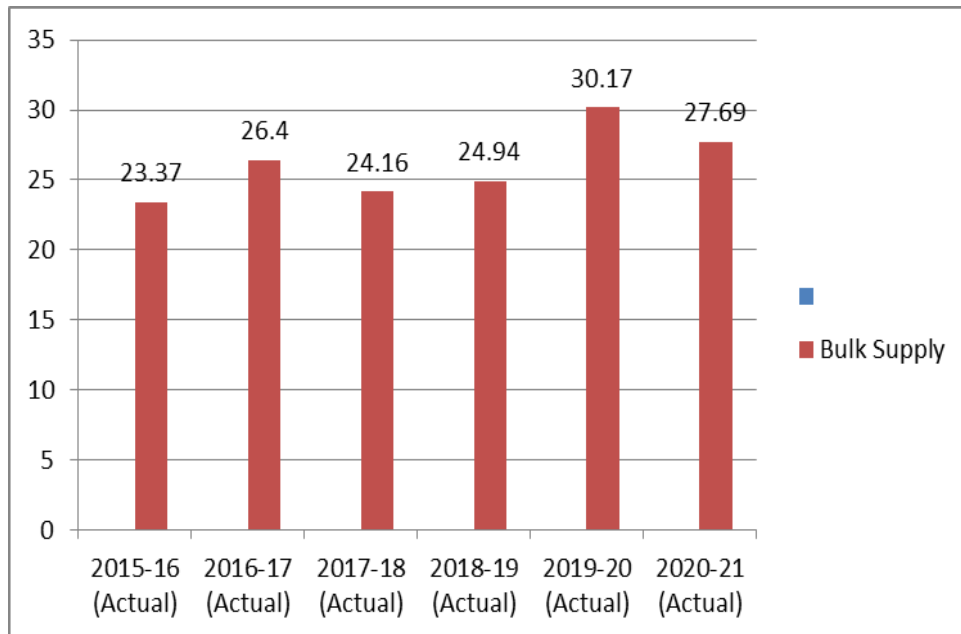
**Chart 7.8: Trend of actual consumption – LT Industrial Category**

On analysis of the above trend and CAGR over different periods it is seen that the 5 years CAGR for FY 2015-16 to FY 2020-21 is 8.55%, 4 years CAGR (FY 2016-17 to FY 2020-21) is 11.43%, the 3 years CAGR (FY 2017-18 to FY 2020-21) is -23.03%, 2 years CAGR (FY 2018-19 to FY 2020-21) is -35.73% and the YoY growth (FY 2019-20 to FY 2020-21) is 9.19%. The actual specific consumption during the FY 2020-21 is 318 kWh. On analysis of the above trend, CAGR over different periods and actual consumption of 2.02 MUs in the FY 2020-21, the consumption work out to 2.38 MUs against 2.14 MUs projected by PDS for the FY 2022-23.

**The Commission approves energy sales at 2.38 MUs against 2.14 MUs projected by PDS for the FY 2022-23.**

### **Bulk Supply**

The PDS has projected energy sales to this category at 33.22 MUs for the FY 2022-23. In this category negative growth is observed during the FY 2019-20 to FY 2021 over the previous year's sale and PDS has not furnished reasons for such negative growth. The trend of the actual consumption in the category for the FY 2015-16 to FY 2020-21 is shown in the chart below:

**Chart 7.9: Trend of actual consumption – Bulk Supply Category**

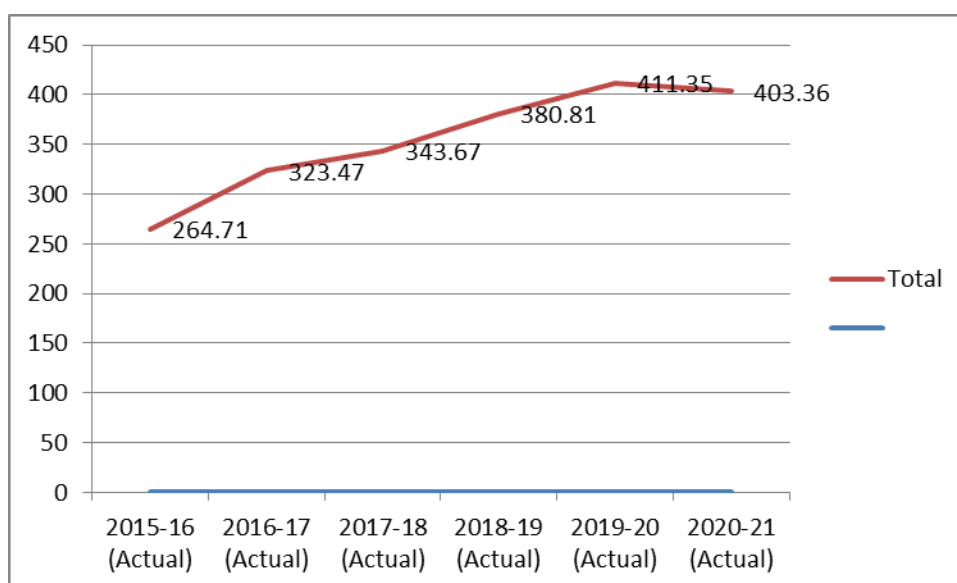
On analysis of the above trend and CAGR over different periods it is seen that the 5 years CAGR for FY 2015-16 to FY 2020-21 is 3.45%, 4 years CAGR (FY 2016-17 to FY 2020-21) is 1.20%, the 3 years CAGR (FY 2017-18 to FY 2020-21) is -4.65%, 2 years CAGR (FY 2018-19 to FY 2020-21) is 5.37% and the YoY growth (FY 2019-20 to FY 2020-21) is -8.22%. The actual specific consumption during the FY 2020-21 is 1623 kWh. On analysis of the above trend, CAGR over different periods and actual consumption of 27.69 MUs in the FY 2020-21, the consumption work out to 29.63 MUs against 33.22 MUs projected by PDS for the FY 2022-23.

**The Commission approves energy sales at 29.63 MUs against 33.22 MUs projected by PDS for the FY 2022-23.**

### Total sales

The trend of the actual consumption within the state of Sikkim for the FY 2015-16 to FY 2020-21 is shown in the chart below:

Chart 7.10: Trend of actual consumption – Sales within the State



### 7.3 Category-Wise Energy Sales

The category-wise energy sales approved by the Commission for the FY 2022-23 is given in table below:

**Table 7.5: Category-wise energy sales approved by the Commission (MUs)**

Sl. No.	Category	FY 2022-23
1	Domestic	121.77
2	Commercial	34.11
3	Public Lighting	0.34
4	Temporary Supply	3.13
5	HT Industrial	252.46
6	LT Industrial	2.38
7	Bulk Supply	29.63
<b>8</b>	<b>Total</b>	<b>443.82</b>

The Commission approves total energy sales within the state at 443.82 MUs for the FY 2022-23.

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

PDS projected T&D Losses at 25.72% for the FY 2022-23.

### Commission's Analysis:

During the FY 2020-21, the actual T&D Losses workout to 25.92%, while in the FY 2021-22 the T&D Losses are approved at 20%, as discussed in the review of the respective years. In the MYT Tariff Order, the T&D Losses were fixed and as per the trajectory the Commission has fixed the T&D losses at 18% for FY 2022-23. However, PDS has projected T&D losses at 25.72% for the FY 2022-23. So, trajectory loss % target 18% is considered as reasonable. PDS should take steps to keep the T&D losses as projected for the FY 2022-23.

**The Commission accordingly approves T&D Losses at 18% for the FY 2022-23. The PDS shall make all efforts for reduction of losses in the system.**

### Energy Requirement

The energy requirement of PDS to meet the 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 approved by the Commission**

Sl. No.	Particulars	Unit	FY 2022-23
1	Energy sales approved	MUs	443.82
2	T & D Losses approved	%	18.00
3	T & D Losses approved	MUs	97.42
4	Energy requirement	MUs	541.25

## 7.5 Power Procurement

### 7.5.1 Own Generation

The PDS owns 12 mini hydroelectric power stations, with a total installed capacity of 35.70 MWs, and 2 diesel generation stations, with a total installed capacity of 4.99 MWs, totaling 40.69 MWs, as detailed in table below:



Table 7.7: Installed capacity of own generating stations

Sl. No	Name of Projects	Installed Capacity (in MWs)	Remarks
	<b>HYDRO</b>		
1	Lower LagyapHydel Project (LLHP)	12.00	Project handed over to private party for operation and maintenance.
2	Jali Power House (JHP)	2.10	Project handed over to private party for operation and maintenance
3	Rimbi-I HEP	0.60	Project handed over to private party for operation and maintenance
4	Rongnichu HEP Stage-II	2.50	Project handed over to private party for operation and maintenance
5	Meyongchu HEP	4.00	Project handed over to private party for operation and maintenance
6	Upper RongnichuHydel Project (URHP)	8.00	Project handed over to private party for operation and maintenance
7	KalezKhola HEP	2.00	Project handed over to private party for operation and maintenance
8	Rabomchu HEP	3.00	Project handed over to private party for operation and maintenance
	<b>Total</b>	<b>34.20</b>	
	<b>Diesel</b>		
1	Diesel Power House Gangtok	4 x 1.00	Operational

The PDS has projected a generation of nil for the FY 2022-23 from its own generating stations.

**The Commission accordingly approves net own generation at Nil from its own generating station as projected by PDS for the FY 2022-23.**

### 7.5.2 Power purchase from Central Generating Stations

The balance energy requirement of PDS is mainly met from allocation of power from Central Stations of NTPC, NHPC and other sources such as PTC, SPDC and WBSEDCL etc.

The PDS has based the power purchase projections 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, PDS has considered purchase of the entire power available from all the possible sources during the financial year to meet the demand to the extent possible.

Besides the above, the PDS is also entitled for free power from some hydro power stations.

The actual power procurement projected for the FY 2022-23 is furnished in table below:

**Table 7.8: Summary of Power Purchase furnished by PDS**

Sl. No.	Source	2022-23 (Projected) MUs
	<b>Central Sector</b>	
1	FSTPP, NTPC	0
2	BSTPP, NTPC	117.39
3	KHSTPP-I, NTPC	0
4	KHSTPP-II, NTPC	0
5	TSTPP, NTPC	0
6	DARLAPALI	112.32
7	KBNUL	20.48
8	NPGCL	44.33
9	RANGIT-III, NHPC	2.12
10	TEESTA-V, NHPC	42.5
	<b>Others</b>	
11	CHUKHA, PTC	43.37
12	WBSEDCL	45.78
13	SPDC	32.15
	PTC Teesta	172
14	UI /over drawn (net)	8
15	Free Power	520.54
	<b>TOTAL</b>	<b>1160.98</b>

### Commission's Analysis

As per data gap replies the Commission has considered the generation from Meyong Chu, Kalez Khola, Rabom Chu and Lower Lagyap, Chatten HEP and Teesta power station during FY 2022-23.

The Commission has considered the power procurement projected by PDS during the financial year except power procurement from UI/Deviation. If any contingency arises to

procure power apart from allocated sources, the same will be considered at the time of true up & review. Power procurement approved by the Commission is shown in the table below:

**Table 7.9: Power Procurement approved by the Commission (MUs)**

Sl. No.	Source	FY 2022-23
	<b>Central Sector</b>	
1	FSTPP, NTPC	0
2	BSTPP, NTPC	117.39
3	KHSTPP-I, NTPC	0
4	KHSTPP-II, NTPC	0
5	TSTPP, NTPC	0
6	DARLAPALI	112.32
7	KBNUL	20.48
8	NPGCL	44.33
9	RANGIT-III, NHPC	2.12
10	TEESTA-V, NHPC	42.5
	<b>Others</b>	
11	CHUKHA, PTC	43.37
12	WBSEDCL	45.78
13	SPDC	32.15
14	UI /over drawn (net)	0.00
15	Meyong Chu, Kalez Khola, Rabom and Lower Lagyap SHP (M/s Hanuman Ganga)	84.315
16	PTC Teesta	172.00
17	Chatten HEP (SPDC)	12.21
18	Free Power	520.54
	<b>TOTAL</b>	<b>1249.50</b>

The Commission approves power procurement of 1249.50 MUs including free power of 520.54 MUs for the FY 2022-23.

## 7.6 Energy requirement and availability

The energy requirement and availability projected for the FY 2022-23 are furnished by the PDS in the table below:

**Table 7.10: Energy Balance projected by PDS (MUs)**

Sl. No.	Particulars	2020-21 (Actual)	2021-22 (Estimates)	FY 2022-23 (Projected)
<b>A.</b>	<b>ENERGY Requirement</b>			
1	Energy Sale within the state	403.36	413.36	413.08
2	Outside State sale through UI/ Trading	608.47	547.58	580.00
3	Total Energy Sale ( 1 +2 )	1011.83	960.94	993.08
4	Overall T & D losses	25.92	28.05	25.72
5	Overall T & D losses	141.13	161.16	143.06

6	Total Energy Requirement	1152.97	799.78	1136.14
<b>B.</b>	<b>ENERGY AVAILABILITY</b>			
1	Own Generation	2.71	1.37	0.00
2	Power Purchase from CGS / UI etc.	723.23	622.30	640.44
3	Free Power	496.63	507.90	520.54
4	Overall pool loss	12.60	24.19	24.84
5	Total Energy Availability ( 1 + 2 +3 -4)	1196.41	1107.38	1136.14
<b>C</b>	<b>ENERGY SURPLUS/ (GAP)</b>	<b>43.44</b>	<b>89.82</b>	<b>0.00</b>

**Commission's Analysis:**

Considering the inter-state transmission loss at 2.14%, the energy balance is worked out as detailed in table below:

**Table 7.11: Energy Balance approved by the Commission (MUs)**

Sl. No.	Particulars	Units	FY 2022-23 (Projected)
<b>A.</b>	<b>ENERGY Requirement</b>		
1	Energy Sale within the state	Mus	443.82
2	Overall T & D losses	%	18.00
3	Overall T & D losses	Mus	97.42
<b>4</b>	<b>Total Energy Requirement</b>	<b>Mus</b>	<b>541.25</b>
<b>B.</b>	<b>ENERGY AVAILABILITY</b>		
1	Own Generation	Mus	0.00
2	Power Purchase from CGS / UI etc.	Mus	728.97
3	Free Power	Mus	520.54
4	Overall pool loss	%	2.14
5	Overall pool loss	Mus	13.98
<b>6</b>	<b>Total Energy Availability ( 1 + 2 +3 -5)</b>	<b>Mus</b>	<b>1235.52</b>
<b>C</b>	<b>ENERGY SURPLUS/ (GAP)</b>		<b>694.27</b>

The energy balance approved for a surplus energy of 694.27 MUs for the FY 2022-23.

## 7.7 Aggregate Revenue Requirement

The PDS has projected Aggregate Revenue Requirement at ₹511.72 Crores for the FY 2022-23, as detailed in table below:

**Table 7.12: Aggregate Revenue Requirement projected by PDS (₹ in Crore)**

SI No.	Particulars	2022-23 As approved by the Commission in MYT Order dated 26.02.21	Projected 2022-23
1	2	3	4
1	Cost of Fuel	0.18	0.20
2	Cost of Generation	22.79	Nil
3	Cost of Power Purchase	291.91	204.71
4	Intra State Transmission Charges	50.55	33.55
5	Employee Costs	111.66	193.38
6	Repairs & Maintenance Expenses	23.24	35.38
7	Administration and General Expenses	3.70	7.56
8	Depreciation	24.40	34.85
9	Interest Charges	-	
10	Interest on Working Capital	7.71	3.44
11	Return on Equity	-	
12	Provision for Bad Debts	-	
<b>13</b>	<b>Total Revenue Requirement</b>	<b>536.14</b>	<b>513.07</b>
14	Less: Non- Tariff Income	1.33	1.35
<b>15</b>	<b>Net Revenue Requirement</b>	<b>534.81</b>	<b>511.72</b>
16	Revenue from Tariff	286.03	282.33
17	Revenue from Outside State Sale	133.18	200.00
<b>18</b>	<b>Gap</b>	<b>115.60</b>	<b>29.39</b>

The expenses projected by PDS and the Commission's analysis are discussed hereunder.

## 7.8 Fuel Cost

The PDS has projected fuel cost at ₹ 0.20 Crores for the FY 2022-23.

**The Commission approves fuel cost at ₹ 0.20 Crores for the FY 2022-23, as projected by PDS.**

## 7.10 Power Purchase Cost

### Power Purchase Cost projected for the FY 2022-23

The PDS has projected a power purchase cost at ₹ 199.59 Crores. The details are furnished in the table below:

**Table 7.13: Power Purchase Cost projected by PDS**

Sl. No.	Source	Energy Received (MUs)	Cost of Power (₹ In Crore)
<b>1</b>	<b>NTPC</b>		
a)	BSTPP	117.39	55.42
b)	FSTPP		0.00
c)	KHSTPP-I		0.00
d)	KHSTPP-II		0.00
e)	TSTPP		0.00
f)	DARLPALI	112.32	67.53
g)	KBUNL	20.48	17.89
h)	NPGL	44.33	22.87
	<b>Total</b>	<b>294.52</b>	
<b>2</b>	<b>NHPC</b>		
a)	RANGIT- III	2.12	0.87
b)	TEESTA – V	42.5	10.22
	<b>Total</b>	<b>44.62</b>	
<b>3</b>	<b>Other Source</b>		
a)	PTC	43.37	10.42
b)	WBSEDCL	45.78	5.85
c)	SPDC	32.15	12.86
<b>4</b>	<b>Other Charge</b>		
	Transmission & Other Charges		
<b>5</b>	UI/Deviation	8.00	0.77
<b>6</b>	Free Power	520.54	0
<b>7</b>	Teesta	172	
<b>8</b>	<b>Total</b>	<b>1160.98</b>	<b>204.71</b>

### Commission Analysis:

As seen from the above, the PDS has claimed the power purchase cost for the FY 2022-23. The Commission has considered the power purchase cost at as at FY 2021-22 base rate as the station-wise average rate on the basis of the bill for the month of April, 2021 to

compute the power purchase cost for the FY 2022-23. Accordingly, the power purchase cost for the FY 2022-23 is worked out, as detailed in table below

As per the SSERC (Renewable Energy Purchase Obligation and Its Compliance) (First Amendment) Regulations, 2017, the applicable RPO levels for the FY 2022-23 is 10.25% for Non Solar and 6.75% for Solar. The RPO Regulation requires the procurement from hydro sources to be excluded from consumption (total consumption of its consumer including T&D losses) for arriving at the energy quantum for calculation of RPO. If any further amendment issued by the CERC/Commission, the same shall be applicable for determination of RPO.

The Commission has also worked out the same on the basis of the approved energy sales & purchases quantity. The details are furnished in the table below:

**Table 7.14: RPO Compliance approved by the Commission (MUs)**

Sl. No.	Source	FY 2022-23
1	RANGIT- III , NHPC	2.12
2	TEESTA - V , NHPC	42.5
3	CHUKHA, PTC	43.37
4	RAMMAM, WBSEDCL	45.78
5	SPDC	32.15
6	TEESTA	172.00
7	FREE POWER	520.54
8	Meyong Chu, Kalez Khola, Rabom and Lower Lagyap, Chatten Hep, Teesa	268.53
<b>9</b>	<b>TOTAL Hydro Generation Available (including Free Power)</b>	<b>1126.99</b>
<b>10</b>	<b>Total Consumption including T &amp; D Loss</b>	<b>541.25</b>
<b>11</b>	<b>Excess Hydro Generation available (including Free Power )</b>	<b>585.74</b>

The table also shows that the PDS is complying the RPO requirement. However, the power procurement projection for the FY 2022-23 shows that there is no provision for procurement of power from solar sources. Further, PDS is directed to make efforts for developing solar sources & procuring power from solar sources. The detail of Power Purchase quantum and cost approved by the Commission is given in the Table below:

Table 7.15: Power Purchase Cost approved by the Commission

Sl. No.	Source	Energy Received ( Mus)	Unit Cost (Rs. / KWH)	Cost (Rs in Crore)
<b>1</b>	<b>NTPC</b>			
	BSTPP	117.39	5.29	62.10
	FSTPP	0		0.00
	KHSTPP-I	0		0.00
	KHSTPP-II	0		0.00
	TSTPP	0		0.00
	DARLPALI	112.32	3.10	34.79
	KBUNL	20.48	6.42	13.15
	NPGCL	44.33	4.85	21.50
<b>2</b>	<b>NHPC</b>			
	RANGIT- III	2.12	3.89	0.83
	TEESTA – V	42.5	2.42	10.28
<b>3</b>	<b>PTC</b>			
	PTC	43.37	2.40	10.42
<b>4</b>	<b>Other Source</b>			
	WBSEDCL	45.78	1.28	5.86
	SPDC	32.15	4.00	12.86
	Teesta	172	3.23	55.61
	Meyong Chu, Kalez Khola, Rabom and Lower Lagyap	84.32	3.91	32.97
	Chatten HEP	12.21	3.0	3.66
<b>5</b>	<b>Total Energy Purchased</b>	<b>728.87</b>		<b>264.02</b>

The Commission approves the power purchase cost at ₹ 264.02 Crores for purchase of 728.87 MUs & Free Power of 520.54 MUs for the FY 2022-23 against the total cost of ₹204.71 Crores as projected by the PDS.

### 7.11 Intra State Transmission Charges

The PDS has projected Intra State Transmission Charges at ₹ 33.55 Crores as approved by the Commission in the MYT Order dated 26.2.2021 for the FY 2022-23. The details of expenses projected by the PDS are furnished in the table below:



**Table 7.16: Intra State Transmission Charges projected by PDS ( ₹ in Crore)**

Sl. No.	Particulars	FY 2022-23 (Projected)
1	Intra State Transmission Charge	33.55

**Commission's Analysis:**

The Commission approved the Intra State Transmission Charges for the FY 2022-23, as detailed in table below.

**Table 7.17: Intra State Transmission Charges approved by the Commission ( ₹ in Crore)**

Sl. No.	Particulars	FY 2022-23
1	Intra State Transmission Charge	33.55

The Commission therefore approves the Intra State Transmission Charges at ₹33.55 Crores for the FY 2022-23.

**7.12 Employee Cost**

PDS has projected employee cost for the FY 2022-23 as shown in the table below:

**Table 7.18: Employee Cost furnished by PDS ( ₹ in Crore)**

Sl. No.	Particulars	FY 2022-23 (Projected)
1	Employees Expense	193.38

**Commission's Analysis:**

The Commission has considered all the factors, the employee cost are approved by the Commission for the FY 2022-23 as shown in table below. Further, the Commission directs PDS to furnish the details of Employee Cost at the time of Review & True-up.

**Table 7.19: Employee Cost approved by the Commission ( ₹ in Crore)**

Sl. No.	Particulars	FY 2022-23
1	Employees Expense	193.38

The Commission therefore approves the employee cost at ₹193.38 Crores as projected by the PDS for the FY 2022-23. The above Employee Expenses are approved.

### 7.13 Administrative and General Expenses

The PDS has projected Administrative and General Expense sat ₹7.56 Crores for the FY 2022-23. The Administrative and General Expenses include Conveyance expenses, Telephone and Postage expenses, Electricity and Water charges, Consultancy fee and other professional charges. The details of expenses projected by the PDS are furnished in the table below:

**Table 7.20: Administrative and General Expenses Projected by PDS ( ₹ in Crore)**

Sl. No.	Particulars	FY 2022-23
1	Administration & General Expense	7.56

#### Commission's Analysis:

The Commission has considered all the factors, the A&G expenses are approved by the Commission for the FY 2022-23 as shown in table below. Further, the Commission directs PDS to furnish the details of A&G expenses at the time of Review & True-up.

**Table 7.21: Administration & Generation Expenses approved by the Commission ( ₹ in Crore)**

Sl. No.	Particulars	FY 2022-23
1	Administration & General Expense	7.56

The Commission therefore approves the Administrative and General Expenses at ₹7.56 Crores as projected by the PDS for the FY 2022-23. The above Administrative and General Expenses are approved.

#### 7.14 Repairs and Maintenance Expenses

The PDS has projected at ₹35.38 Crores for the 2022-23 towards Repair and Maintenance Expenses which includes expenses towards operation and maintenance of electrical equipment, plant & machinery, vehicles, furniture and fixtures, office equipment and buildings. The details of expenses projected by PDS are furnished in the table below:

**Table 7.22: Repair and Maintenance Expenses projected by PDS ( ₹ in Crore)**

Sl. No.	Particulars	FY 2022-23 (Projected)
1	Repair & Maintenance Expense	35.38

#### Commission's Analysis:

The Commission has considered all the factors, the Repair and Maintenance Expenses are approved by the Commission for the FY 2022-23 as shown in table below. Further, the Commission directs PDS to furnish the details of Repair and Maintenance Expenses at the time of Review & True-up.

**Table 7.23: Repair and Maintenance Expenses approved by the Commission ( ₹ in Crore)**

Sl. No.	Particulars	FY 2022-23
1	Repair & Maintenance Expense	35.38

The Commission therefore approves the Repair and Maintenance Expenses at ₹35.38 Crores for the FY 2022-23. The above Repair and Maintenance Expenses are approved.

#### 7.15 Depreciation

The PDS has projected depreciation of ₹34.85 Crores for the FY 2022-23. The PDS has stated that the depreciation has been calculated on the value of the opening GFA plus

additions during the year at the rates prescribed in the SSERC Regulations. The Depreciation calculated for the assets of the distribution function. The same is detailed in the table below:

**Table 7.24: Depreciation Projected by PDS ( ₹ in Crore)**

Sl. No.	Particulars	FY 2022-23 (Projected)
1	Depreciation	34.85

**Commission's Analysis:**

As discussed earlier, the depreciation on the opening GFA cannot be considered. The Commission has approved the Depreciation of ₹32.29 Crores for the FY 2022-23, as detailed in the table below:

**Table 7.25: Depreciation approved by the Commission ( ₹ in Crore)**

Sl. No.	Particulars	FY 2022-23
1	Opening GFA	594.02
2	Addition during the Year	35.00
3	Closing GFA	629.02
4	Average GFA	611.52
5	Rate of Depreciation	5.28
<b>6</b>	<b>Depreciation</b>	<b>32.29</b>

**The Commission therefore approves the Depreciation at ₹32.29 Crores for the FY 2022-23.**

**The above Depreciation is approved.**

## 7.16 Interest and Finance Charges

The PDS has not projected interest and finance charges during the FY 2022-23.

**Commission's Analysis:**

The Commission has not found any loan with PDS. **As such the Commission has not considered interest and finance charges during the FY 2022-23.**

**7.17 Interest on Working Capital**

The PDS has projected interest on working capital at ₹3.44 Crores for the FY 2022-23 on normative basis.

The PDS has worked out interest on working capital as detailed in the table below:

**Table 7.26: Interest on Working Capital Projected by PDS ( ₹ in Crore)**

Sl. No.	Particulars	FY 2022-23 (Projected)
1	O & M Expenses for 1 month	19.69
2	Maintenance Spares @ 1% plus Escalation @ 6% per annum	0
3	Receivable equivalent to 2 month's Revenue	47.05
<b>4</b>	<b>Total Working Capitals</b>	<b>47.05</b>
5	Less : Security Deposited of Consumers	0
<b>6</b>	<b>Net Working Capital</b>	<b>47.05</b>
7	SBI Advance Rate	7.30
<b>8</b>	<b>Interest on Working Capital</b>	<b>3.44</b>

**Commission's Analysis:**

As per Regulation of SSERC (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2020, interest on working capital shall be calculated on normative basis, notwithstanding the fact that the licensee has taken working capital loan from any outside agency. Accordingly, the Interest on Working Capital has been worked out on the costs approved by the Commission, as detailed in the table below:

**Table 7.27: Interest on Working Capital approved by the Commission ( ₹ in Crore)**

Sl. No.	Particulars	FY 2022-23
1	O & M Expenses for 1 month	19.69
2	Maintenance Spares @ 1% plus Escalation @ 6% per annum	0.00
3	Receivable equivalent to 2 month's Revenue	95.66
<b>4</b>	<b>Total Working Capitals</b>	<b>115.35</b>
5	Less : Security Deposited of Consumers	11.87
<b>6</b>	<b>Net Working Capital</b>	<b>103.48</b>
7	SBI Advance Rate	7.30
<b>8</b>	<b>Interest on Working Capital</b>	<b>7.55</b>

The Commission approves the Interest on Working Capital at ₹7.55 Crores for the FY 2022-23. The above Interest on Working Capital is approved.

### 7.18 Return on Equity

The PDS has not projected Return on Equity during the FY 2022-23.

#### Commissions Analysis:

Regulation 29 of SSERC (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2020, provides for Return on Equity at 14% p.a. on the equity amount appearing in the audited balance sheet of annual accounts.

The PDS has not produced audited annual accounts. In addition, 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.**

### 7.19 Provision for Bad Debts

The PDS has not claimed any provision for bad debts during the FY 2022-23.

### 7.20 Non-Tariff Income

The PDS has projected a Non-Tariff Income ₹1.35 Crores for the FY 2022-23.

**Commission's Analysis:**

PDS is directed to submit the details of the energy meters provided by the department and procured by the consumers at their cost. Further, PDS has projected the Non-tariff Income of ₹1.35 Crores.

**The Commission approves the Non-Tariff Income at ₹1.35 Crores for the FY 2022-23, as projected by the PDS for the FY 2022-23.**

**7.21 Revenue from Existing Tariff**

The PDS has projected revenue from sale of energy with existing tariff at ₹282.33 Crores within the states for the FY 2022-23. Further, the PDS has projected revenue from outside state sale at ₹200 Crores for the FY 2022-23.

**Commissions Analysis:**

It is observed that the revenue from domestic category contributes after the highest contribution by HT Industrial. Hence, impact of change in tariff on the revenue is mostly dependent on these categories. The revenue approved at the existing Tariff is detailed in the table below:

**Table 7.28: Revenue at Existing Tariff as approved by the Commission for FY 2022-23**

( ₹ in Crore)

Sl. No.	Particulars	FY 2022-23
1	<b>Total Sales within the State</b>	<b>277.21</b>
2	Sale outside State	208.28
3	<b>Total Sales ( 1+2)</b>	<b>485.49</b>

**The Commission approves revenue from sale of energy with existing tariff at ₹ 277.21 Crore on sale of 443.82 MUs within the state at an average rate of ₹6.24/kWh & ₹ 208.28 Crores on sale of 694.27 MUs from outside State sale at an average rate of ₹3.00/kWh for the FY 2022-23.**

## 7.22 Aggregate Revenue Requirement (ARR) and Gap

The Aggregate revenue requirement and gap projected by PDS for the FY 2022-23 is furnished in table below.

**Table 7.29: Aggregate Revenue Requirement projected by PDS (₹ in Crore)**

SI No.	Particulars	2022-23 As approved by the Commission in MYT Order dated 26.02.21	Projected 2022-23
1	2	3	4
1	Cost of Fuel	0.18	0.20
2	Cost of Generation	22.79	Nil
3	Cost of Power Purchase	291.91	204.71
4	Intra State Transmission Charges	50.55	33.55
5	Employee Costs	111.66	193.38
6	Repairs & Maintenance Expenses	23.34	35.38
7	Administration and General Expenses	3.70	7.56
8	Depreciation	24.40	34.85
9	Interest Charges	-	
10	Interest on Working Capital	7.71	3.44
11	Return on Equity	-	
12	Provision for Bad Debts	-	
<b>13</b>	<b>Total Revenue Requirement</b>	<b>536.24</b>	<b>513.07</b>
14	Less: Non- Tariff Income	1.33	1.35
<b>15</b>	<b>Net Revenue Requirement</b>	<b>534.91</b>	<b>511.72</b>
16	Revenue from Tariff	286.03	282.33
17	Revenue from Outside State Sale	133.18	200.00
<b>18</b>	<b>Gap</b>	<b>115.70</b>	<b>29.39</b>

Based on the approvals of the above projections, the ARR & Gap of PDS for the FY 2022-23 works out as detailed in table below:



**Table 7.30: Aggregate Revenue Requirement approved by the Commission**

Sl. No.	Particulars	FY 2022-23 (₹ in Crore)
1	Cost of Fuel	0.2
2	Cost of Generation	0.00
3	Cost of Power Purchase	264.03
4	Intra State Transmission Charge	33.55
5	Employee Costs	193.38
6	Repair and Maintenance Expense	35.38
7	Administration and General Expenses	7.56
8	Depreciation	32.29
9	Interest Charges	0.00
10	Interest on Working Capital	7.55
11	Return on NFA/Equity	0.00
<b>12</b>	<b>Total Revenue Requirement</b>	<b>573.94</b>
13	Less: Non-Tariff Income	1.35
<b>14</b>	<b>Net Revenue Requirement</b>	<b>572.59</b>

Accordingly, the Commission approves the Aggregate Revenue Requirement at ₹572.59 Crores against ₹ 511.72 Crores projected by PDS for the FY 2022-23.

Since PDS accounts are not segregated for Generation, Transmission and Distribution businesses, therefore no separate transmission tariff has been determined by the Commission. For the purpose of Open access, the Commission shall separately determine the transmission tariff and issue Order thereof.

### 7.23 Revenue Gap for the FY 2022-23

Based on the Aggregate Revenue Requirement and revenue from existing tariffs for FY 2022-23, the resultant GAP is as shown in the table below.

**Table 7.31: Approved Revenue at Existing Tariff & Gap**

Sl. No.	Particulars	FY 2022-23
1	<b>Net Revenue Requirement (₹ in Crore)</b>	572.59
2	Revenue from Tariff	277.21
3	Revenue from Sale Outside the State	200.00
<b>4</b>	<b>GAP</b>	<b>95.38</b>
5	Energy Sale within the State (MUs)	443.82
6	Energy Sale Outside the State (MUs)	694.27
<b>7</b>	<b>Average Cost of Supply Rs/ kWh</b>	<b>5.03</b>

The Revenue gap of ₹95.38 Crores has been arrived at on the basis of the approved data for the FY 2022-23. The Revenue Gap is about 17% of the net Revenue Requirement. The average cost of supply for the FY 2022-23 is ₹ 5.03/kWh & average revenue from tariff is ₹4.19/kWh. The average revenue gap is ₹0.84/kWh.

The Commission is of the view that the PDS needs to make efforts to bridge the revenue gap by improving the operational performance, particularly by reduction of distribution losses which, in turn, would reduce the resource gap. A concerted effort needs to be made to recover the outstanding arrears, especially from government departments & other high end users in the State ,i.e. , industrial units, hotels, etc. The Commission observes that a sizeable quantum of power is purchased by the PDS for meeting the energy demand of the State (within the State consumption). The PDS needs to make efforts to improve its own generation, so that a sizeable part of the State's demand is met from its own generation.

#### **7.24 Recovery of Revenue Gap for the FY 2022-23**

As seen from para above, there is a revenue gap of ₹ 95.38 Crores during the FY 2022-23 which is 17% of net ARR for the FY 2022-23. The existing tariff was fixed with effect from 01.04.2022. PDS does not propose to recover the entire Gap as this may result in huge burden on the consumers. Tariff is a sensitive subject having substantial impact on social, power sector. Recovery of entire Gap through tariff increase is not practicable as this would make power unaffordable to the general consumers.

PDS being a Government Department funded by budgetary support from State Government, it proposes to absorb the unrecovered gap. However, PDS proposed an average increase in tariff to bridge the gap partially.

As such, the Commission considers it fit to slightly revise the tariffs in the Industrial HT category only without giving tariff shock to consumers to bridge the gap partially. Owing to revision of tariffs, the PDS is expected to get additional revenue of ₹5.32 Crores as detailed in table below:

Table 7.32: Revenue from revised Tariff approved by the Commission for FY 2022-23

Sl. No.	Particulars	Sales (MUs)	Proposed Revenue (₹ in Crore)
<b>1</b>	<b>Domestic (DLT)</b>		
a)	Up to 50 Units	34	3.36
b)	51 to 100 Units	30	6.05
c)	100 to 200 Units	32	9.69
d)	200 to 400 Units	13	4.71
e)	401 & above	12	4.84
	<b>Total</b>		<b>28.66</b>
<b>2</b>	<b>Commercial</b>		
a)	Up to 50 Units	7	2.01
b)	51 to 100 Units	6	2.41
c)	100 to 200 Units	5	2.68
d)	200 to 400 Units	9	5.22
e)	401 & above	7	4.63
	<b>Total</b>		<b>16.94</b>
<b>3</b>	<b>Public Lighting</b>		
a)	Rural Areas	0.10	0.04
b)	Urban Areas	0.24	0.12
	<b>Total</b>		<b>0.16</b>
<b>4</b>	<b>Temporary</b>	3.13	3.13
<b>5</b>	<b>Industrial</b>		
<b>A</b>	<b>HT</b>		
a)	HT (AC) above 3.3 KV		
a)	Upto 100 KVA	45.51	28.17
b)	100-250 KVA	46.94	35.19
c)	250-500 KVA	62.21	51.99
d)	500KVA and Above	97.81	97.73
	<b>Total HT</b>		<b>213.09</b>
<b>B</b>	<b>LT (Rural)</b>		
a)	Up to 500 Units	1.71	0.61
b)	501-1000 Units	0.00	0.00
c)	1001 & Above	0.61	0.35
	<b>Total</b>		<b>0.97</b>
<b>C</b>	<b>LT(Urban)</b>		
a)	Up to 500 Units	0.00	0.00
b)	501-1000 Units	0.00	0.00
c)	1001 & Above	0.07	0.05
	<b>Total</b>		<b>0.05</b>
<b>6</b>	<b>BULK SUPPLY</b>		
a)	LT	2.82	2.99
b)	HT	26.81	16.55
	<b>Total</b>		<b>19.54</b>
<b>7</b>	<b>Grand Total</b>	<b>443.82</b>	<b>282.53</b>

With the revision of tariff, the PDS will generate additional revenue of ₹5.32. Thereby, the revenue gap is calculated to ₹90.06 Crores (i.e. ₹95.38 Crores–₹5.32 Crores), which the PDS shall meet by improving internal efficiency.

**The Commission, accordingly, approves revenue from revised tariffs at ₹282.53 Crores with the energy sales of 443.82 MUs. The Revenue gap has been reduced to ₹ 90.06 Crores as against ₹95.38 Crores and has been arrived on the basis of the approved data for the FY 2022-23.**

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## **8. DIRECTIVES AND ADVISORIES**

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### **Directives issued in the FY 2016-17 Tariff Order**

#### **Directive 1: Improving Own Generation**

The own generation from the various Powerhouses of the PDS has seen a decline over the years and it is seen that most of the Powerhouses were non-operational for considerable period of time. The PDS is directed to prepare a time bound plan for restoring the full generation of the Powerhouses to improve its own generation. The Commission has observed that PDS has made only bare minimum provisions under the Repair Maintenance head and as such it is feared that timely repairs and requisite maintenance of the power plants are not being done. The PDS needs to concentrate both resource and planning on the power plants having good generation capacity.

#### **Compliance:**

Seven small hydro projects with total installed capacity of 26.20 Mw under Power Department which were non-functional have already been handed over to private technical partner in PPP mode.

#### **Commission's comments:**

The Commission has taken note of handing over of seven small ailing projects to private technical partner on PPP mode and directs the PDS to properly supervise the renovation works to be done by the technical partner to ensure that the projects are re-commissioned in timely manner as per the PPP agreement. The State is set to get 12% free power initially and thereafter 15% and 18%, therefore it is important to ensure that there is no delay in renovation works of the projects.

#### **Directive 2: Segregation of Technical & Commercial Loss**

The PDS is directed to take appropriate action for segregating the Technical and Commercial losses. The exercise towards segregating the losses may be done in a phased manner beginning with the major towns/cities in phase -1 and other areas in later phases.

#### **Compliance:**

Segregation of technical & commercial loss involve total system study which is costly as well as time consuming. The technical study is carried out in simulated form using software by experts.

Also, the system study requires installation of energy meter across feeders and transformers. However, the Department will initiate the system studies for technical loss as suggested by the Hon'ble Commission in future.

**Commission's comments:**

The Commission is of the view that no tangible actions are being taken by the PDS to speed up the process for segregation of the losses. In absence of clear picture of the losses, the PDS will not be able to identify the areas on which it needs to focus to curb the losses nor will it be in a position to properly plan or take effective measures for loss reduction. The Commission reiterates the directive and directs the PDS to take up the loss segregation works immediately.

**Directive 6: Energy Audit**

The Commission has fixed the loss reduction trajectory for the FY 2017-18, FY 2018-19 and FY 2019-20. In order to achieve the loss reduction target, the PDS is directed to conduct energy audit to identify the high loss areas and submit a report before filing of the next petition.

**Compliance:**

The department will be initiating the proposal for energy auditing through certified energy auditor.

**Commission's comments:**

The Commission observes that the PDS has not initiated any action on the directive so far and reiterates the directive for compliance on priority.

**Directives issued in the FY 2019-20 Tariff Order**

**Directive 4: Surrendering of High Cost Thermal Power**

One of the major components of the ARR is the power purchase cost. The PDS is procuring thermal power from different sources at high cost. Even when no power is drawn from such thermal power stations, the PDS has to pay the Demand Charges. Having back up thermal power is essential to meet the power demand during the lean season, when power from hydro sources is insufficient. The PDS needs to review the PPAs signed for thermal power and explore the possibility of surrendering high cost thermal power. The PDS is directed to carry out a detailed study of the power demand and supply in the State and consider surrendering high cost thermal

power or review the terms and conditions of the existing PPAs to get power at competitive price. The PDS is directed to submit proposals for surrendering of such power as well as review of the PPAs to the concerned agency/department of the Government of India.

**Compliance:**

The department is continuously perusing the matter to relinquish the existing thermal power & exemption from compulsory purchase of the upcoming Thermal power Station with the Ministry of Power (MoP) Government of India for cancellation of Power Purchase Agreements (PPAs). Further the MoP vide dated 29/05/2019 has reflected the following:

a) Allocation of power from Darlipalli-II, Gajmara I&II and Katwa has not been done. Hence, Government of Sikkim (GoS) may communicate their revised decision on its consent. As regard to the remaining projects, a total of 73.76 MW of power has been allocated to Sikkim. Accordingly, GOS may send their request for surrender of their allocated firm power share to MOP, which may be re-allocated to the willing beneficiaries as & when such request is received in the ministry as per extant guidelines applicable in the matter. Further, Sikkim may also suggest the alternative buyer to expedite the process

**Commission's comments:**

The Commission directs the Power Department to keep pursuing the matter with the Government of India and submit the present status and details of surrendered high cost thermal power, if any.

**Directive 5: Development of Roof Top Solar Projects**

Considering the huge target of 175 GW of Renewable Energy (RE) by 2022 set by the Government of India and also the RE generation targets for each State/UT set by the Ministry of New & Renewable Energy, Government of India, the PDS/SREDA must take necessary steps for timely implementation of renewable projects especially solar power in the State to contribute towards the renewable energy target of the country. The PDS may explore the possibility of giving up the import of high cost thermal power and in lieu set up rooftop and ground mounted solar projects in the State to meet the RE and also Renewable Purchase Obligations.

**Compliance:**

The detail of solar plants installed by Power Department & SREDA is enclosed in the RPO compliance report enclosed in the Petition.

**Commission's comments:**

The Commission discerns the increasing power consumption pattern within the State and the substantial increase in the RPO/HPO obligations due to the revised trajectories set by the Ministry of Power, GOI in January 2021. The Power Department & SREDA, in a systematized manner, has to work in tandem to increase the solar power generation in the State. Unless the PDS is able to increase its solar power generation, it will not be able to meet the new solar RPO and in such scenario, PDS will have to either buy solar power from outside the State or buy RECs to meet the solar RPO shortfall, which are both going to be costly affair. The Commission advises the PDS/SREDA to consider installing grid connected rooftop solar power in various government office buildings, airport complex, hospitals etc to ensure some solar power generation for meeting the RPO.

**Directives (FY 2020-21)****Directive 1: Quarterly Report of Functioning of the CGRFs**

The Department has informed that 4 (four) no's of Consumer Grievances Redressal Forums (CGRFs) have been constituted for each of the four districts in the State. Regulation 61 sub- regulation (i) of the SSERC (Redressal of Grievances of Consumers and Establishment of Forum of Electricity Ombudsman) Regulations, 2012 stipulates the CGRF has to submit quarterly report on the number of complaints received, redressed and pending within 15 days at the end of quarter to the Commission.

Similarly regulation 61(ii) stipulates that the CGRF shall furnish to the Commission, by 30<sup>th</sup> April every year a report containing a general review of the activities of their offices during the preceding financial year.

The Commission observes that the quarterly report of the CGRF of only the East District is being furnished to the Commission whereas no reports are being furnished by the remaining three CGRFs. The CGRFs also have not submitted the report as specified by regulation 62 (ii) SSERC (Redressal of Grievances of Consumers and Establishment of Forum of Electricity Ombudsman) Regulations, 2012.

The Commission directs the Department that all the four CGRFs may be directed to regularly furnish their quarterly report to the Commission and invariably submit the annual reports by 30<sup>th</sup> April of every year.



**Compliance:**

All the Officers heading CGRFs have been directed to forward the report to Hon'ble commission. Reportedly, some of them already forwarded the report to the Commission.

**Commission's comments:**

The Commission directs the Power Department to setup two more CGRFs in the newly formed Districts, Pakyong and Soreng. Further, as per the Ministry of Power, GOI, Electricity (Rights of Consumers) Rule 2020, DISCOMs are required to create CGRF at each sub-division, division, circle, zone and company level headed by a senior officer and 2-3 member of consumers and therefore the Commission directs the PDS to consider setting up of CGRFs at various levels as mandated by the Electricity (Rights of Consumers) Rule 2020 in the future.

**5.2 Directive 2: Submission of RPO Compliance Report**

The Department has neither incorporated/highlighted the RPO Compliance while filing ARR Petition before the Hon'ble Commission nor submitted separate RPO compliances to the Commission for the past financial years i.e. 2017-18 to 2019-20. As per the RPO Regulations notified by the Commission, the Department has to comply with the long term RPO trajectory (both Solar and Non- Solar). If the Department has not met the RPO targets set by the Commission, the Department has to purchase RECs for meeting the targets.

Therefore, the Department is directed to submit a detailed report indicating RPO compliance covering the F.Y 2017-18 to 2019-20 and submit the compliance report to the Commission within a period of 60 days from the date of issue of this Order.

Further, the Department is directed to submit the necessary supporting documents like power purchase bills and other details (for power purchased from mini, micro, small hydropower and generation data of own powerhouses, details of solar power purchased/generated, details of RECs, details of 25 MW and above hydropower purchased, details of free power received from IPP/NHPC /Other sources) along with the RPO compliance report. All the supporting documents and details to be duly certified by the concerned Officer (s).

**Compliance:**

RPO compliance report is enclosed with the Petition.

**Commission's comments:**

The Commission observes that the PDS has not incorporated the details of the RPO applicable and the RPO complied in the ARR/Petition. The PDS has only enclosed a sheet showing the solar and small hydropower generation. The Commission directs that a separate chapter in the ARR/Tariff Petition on the RPO compliance be incorporated in all future petitions.

**6. (Directives) F.Y 2021-22****6.1 Directive 1: Information on RPO/HPO Compliance**

The Power Department is directed to create a separate page in its official website indicating the details of RPO/HPO compliance. The Department is advised to ensure that the RPO/HPO compliance details are provided in such a form/manner in the website so that the details are very easy to see and understand.

**Compliance:**

Direction is noted and the RPO/HPO compliance enclosed with this tariff Petition will be uploaded in the official website of the Department after the Tariff Order is issued by the Hon'ble Commission.

**Commission's comments:**

The PDS should ensure that the details are uploaded once the order is issued by the Commission.

**Introduction of Direct Benefit Transfer**

In order to prevent and curtail the revenue losses, especially in the rural areas, where the State Government is providing free electricity upto 100 units, the Department is directed to introduce Direct Benefit Transfer (DBT) and transfer the subsidies well in advance to the eligible consumers and realize the bills for electricity consumed by the consumers. However, before introduction of the DBT, the Department is advised to properly inform and sensitize the consumers about the DBT and the concept of free power considering the notion of free power amongst the rural masses and past unsuccessful attempt of DBT.

**Compliance:**

The Department in consultation with the Finance Department is exploring the modalities to identify the beneficiaries for providing subsidy through DBT.

**Commission's comments:**

PDS is directed to expedite the process of identifying the genuine beneficiaries to ensure that the benefits of DBT is provided to the consumers at the earliest and also update the Commission regularly on the progress of DBT mechanism.

## **7. Fresh Directives for F.Y 2022-23**

### **7.1 Directive 1: Quality of Power**

PDS is directed to ensure reliable and quality power supply, which is not only basic need but also the right of the consumers. Rapid advancement in technology and its dependence on electricity to function, demands availability of quality/reliable power supply 24x7. The PDS is also directed to adhere to the standards of operation and see that it is complying with the provisions of the Electricity(Rights of Consumers) Rules, 2020 notified by the Government of India.

### **7.2 Directive 2: General Awareness to the public**

PDS is directed to disseminate proper & correct information to public/consumers on all schemes/process/initiatives etc such as pre-paid metering, CGRF, use of energy efficiency tools by conducting awareness camps and through print and electronic media and also through social media platforms.

### **7.3 Directive 3: Planning for Efficient Pre-paid metering**

In anticipation of the proposal of the PDS to install pre-paid meter in the State, it is directed to ensure that proper technical and infrastructural backups are put in place well in advance to ensure smooth and trouble free transition and operation of the pre-paid metering system duly keeping factors like operation, back up, data management, verification, rectification functions etc.

### **7.4 Directive 4: Up-gradation and maintenance of Distribution & Transmission Network.**

PDS is directed to upgrade and also carry out timely maintenance of Distribution & Transmission networks before occurrence of any avoidable breakdowns and disruption of power supply. Critical and frequently needed spares need to be kept in stock to ensure timely restoration. PDS may consider keeping spare/standby transformers to replace the faulty ones to avoid long power outages.

### **7.5 Directive 5: Verification of actual consumer category.**

PDS is directed to verify and check the 'true consumer category' in both rural & urban areas. Due to the rise of tourism activities in the State, there is a possibility that the old domestic consumer connections are now being catering to commercial purpose, which may seriously impact the revenue of the Department and also during this process the entire actual system load can be verified..

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## 9. TARIFF PRINCIPLES AND DESIGN

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### 9.1 Background

- (a) The Commission in determining the revenue requirement of PDS for the ARR and retail tariff for the FY 2022-23 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 for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2020,. 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 1<sup>st</sup> April, 2015. However, the Commission permitted the PDS to file petition under single year tariff regime till FY 2017-18 considering the fact that the PDS was functioning as a State Government Department and the fact that the Generation, Distribution and Transmission business had not been segregated. An attempt was made by the PDS to file petition under multi year tariff regime during the FY 2015-16 but the petition was not admitted by the Commission as the

PDS was not in a position to furnish the vital details/data/documents etc. required for processing of the petition under MYT regime. Therefore, the Commission deemed it fit to continue with single year tariff regime till such a time that the PDS is in a position to furnish the basic/bare necessary data/figures/details required by the Commission.

- (c)** The mandate of the NTP is that tariff should be within plus / minus 20% of the average cost of supply. It is not possible for the Commission to implement this at present because of consumers' paying capacity in Sikkim is low. There has been a high level of the fluctuating revenue gap. However, in this tariff order an element of performance target has been indicated by setting target for T&D loss reduction. The improved performance, by reduction of loss level, and increase in sale will result in substantial reduction in average cost of supply. The Commission has considered for an nominal increase in tariff in view of the paying capacity of the consumers.
- (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 SSERC would notify the roadmap, within six Months with a target that latest by the end of the FY 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.

- (e) Regulation 72 of SSERC (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2020 specifies that,

*“The amount received by the Distribution Licensee by way of cross subsidy surcharge as approved by the Commission in accordance with the Sikkim State Electricity Commission (Terms and Condition of Intra-State Open Access) regulations, 2012 as applicable and as amended from time to time, shall be deducted from the Aggregate Revenue Requirement in calculating the tariff supply of electricity by such Distribution Licensee at the time of truing up.”*

- (f) The Commission has considered special treatment to BPL consumers. It has also aimed at raising the per capita consumption of the State. The Commission endeavorsthat the tariff progressively reflects cost of supply in a reasonable 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 PDS and Approved by the Commission

### (a) Existing & Proposed Tariff

PDS in its tariff petition for the FY 2022-23 has proposed for revision of the existing retail tariffs to various categories of consumers to earn additional revenue to meet the expenses to a reasonable extend. The PDS has proposed tariff revision as indicated in table below:

Table 9.1: Existing Tariffs v/s Proposed Tariffs for FY 2022-23

Sl. No.	Particulars	Existing Rate Paisa /kWh	Proposed Rate Paisa /kWh
<b>1</b>	<b>Domestic</b>		
a)	Up to 50 Units	100	120
b)	51 to 100 Units	200	240
c)	100 to 200 Units	300	370
d)	200 to 400 Units	350	460
e)	401 & above	400	500
<b>2</b>	<b>Commercial</b>		
a)	Up to 50 Units	300	330
b)	51 to 100 Units	400	400
c)	100 to 200 Units	500	560
d)	200 to 400 Units	600	600
e)	401 & above	630	640
<b>3</b>	<b>Public Lighting</b>		
	Rural Areas	400	400
	Urban Areas	500	500
<b>4</b>	<b>Industrial</b>		
<b>A</b>	<b>HT</b>		
a)	HT (AC) above 3.3 KV		
b)	Upto 100 KVA	520	520
c)	100-250 KVA	570	570
d)	250-500 KVA	620	620
e)	500KVA and Above	670	670
<b>B</b>	<b>LT (Rural)</b>		
a)	Up to 500 Units	360	360
b)	501-1000 Units	440	440
c)	1001 & Above	580	580
<b>C</b>	<b>LT(Urban)</b>		
a)	Up to 500 Units	530	530
b)	501-1000 Units	620	620
c)	1001 & Above	715	715
<b>5</b>	<b>BULK SUPPLY</b>		
a)	LT	550	550
b)	HT	550	550

**(b) Tariff Categories**

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

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

**(c) Tariffs approved by the Commission**

Having considered the case no.: P-01/PDS/2021-22 of PDS 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 has revised the tariff for different categories of consumers as detailed in the table below:



Table 9.2: Tariff approved by the Commission for FY 2022-23

SI No	Category of Consumers	Energy Charges Paisa/Unit	Fixed Charges	
			Monthly Minimum Charge (₹ per Month)	Demand Charge (₹/KVA/Month)
1	2	3	4	5
<b>1</b>	<b>Domestic</b>			
a)	Up to 50 units	100	1 Phase: ₹50  3 Phase: ₹200	Nil
b)	51 to 100 units	200		
c)	101 to 200 units	300		
d)	201 to 400 units	350		
e)	401 and above	400		
<b>2</b>	<b>Commercial</b>			
a)	Up to 50 units	300	Applicable to Sanctioned Load of below 25 KVA  1 Phase: ₹200  3 Phase: ₹500	Applicable to Sanctioned Load of 25 KVA & Above  Rural : ₹60  Urban : ₹ 100
b)	51 to 100 units	400		
c)	101 to 200 units	500		
d)	201 to 400 units	600		
e)	401 and above	630		
<b>3</b>	<b>Public Lighting</b>			
a)	Rural Areas	400	Nil	Nil
b)	Urban Areas	500		
<b>4</b>	<b>Industrial</b>			
<b>A</b>	<b>HT</b>			
<b>a)</b>	<b>HT (AC) above 3.3 KV</b>			
b)	Upto 100 KVA	540	Nil	₹200/KVA/Month
c)	100 to 250 KVA	590		₹250/KVA/Month
d)	250 to 500 KVA	640		₹290/KVA/Month
e)	500 KVA and above	690		₹560/KVA/Month

<b>B</b>	<b>LT (Rural)</b>			
a)	Up to 500 units	360	<b>Contract Load 45 KW &amp; Below</b> ₹500/Month  <b>Contract Load above 45 KW</b> ₹120/KVA/Month	<b>Sanctioned load above 25 KVA with shared transformer</b>  ₹60/KVA/Month
b)	501 to 1000 units	440		
c)	1001 and above	580		
<b>C</b>	<b>LT (Urban)</b>			
a)	Up to 500 units	530	<b>Contract Load 45 KW &amp; Below</b> ₹500/Month  <b>Contract Load above 45 KW</b> ₹200/KVA/Month of sanctioned load	<b>Sanctioned load above 25 KVA with shared transformer</b>  ₹100/KVA/Month
b)	501 to 1000 units	620		
c)	1001 and above	715		
<b>5</b>	<b>Bulk Supply</b>			
a)	LT	550	<b>Contract Load 45 KW &amp; Below</b>  LT: ₹ 500/Month  HT: ₹ 500/Month	<b>Contract Load above 45 KW</b> LT: ₹150/KVA/Month of sanctioned load  HT: ₹150/KVA/Month of sanctioned load
b)	HT	550		

**Details are given in tariff schedule in the Appendix.**

This order shall come into force from 01.04.2022 and shall remain effective till revised/ amended by the Commission. The Order shall be uploaded in the official website of Commission and copies to be forwarded to the Power Department, Central Electricity Authority and Central Electricity Regulatory Commission.

The Commission directs the Power Department, Government of Sikkim, to publish the tariff approved by the Commission in two local newspapers having wide circulation in the State for information of the public and also to upload it in the official website of the Department.

Accordingly, the Case No. P-01/PDS/2021-22 stands disposed of.

Sd-  
(K. B. Kunwar)  
Chairperson

Place: Gangtok

Date: 14<sup>th</sup> March 2022.

## 10. WHEELING CHARGES

### 10.1 Wheeling Charges

The net distribution ARR approved is segregated into wire business and retail supply business in accordance with the matrix detailed in the table below:

**Table 10.1: Allocation Matrix (%)**

SI No.	Particulars	Wire Business	Retail Supply Business
1	Cost of Fuel	0	100
2	Cost of Power Purchase	0	100
3	Employees Costs	60	40
4	Repair & Mainenetace Expense	90	10
5	Administration & General Expense	50	50
6	Depreciation	90	10
7	Interest Charge	90	10
8	Interest on Working Capital	10	90
9	Return on NFA/Equity	90	10
10	Non-Tariff Income	10	90

The expenses are segregated into wire business and retail supply business as per the above Matrix and shown in the table below:

**Table 10.2: Segregation of wires and Retail Supply Costs for FY 2022-23 ( ₹ in Crore)**

SI No.	Particulars	Approved Cost	Wire Business	Retail Supply Business
1	Cost of Fuel	0.20	-	0.20
2	Cost of Generation	0.00	-	0.00
3	Cost of Power Purchase	264.03	-	264.03
4	Intra State Transmission Charge	33.55	33.55	-
5	Employees Costs	193.38	116.03	77.35
6	Repair & Mainenetace Expense	35.38	31.84	3.54
7	Administration & General Expense	7.56	3.78	3.78
8	Depreciation	32.29	29.06	3.23
9	Interest Charge	0.00	0.00	0.00
10	Interest on Working Capital	7.55	0.76	6.80
11	Return on NFA/Equity	0.00	0.00	0.00
12	Less : Non-Tariff Income	1.35	0.14	1.22
13	<b>Total</b>	<b>572.59</b>	<b>214.88</b>	<b>357.71</b>

The wheeling charges have been computed on the basis of approved cost for its distribution wire business and the total energy expected to be wheeled through its network. In the absence of segregated data on costs of operation of 33 KV and 11 KV networks and sales, Wheeling charges are not segregated voltage wise. Combined wheeling charges determined are given in table below:

The Commission has arrived wheeling charges based on the above wire cost and energy sale for the FY 2022-23 and shown in the table below:

**Table 10.3: Wheeling Tariff approved by the Commission**

Sl No.	Particulars	FY 2022-23
1	ARR for Wheeling Function approved by Commission ( In ₹ Crore)	214.88
2	Total Sale within State - Approved (In MUs)	443.82
3	<b>Wheeling Tariff (₹/kWh)</b>	<b>4.84</b>

**The Commission approves wheeling Tariff at ₹4.84/kWh for the FY 2022-23.**

## 11. FUEL AND POWER PURCHASE COST ADJUSTMENT

### 11.1 Background

Section 62 sub-section 4 of the Electricity Act, 2003 provides that no Tariff or part of any Tariff any ordinarily be amended, more frequently than once in every financial year, except in respect of any changes expressly permitted under the terms of any fuel surcharge formula as may be specified. This provision of the Act requires the Commission to specify the formula for fuel surcharges

12.2 Accordingly, The Commission has specified the formula for working out the Fuel and power purchase cost Adjustment (FPPCA) charges and other terms and conditions of FPPCA. Accordingly, the distribution licensee is to recover the FPPCA charges as per formula specified below:

The Fuel and Power Purchase Cost Adjustment (FPPCA) formula is given below:

$$\text{FPPCA (Ps./kWh)} = \frac{Q_c(RC_2 - RC_1) + Q_o(RO_2 - RO_1) + Q_{pp}(R_{pp2} - R_{pp1}) + V_z + A}{(QP_{g1} + Q_{pp1} + Q_{pp2})} \times \left[ 1 - \frac{L}{100} \right] \times 100$$

Where,

$Q_c$  = Quantity of coal consumed during the adjustment period in Metric Tons (MT).

=  $(SHR \times Q_{pg}) (1 + TSL) \times 1000 / GCV$ , or actual whichever is less.

$R_{c1}$  = Weighted average base rate of coal supplied ex-power station coal yard as approved by the Commission for the adjustment period in ₹/MT

$R_{c2}$  = Weighted average base rate of coal supplied ex-power station coal yard for the adjustment period in ₹/MT

$Q_o$  = Actual Quantity of oil (in KL) consumed during the adjustment period or normative oil consumption as per Tariff order whichever is less.

$R_{o1}$  = Weighted average base rate of oil ex-power station (₹/KL) approved by the Commission for the adjustment period.

$R_{o2}$  = Weighted average actual rate of oil ex-power stations supplied (₹/KL) during the adjustment period.

$Q_{pp}$  = Total power purchased from different sources (kWh) =  $Q_{pp2} + Q_{pp3}$

$Q_{pp1}$  =  $Q_{pp3} \left[ 1 - \frac{TL}{100} \right]$  in kWh

TL	=	Transmission loss (CTU) (in percentage terms).
$Q_{pp2}$	=	Power Purchase from sources with delivery point within the state transmission or distribution system (in kWh)
$Q_{pp3}$	=	Power Purchase from sources on which CTU transmission loss is applicable (in kWh)
$R_{pp1}$	=	Average rate of Power Purchase as approved by the Commission (₹/kWh)
$R_{pp2}$	=	Average rate of Power Purchase as approved by the Commission (₹/kWh)
$Q_{pg}$	=	Own power generation (kWh)
$Q_{pg1}$	=	Own Power generation (kWh) at generator terminal – approved auxiliary consumption
L	=	Percentage T&D loss as approved by the Commission or actual, whichever is lower.
SHR	=	Station Heat Rate as approved by the Commission (Kcal / kWh)
TSL	=	Percentage Coal Transit and Stacking Loss as approved by the Commission
GCV	=	Weighted average gross calorific value of coal as fired basis during the adjustment period (Kcal / Kg)
$V_z$	=	Amount of variable charges on account of change of cost of unknown factors like water charges, taxes or any other unpredictable and unknown factors not envisaged at the time of Tariff fixation subject to prior approval of the Commission (₹)
A	=	Adjustment, if any, to be made in the current period to account for any excess / shortfall in recovery of fuel of Power Purchase cost in the past adjustment period, subject to the approval of the Commission (₹)
PSE	=	Power sold to exempted categories (Presently Agriculture and BPL-Kutiriyoti Consumers)

If there are more than one power station owned by the Licensee  $Q_c$ ,  $R_{c1}$ ,  $R_{c2}$ ,  $Q_o$ ,  $R_{o1}$ ,  $R_{ot}$ ,  $Q_{pg}$  and  $Q_{pgi}$  will be computed separately for each power station and sum of the increase/decrease of cost of all power stations shall be taken into consideration. Can levy FPPCA charges with the prior approval of the Commission. Levy of FPPCA charges shall be subject to the following terms and conditions.

**11.3 Terms and Conditions for application of the FPPCA formula**

- a. The basic nature of FPPCA is 'adjustment' i.e. passing on the increase or decrease in the fuel costs and power purchase cost, as the case may be, compared to the approved fuel costs and power purchase costs in this Tariff Order.
- b. The operational parameters / norms fixed by the commission in the Tariff Regulations Tariff Order shall be the basis of calculating FPPCA charges.
- c. The FPPCA will be recovered every month in the form of an incremental energy charge (₹/kwh) in proportion to the energy consumption and shall not exceed 10% of the approved avg. cost of supply in the Tariff order and balance amount, if any, in the FPPCA over and above this ceiling shall be carried forward to be billed in subsequent month.
- d. Incremental cost of power purchase due to deviation in respect of generation mix or power purchase at higher rate shall be allowed only if it is justified to the satisfaction of the Commission.
- e. Any cost increase by the licensee by way of penalty, interest due to delayed payments, etc. and due to operational inefficiencies shall not be allowed.
- f. FPPCA charges shall be levied on all categories of consumers.
- g. Distribution licensee shall file detailed computation of actual fuel cost in ₹/kWh for each month for each of power stations of the state generators as well as cost of power purchase (Fixed and Variable) from each source/station and a separate set of calculations with reference to permitted level of these costs.
- h. The data in support of the FPPCA claims shall be duly authenticated by an officer of the licensee, not below the rank of Chief Engineer on an affidavit supported with the certified copy of energy bills of power purchase, transmission and RLDC charges, bill for coal purchase and its transportation cost, oil purchase bill and the quantity of coal and oil consumed during the month.
- i. Levy of FPPCA charge will be allowed only when it is ten (10) paise or more per unit. If it is less than 10 (ten) paise/unit, the same may be carried forward for adjustment in the next month.



- j. The incremental cost per kWh due to this FPPCA arrived for a month shall be recovered in the energy bill of the month subsequent to the order of the Commission approving FPPCA with full details of rate and unit(s) on which FPPCA charges have been billed. The Generating Company and the Distribution Companies shall provide along with the proposal of FPPCA (as applicable to them) for a month, a compliance report of the previous order of the Commission in respect of FPPCA.

**REVENUE FROM APPROVED TARIFF FOR THE FY 2022-23 (Annexure-1)**

<b>Sl. No.</b>	<b>Particulars</b>	<b>Revenue (₹ in Crore)</b>
<b>1</b>	<b>Domestic (DLT)</b>	
a)	Up to 50 Units	3.36
b)	51 to 100 Units	6.05
c)	100 to 200 Units	9.69
d)	200 to 400 Units	4.71
e)	401 & above	4.84
	<b>Total</b>	<b>28.66</b>
<b>2</b>	<b>Commercial</b>	
a)	Up to 50 Units	2.01
b)	51 to 100 Units	2.41
c)	100 to 200 Units	2.68
d)	200 to 400 Units	5.22
e)	401 & above	4.63
	<b>Total</b>	<b>16.94</b>
<b>3</b>	<b>Public Lighting</b>	
a)	Rural Areas	0.04
b)	Urban Areas	0.12
	<b>Total</b>	<b>0.16</b>
<b>4</b>	<b>Temporary</b>	3.13
<b>5</b>	<b>Industrial</b>	
<b>A</b>	<b>HT</b>	
a)	HT (AC) above 3.3 KV	
a)	Upto 100 KVA	28.17
b)	100-250 KVA	35.19
c)	250-500 KVA	51.99
d)	500KVA and Above	97.73
	<b>Total HT</b>	<b>213.09</b>
<b>B</b>	<b>LT (Rural)</b>	
a)	Up to 500 Units	0.61
b)	501-1000 Units	0.00
c)	1001 & Above	0.35
	<b>Total</b>	<b>0.97</b>
<b>C</b>	<b>LT(Urban)</b>	
a)	Up to 500 Units	0.00
b)	501-1000 Units	0.00
c)	1001 & Above	0.05
	<b>Total</b>	<b>0.05</b>
<b>6</b>	<b>BULK SUPPLY</b>	
a)	LT	2.99
b)	HT	16.55
	<b>Total</b>	<b>19.54</b>
<b>7</b>	<b>Grand Total</b>	<b>282.53</b>

**APPENDIX****TARIFF SCHEDULE FOR THE FY 2022-23****I. DOMESTIC SUPPLY (DS):****Type of Consumer:**

Power supply to private house, residential flats and Government schools, 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 AC 430/230 volts, 50 cycles/sec (Hz)

**(a) Rate:**

Units Consumption	Paisa per kWh (Unit)
Up to 50	100
51 to 100	200
101 to 200	300
201 to 400	350
Consumption exceeding 400 units	400

**(c) Monthly Minimum Charge:**

Details	Rate (In ₹)
Single Phase Supply	50.00
Three Phase Supply	200.00

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

*(Due date shall be 10 days which shall be reckoned from the date of issue of the bill)*

**(e) Annual Surcharge (charge on the gross arrear outstanding every March end):10%**

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

**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 of the Department. In the event of exceeding connected load of 25 KVA and above, 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 AC 430/230volts, 50 cycles/Sec (Hz)

**(b) Rate:**

Consumption range	Paisa per Kwh (Unit)	
Upto 50	300	
51 to 100	400	
101 to 200	500	
201 to 400	600	
Consumption exceeding 400 units	630	
<b>Demand Charges-</b> For those establishments whose sanctioned load is 25 KVA and above and does not have independent transformer but run their unit through shared transformers.	Rural Areas	Urban
	₹ 60/KVA/Month plus energy charges shown above	₹100/KVA/Month plus energy charges shown above

If electricity supplied in domestic premises is used for commercial purpose, the entire supply shall be charged under commercial supply. Consumer having connected load of 50 KVA and above shall install their own independent transformer.

**(c) Monthly Minimum Charge:**

(i) Consumer having sanctioned load below 25 kVA shall be charge in the following rate.

Details	Rate (In ₹)
Single Phase Supply	200.00
Three Phase Supply	500.00

(ii) Consumer having sanctioned load of 25 KVA and above, demand charge is Monthly Minimum Charge.

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

*(Due date shall be 10 days which shall be reckoned from the date of issue of the bill)*

(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, fabrication and sheet metal works 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 AC 430/230volts, 3 phase/single phase, 50 cycles/Sec (Hz)

(b) **Rate:**

Units Consumption	Paisa per kWh	
	Rural	Urban
Area		
Upto 500	360	530
501 to 1000	440	620
1001 & Above	580	715
<b>Demand Charge</b> – for those establishments whose sanction load is more than 25 KVA & does not have independent transformer but run their unit through shared transformers.	₹ 60/kVA/Month plus energy charges as shown above	₹100/kVA/Month plus energy charge as shown above

(c) **Monthly Minimum Charge:**

(i) Consumer having contract demand of load 45 KW & below shall be charged in the following rate.

<b>Rural Areas</b>	₹ 500/Month
<b>Urban Areas</b>	₹ 500/Month

(ii) Consumer having contract demand of load above 45 KW shall be charged in the following rate.

<b>Rural Areas</b>	₹ 120/KVA/Month of sanctioned load
<b>Urban Areas</b>	₹ 200/KVA/Month of sanctioned load

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

*(Due date shall be 10 days which shall be reckoned from the date of issue of the bill)*

(e) **Annual Surcharge (charge on the gross arrear outstanding every March end):10%**

#### IV. HIGH TENSION INDUSTRIAL SUPPLY (HTIS):

##### **Type of Consumer:**

All types of supply with contract demand at single point having 3 phase supply and voltage 11 kV & above.

##### **(a) Nature of supply:**

High Tension AC, 11 kV & above, 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, however, the contract demand can be reviewed once a year if the consumer so desires. 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.

Energy meters are compulsorily to be installed on HT side of all transformers having capacity equal to or above 200 KVA. The meters are also allowed to install on LT

side of those consumers having transformer capacity less than 200 KVA, but in such case the assessed energy consumption shall be grossed up by 4% to account for transformation loss.

**(b) Rate:**

Units Consumption	Charges
Up to 100 kVA Demand Charge Plus Energy Charge	₹ 200/kVA/Month + 540 Paisa/Unit
Above 100 to 250 kVA Demand Charge Plus Energy Charge	₹250/kVA/Month + 590 Paisa/Unit
Above 250 to 500 kVA Demand Charge Plus Energy Charge	₹290/kVA/Month + 640 Paisa/Unit
Above 500 kVA Demand Charge Plus Energy Charge	₹560/kVA/Month + 690 Paisa/Unit

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

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

*(Due date shall be 20 days which shall be reckoned from the date of issue of the bill)*

**(e) Annual Surcharge (charge on the gross arrear outstanding every March end):** 10%

**(f) 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 of every 1% drop or part thereof in the average power factor during the month below 95%.

**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), Electric Vehicle Charging Station, 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 AC 430/230 volts or High tension 11 kV & above

**Executive Engineer should sanction the demand in the Requisition and**

**Agreement form of the Department before the service connection is issued.**

**(b) Rate:**

All Units Consumption	Paisa/Unit
LT (430/230Volts)	550
HT (11kV or66kV)	550

**(c) Monthly Minimum Charge:**

**(i)** Consumer having contract demand of load 45 KW & below shall be charged in the following rate.

LT (430/230Volts)	₹ 500/month
HT (11kV or66kV)	₹ 500/month

**(ii)** Consumer having contract demand of load above 45 KW shall be charged in the following rate.

LT (430/230Volts)	₹ 150 /kVA/month of Sanctioned Load
HT (11kV or66kV)	₹ 150 /kVA/month of Sanctioned Load

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

*(Due date shall be 20 days which shall be reckoned from the date of issue of the bill)*

**(e) Annual Surcharge (charge on the gross arrear outstanding every March end):10%**

**(f)** Consumer having contract demand of load above 45 KW and above shall have the option of installing Maximum Demand Indicator (MDI) meter at their premises if the consumer so desire.can also be installed at their premises if the consumer so desires.

**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 AC 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 AC 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 identified by the State Ecclesiastical Department.

**(a) Nature of service:**

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

- b) **Rate:** Domestic Supply Rate is applicable
- (i) **Upto 100 units:** To be billed to Secretary, Ecclesiastical 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.

**IX. PUBLIC LIGHTING ENERGY CONSUMPTION CHARGES**

It has been decided that the electrical energy consumption charges of public lighting, 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 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	400 Paisa/KWH
Urban Areas	500 Paisa/KWH

**X. TEMPORARY SUPPLY:**

**Type of consumer:**

The assessment of energy consumption shall be on the basis of recorded meter reading and not on average basis, 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 average system calculation shown in tariff schedule.

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

In notified Municipal towns viz Gangtok, Ranipool, Singtam, Rangpo, Jorethang, Naya Bazar, Namchi and Gyalshing, where prepaid meters are being installed, the temporary connection shall only be provided through prepaid energy meter for consumers having connected load below 45 KW.

**Nature of Service:**

(a). Low tension AC 430/230 volts, 50 Hz /H.T. AC 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. ADDITIONAL REBATE FOR CONSUMERS HAVING PREPAID METERS**

- (i) 1% additional rebate on energy charges will be allowed to consumers having prepaid meters.
- (ii) No meter rent shall be charged to the consumer having Prepaid meter.
- (iii) Vending Charge of ₹ 17/meter/month ,which is iclsuive of all taxes shall be applicable
- (iv) The above shall be in consonance to the Gazette Notification No. 28 dated 04/02/2020 alongwith any amendments therein with respect to the prepaid consumer.

**XII. SCHEDULE FOR MISCELLANEOUS CHARGES****Service Connection**

Following procedures should be strictly followed while giving the new service connection. On receipt of written application with requisite, Revenue Stamp from any intending consumer addressed to the Assistant Engineer (Commercial/Revenue) the department will issue the Requisition and Agreement form of the Department. This form will be issued on production of BR for ₹ 50/- (Rupees Fifty 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 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. (c) ₹ 50.00 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.

**XIII. METER RENT / Month**

(i)	Energy Meter	
(a)	Single Phase	₹40.00
(b)	Three phase	₹ 80.00
(ii)	Maximum demand indicator	₹200.00
(iii)	Time switch	₹150.00

**XIV. TESTING OF METERS**

i)	Energy Meters Single Phase	₹ 200
ii)	Other Metering Instruments	₹ 250

**XV. DISCONNECTION & RECONNECTION**

(i)	DS and CS category	₹150.00
(ii)	LTIS, HTS & Bulk category	₹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 ₹ 100.00 each time which does not include the cost of requirement and labour 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	₹30.00
		Three phase	₹40.00
(ii)	High tension		₹50.00

**XVII. 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 @₹ 50.00 per call of such services.

**XVIII. 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	₹500.00
		1 phase	₹200.00
2	Electromagnetic Meters	3 phase	₹150.00
		1 phase	₹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 alongwith the penalty.

All HTIS consumers shall deposits security amount equivalent to two months anticipated bill inclusive of demand charge and energy charge. The Security Deposit shall be in the form of Fixed Deposit from state bank of Sikkim/Scheduled Banks in the name of Secretary, Power Department. In case of default in payment , the same shall be adjusted against electricity dues. In such case , the consumer again has to re-deposit the security amount.

**XIX. 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 submit an application for new service connection or should apply for additional power supply well in advance for domestic and commercial purpose. In the case of HTIS/LTIS/BS consumers, longer period notices 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. The Assistant Engineer of the area to will issue seven clear days notice to the applicant for inspecting his/her premises to verify the feasibility of providing power supply.

**(e) Sketch of the premises**

(i) A neat sketch of the premises should be submitted for 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.

**XX. 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.

#### **XXI. 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/her 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.

#### **XXII. 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.

**XXIII. 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 authorized 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.

**XXIV. 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.

**XXV. 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.

**XXVI. 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.

**XXVII. 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.

**XXVIII. FAILURE OF POWER SUPPLY**

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

**XXIX. RESTRICTION OF POWER SUPPLY**

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

**XXX. 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 number and should quote the consumer number while corresponding with the department for prompt attention by the department.

**XXXI. 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.

**XXXII. THEFT OF POWER**

Theft of power is a criminal offence under electricity act. Whoever commits the theft of power shall be punishable in accordance with Indian Electricity Act 2003.

**XXXIII. 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

**XXXIV. SUBSIDY**

The subsidy will be provided based on the subsequent Notification issued by the Government of Sikkim and as amended from time to time.