ORDER

ON

PROVISIONAL TRUE UP FOR THE F.Y 2019-20,

REVIEW FOR THE F.Y 2020-21 &

AGGREGATE REVENUE REQUIREMENT

FOR THE F.Y 2021-22 TO 2023-24

AND

TARIFF FOR THE F.Y 2021-22

For

Power Department,

Government of Sikkim

February , 2021

Sikkim State Electricity Regulatory Commission
Gangtok, Sikkim

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ABBREVIATIONS

Abbreviation	Description
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
₹	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

Before the

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

Case No.: MYT/2020-21/P-01/PDS**.**

In the matter of

Petition for Multi Year Aggregate Revenue Requirement (ARR) for 3-Year Control Period from FY 2021-22 to FY 2023-24 & Tariff for the FY 2021-22, Provisional True Up for the FY 2019-20 and Review for the FY 2020-21 filed by the Power Department, Government of Sikkim, herein after referred to as 'PDS'---Petitioner.

Coram

Shri N. R. Bhattarai, Chairperson

ORDER

Date of Order: 26th February, 2021.

1. BACKGROUND AND BRIEF HISTORY

The Sikkim State Electricity Regulatory Commission (hereinafter referred to as the 'Commission') came into existence on 15th November, 2003 as a one man Commission. The notification constituting the Commission was issued vide Sikkim Government Extraordinary Gazette Notification **No. 28/P/GEN/97/524 dated 15.11.2003**. The Commission, although constituted in 2003, became operative only in April, 2011, after the Chairperson was appointed on 11th April, 2011 on the recommendations of the Selection Committee constituted by the State Government vide Home Department Notification No. 34/Home/2011 dated 11.04.2011 in terms of Section 85 of the Electricity Act, 2003, hereinafter referred to as the Act. Thereafter, the Secretary and other officials were appointed and the Commission began its work.

The Section 86 of the Electricity Act, 2003 (36 of 2003) lays down the functions of the State Commission.These functions include: determination of the 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 the tariff, both in accordance with the provisions of the Act as 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.

1.1 PDS – Filing of ARR and Tariff Petition

The SSERC notified the SSERC (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2020 vide Notification No. 14/SSERC/MYT/AMDT/2015/19 dated 7th September 2020 thereby specifying the second 3-year control period as commencing from 1stApril, 2021 to 31st March, 2024. The said regulations notified by the SSERC are applicable to all existing and future Generating Companies, Transmission Licensees and Distribution Licensees and their successors.

Accordingly, the Power Department, Government of Sikkim, (hereinafter referred to as "PDS"), is a deemed licensee under Section 14 of the Act and is carrying on the business of distribution and retail supply of electricity in the State of Sikkim vide its letter no. 5/P/REV/NODAL/2014-15 (Part-II)/335 dated 25th November, 2020 filed its petition before the Hon'ble Commission for consideration and approval of the provisional true up for the FY 2019-20, review for the F.Y 2020-21 and Aggregate Revenue Requirement (ARR) for the 2nd 3 year control period from F.Y 2021-22 to F.Y 2023-24 & determination of tariff for the F.Y 2021-22 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 petition dated 25th November 2020 was received by the Commission on 25th November, 2020 and after preliminary scrutiny, the SSERC admitted the petition as Case No. MYT/2020-21/P-01/PDS on 4thDecember, 2020 subject to the condition that the PDS shall provide additional data/information and clarifications as and when sought by the Commission.

1.2 Interaction with the Petitioner

The After the admission of the petition of the Power Department , the Commission commenced the job of detailed examination/scrutiny and verification of the data, information and other details furnished/submitted by the PDS win its petition. During the scrutiny and examination of the ARR and Tariff Petition, the Commission observed data gaps and need for seeking additional data, information and clarifications from the Power Department. The Commission through letters and emails sought additional information/data and clarifications from the Power Department. The communications made by the Commission and the responses/replies given by the PDS are as given below:

Communications made by the Commission		Response/Replies received from PDS	
Letter no. / E-mail	Dated	Letter no. / E-mail	Dated
318/SSERC/2017-18/Part-I	05.02.2021	05/P/REV/NODAL/2014-15/350	29.01.2021
E-mail	12.01.2021	05/P/Rev/NODAL/2014-15/351	11.02.2021
	21.01.2021	Email	11th February 2021
	23.02.2021		26th February 2021
	27.02.2021		26th February 2021

In order to understand the various aspects of the ARR and Tariff petition filed by the Power Department, the Hon'ble Commission felt it necessary to have interactions/discussions with the representatives of the Department. However, keeping in view the Covid-19 pandemic situation and need for maintaining social distancing, the Hon'ble Commission felt it proper to avoid physical meeting to the extent possible. Accordingly, the Commission also had several discussions with the PDS over phone. The PDS furnished the requisite information and clarifications to the Commission thereby enabling the Commission to take the whole process forward.

The Commission had few physical meetings with the representatives of the PDS and discussed the various projections, estimations and calculations done and submitted by the PDS in their ARR and Tariff petition. Meetings were held with the PDS as under on 19th February 2021

1.3 Admission of the Petition

The PDS had filed the petition for approval of the ARR and Tariff on 25th November, 2020, the Commission admitted the Petition on 4th December 2020 after thoroughly going through the details submitted by the PDS. The Petition was registered as Case no. MYT/2020-21/P-01/PDS. Thereafter, the Commission directed the PDS to issue public notice, soliciting objections, views and suggestions from the public by publishing the Public Notice in local newspapers.

1.4 Public Hearing Process

As directed by the Hon'ble Commission and in compliance of the provisions of section 64 of the Electricity Act, 2003, the PDS issued a Public Notice in the local newspapers giving an abridged form of its ARR and Tariff petition and invitied objections, suggestions, comments and views of the members of the public, consumers and stake holders. The PDS arranged publication of the Public Notice in the following newspapers, requesting submission of the objections, suggestions, comments and views latest by 13th January , 2021.

1. **Sikkim Express (English Daily)----------------12thDecember 2020**
2. **Hamro Varta (Nepali)--------------------------12th December 2020.**

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 (North/SDA) cum Nodal Officer (Revenue),Power Department, Govt. of Sikkim ,Kazi Road ,Gangtok, East Sikkim.
2. Additional Chief Engineer (South) 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 "www.power.sikki.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.

1.5 Notice for Public Hearing

In order to give wide publicity and to seek the views/opinions/suggestions and objections of general public, interested parties, stakeholders and the consumers on the proposed ARR and Tariff proposals of the PDS, the Commission issued Public

Notice in local newspapers giving date,time and venue of the public hearing to be conducted by the Commission. Through the Public Notice, the Commission also appealed to the general public and the stake holders to participate in the Public Hearing and that the submissions of the individuals, organisations, stake holders and parties shall be heard by the Commission. The Public Notice was also uploaded in the official web site of the Commission "**www.sserc.in".**

The Commission issued public notices in the following newspapers:

- **Sikkim Express (English)---------9th February 2021**
- **Summit Times (English)---------9th February 2021**
- **Hamro Prajashakti (Nepali)---16th February 2021**.

1.6 Public Hearing

The Public Hearing was fixed on 23rd February 2021 in the Courtroom of the Commission at Deorali, Gangtok, East Sikkim. The hearing commended from 10.30 AM onwards till 2.30 PM for all categories of consumers. The Chairperson of the Commission, other Officials from the Commission as well as some of the senior officers of the Power Department attended the Public Hearing. As in the past years, there was participation by the general public, organisation, individuals or parties in the Public Hearing. The sole participation came from the representatives of the Indian Army. The views, comments, requests and suggestions given by the representatives of the Indian Army, the replies/clarifications and views given by the Power Department in response to the submissions of the Indian Army and the comments/views of the Commission are dealt with in Chapter 4.

1.7 Compliance of Directives

In its previous Tariff Orders, the Commission had issued certain directives to PDS in the public interest. PDS has furnished a compliance report on the same. The comments of the Commission on the compliance report, along with fresh directives issued are given in Chapter 10.

1.8 Layout of the Order

This order is divided into Thirteen Chapters, as under:

1. First Chapter – This provides the background regarding ARR and Tariff proposal and details of the Public Hearing process.
2. Second Chapter - This contains a summary of ARR and Tariff Proposals and the prayer of the petitioner.
3. Third Chapter– This provides an overview of the power sector in Sikkim.
4. Fourth Chapter– This contains a brief summary of the objections raised, response of PDS and the Commission's comments on the same.
5. Fifth Chapter– This deals with the provisional true-up for the FY 2019-20.
6. Sixth Chapter -This deals with the review for the FY 2020-21.
7. Seventh Chapter - This contains the Annual Revenue Requirement for the FY 2021-22 to 2023-24, the Commission's analysis and decisions thereon.
8. Eighth Chapter - This deals with PDS' compliance of earlier directives, comments of the Commission and fresh directives to PDS.
9. Ninth Chapter - This discusses the principles of tariff policy and retail supply tariff for the FY 2021-22.
10. Tenth Chapter - This deals with the approved Wheeling Charges.
11. Eleventh Chapter -This covers the Fuel and Power Purchase Adjustment Mechanism and FPPCA Formula.

1.9 State Advisory Committee Meeting

A meeting of the State Advisory Committee was held on 23rd January 2021 from 11.00 am onwards presided by the Hon'ble Chairperson of the SSERC. The main agenda items for the meeting were discussion/deliberation on the petition filed by the Power Department, Government of Sikkim for True Up for F.Y 2019-20, Review for F.Y 2020-21 and petition for approval of the ARR/Business Plan for the 2nd 3 year control period i.e. F.Y 2021-22 to 2023-24 under the Multi Year Tariff regime including approval of proposed tariff for the F.Y 2021-22.

The Committee also deliberated and discussed the petition filed by the Military Engineering Service (MES) and 106 Eng Regiment of the 17 Mountain Division of the Indian Army for review of the tariff applicable to them under Bulk Supply category consumer. The MES had submitted petitions before the Hon'ble Commission with the submissions that as per the provisions of the Electricity Act, 2003, the MES qualifies as 'deemed distribution licensee' and therefore the tariff applicable to the MES be reviewed. The MES had further submitted that since it qualifies as deemed distribution licensee, it be allowed/permitted to procure its electricity requirement under open access arrangement.

106 Engr Regiment of the 17 Mountain Division of the Indian Army had made several representations before the Hon'ble Commission and also submitted applications requesting review of the tariff category applicable to the Army establishments in the State. The Army had submitted that the nature of their electricity consumption is similar to that of domestic consumers in the far flung international border areas where the troops are living in bunkers and camps and as such the domestic category tariff be made applicable to them. The Army further submitted that the jawans are manning the international borders under extreme weather conditions and reduction/review in the tariff would go a long way in boosting the morale of the jawans. The Army also submitted that the tariff under bulk supply category appear reasonable for the Army establishments in and around Gangtok and other nearby locations considering the nature of load/power consumption but charging bulk tariff to jawans living in bunkers/barracks with hardly any big heating systems or other high power consuming equipments be reviewed. The Army also added that a major chunk of their allocated fund goes towards electricity bill payments and reduction in tariff will save their fund which can be used for development of other necessary infrastructural works needed from security point of view. They also submitted that many infrastructural development works (transmission lines/system etc) are also being executed by the Army through the Power

Department in the form of deposit works and many more such works are planned to be taken up in the future considering the growing number of troops being deployed near the international borders. The Army opined that reduction in the tariff will not have adverse impact on the revenue for the State Government as the power consumption of the Army establishments is going to go up due to deployment more troops in the State.

The views/suggestions and comments of the State Advisory Committee are as given below:

- The members of the State Advisory Committee (SAC) opined that the MES and the defence personnel are responsible are working for safety and security of the nation and therefore everyone should extend help and cooperation to them wherever possible.
- The SAC members acknowledge the fact that the army jawans are deployed in extremely harsh and difficult weather conditions at the international border and they are vigil day and night for our safety and security and it is the responsibility of every Indian to boost the morale of our defense personnel. The members also referred to the judgment of the Hon'ble Appellate Tribunal for Electricity (APTEL) in the matter of Punjab Electricity Regulatory Commission Vs MES, Jallandhar and opined that so far as the 'deemed distribution licensee' status of the MES concerned, the matter stands settled. The members agreed that as per the judgment of the Hon'ble APTEL , MES can't be given preferential treatment and they ought to pay tariff as applicable to other consumers placed under 'bulk supply category'. The members further opined that it is upto the MES to decide whether it wants to procure power under 'open access' arrangement as the standing regulations and the provisions of the Electricity Act, 2003, provides non-discriminatory open access. The members however opined that the rate of electricity procured under open access arrangement could be higher considering the transmission and wheeling charges payable by a consumer.
- The SAC members noted that many other establishment like the Sikkim Armed Police ,Border Roads, Hospitals etc are categorized as bulk supply consumer and giving preferential tariff to the MES and the Army will invite demand/petition from the other consumers under the said category for review of the tariff. In such a situation, the

entire tariff structure for the State may have to be restructured resulting in adverse impact on the revenue from sale of power.

- The SAC members observed that the Power Department in its tariff petition the F.Y 2021-22 has already proposed to reduce the tariff and fixed charges for bulk supply category and if the same is approved by the Commission, both MES and the Army will get good relief and the need for review of the tariff category may not arise.
- The members opined that the Power Department personnel work tirelessly in difficult areas/terrain in the border areas for reliable power supply and invest heavily for development of the infrastructures like transmission lines, transformers etc and unless reasonable return of revenue is there, the Department will face difficulties for regular upkeep and maintenance of the infrastructures.
- The members felt that the representatives of the MES and the Army should attend the public hearing to be conducted by the Commission. The members felt that the points raised by the MES and the Army can be discussed thoroughly in the public hearing and also the response of the Power Department can be obtained on the matter which will help the Commission in taking a well balanced approach on the matter.
- The SAC members while discussing the True Up for F.Y 2019-20 observed that the "cost of power purchase" and "employee cost" are the two major factors affecting the Annual Revenue Requirement (ARR) of the Power Department. The members opined that every year the overall ARR gap is going up due to increasing "cost of power purchase" and "employee cost". The members opined that the Power Department must do proper analysis of the past trends and make more realistic projections of all the components of the ARR to avoid major variations in the estimated/projected figures and actual during true up.
- The SAC members felt that increase in employee cost could be attributed to large numbers of employees appointed by the State Government under 'one family one job' scheme launched by the State Government and as such the spike in employee cost can't be avoided. The members however felt the need for improving the employee's productivity and stressed on providing trainings/skill development of the excess

employees of the Department so that they can be transferred or deputed in other Departments.

- The members opined that cutting down of import of high cost thermal power could have reduced the expenses on towards power purchase and recalled that the members had stressed on the need for surrendering of thermal power in the past. The members also noted the fact that surrendering of thermal can't happen unless the Ministry of Power ,Government of India agrees and therefore felt that the Power Department must continue pursuing the matter at the with the Government of India. The members also suggested that the Department/State Government should thoroughly study the Power Purchase Agreements before signing them to avoid clauses/conditions that are not in interest of the State.
- The members also stressed on the need for timely delivery of electricity bills and observed that the bills are reaching very late to the consumers. The members also opined that introduction of prepaid meters/online billing will go a long way in improving the revenue collection of the Department but added that prepaid metering should be introduced in urban /municipal areas initially considering lack of internet connectivity and lack of proper knowledge about digital payments in the rural areas.
- The members also opined that there is lack of proper information or misinformation about '100 units free power' among the rural consumers, as most of the rural consumers have the notion that is electricity totally free in the rural areas and they refused to pay the bills. The members felt that the Power Department should properly educate/inform the rural consumers about the 100 units free power and necessity to pay for consumption exceeding 100 units.
- The members also observed that many salaried government employees work in the rural areas and they are capable of paying electricity bills and therefore the Department needs to strictly monitor the electricity consumption in rural households and properly bill the consumers.
- The SAC members also observed that huge number of construction/fabrication/truss/wood works are being undertaken in the rural areas

using electric machines/equipments and most of the machines are found directly hooked to the overhead distribution lines. The members suggested that the Department should strictly check all such illegal connections and bill the consumers for electricity used by them.

- The members expressed their happiness to see that the revenue from power sale within the State had gone up more than the projected/estimated figure. The members felt that the decrease in revenue from sale of power outside the State was expected considering the overall slow down of economic activities in the country vis-à-vis the availability of surplus power at competitive prices and less demand for power.
- The SAC members noted that the review for F.Y 2020-21 also shows similar trends as in the past years and observed that considerable variations are seen in the figures estimated/projected by the Department and the reviewed figures. The members observed that as in the past years power purchase cost and employee cost are the main components impacting the ARR gap and felt that the Department must adopt better methods to ensure that there is no major difference in the projected/estimated figures and actuals.
- The SAC members opined that the projected ARR for the 3 year control period of F.Y 2021-22 to F.Y 2023-24 appears reasonable considering the past trends and observed that the ARR gap is showing an increasing trend. The Department must take measures to bring down the ARR gap every year,little by little, the members added. The members opined that the gaps are also sue to the high AT&C losses and all possible steps should be taken by the Department to curtail the losses.
- The SAC members felt that the proposal to reduce the tariffs of Industrial (LT) Consumers in urban & rural areas is a welcome step considering the fact that the State Government is emphasizing on youth entrepreneurship. The members opined that many local youths are taking up small scale income generating schemes like poultry, dairy plants, stone crushing plants, fabrication shops etc and reduction in tariff applicable to these category will really come as boon for the local entrepreneurs.

- The members felt that Industrial (HT) consumers are given lot of benefits by way of subsidies both by the State and the Central Governments whereas these industrial units hardly generate any employment for the locals. The members opined that the industrial units hardly contribute to the development of the State whereas they use the local resources and therefore it is reasonable to charge higher tariff to them. The tariff for HT industrial consumers are very reasonable in Sikkim compared to other States and as such slight hike in tariff shouldn't matter much to the HT consumers, the members opined.

  The members observed that the cost of all things are going up and as such it is illogical to expect that electricity tariff should come down all the time. They opined that consumers should agree to pay slightly higher tariff considering the rising inflation. The added that the Department also require money for repair, upkeep and up-gradation of the infrastructure and therefore a minor hike in tariff for domestic and commercial tariff can be considered by the Commission. The members at the same time opined that the Department must work harder to improve the reliability and quality of electricity in the State and also give services at par with Discoms in other States. The members opined that the consumers will not mind paying a little bit extra if the quality of the service is good.

2. SUMMARY OF AGGREGATE REVENUE REQUIREMENT FORFY 2021-22 to 2023-24

2.1 Aggregate Revenue Requirement (ARR)

The Petitioner has submitted the Aggregate Revenue Requirement for the FY 2021-22, 2022-23 and 2023-24for meeting its expenses and estimated the revenue with the existing tariff. The projected ARR and Revenue gap are shown in the table below:

Table 2.1 : Aggregate Revenue Requirement Projected by PDS

Sl. No.	Particulars	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
1	Cost of Fuel	0.18	0.18	0.18
2	Cost of Generation	22.30	22.79	23.31
3	Cost of Power Purchase	311.76	327.35	343.72
4	Employee Costs	105.34	111.66	118.36
5	Repair and Maintenance Expense	22.02	23.34	24.74
6	Administration and General Expenses	3.49	3.7	3.93
7	Depreciation	16.96	17.17	17.25
8	Interest Charges	0.00	0.00	0.00
9	Interest on Working Capital	14.09	14.84	15.62
10	Return on NFA/Equity	0	0	0
11	Transmission Charge (Intra State)	48.18	50.55	53.04
12	**Total Revenue Requirement**	544.33	571.58	600.14
13	Less: Non-Tariff Income	1.30	1.33	1.35
14	**Net Revenue Requirement**	**543.03**	**570.25**	**598.79**
15	Revenue from Tariff	260.56	277.73	289.89
16	Revenue from Outside State Sales	121.78	125.28	128.61
17	**Gap (14-15-16)**	**160.68**	**167.24**	**180.29**
18	Revenue Surplus Carried Over	0.00	0.00	0.00
19	Additional revenue from Proposed Tariff	11.54	13.06	15.33
20	Regulatory Assets	-	-	-
21	**Energy Sales within States (Mus)**	**438.09**	**480.47**	**524.60**

2.2 Tariff – Existing vs. Proposed

In its Petition, PDS has submitted the proposed Tariffs for the FY 2021-22, as detailed in the table below:

Table 2.2 : Existing Tariff v/s Proposed Tariff

Sl. No.	Particulars	Existing Rate Paisa /kWh	Proposed Rate Paisa /kWh
1	**Domestic**		
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
2	**Commercial**		
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
3	**Public Lighting**		
	Rural Areas	400	300
	Urban Areas	500	500
4	**Industrial**		
A	HT	500	520
a)	HT (AC) above 3.3 KV	550	570
b)	Upto 100 KVA	600	620
c)	100-250 KVA	650	670
d)	250-500 KVA		
e)	500KVA and Above		
B	**LT (Rural)**		
a)	Up to 500 Units	450	360
b)	501-1000 Units	600	440
c)	1001 & Above	650	580
C	**LT(Urban)**		
a)	Up to 500 Units	650	530
b)	501-1000 Units	700	620
c)	1001 & Above	800	715
5	**BULK SUPPLY**		
a)	LT	700	650
b)	HT	700	660

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 2019-20.
- To Review the estimates for the FY 2020-21.
- To admit the Petition and approve the ARR and Tariff for the FY 2021-22, 2022-23 & 2023-24.
- To approve category-wise tariff, including fixed/demand charges submitted by PDS to meet revenue requirement for the FY 2021-22.
- 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

Sikkim with a total geographical area 7,096SqKm and population of 6,10,577 as per 2011 census is one of the smallest and youngest States of India. Sikkim is a landlocked State and shares its boundaries with three countries viz Bhutan,Nepal and China and the neighboring State of West Bengal. Sikkim is endowed with rich natural resources and bio-diversity. The State is blessed with un-paralleled natural beauty and is among the top tourist destinations in the country. Every year numerous tourists, both domestic and international visit the State to enjoy it pristine natural beauty and rich & varied cultural heritage.

Sikkim has more than 47 % of its total geographical area under forest cover making it not only one of the greenest States in the country but also a biodiversity hot spot. The third highest peak of the world **Mount KangchenDzenga** is located in the Sikkim, which is perpetually covered in snow and its natural beauty is a feast to the eyes of the visitors. Sikkim has many parks, sanctuaries and reserved forests & biospheres, which provide a safe haven for the highly endangered flora and fauna. The dense forests of Sikkim are home to a variety of Floras like Orchids, Rhododendrons,SilverFir,Juniper, Magnolias, Blue Poppies, Primulas, Galdiolietc and Faunas like Red Panda, Blue Sheep, Snow Leopard, Blood Pheasants, Barking Deer, Himalayan Black Beer etc.The **KangchenDzenga National Park (KNP)** has been declared as **"UNESCO world heritage site"**under mixed category by the United Nations Organization. The KNP is a home to some of the rarest flora and fauna. The unspoilt and breathtaking beauty of the State draws huge number of both domestic and foreign tourists .

Sikkim also has the distinction of being the first Chemical Free State. Use and sale of all kinds of chemical fertilizers, insecticides and pesticides in the State is prohibited including sale of inorganic fruits, vegetables and other products. Sikkim is one of the first States in the country to take up organic farming and todayit is recognized worldwide as the **“First Organic State”** in India and world. Although Sikkim has very limited area available for agriculture and other activities, it has been able to make a global mark in the field of Organic Farming. Sikkim has become the pioneer of Organic farming in the country and has the distinction of being declared the first **“Organic State”** in the Country. The major sources of revenue for the State is Eco-Tourism, Hydropower and Organic Farming apart from horticulture and floriculture.

The power demand in the State is very small primarily due to its small population and absence of heavy industries. The major demand for power is from pharmaceutical units, breweries and distilleries. There are numerous small scale industries, hotels, home stays, resorts and food processing units as well but the power demand from this group is very small. Major portion of the consumers as such fall under the Domestic category.

The PDS is the only deemed licensee in the State taking care of transmission, distribution and supply of electricity in the State.The PDS is a deemed licensee under the provisions of Electricity Act, 2003, in the State of Sikkim. The PDS is also a generation utility and owns a number of small hydropower projects and diesel generating stations. The PDS is a State Government Department and so far it has not started functioning like a commercial entity. The PDS functions with budgetary support from the State Government and also many of its schemes are funded by the Government of India.

Another State owned generating company in the State is the Sikkim Power Development Corporation Limited (SPDCL), A Government of Sikkim Enterprise. SPDCL is a Corporation with 51% stake of the State Government of Sikkim 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 Development of Hydro Power Projects in Sikkim

Sikkim's unique geography provides ample scope for development of hydropower projects. Rivers like Teesta and Rangit having their origins from Glacial lakes located at extreme high altitude makes tapping of the rivers for generation of hydropower. Apart from the two main rivers draining the State , there are numerous other small rivers and streams which provide good feasibility for development of small hydropower projects. The steep terrain of the State makes these rivers and streams cascade and fall through deep gorges and slopes thereby creating favourable locations for tapping of the water for generation of hydropower.

The total hydropower potential of the State is assessed to be around 8000 MW by the Central Water Commission (CWC) ,Government of India. CWC had undertaken surveys and feasibility studies of various hydropower projects in the State and prepared Pre-Feasibility Reports (PFRs). The PFRs were submitted to the State Government by the CWC. Based on the PFRs prepared by the CWC, the State Government took the decisions 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) modes . The projects are at different stages of development. Some of the projects have already been commissioned, some are at advance stage of construction and others are at survey and investigation stage. As on date, the following projects have been commissioned:

Sl. No.	Name of the Project	Capacity (In MWs)	Owner/developer
1	Teesta Stage - V HEP	510	NHPC Limited
2	Rangit Stage - III HEP	66	NHPC Limited
3	Chuzachen HEP	110	Gati Infrastructure Pvt. Ltd.
4	Jorethang Loop HEP	96	DANS Energy Pvt. Ltd.
5	Teesta Stage – III HEP	1200	Teesta Urja Ltd.
6	Dikchu HEP	96	Sneha Kinetic Power Projects Pvt. Ltd.
7	Tashiding HEP	97	Shiga Energy Pvt. Ltd.

Although a number of hydropower projects were allotted to Independent Power Developers and NHPC Limited, most of the works of the project have not been able to make progress as envisaged primarily due to financial crunch and overall slowdown of pace in the hydro power sector in the Country.

As per the Implementation Agreements, Sikkim will receive free power from the various hydropower projects @12% after their commissioning for the first 15 years of their operation and from the 16th year onwards @ 15% for the entire duration of the agreement period, which is 35 years.

Some of the projects which are under implementation and some whose works have been either delayed or stalled due to financial crunch and other reasons are as given below:

i. 500 MW Teesta-VI HEP (Project taken over by NHPC Ltd)
ii. 120 MW Rangit IV HEP (Project taken over by NHPC Ltd)
iii. 300 MW Panan HEP
iv. 54 MW Bhasmey HEP
v. 96 MW Rongnichu HEP
vi. 66 MW Rangit-II HEP
vii. 520 MW Teesta-IV HEP

3.3 Transmission and Distribution Network in the State

As the deemed licensee for Distribution and Transmission of electricity within the State, the PDS owns and operates the transmission and distribution network within the State. The details of the Transmission and Distribution network owned and being operated by the PDS as on 31st March, 2014 are as given below:

I. Sub-Stations

Sl. No.	Description	No.
1	132/66 KV	2
2	66/11 KV	19

II. EHT Lines , HT Lines and LT Lines

Sl. No.	Description	Length
EHT Lines		
1	132 KV	14.80 Ckt.Km
HT Lines		
2	66 KV D.C.	43.80 Ckt.Km
3	66 KV S.C.	184.50 Ckt.Km
	Total 66 KV Lines	**227.30 Ckt.Km**
4	11 KV / 3 Phase	242.62 Km
5	11 KV / 2 Phase	44.55 Km
	Total 11 KV Lines	**287.17 Km**
LT Lines		
6	LT / 3 Phase	1301.52 Km
7	LT / Single Phase	3581.37 Km
	Total LT Lines	**4882.89 Km**

III. Power Transformers

Sl. No.	Description	Quantity (No.)	Total Capacity (In MVA)
1	20 MVA	1	20.00
2	15 MVA	1	15.00
3	10 MVA	3	30.00
4	7.5 / 7.0 MVA	6	44.50
5	5 MVA	15	75.00
6	2.5 MVA	16	40.00
7	**Total**	**42**	**224.50**

IV. Distribution Transformers

Sl. No.	Capacity (In KVA)	Quantity (No.)	Total Capacity (In MVA)
1	1600	0	-
2	1500	2	3,000.00
3	1000	2	2,000.00
4	750	10	7,500.00
5	650	2	1,300.00
6	630	0	-
7	615	1	615.00
8	500	58	29,000.00
9	450	1	450.00
10	400	1	400.00
11	375	0	-
12	300	67	20,100.00
13	250	20	5,000.00
14	200	58	11,600.00
15	160	6	960.00
16	150	30	4,500.00
17	125	1	125.00
18	100	155	15,500.00
19	63	359	22,617.00
20	50	10	500.00
21	25	743	18,575.00
22	10	442	4,420.00
23	**Total**	**1968**	**148,162.00**

3.4 Consumer Profile and Energy Sales

The total number of registered consumers in the State as on 31st March, 2019 was 1,14,006 with annual consumption of about 380.81MUs. The Energy Sales outside the State for the FY 2019-20 was 759.63MUs.The category-wise number of consumers and energy sales during the FY 2019-20 are given in table below.

Table 3.1 : Consumer Profile and Energy Sales During the FY 2019-20

Sl. No.	Consumer Category	No. of Consumers		Energy Sales	
		(No.)	(%)	(Mus)	(%)
1	Domestics	101673	87.27%	107.94	26.24%
2	Commercial	11827	10.15%	42.05	10.22%
3	Public Lighting	30	0.03%	0.34	0.08%
4	Temporary Supply	0	0.00%	2.36	0.57%
5	HT Industrial Consumers	514	0.44%	226.64	55.10%
6	LT Industrial Consumers	645	0.55%	1.85	0.45%
7	Bulk Supply	1819	1.56%	30.17	7.33%
8	Total	116508	100.00%	411.35	100.00%

3.5 Transmission and Distribution (T & D) Losses

The total Transmission and Distribution (T&D) losses approved by the Commission are given in Chapter 5for the FY 2019-20 are166.14 MUs and percentage loss is 28.77%. The details of T&D losses for the FY 2019-20 are given in the table below.

Table 3.2 : Consumer Profile and Energy Sales During the FY 2019-20

Sl. No.	Particulars	Units	FY 2019-20
1	Own Generation	Mus	6.44
2	Energy Purchased form NTPC	Mus	481.55
3	Energy Purchased from WBSEDCL	Mus	48.92
4	Energy Purchased form NHPC	Mus	58.37
5	Energy Purchased (2+3+4)	Mus	588.84
6	Pool Loss	%	2.14
7	Pool Loss	Mus	12.60
8	Net Energy Available (5-7)	Mus	576.24
9	Energy Purchased from PTC	Mus	47.43
10	Energy Purchased from SPDC	Mus	41.53
11	UI purchased	Mus	20.83

12	Free Energy	Mus	340.65
13	Total Energy Available at state periphery (1+8+9+10+11+12)	Mus	1033.14
14	Outside State Sale through UI/Trading	Mus	455.65
15	Net Energy Available for sale within the state (13-14)	Mus	577.49
16	Energy Sale within the State	Mus	411.35
17	T & D loss (15-16)	Mus	166.14
18	**T & D loss**	%	28.77

The Technical and commercial Losses of the system have not been segregated.

3.6 Demand and Supply Position

The allocation from various Central Generating Stations (CGS), Chukka (PTC) and share in Rammam HEP in West Bengal is about 206.49 MWs, as detailed in table below:

Table 3.3 : Power Allocation from CGS and other Sources for FY 2019-20

Sl. No.	Source	Capacity	Allocation	
		(In MWs)	(In %)	(In MWs)
	Central Sector			
1	FSTPP, NTPC	1600	1.63%	26.08
2	KHSTPP-I, NTPC	840	1.55%	13.02
3	KHSTPP-II, NTPC	1500	0.33%	4.95
4	BSTPP, NTPC	1320	1.32%	17.40
5	TSTPP, NTPC	1000	2.40%	24.00
6	KBUNL, NTPC	390	0.55%	2.16
7	RANGIT- III , NHPC	60	13.33%	8.00
8	TEESTA - V , NHPC	510	13.19%	67.27
9	NPGCL	1980	0.18%	3.60
10	DARLAPALI	1600	0.88%	14.01
	Others			
9	CHUKHA, PTC	270	2.22%	6.00
10	WBSEDCL	50	20.00%	10.00
11	SPDC	10	100.00%	10.00
12	**Total**	**11130**		**206.49**

3.7 Power Supply

(a) Own Generation

PDS owns twelve 12 hydroelectric power stations, with a total installed capacity of 35.70 MWs and two (2) diesel generation stations, with a total installed capacity of 4.99 MWs. The details of the generation stations owned by the PDS and their present status are as detailed in table below.

Table 3.4 :PDS own Installed Capacity

Sl. No.	Source	Installed Capacity (In MWs) (In MWs)	Remarks
	HYDRO		
1	Lower Lhagap Hydel Power (LLHP)	2 x 6.00	Shut Down Due to 18th September 2011 Earthquake
2	Jali Power House (JPH)	6 x 0.35	Operational
3	Rimbi – I	3 x 0.20	Shut Down
4	Rimbi – II	2 x 0.05	Shut Down
5	Rohtak	2 x 0.10	Powerhouse Abandoned
6	Rongnichu	5 x 0.50	No Generation due to failure of water conductor system
7	Chaten	2 x 0.50	Powerhouse Abandoned
8	Meyongchu	2 x 2.00	Operational
9	Upper RongnichuHydel Project (URHP)	4 x 2.00	Project Handed Over to private party for Restoration
10	Kalez	2 x 1.00	Operational
11	Lachung	2 x 0.10	Powerhouse Abandoned
12	Rabomchu	2 x 1.50	Operational
	Diesel		
13	Diesel Power House Gangtok	4 x 1.00	Operational
14	DPH LLHP, Raniphoool	4 x 0.248	Shut Down Due to 18th September 2011 Earthquake
	Total	**40.692**	

The own generation of the PDS is very small as most of it powerhouses are not operational. Thus only a tiny quantum of its energy requirement is met by the PDS from its own generation. Most of the powerhouses suffered heavy damages during the 2011 earthquake and restoration works could not be taken up due to financial crunch. The PDS meets the power demand of the State through the allocation from the Central Generating Stations (CGS) and other sources. In addition to the allocation of power from CGS and other sources, the PDS also procures energy from the Sikkim Power Development Corporation (hereinafter referred to as SPDC).

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

(b) Power purchase

The PDS purchases power from various Central Generating Stations and other sources for meeting its energy requirements. The different sources of power and quantum of power purchased during the FY 2019-20 and the average unit cost of energy purchased is given in table below:

Table 3.5 : Power Purchase from CGS and Other Sources During FY 2019-20

Sl. No.	Source	Power Purchased (Mus)	Cost of Power (Rs. In Crore)	Unit Cost (Rs. / KWH)
1	**NTPC**			
a)	BSTPP	88.33	50.40	5.71
b)	FSTPP	129.28	56.00	4.33
c)	KHSTPP-I	68.39	23.86	3.49
d)	KHSTPP-II	31.34	9.91	3.16
e)	TSTPP	136.28	42.20	3.10
f)	DARLPALI	1.48	1.48	10.00
g)	KBUNL	16.1	9.83	6.11
h)	NPGCL	10.35	5.76	5.57
2	**NHPC**			
a)	RANGIT- III	4.6	1.84	4.01
b)	TEESTA – V	53.78	8.43	1.57
3	**Other Source**			
a)	PTC	47.43	10.53	2.22
b)	WBSEDCL	48.92	6.26	1.28
c)	SPDC	41.53	16.1	3.88
4	UI/Deviation	20.83	13.63	6.54
5	Free Power	340.65	0	
6	Transmission & Other Charges		23.15	
7	Rebate/ Other Charges		3.39	
8	**Total**	**1039.29**	**282.78**	

3.8 Energy Balance

The supply and demand scenario during the FY 2019-20 approved by the Commission are given in Chapter 5, is given in table below:

Table 3.6 : Energy Balance of PDS for FY 2019-20

Sl. No.	Particulars	Units	FY 2019-20
A.	**ENERGY REQUIREMENT**		
1	Energy Sale within the state	Mus	411.35
2	Outside State sale through UI/ Trading	Mus	455.65
3	Total Energy Sale (1 +2)	Mus	867.00
4	Overall T & D losses	%	28.77
5	Overall T & D losses	Mus	166.13
6	Total Energy Requirement	Mus	1033.14
B.	**ENERGY AVAILABILITY**		
1	Own Generation	Mus	6.44
2	Power Purchase from CGS / UI etc.	Mus	698.64
3	Free Power	Mus	340.65
4	Overall pool loss	~~%~~	2.14
5	Overall pool loss	Mus	12.60
6	Total Energy Availability (1 + 2 +3 -5)	Mus	1033.14
C	**ENERGY SURPLUS/ (GAP)**		**0.00**

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

As already narrated under the heading "Public Hearing Process" in Chapter 3, the Power Department, Government of Sikkim issued Public Notice in local newspapers soliciting views,comments, suggestions and objections from the consumers, general public, origanisation, parties and stake holders on the ARR and Business proposals filed by the Power Department for the 2nd 3 year control period from F.Y 2021-22 to F.Y 2023-24 including Tariff for the 1st year of the control period F.Y 2021-22.

The last date for filing of the objections and suggestions by the Commission was fixed as 13th January 2021 by the Power Department in its Public Notices issued in the newspapers.

The Power Department also uploaded the ARR and Tariff Petition in its official website made the copies of the ARR and the Tariff Petition available to the public free of costs at designated offices. The Commission also uploaded the ARR and Tariff Petition in its official website.

Further, as envisaged by the Electricity Act, 2003, and to maintain transparency and proper representation of the views and suggestions of the consumers and stake holders, the Commission issued notice for Public Hearing on the proposed ARR and Tariff proposals of the Power Department. Through the Public Notices, 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 23rd February 2021 in the Court Room of the Commission ,Deorali, Gangotk East Sikkim 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 participation of the public in the regulatory process. The details of the Public Notice published by the Commission are as under:

- **Sikkim Express (English)---------9th February 2021**
- **Summit Times (English)---------9th February 2021**
- **Hamro Prajashakti (Nepali)---16th February 2021**

Proceedings of the Public Hearing

The proceedings of the Public Hearing started at 10.30 AM in the Court Room of the Commission. The Hon'ble Chairperson of the Commission along with the Officers of the Commission , the PCE cum Secretary and other senior officials of the Power Department participated in the Public Hearing.

As already narrated under "Public Hearing " at Chapter-3, there was participation by the general public or other stake holders in the Public Hearing. The sole participants in the hearing were the representatives of the Indian Army, 17th Mountain Division.

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

Sl.No	Name	Department/Agency/Address
1	Mr. N.R.Bhattarai	Hon'ble Chairperson,SSERC
2	Mr. P.T.Bhutia	PCE cum Secretary, Power Department, Govt. of Sikkim
3	Mr.Ganesh Chettri	Principal Chief Engineer, Power Department, Govt. of Sikkim
4	Brigadier Vikram Bhar,VSM	Dy. GOC, Black Cat Division,Indian Army
5	Col. G.K.Chopra	Col. Engrs, Mil Stn, Indian Army
6	Lt.Col.Kunal Tagunde	Engrs.,Mil Stn, Indian Army
7	Mr. P.M.Sharma	Chief Engineer, Power Department, Govt. of Sikkim
8	Mr.B.Deokota	Chief Engineer, Power Department, Govt. of Sikkim
9	Mr.T.K.Pradhan	Director,Sikkim Renewal Development Agency (SREDA)
10	Ms. Shova Thapa	Addl. Chief Engineer(SLDC), Power Department, Govt. of Sikkim
11	Mr. D.N.Khatiwada	Addl. Chief Engineer, Power Department, Govt. of Sikkim
12	Mr. S.R.Bhutia	Addl. Chief Engineer(HQ-II), Power Department, Govt. of Sikkim
13	Mr.Jigme W.Bhutia	Joint Director, SSERC
14	Mr.Palchen D.Chaktha	Director (T&T) cum Secretary-in-Charge,SSERC
15	Mr. Pema R.Gyansapa	Assistant Engineer, SSERC
16	Mr. Sonam G.Bhutia	Law Officer, SSERC

The Indian Army and the Military Engineering Service (MES) had been approaching the Commission and the Power Department much before the Public Hearing and had been submitting their representations for review of the Tariff under Bulk Supply Category applicable to them.

The 17th Mountain Division, Indian Army submitted a series of letters to the Hon'ble Commission for review of the Tariff applicable to the Army Establishments under Bulk Supply Category. Infact the Army and the Military Engineering Service (MES) had been making representations and submissions for review of the tariff for the Army/Defence establishments in the State right from the middle of the F.Y 2020-21.

The 17th Mountain Division, Indian Army and the Military Engineering Service submitted a series of petitions/requisitions before the Hon'ble Commission for review of the tariff. The submissions/petitions (applications) received from the Army and the MES are as under:

1. Letter dated 30th June 2020 from AS Bawa, Major, General Staff Officer-2 (Ops) ,HQ, 17th Mountain Vision
2. Letter dated 21st September 2020 from Kunal Tagunde Lieutenant Colonel, 106 Egr Regiment
3. Letter dated 7th November 2020from RA Dattatraya, Lieutenant Colonel, Engineering Planning Officer, 106 Engr Regiment
4. Letter No. 8th January 2021 from Kunal Tagunde Lieutenant Colonel, 106 Egr

The main submissions/ issues raised and the requests made by the Army are briefly summarised below:

i. That the Indian Army is one of the major and prominent users of electricity in Sikkim and contributing substantial revenue to the State Government. During F.Y 2019-20 around ₹ 168.00 lakhs was paid by the Army for electricity consumption.

ii. That 37 locations in the area of responsibility of the HQ 17 Mountain Division are drawing electricity from two main sub-stations namely Rongli Sub-division and Gangtok Sub-division through a total of 24 different transformers

iii. That the use of electricity by the Indian Army is solely for the purpose of domestic use by the troops deployed at the forward posts along the international border in harsh terrain and extreme weather conditions. The electricity is not used for any industrial or commercial activities.

iv. That the nature of use of electricity in the Office complex and barracks are only for domestic purposes and as such they should be treated as Government Residential Buildings and levied tariff under Domestic Supply Category.

v. That 17 Mountain Division Area of responsibility includes military units that are located in areas like Gangtok, 17th Mile, Men La, Chhangu, Nakchok, Haryana Bend, Thegu, Nathula, Sherathang and Tamze in close proximity of civil population. The civilian population residing in the vicinity of military buildings are being levied tariff under Domestic Supply Category whereas the Army despite using electricity for similar purposes is being charged tariff under Bulk Supply Category (the tariff for Bulk Supply at ₹ 7.00 per unit is highest amongst all categories) and hence parity in consumption pattern should be maintained.

vi. That the military personnel are individually charged for electric consumption and consumption in forward areas are only for heating and, warming and lighting purposes, the Domestic category tariff be charged to the Army, this will immensely reduce the financial burden on serving soldiers.

vii. That the Indian Army has taken up huge number of infrastructural development works as deposit works through the Power Department and will also be taking many more infrastructural works in the forward areas. The new/additional infrastructure to be developed by the Army will further boost the electricity consumption for military use and therefore charging domestic category tariff to the Army will not have major impact on the revenue of the State Government.

The Military Engineering Service (MES) vide their Letter No. 4000/Gen/38/E4 dated 26th October 2020 from Shri M.P.Singh,EE,Garrison Engineer, MES, New Mil Stn, Gangtok,made the following submission:

i. That the MES is procuring electricity from the Power Department and distributing to Army stations in East Sikkim from Burdong to J.N.M Road. MES has drawn an agreement with the Department for 2500 KVA and the approximate average requirement of electricity is 1900 KVA.

ii. That the MES has been accorded 'deemed distribution licensee' status as clarified by the Ministry of Law, Government of India as per the provisions of section 14 of the Electricity Act,2003.

iii. Since the MES qualifies as deemed distribution licensee, the MES be considered as a licensee and be permitted/allowed to procure electricity under open access arrangement system.

Considering the submissions/petitions made by the Army and the MES, the Hon'ble Commission held several rounds of interactions and discussions with them. The Hon'ble Commission very patiently heard the submissions of the Army and the MES. The Commission also held meetings with the Power Department ,Government of Sikkim and discussed the matters based on the submissions made by the Army and the MES.

The Hon'ble Commission thoroughly discussed and deliberated on the submissions/requests made and issues raised by the Army and the MES. The considered views and suggestions of the Hon'ble Commission are presented below:

i. The Hon'ble Commission apprised the provisions of the Electrify Act, 2003, and the statutory procedures adopted for determination of tariff. The Commission also informed the Army about the time limitations for review of tariff .

ii. The Commission apprised the Army on the detailed procedure followed before the tariff order is issued by the Electricity Regulatory Commissions and advised the Army to file petition within the stipulated time frame in the future ,if they have any objections or suggestions on the tariff proposed by the Power Department.

iii. During the discussions , the Commission also informed the Army representatives that review of tariff order in the middle of a financial year can't be considered and advised that written petitions be submitted to the Power Department so that the submissions/requests of the Army as incorporated by the Department while filing the ARR and Tariff petition for ensuing financial year F.Y 2021-22.

iv. The Commission opined that some of the issues raised by the Army were reasonable and worth considering by the Power Department keeping in view the selfless service being rendered by the Army for the safety and security of the country and its citizens. The Commission felt that everyone has to extend all possible help and cooperation to the defense forces to the extent possible.

v. The Commission suggested the Army and MES representatives to file their objections and suggestions before the Commission in response to the "public notice" to be issued by the Power Department on the ARR and Tariff for FY 2021-22. The Commission also informed them about the 'public hearing' to be conducted by the Commission on the ARR and Tariff proposals of the Power Department and requested the Army and MES to attend the public hearing and place their submissions/objections/suggestions etc.

vi. The Commission gave its reply to the MES vide letter No. 201/SERC/357/2020 dated 11.11.2020 and drew the attention of the MES on the judgment dated 11th January 2012 of the Hon'ble Appellate Tribunal for Electricity (APTEL) in the Appeal No. 1of 2008 in the matter of MES versus Punjab State Electricity Regulatory Commission whereby the Hon'ble APTEL had clarified the issue of 'deemed distribution licensee' status of the MES.

The Hon'ble Commission referring to the said judgment of the Hon'ble APTEL quoted the views of the Hon'ble APTEL that " a bulk consumer of electricity has to pay a tariff to be determined by the Commission and if the appellant (MES) fulfills the character of a bulk consumer, it deserved to be treated in the same manner and if the government does have an intention to give any preferential treatment in such circumstances to the appellant category of consumers then the law has to take care of the situation by enactment or modification or amendment". The Hon'ble Commission therefore opined and informed the MES that as of date, the matter regarding deemed distribution licensee status for the MES stands clarified by the judgment dated 11th January 2012 of the Hon'ble APTEL.

The Commission further informed the MES that the necessary regulatory framework for intra-state open access has been already provided by the Commission by notifying the SSERC (Intra State Open Access) Regulations, 2012 , which provides non-discriminatory open access to all consumers who require supply of electricity of 1 MW and above in the State.

The Hon'ble Commission had clearly explained to the Army representatives to file their objections/suggestions and comments in response to the 'public notice' issued by the Power Department on the proposed ARR and Tariff proposals for the F.Y 2021-22 to FY 2023-24 before the stipulated time frame i.e. 13.01.2021 , the Indian Army submitted an application dated 23rd December 2020 from Kunal Tagunde Lieutenant Colonel, 106 Egr Regiment to the Commission, once again referring to the various communications made by it to the Commission.

The application dated 23rd December 2020 was neither in response to the public notice issued by the Power Department nor was it received by the Commission within the stipulated dateline of 13th January 2021, the last date for receipt of any comments/suggestions/objections on the proposed ARR and Tariff proposal of the Power Department for the F.Y 2021-22 to FY 2023-24. Despite that, the Commission deemed it fit to forward the application of the Army to the Power Department, directing it to file a written reply/response to the Army.

The submissions made/issues raised by the Army in its application dated 23rd December 2021 and the are given hereunder:

1. That the proposal/request of the Army for change of tariff category from Bulk Supply to Domestic category has not been considered by the Power Department in its proposed ARR and Tariff Petition for F.Y 2021-22 to F.Y 2023-24 filed before the Hon'ble Commission.
2. That majority of electricity consumption in far flung –extremely high altitude areas such as Kupup,Doka La etc is for lighting and warming purpose only. No industrial activities are being conducted in establishments of the Army. Further, during power disruption, the Army are relying on the generators.
3. Several projects for extending the electric supply/distribution networks have been completed through deposit works and many more projects are planned to be executed in the next financial year, for which the proposals have been already submitted to the higher Headquarter for sanction.
4. Upon completion of the projects through deposit works, the electricity consumption of the Army establishments shall grow gradually and give higher revenue to the State Government. The growth in electricity consumption will boost the revenue of the State Government and therefore change in the tariff category for the Army from 'Bulk Supply" to "Domestic Supply" category will not have adverse impact on the revenue.
5. That a major chunk of fund from the maintenance fund budget of the Army (₹ 168 to 170 lakhs) goes towards payment of electricity bills. As a result, other equally critical services needed for the Army like water supply, kerosene supply lines, habitats, defences and protection walls get affected due to fund constraint.
6. The change in tariff category from Bulk Supply to Domestic Supply category will be a very supportive decision and will contribute heavily towards economizing the fund utilization for actual operational reasons.

The aforesaid petition of the Army was forwarded to the Power Department by the Hon'ble Commission vide its letter No. 318/SSERC/2017-1/Part-I/239 dated 24.12.2020 and directing the Power Department to file written reply/response.

The replies/response given by the Power Department vide its letter No. 05/P/REV/NODAL/2014-15 (Part-II)/343 dated 05.01.2021 were as under:

- The bulk Supply category in the tariff petition has been created exclusively for organizations which are non-commercial in nature. Other organisations like Paramilitary Forces, State Police Services and Government Department etc also fall into this category. This has been done to avoid clubbing of non-commercial organisations with commercial ones although both have similar service connection criteria.
- Option for installation of Maximum Demand Indicator (MDI) meter has been incorporated in the tariff petition 2021-22. This option can be opted by the consumer which would ensure demand charges as per actual load requirement/usage.

- The Energy charges for the Bulk Supply Category has also been reduced in the tariff petition filed by the Department for F.Y 2021-22. A comparative statement showing the tariff applicable to the Defense establishments in different States is provided to the Army for comparing the tariff being charged by the Department to the Army.

<u>Objection/Suggestion/Submissions made during the Public Hearing</u> :

I. Objection/Suggestion/Submissions Made by the Indian Army Representatives.

The following representatives of the Indian Army participated in the Public Hearing held on 23rd February 2021:

1. **Brigadier Vikram Bhar, Deputy JCO,Black Cat, Indian Army**
2. **Col. G.K.Chopra,Col. Engrs, Mil Stn, Indian Army**
3. **Lt. Col. Kunal Tagunde, Engrs,Mil Stn, Indian Army**

The representatives of the Indian Army reiterated the submissions already made by them in their various letters cited above during the Public Hearing. Summary of the submissions made and points raised the above mentioned representatives of the Indian Army during in the Public Hearing are as under:

i. Electricity is being supplied to the Army under 'Bulk Category' consumer and the tariff of ₹ 7.00 per unit being levied for said category is one of the highest amongst the different categories of consumers in the State.

ii. Electricity consumption by the Army is solely for the purpose of domestic use by troops deployed at forward post and is not for any industrial or commercial activity. The power is being utilized purely for lighting and warming purposes in the bunkers in the forward areas and barracks

iii. The Army Officers and Jawans have to pay the electricity bill form their own pocket and the high tariff under bulk consumer category is too taxing on the Army officer, jawans and their families.

iv. The nature of consumption of electricity by the Army in areas like Thegu, Kyongnosala etc are very similar to that of other local consumers residing nearby Army establishment and the local consumers are charged domestic tariff. The Army barracks and other areas have been installed with energy meters similar to that of other local residents and therefore the Power Department can very easily take the meter readings and charge as per domestic tariff. The Army can facilitate meter reading through whatsapp or other digital media as well.

v. Army has separate transformers in their premises and the Power Department may consider installing meters on the transformers to record the actual power consumption.

vi. In other Army establishments located in areas like Gangtok, where the power consumption is higher, the Army understands the reasonableness of levying tariff under Bulk Supply category but for forward areas, providing domestic category tariff will be justifiable. Request for tariff reduction is being prayed for only for individuals and not Garrisons, hospitals, garages etc.

vii. The tariff proposed by the Power Department for the F.Y 2021-22 for the Bulk Supply proposes slight reduction in the energy charges only and reduction of monthly minimum charges from ₹ 1000 to ₹ 500 per month for sanctioned load greater than 45 KW . There is no proposal for reduction in the Demand Charges. As such only limited relief for the Army will be there if the proposed tariff is approved by the Hon'ble Commission.

viii. Almost all the infrastructures for supply of power to the Army have been set up through the funds of the Army and therefore the Department must consider providing some relief to the Army .

ix. The Army has many infrastructural development plans for the future and once the development of additional infrastructures are completed the power consumption by the Army is going to swell up and the Department will be able to collect good revenue and as such slight reduction in tariff being levied to the Army will not have adverse impact on the revenue of the Department/State Government.

x. The Army is ever ready to iron out minor practical difficulties in consultation with the Power Department and is also ready to meet the requirements of the Department for facilitating proper meter reading, conducting joint survey etc in the Army areas.

xi. The reduction in tariff applicable to the Army or bringing Army under Domestic category consumer will immensely boost the morale of the Officers and Jawans posted in harsh weather conditions and difficult terrain and also help the Army in saving fund. The fund so saved can be used by the Army for other important works required to be done for the safety and security of the nation. Therefore the Army requests the Hon'ble Commission and the Power Department to consider giving relief by way of reduction of tariff of the Bulk Category or by brining the Army under Domestic category consumer.

xii. The Department and the Hon'ble Commission may consider creating a separate consumer category for the Army in the next financial year.

Responses/Replies/Clarifications furnished by the Power Department:

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

- Considering the submissions made by the Army, the Power Department has already proposed to reduce the energy charges for the Bulk Category Consumer for the F.Y. 2021-22 and accordingly haves filed petition before the Hon'ble Commission.
- Bulk Supply category has been exclusively created for non-commercial consumers, who draw power in a cluster and the bulk Supply category is best suited for the Army.
- The Power Department has introduced two part tariff (energy charges and demand charges) for the Bulk Supply category as the Department has to maintain the voltage and keep the system at the demand load even if the consumer is drawing less power. Demand charge goes for meeting the expenses incurred by the Department in maintaining system.
- Bringing the Army under Domestic category is not feasible as there are numerous other consumers who fall under this category like the Sikkim Armed Police, IRB, Hospitals etc. If Army is brought under Domestic category , all other consumers under the bulk category will make the same demand and in such scenario , it will seriously affect the financial health of the Department and the entire system will get jeopardized.
- The State Government has given subsidies to local public considering social and other economic factors and the same can't be given to the Army. The Government is providing free electricity to BPL families in rural areas and for which pre-defined criteria and parameters are there. Such parameters can't be fulfilled by the Army.

- The Department has also introduced the option for installing Maximum Demand Indicator (MDI) by the consumers and Army too has the option of installing MDI. 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.
- The Power Department is procuring power at high rates and supplying within the State. Therefore reduction of tariff will have an adverse impact on the financial health of the Department which will impact both efficiency and quality of the services that the Department is providing to its consumers.

Comments/Views/Opinion of the Hon'ble Commission:

- The Hon'ble Commission opined that everybody should respect the Army for what they are doing for the country and its citizens and all should try and extend possible help/cooperation to the Army.

- The Commission also endorses the fact that the soldiers who are posted along the international borders have to bear the brunt of harsh weather and extremely high altitudes and therefore providing reliable/quality electricity supply to the soldiers should be given top priority. Having good lighting and warming facilities in the difficult forward areas will boost the morale of the soldiers, the Commission further opined.

- The Commission also noted the fact that although the Commission and the Power Department would like to give maxim mum relief to the Army , the Commission is also bound by the provisions of the Electricity Act, 2003 and other standing rules, regulations and acts. The Commission is bound to follow the procedure prescribed in the Acts/Rules for determining the tariff in a very transparent and unbiased manner.

- The Commission can't act in an arbitrary manner nor can it give preferential treatment to one particular class of consumer burdening the other consumers who are also in the same consumer category.

- The Commission is also of the view that the Power Department (deemed distribution licensee) has to build, operate and maintain transmission and distribution systems/lines in the very difficult forward areas where the troops are stationed and thus incur sizeable expenditures. The field works and the engineers of the Department also has to remain vigil 24x7 and work tirelessly for keeping providing regular electricity to the consumers. Unless reasonable revenue return is received by the Department, it is difficult for the Department to maintain and service the long transmission and distribution lines. Therefore, the Commission has to take a very well balanced approach while finalizing the tariff order to try and guarantee that the tariff actually reflects the cost of supply and at the same time ensuring that the tariff is not a burden on the consumers.

- The Commission opined that electricity consumption is an indicator of growth and development of a nation and therefore the Commission has to ensure that the tariffs approved are not detrimental to the industrial and commercial growths.

- The Hon'ble Commission observed that many other consumers ,who use electricity for non-commercial purpose like the MES, Sikkim Armed Police, Border Roads, Hospitals, Aerodromes and all Government Non-residential buildings are grouped under the "Bulk Supply Consumer" category and therefore creating a separate consumer category solely for the Army will amount to biased treatment and will result in opening of flood gate, with all other consumers under the said category petitioning for change in tariff. The Commission is of the view that in such a scenario , the overall tariff structure in the State will get affected resulting in need for not only reframing/revising the tariff structure but also have an adverse impact on the financial health of the Power Department due to sizeable reduction in its revenue.

- The Commission observed that the Power Department has already proposed to reduce the energy charges as well as the demand charges for the Bulk Supply consumers during the F.Y 2021-22 thereby giving good relief to the Army and other consumers. The Commission also noted that the Power Department has incorporated the option for installation of Maximum Demand Indicator (MDI) meters by the consumers of bulk supply , which will ensure billing of demand charges on actual consumption. The Commission is of the view that installation MDI meters by the Army establishment will significantly reduce the electricity bills of the defense establishments.

- The Commission opined that both the Indian Army and the Military Engineering Service should consider representing their case before the Ministry of Defense and the Ministry of Power, Government of India for creating a separate/special consumer category for them. The State Commissions are bounded by the Electricity Act, 2003, and unless the Act is amended or modified, the State Commissions have no power to give preferential treatment to the Army and MES so far as tariff is concerned.

The Commission is of the view that tariff should reflect the actual cost of power supply and therefore the Commission will take a well balanced approach while finalizing the tariff order keeping view the interest of both the consumers and the Power Department.

5. PROVISIONAL TRUE UP FOR THE FY 2019-20

5.1 Preamble

The Commission had approved the ARR and Tariff for the FY 2019-20 vide its Order dated 28.03.2018, and review of FY 2019-19 vide Commission Order dated 16.03.2020 based on the projected data submitted by the PDS. Now, the PDS has submitted proposals for provisional True up for the FY 2019-20, duly furnishing the actuals for the FY 2019-20, 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 2019-20 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 not submitted the audited accounts for the FY 2019-20. Therefore, true up cannot be done. PDS has stated that though the accounts are not audited, the data furnished for the FY 2019-20 are the actuals and Provisional True up may be done with regard to the actuals. This is discussed in the succeeding paragraphs.

5.2 Energy Demand (Sales)

The energy sales approved by the Commission, vide its review Tariff Order for the FY 2019-20, the actual sales given by PDS, as per provisional accounts with the ARR & Tariff Petition for the FY 2021-22 and now approved by the Commission, are summarised in the table below.

Table 5.1 : Energy Sale Approved by Commission for FY 2019-20

Sl. No.	Particulars	As Approved by Commission in Tariff Order Dated 16.03.2020	Actual As per Provisional Accounts	Now Approved by Commission
1	Domestics	116.08	107.94	107.94
2	Commercial	42.44	42.05	42.05
3	Public Lighting	0.29	0.34	0.34
4	Temporary Supply	4.92	2.36	2.36
5	HT Industrial Consumers	207.55	226.64	226.64
6	LT Industrial Consumers	5.13	1.85	1.85
7	Bulk Supply	26.04	30.17	30.17
9	Outside State	787.93	455.65	455.65
10	**ENERGY SURPLUS/ (GAP)**	**1190.39**	**867.00**	**867.00**

The Commission now approves energy sales for the FY 2019-20 at 867.00 MUs, as per the actuals furnished by PDS.

5.3 Transmission & Distribution Losses (T&D Losses)

The Commission in its review order for the FY 2019-20, had fixed the target of T&D Losses at 22.00% for the FY 2019-20. The PDS in its ARR& Tariff Petition for the FY 2021-22, has stated that the actual T&D losses during the FY 2019-20is28.77% as per provisional accounts.

Commission's Analysis:

The inter-state transmission loss (pool loss) for the FY 2019-20 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 2019-20

Sl. No.	Particulars	Units	As Approved by Commission in Review Order Dated 16.03.2020	Actual As per Provisional Accounts	Now Approved by Commission
1	Own Generation	MUs	10.00	6.44	6.44
2	Energy Purchased form NTPC	MUs	577.08	481.55	481.55
3	Energy Purchased from WBSEDCL	MUs	43.84	48.92	48.92
4	Energy Purchased form NHPC	MUs	35.30	58.37	58.37
5	Energy Purchased (2+3+4)	MUs	656.22	588.84	588.84
6	Pool Loss	%	2.14	2.14	2.14
7	Pool Loss	MUs	14.04	12.60	12.60
8	Net Energy Available (5-7)	MUs	642.18	576.24	576.24
9	Energy Purchased from PTC	MUs	32.72	47.43	47.43
10	Energy Purchased from SPDC	MUs	33.80	41.53	41.53
11	UI purchased	MUs	27.90	20.83	20.83
12	Free Energy	MUs	557.32	340.65	340.65
13	Total Energy Available at state periphery (1+8+9+10+11+12)	MUs	1303.92	1033.14	1033.14
14	Outside State Sale through UI/Trading	MUs	787.93	455.65	455.65
15	Net Energy Available for sale within the state (13-14)	MUs	515.99	577.49	577.49
16	Energy Sale within the State	MUs	402.46	411.35	411.35
17	T & D loss (15-16)	MUs	113.53	166.14	166.14
18	**T & D loss**	%	22.00	28.77	28.77

The Commission now approves T&D Loss at 28.77% for the FY 2019-20.

5.4 Own Generation

The Commission in its Review Tariff Order dated 16.03.2020 had approved Own Generation for the PDS at10.00 MUs for the FY 2019-20. Now, the PDS has furnished actual own generation as 6.44 MUs during the FY 2019-20, as detailed in the table below.

Table 5.3 : Own Generation Approved by Commission during FY 2019-20

Sl. No.	Particulars	As Approved by Commission in Review Order Dated 16.03.2020	Actual As per Provisional Accounts	Now Approved by Commission
1	Total Generation	10	6.44	**6.44**
2	**Total**	**10**	**6.44**	**6.44**

The Commission now approves Own Generation of PDS during the FY 2019-20 at 6.44MUs, as per actuals furnished by PDS.

5.5 Power Purchase

The Commission in its Tariff Order dated 16.03.2020 had approved the power purchase quantity of 1307.96 MUs including free power quantity of 557.32MUs. Now, the PDS has furnished actual for the FY 2019-20 at 1039.29 MUs including free power of 340.65 MUs in the ARR and Tariff Petition for the FY 2021-22, as detailed in table below.

Table 5.4 : Power Purchase Approved by Commission during FY 2019-20

Sl. No.	Particulars	As Approved by Commission in Review Order Dated 16.03.2020	Actual As per Provisional Accounts	Now Approved by Commission
1	**NTPC**			
a)	FSTPP	162.51	129.28	129.28
b)	KHSTPP-I	90.80	68.39	68.39
c)	KHSTPP-II	35.44	31.34	31.34
d)	BSTPP	118.82	88.33	88.33
e)	TSTPP	155.43	136.28	136.28
f)	KBUNL	14.08	16.1	16.1
g)	Darlapali	0.00	1.48	1.48
h)	NPCGL	0.00	10.35	10.35
2	**NHPC**			
a)	RANGIT- III	4.45	4.6	4.6
b)	TEESTA – V	30.85	53.78	53.78
3	**Other Source**			
a)	PTC	32.72	47.43	47.43
b)	WBSEDCL	43.84	48.92	48.92
c)	SPDC	33.80	41.53	41.53
4	UI/Deviation	27.90	20.83	20.83
5	Free Power	557.32	340.65	340.65
6	**Total**	**1307.96**	**1039.29**	**1039.29**

The Commission now approves power purchase of 1039.29 MUs, including free power of 340.65 MUs during the FY 2019-20, 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 16.03.2020 for the FY 2019-20 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 Commission for FY 2019-20

Sl. No.	Particulars	Units	As Approved by Commission in Review Order Dated 16.03.2020	Actual As per Provisional Accounts	Now Approved by Commission
A.	**ENERGY REQUIREMENT**				
1	Energy Sale within the state	MUs	402.46	411.35	411.35
2	Outside State sale through UI/ Trading	MUs	787.93	455.65	455.65
3	Total Energy Sale (1 +2)	MUs	1190.39	867.00	867.00
4	Overall T & D losses	~~%~~	22.00	28.77	28.77
5	Overall T & D losses	MUs	113.53	166.13	166.13
6	Total Energy Requirement (3+5)	MUs	1303.92	1033.14	1033.14
B.	**ENERGY AVAILABILITY**				
1	Own Generation	MUs	10.00	6.44	6.44
2	Power Purchase from CGS / UI etc.	MUs	750.64	698.64	698.64
3	Free Power	MUs	557.32	340.65	340.65
4	Overall pool loss	%			
5	Overall pool loss	MUs	14.04	12.60	12.60
6	Total Energy Availability (1 + 2 +3 -5)	MUs	1303.92	1033.14	1033.14
C	**ENERGY SURPLUS/ (GAP)**	**MUs**	**0**	**0**	**0**

5.7 Fuel Cost

PDS is having 12 hydro generating stations, with a total installed capacity of 35.70MWs 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 16.03.2020, actuals furnished by PDS and the cost now approved by the Commission are given in table below.

Table 5.6 : Cost Fuel Approved by Commission during FY 2019-20

Sl. No.	Particulars	As Approved by Commission in Review Order Dated 16.03.2020	Actual As per Provisional Accounts	Now Approved by Commission
1	Cost of Fuel	**0.20**	**0.18**	**0.18**
2	**Total**	0.20	0.18	0.18

The Commission now approves the fuel cost of ₹ 0.18Crores for the FY 2019-20, as per actuals furnished by PDS.

5.8 Power Purchase Cost

The Power Purchase Cost approved by the Commission in the Review Tariff Order for the FY 2019-20, 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 Commission during FY 2019-20

Sl. No.	Particulars	As Approved by Commission in Review Order Dated 16.03.2020	Actual As per Provisional Accounts	Now Approved by Commission
1	Power Purchase Cost	269.04	282.78	282.78
2	**Total**	**269.04**	**282.78**	**282.78**

The Commission now approves power purchase cost of ₹ 282.78Crores for the FY 2019-20, as per actuals furnished by PDS.

5.9 Employee Cost

The Commission vide its Order dated 16.03.2020, had approved employee cost at ₹90.70Croresfor the FY 2019-20 only for distribution utility. The PDS has furnished actuals at ₹128.87Croresfor the FY 2019-20only for distribution utility 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 Commission during FY 2019-20

Sl. No.	Particulars	As Approved by Commission in Review Order Dated 16.03.2020	Actual As per Provisional Accounts	Now Approved by Commission
1	Employee Cost	90.27	128.87	184.10
2	**Total**	**90.27**	**128.87**	**184.10**

The Commission, now approves ₹184.10Crorestowards employee cost for the FY 2019-20.

5.10 Repair and Maintenance Expenses

The Commission vide its Order dated 16.03.2020had approved Repair &Maintenance Expenses of ₹ 23.71Croresfor the FY 2019-20only for distribution utility. The PDS has furnished actual Repair &Maintenance Expenses at ₹ 22.67Crores for the FY 2019-20only for distribution utility 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 Expense Approved by Commission during FY 2019-20

Sl. No.	Particulars	As Approved by Commission in Review Order Dated 16.03.2020	Actual As per Provisional Accounts	Now Approved by Commission
1	Repair & Maintenance Expenses	23.71	22.67	32.39
2	**Total**	**23.71**	**22.67**	**32.39**

The Commission, accordingly, now approves ₹ 32.39 Crores towards Repair & Maintenance Expenses for the FY 2019-20.

5.11 Administrative and General Expenses

The Commission vide its Order dated 16.03.2020 had approved ₹4.86 Crores towards

Administrative and General Expenses for the FY 2019-20 only for distribution utility. The PDS has furnished actuals at ₹2.34 Crores for the FY 2019-20 only for distribution utility 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 : Repair & Maintenance Expense Approved by Commission during FY 2019-20

Sl. No.	Particulars	As Approved by Commission in Review Order Dated 16.03.2020	Actual As per Provisional Accounts	Now Approved by Commission
1	Administration & General Expenses	4.86	2.34	3.33
2	**Total**	**4.86**	**2.34**	3.33

The Commission now approves ₹3.33 Crores towards Administrative& General Expenses for the FY 2019-20.

5.12 Capital Investment and Capitalisation

Capital investment and capitalisation during the FY 2019-20 approved by the Commission, vide its Order dated 16.03.2020 and actuals furnished by PDS and now approved by the Commission are furnished in table below.

Table 5.11 : Capital In Approved by Commission during FY 2019-20

Sl. No.	Particulars	As Approved by Commission in Review Order Dated 16.03.2020	Actual As per Provisional Accounts	Now Approved by Commission
1	Opening Balance of CWIP	184.81	63.3	184.81
2	Capital Investment During the Year	47.87	13.78	13.78
3	Total (1+2)	232.68	77.08	198.59
4	Capitalisation during the Year	47.96	8.12	18.5
5	**Closing Balance of CWIP (3-4)**	184.72	68.96	180.09

The Commission now approves the capital investment of ₹ 13.78Croresand capitalisation of ₹ 18.5 Crores during the FY 2019-20.

5.13 Gross Fixed Assets

In the absence of valid information regarding gross fixed assets, the Commission in its Tariff Order dated 16.03.2020, had not approved the value of gross fixed assets. The PDS in its ARR and Tariff Petition for the FY 2021-22has stated that the values of gross fixed assets are taken from the Asset Registers, as detailed in table below:

Table 5.12 : Gross Fixed Assets during FY 2019-20

Sl. No.	Particulars	Amount
1	Opening Balance	980.00
2	addition During The Year	18.50
3	**Closing Balance of CWIP (1+2)**	998.50

Commission's Analysis:

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

5.14 Depreciation

The PDS in its ARR and Tariff Petition for the FY 2021-22, has furnished actuals at ₹15.58Crores for the FY 2019-20 only for the distribution utility.

Commission's Analysis:

The Commission in its Tariff Order dated 16.03.2020 had approved a depreciation of ₹19.28Crores for the FY 2019-20 on the average GFA of ₹365.15Croresat the rate of 5.28%. Now, the PDS has stated that ₹ 18.50 Crores were capitalised during the FY 2019-20. The depreciation calculated by PDS of ₹ 25.94Crores for PDS as a whole department. Now the Commission calculated Depreciation is shown in the table below:

Table 5.13 : Gross Fixed Assets during FY 2019-20

Sl. No.	Particulars	Amount
1	Opening Balance of GFA as on 01.04.2019	368.89
2	Addition During the Year	18.50
3	Closing Balance to end of 31.03.2020(1+2)	387.39
4	Average GFA	378.14
5	Rate of Depreciation	5.28%
6	**Depreciation**	**19.97**

The Commission accordingly now approves a depreciation of ₹19.97 Crores for the FY 2019-20.

5.15 Interest and Finance Charges

The PDS in its ARR and Tariff Petition for the FY 2021-22, has not furnished interest and finance charges during the FY 2019-20.

Commission's Analysis:

The Commission in its Tariff Order dated 16.03.2020 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 2019-20.

The Commission therefore, does not consider any interest.

5.16 Interest on Working Capital

The PDS in its ARR and Tariff Petition for the FY 2021-22, has furnished Interest on Working Capital at ₹14.14Crores during the FY 2019-20.

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 1st 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 5.14 : Interest on working capital Calculated by commission for FY 2019-20

Sl. No.	Particulars	Total Cost	Working Capital & Interest
1	O & M Expenses		
a)	Employee Cost	184.1	15.34
b)	Repair & Maintenance Expenses	32.39	2.70
c)	Administration & General Expenses	3.33	0.28
2	Maintenance of Spares		
3	Receivables	532.43	88.74
4	Total		107.06
5	SBAR as on 01.04.2019		9.05%
6	**Interest on Working Capital**		9.69

Table 5.15 : Interest on working capital now approved by commission for FY 2019-20

Sl. No.	Particulars	As Approved by Commission in Review Order Dated 16.03.2020	Actual As per Provisional Accounts	Now Approved by Commission
1	Interest on Working Capital	8.08	14.14	9.69
2	**Total**			

The Commission now approves interest on working capital at ₹ 9.69 Crores for the FY 2019-20as against the ₹14.14Crores furnished by PDS.

5.17 Return on Equity

PDS has not claimed any amount towards Return on Equity for the FY 2019-20.

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.**

5.18 Non-Tariff Income

PDS has projected non-tariff income at ₹1.25 Crores during the FY2019-20.

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 ₹1.31Croresin its Tariff Orderdated16.03.2020. PDS now submits a non-tariff Income of ₹1.25 Crores as the actuals.

Table 5.16 : Non- Tariff Income approved by commission for FY 2019-20

Sl. No.	Particulars	As Approved by Commission in Review Order Dated 16.03.2020	Actual As per Provisional Accounts	Now Approved by Commission
1	Non- Tariff Income	1.31	1.25	1.25
2	**Total**	**1.31**	**1.25**	**1.25**

The Commission therefore considers ₹1.25Crorestowards Non-Tariff Income for the FY 2019-20, as per the actuals furnished by PDS.

5.19 Revenue from Existing Tariffs for the FY 2019-20

Revenue from existing tariffs approved by the Commission for the FY 2019-20 in the Tariff Order dated 16.03.2020,and actuals furnished by the PDS and now approved by the Commission are furnished in the table below.

Table 5.17 : Revenue form Sale approved by commission for FY 2019-20

Sl. No.	Particulars	As Approved by Commission in Review Order Dated 16.03.2020	Actual As per Provisional Accounts	Now Approved by Commission
1	Domestics	30.31	29.15	29.15
2	Commercial	22.21	24.77	24.77
3	Public Lighting	0.13	0.14	0.14
4	Temporary Supply	4.10	3.73	3.73
5	HT Industrial Consumers	160.22	175.60	175.60
6	LT Industrial Consumers	2.17	1.17	1.17
7	Bulk Supply	21.15	21.26	21.26
8	Outside States	236.14	110.22	110.22
9	**Total**	**476.43**	**366.04**	**366.04**

The Commission now approves revenue from existing tariff at ₹ 366.04 Crores including revenue from outside sales at ₹ 110.22 Crores for the FY 2019-20, as per the actuals furnished by PDS.

5.20 Aggregate Revenue Requirement (ARR) for the FY 2019-20

The ARR for the FY 2019-20 approved by the Commission in its Tariff Order dated 16.03.2020, actuals furnished by the PDS and now approved by the Commission are furnished in the table below.

Table 5.18 : Aggregate Revenue Requirement approved by commission for FY 2019-20

(in ₹Crores)

Sl. No.	Particulars	As Approved by Commission in Review Order Dated 16.03.2020	Actual As per Provisional Accounts	Now Approved by Commission
1	Cost of Fuel	0.2	0.18	0.18
2	Cost of Generation	18.83	24.4	0.00
3	Cost of Power Purchase	269.04	282.78	282.78
4	Employee Costs	42.6	128.87	184.1
5	Intra State Transmission Charge	90.27	54.83	0.00
6	Repair and Maintenance Expense	23.71	22.67	32.39
7	Administration and General Expenses	4.86	2.34	3.33
8	Depreciation	19.28	15.58	19.97
9	Interest Charges	0.00	0.00	0.00
10	Interest on Working Capital	8.08	14.14	9.69
11	Return on NFA/Equity	0.00	0.00	0.00
12	**Total Revenue Requirement**	**476.87**	**545.79**	**532.43**
13	Less: Non-Tariff Income	1.31	1.25	1.25
14	**Net Revenue Requirement**	**475.56**	**544.54**	**531.18**
15	Revenue from Tariff	240.3	255.83	255.83
16	Revenue from Outside State Sales	236.14	110.22	110.22
17	**Gap/(Surplus)**	**-0.88**	**178.49**	**165.13**

Provisional True up for the FY 2019-20 indicates that the revenue gap has been arrived to ₹165.13 Crores, as against ₹0.88 Crores revenue surplus approved by the Hon’ble Commission in the Tariff Order dated 16.03.2020.

6. REVIEW FOR THE FY 2020-21

6.1 Preamble

The Commission had approved the ARR and Tariffs for the FY 2020-21 in its order dated 16.03.2020 based on the projected data furnished by the PDS. Now the PDS has submitted proposals for review of the FY 2020-21 duly furnishing data based on the revised estimates for the FY 2020-21.

6.2 Energy Demand (Sales)

Vide its Tariff Order dated 16.03.2020, the Commission had approved energy sales of 425.40 MUs within the state for the FY 2020-21, as against 460.39MUs projected by PDS.The PDS in its Review Petition for the FY 2020-21 has submitted the estimated sales considering actuals 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 2020-21, estimate by PDS and approved by the Commission are shown in table below:

Table 6.1 : Energy Sale Approved by Commission for FY 2020-21

(In MUs)

Sl. No.	Consumer Category	As Approved by Commission in Order Dated 16.03.2020	Review Estimate	Now Approved by Commission
1	Domestics	125.39	113.00	98.40
2	Commercial	44.02	37.06	26.02
3	Public Lighting	0.30	0.31	0.32
4	Temporary Supply	5.17	4.00	1.92
5	HT Industrial Consumers	217.93	198.13	189.88
6	LT Industrial Consumers	5.39	5.77	1.44
7	Bulk Supply	27.19	37.06	24.54
8	**Total**	425.40	395.33	342.52

The Commission now approves energy sales for the FY 2020-21 at 342.52 MUs against 395.33 MUs projected by the PDS.

6.3 Transmission & Distribution Losses (T&D Losses)

The Commission in its order for the FY 2020-21had fixed the target of T&D Losses at 20.00%. PDS in its Review Petition for the FY 2020-21, has stated that the estimated T&D Losses during the FY 2020-21isat 26.84%.

Commission's Analysis:

The pool loss for the FY 2020-21is 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 2020-21

Sl. No.	Particulars	Units	As Approved by Commission in Order Dated 16.03.2020	Review Estimate	Now Approved by Commission
1	Own Generation	**Mus**		8.00	8.00
2	Energy Purchased form NTPC	**Mus**		481.55	481.55
3	Energy Purchased from WBSEDCL	**Mus**		48.92	48.92
4	Energy Purchased form NHPC	**Mus**		58.37	58.37
5	Energy Purchased (2+3+4)	**Mus**		588.84	588.84
6	Pool Loss	**%**		2.14	2.14
7	Pool Loss	**Mus**		12.60	12.60
8	Net Energy Available (5-7)	**Mus**		576.24	576.24
9	Energy Purchased from PTC	**Mus**		47.43	47.43
10	Energy Purchased from SPDC	**Mus**		41.53	41.53
11	UI purchased	**Mus**		20.83	20.83
12	Free Energy	**Mus**		340.65	340.65
13	**Total Energy Available at state periphery (1+8+9+10+11+12)**	**Mus**		**1034.70**	**1034.70**
14	Outside State Sale through UI/Trading	**Mus**	**746.27**	494.37	606.55
15	Net Energy Available for sale within the state (13-14)	**Mus**	**531.75**	540.33	428.15
16	Energy Sale within the State	**Mus**	425.4	395.33	342.52
17	T & D loss (15-16)	**Mus**	106.35	145.00	85.63
18	**T & D loss**	%	20.00	26.85	20.00

The Commission now approves T&D Loss for the FY 2020-21 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 4.99MWs.The Commission in its Tariff Order for the FY 2020-21had approved own generation at 12.00MUs. The PDS has revised for the FY 2020-21 and approved by the Commission are shown in table below.

Table 6.3 : Own Generation Approved by Commission for FY 2020-21

(In MUs)

Sl. No.	Stations	As Approved by Commission in Order Dated 16.03.2020	Review Estimate	Now Approved by Commission
1	Total Generation	12	8	8
2	**Total**	12	8	8

The Commission now approves Own Generation during the FY 2020-21 at 8 MUs, as per RE furnished by the PDS.

6.5 Power Purchase

The Commission in its Tariff Order dated 16.03.2020 had approved power purchase quantity at 1280.06Mus including free power quantity at 557.32MUs.The PDS has furnished RE for the FY 2020-21 at 1039.29 MUs including free power of 340.65 MUs in Review Petition for the FY 2020-21 as detailed in table below:

Table 6.4 : Power Purchase Approved by Commission for FY 2020-21

(In Mus)

Sl. No.	Particulars	As Approved by Commission in Order Dated 16.03.2020	Review Estimate	Now Approved by Commission
1	**NTPC**			
a)	FSTPP	162.51	129.28	129.28
b)	KHSTPP-I	90.80	68.39	68.39
c)	KHSTPP-II	35.44	31.34	31.34
d)	BSTPP	118.82	88.33	88.33
e)	TSTPP	155.43	136.28	136.28
f)	KBUNL	14.08	16.10	16.10
g)	DARLAPAPLI	0.00	1.48	1.48
h)	NPGCL	0.00	10.35	10.35

2	**NHPC**			
a)	RANGIT- III	4.45	4.60	4.60
b)	TEESTA – V	30.85	53.78	53.78
3	**Other Source**			
a)	PTC	32.72	47.43	47.43
b)	WBSEDCL	43.84	48.92	48.92
c)	SPDC	**33.80**	41.53	41.53
4	UI/Deviation	0.00	20.83	20.83
5	Free Power	557.32	340.65	340.65
6	**Total**	**1280.06**	**1039.29**	**1039.29**

The Commission now approves power purchase of 1039.29 MUs including free power of 340.65 MUs during the FY 2020-21.

6.6 Energy Balance

The details of energy requirement and availability projected by the PDSand approved by the Commission for the FY 2020-21 and now approved by the Commission are furnished in table below.

Table 6.5 : Energy Balance Approved by Commission for FY 2020-21

Sl. No.	Particulars	Units	As Approved by Commission in Order Dated 16.03.2020	Review Estimate	Now Approved by Commission
A.	**ENERGY REQUIREMENT**				
1	Energy Sale within the state	Mus	425.40	395.33	342.52
2	Outside State sale through UI/ Trading	Mus	746.27	494.37	606.55
3	Total Energy Sale (1 +2)	Mus	1171.67	889.70	949.07
4	Overall T & D losses	%	20.00	26.84	20.00
5	Overall T & D losses	Mus	106.35	145.00	85.63
6	Total Energy Requirement (3+5)	Mus	1278.02	1034.70	1034.70
B.	**ENERGY AVAILABILITY**				
1	Own Generation	Mus	12.00	8.00	8.00
2	Power Purchase from CGS / UI etc.	Mus	722.74	698.64	698.64
3	Free Power	Mus	557.32	340.65	340.65
4	Overall pool loss	%	2.14	2.14	2.14
5	Overall pool loss	Mus	14.04	12.60	12.60
6	Total Energy Availability (1 + 2 +3 -5)	Mus	1278.02	1034.70	1034.70
C	**ENERGY SURPLUS/ (GAP)**	Mus	**0.00**	**0.00**	**0.00**

6.7 Fuel Cost

The fuel cost approved by the Commission inTariff Order for the FY 2020-21,RE furnished by PDS and now approved by the Commission are furnished in table below.

Table 6.6 : Fuel Cost Approved by Commission for FY 2020-21

(In Mus)

Sl. No.	Particulars	As Approved by Commission in Review Order Dated 16.03.2020	Review Estimate	Now Approved by Commission
1	Cost of Fuel	0.22	0.18	0.18
2	**Total**	0.22	0.18	0.18

The Commission now approves fuel cost of ₹ 0.18 Crores for the FY 2020-21,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 2020-21, RE furnished by PDS and now approved by the Commission are furnished in table below.

Table 6.7 : Cost of Generation Approved by Commission for FY 2020-21

Sl. No.	Particulars	As Approved by Commission in Order Dated 16.03.2020	Review Estimate	Now Approved by Commission
1	Cost of Generation	19.19	19.19	19.19
2	**Total**	**19.19**	**19.19**	**19.19**

The Commission now approves cost of generation of ₹19.19 Crores for the FY 2020-21 same as approved for the FY 2020-21 in the Tariff order dated 16.03.2020, against the same projected in RE by PDS.

6.9 Power Purchase Cost

The Power Purchase Cost approved by the Commission for the FY 2020-21, RE furnished by the PDS and now approved by the Commission are furnished in table below.

Table 6.8 : Power Purchase Cost Approved by Commission for FY 2020-21

Sl. No.	Particulars	As Approved by Commission in Order Dated 16.03.2020	Review Estimate	Now Approved by Commission
1	Power Purchase Cost	291.19	296.92	296.92
2	**Total**	**291.19**	**296.92**	**296.92**

The Commission now approves the power purchase cost of ₹296.92 Crores for the FY 2020-21, 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 2020-21, RE furnished by PDS and now approved by the Commission are furnished in table below.

Table 6.9 : Intra State Transmission Charge Approved by Commission for FY 2020-21

Sl. No.	Particulars	As Approved by Commission in Order Dated 16.03.2020	Review Estimate	Now Approved by Commission
1	Intra State transmission Charge	44.51	44.51	44.51
2	**Total**	**44.51**	**44.51**	**44.51**

The Commission now approves Intra State Transmission Charges of ₹ 44.51 Crores for the FY 2020-21 same as approved for the FY 2020-21 in the Tariff order dated 16.03.2020,against the same projected in RE by PDS.

6.11 Employee Cost

The Commission in its Orderdated16.03.2020 had approved employee cost at ₹94.78Crores for the FY 2020-21 only for distribution function. The PDS has furnished RE at ₹ 112.00Crores for the FY 2019-20. The details shown in the table below:

Table 6.10 : Employee Cost Approved by Commission for FY 2020-21

Sl. No.	Particulars	As Approved by Commission in Order Dated 16.03.2020	Review Estimate	Now Approved by Commission
1	Employee Cost	94.78	112.00	112.00
2	**Total**	94.78	112.00	112.00

The Commission now approves the employee cost of ₹112 Crores for the FY 2020-21, against RE furnished by PDS of ₹112 Crores.

6.12 Repair and Maintenance Expenses

The Commission in its Order dated 16.03.2020 had approved Repair &Maintenance Expenses at ₹26.53 Crores for the FY 2020-21. The PDS has estimated at ₹22.20Croresfor the FY 2020-21and now approved by the Commission are furnished in table below.

Table 6.11 : Repair & Maintenance Expense Approved by Commission for FY 2020-21

Sl. No.	Particulars	As Approved by Commission in Order Dated 16.03.2020	Review Estimate	Now Approved by Commission
1	Repair & Maintenance Expenses	**26.53**	**22.20**	**22.20**
2	**Total**	26.53	22.20	22.20

The Commission now approves ₹22.20 Crores towards Repair & Maintenance Expenses for the FY 2020-21,as per RE furnished by PDS.

6.13 Administrative and General Expenses

The Commission in its Order dated 16.03.2020, had approved ₹ 4.86Crorestowards Administrative and General Expenses for the FY 2020-21. The PDS has furnished REat₹4.42Croresfor the FY 2020-21and now approved by the Commission are furnished in table below.

Table 6.12 : Administration & General Expense Approved by Commission for FY 2020-21

Sl. No.	Particulars	As Approved by Commission in Order Dated 16.03.2020	Review Estimate	Now Approved by Commission
1	Administration & General Expenses	4.86	4.42	4.42
2	**Total**	4.86	4.42	4.42

The Commission now approves ₹4.42 Crores towards Administrative& General Expenses for the FY 2020-21as per RE furnished by PDS.

6.14 Capital Investment and Capitalisation

Capital investment and capitalisation during the FY 2020-21 approved by the Commission in its Order dated 16.03.2020 and RE furnished by PDS and now approved by the Commission are furnished in table below.

Table 6.13 : Capital Investment and Capitalization Approved by Commission for FY 2020-21

Sl. No.	Particulars	As Approved by Commission in Order Dated 16.03.2020	Review Estimate	Now Approved by Commission
1	Opening Balance of CWIP	37.19	68.96	180.09
2	Capital Investment During the Year	19.47	49.72	49.72
3	Total (1+2)	56.66	118.68	118.68
4	Capitalisation during the Year	30.52	72.24	72.24
5	**Closing Balance of CWIP (3-4)**	**26.14**	**46.44**	**46.44**

The Commission now approves the capital investment of ₹ 49.72 Crores and capitalisation of ₹ 72.24 Crores during the FY 2020-21.

6.15 Gross Fixed Assets

In the absence of valid information regarding gross fixed assets, the Commission in its Tariff Order dated 16.03.2020, had not approved the value of gross fixed assets. The PDS in its review petition for the FY 2020-21has stated that the values of gross fixed assets have been taken from the asset registers, as detailed in table below.

Table 6.14 : Gross Fixed Assets Furnished by PDS for FY 2020-21

Sl. No.	Particulars	Amount
1	Opening Balance	992.49
2	Addition During The Year	72.24
3	**Closing Balance (1+2)**	1064.73

Commission Analysis:

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

6.16 Depreciation

The PDS in its review petition has furnished depreciation of ₹16.53Crores for the FY 2020-21.

Commission's Analysis:

The PDS has not furnished the calculation at which the amount of depreciation was arrived at. The Commission in its Tariff Order dated 16.03.2020had approved depreciation of ₹21.35Crores for the FY 2020-21 on the average GFA of ₹404.26Croresat the rate of 5.28%. As such the depreciation has been worked out accordingly as detailed in table below.

Sl. No.	Particulars	Amount
1	Opening Balance of GFA as on 01/04/2020	349.41
2	Addition During the Year	72.24
3	Closing Balance to end of 31/03/2021(1+2)	421.65
4	Average GFA	385.53
5	Rate of Depreciation	5.28%
6	**Depreciation**	**20.36**

The Commission accordingly approves depreciation at ₹20.36 Crores for the FY 2020-21.

6.17 Interest and Finance Charges

The PDS has not projected interest and finance charges during the FY 2020-21.

Commission's Analysis:

The Commission in its Tariff Order dated 16.03.2020had not approved any interest and finance charges for the FY 2020-21.PDS has not shown any loans and interest. **As such the Commission has not considered interest and finance charges during the FY 2020-21.**

6.18 Interest on Working Capital

The PDS has furnished interest on working capital at ₹13.77Croresduring 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 1st April of the financial year in which the Petition is filed.

Accordingly, the interest on working capital works out to ₹8.14Crores, as detailed in table below:

Table 6.16: Interest on Working Capital calculated by the Commission for FY 2020-21

Sl. No.	Particulars	Total Cost	Working Capital & Interest
1	O & M Expenses		
a)	Employee Cost	112.00	9.33
b)	Repair & Maintenance Expenses	22.20	1.85
c)	Administration & General Expenses	4.42	0.37
2	Maintenance of Spares		
3	Receivables	527.88	87.98
4	Total	666.50	99.53
5	SBAR as on 01.04.2020		**8.15%**
6	**Interest on Working Capital**		**8.11**

Table 6.17 : Interest on working capital now approved by commission for FY 2020-21

Sl. No.	Particulars	As Approved by Commission in Review Order Dated 16.03.2020	Review Estimate	Now Approved by Commission
1	Interest on Working Capital	8.04	13.77	8.11
2	**Total**	**8.04**	**13.77**	**8.11**

The Commission now approves interest on working capital at ₹8.11 Crores for the FY 2020-21 against the RE furnished by PDS at ₹13.77 Crores.

6.19 Return on Equity

The PDS has not projected 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 for return on equity.**

6.20 Non-Tariff Income

The PDS has furnished non-tariff income at ₹1.28 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
- Recovery 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 fixed investments and call deposits and bank balances
- Prior period Income.

Table 6.18 : Non- Tariff Income approved by commission for FY 2020-21

Sl. No.	Particulars	As Approved by Commission in Review Order Dated 16.03.2020	Review Estimate	Now Approved by Commission
1	Non- Tariff Income	**1.35**	**1.28**	**1.28**
2	**Total**	**1.35**	**1.28**	**1.28**

The Commission now approves Non-Tariff Income at ₹ 1.28 Crores for the FY 2020-21,asper the RE furnished by PDS.

6.21 Revenue from tariff for the FY 2020-21

Revenue from the tariff approved by the Commission for the FY 2020-21 in its Tariff Order dated 16.03.2020 and revised estimates furnished by the PDS and now approved by the Commission are shown in table below.

Table 6.19 : Revenue form Sale approved by commission for FY 2020-21

Sl. No.	Particulars	As Approved by Commission in Review Order Dated 16.03.2020	Review Estimate	Now Approved by Commission
1	Domestics	32.99	24.90	24.90
2	Commercial	23.04	18.11	18.11
3	Public	0.13	0.14	0.14

	Lighting			
4	Temporary Supply	3.88	4.00	4.00
5	HT Industrial Consumers	166.43	170.38	170.38
6	LT Industrial Consumers	2.18	2.95	2.95
7	Bulk Supply	17.83	30.26	30.26
8	Outside States	223.65	118.19	118.19
9	**Total**	**470.13**	**368.93**	**368.93**

The Commission approves the Revenue from Tariff at ₹368.93 Crores including Revenue from outside sales at₹470.13 Crores for the FY 2020-21.

6.22 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 16.03.2020,Revised Estimate furnished by the PDS and now approved by the Commission are furnished in table below.

Table 6.20 : Aggregate Revenue Requirement and Gap approved by Commission for FY 2020-21

(Rs. In Crores)

Sl. No.	Particulars	As Approved by Commission in Review Order Dated 16.03.2020	Review Estimate	Now Approved by Commission
1	Cost of Fuel	0.22	0.18	0.18
2	Cost of Generation	19.19	19.19	19.19
3	Cost of Power Purchase	291.19	296.92	296.92
4	Intra State Transmission Charge	44.51	44.51	44.51
5	Employee Costs	94.78	112.00	112.00
6	Repair and Maintenance Expense	26.53	22.20	20.36
7	Administration and General Expenses	4.86	4.42	4.42
8	Depreciation	21.35	16.53	16.53
9	Interest Charges	0.00	0.00	0.00
10	Interest on Working Capital	8.04	13.77	13.77
11	Return on NFA/Equity	0.00	0.00	0.00
12	**Total Revenue Requirement**	**510.67**	**529.72**	**527.88**
13	Less: Non-Tariff Income	1.35	1.28	1.28

14	**Net Revenue Requirement**	**509.32**	**528.44**	**526.60**
15	Revenue from Tariff	**246.48**	**250.74**	**250.74**
16	Revenue from Outside State Sales	**223.65**	**118.19**	**118.19**
17	**Gap/(Surplus)**	**39.19**	**159.51**	**157.67**

Review for the FY 2020-21 indicates that the revenue Gap has arrived to ₹157.67 Crores as against ₹159.51 Crores revenue deficit claimed by PDS for the FY 2020-21.

7. AGGREGATE REVENUE REQUIREMENT FOR THE FY 2021-22 to FY 2023-24COMMISSION'S ANALYSIS AND DECISIONS

7.1 Consumer Categories

The PDS was serving 118007 consumers as on 30.03.2020inits 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

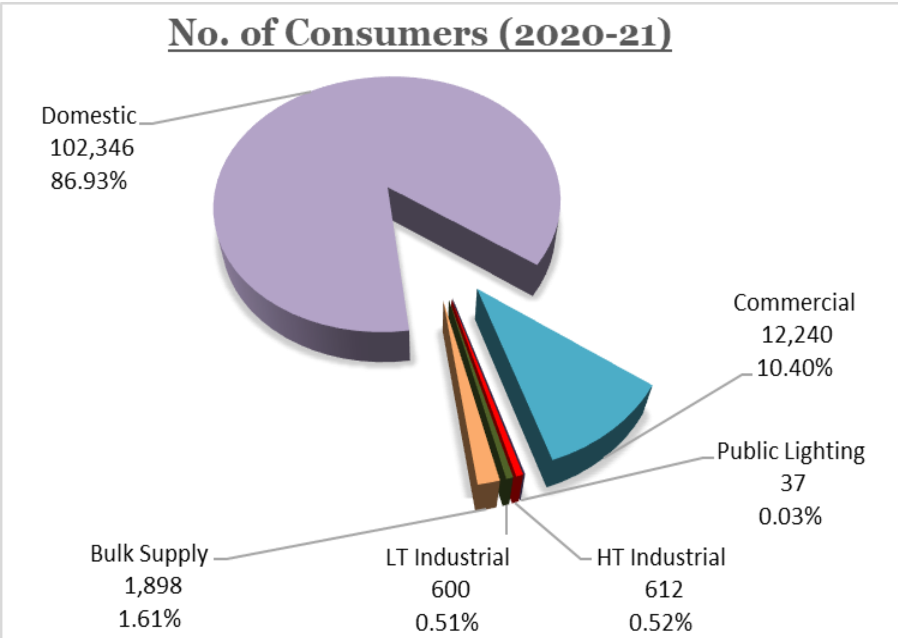
Details of the category-wise growth of consumers over the actuals during the FY 2019-20, the estimated figures for the FY 2020-21 and the projections for the FY 2021-22 to 2023-24 are furnished in table below:

Table 7.1: Projected of no. of consumers

(In No.)

Sl. No.	Category	2019-20 (Actual)	2020-21 (Estimated)	2021-22 (Projected)	2022-23 (Projected)	2023-24 (Projected)
1	Domestic	101673	102270	103486	104486	105486
2	Commercial	11827	12663	12887	13187	13487
3	Public Lighting	30	37	37	37	37
4	Temporary Supply	0	0	0	0	0
5	HT Industrial	514	524	535	545	556
6	LT Industrial	645	658	671	685	698
7	Bulk Supply	1819	1855	1892	1930	1969
8	**Total**	**116508**	**118007**	**119508**	**120870**	**122233**

Chart 7.1: No. of consumers projected by PDS for FY 2020-21



7.2 Category-wise Energy Sales

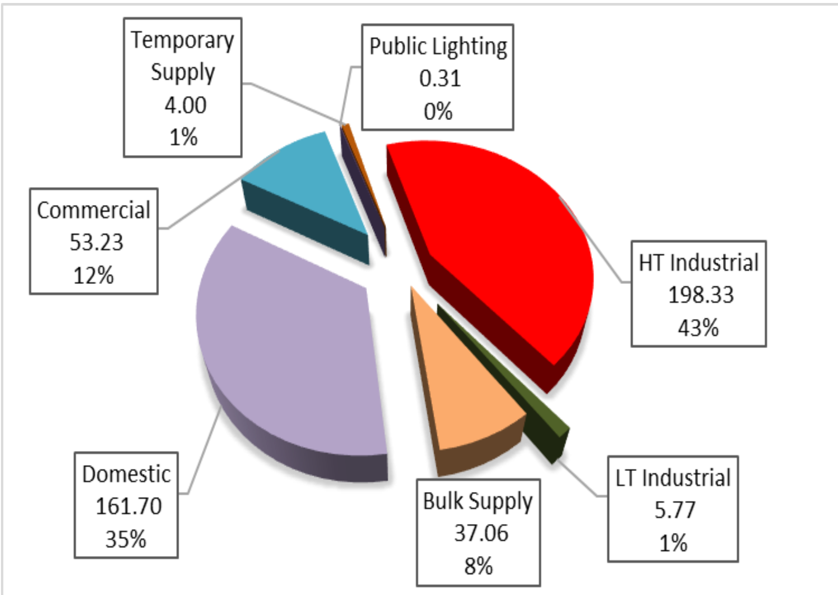
Category-wise energy sales projected energy sales to various categories of consumer for the FY 2020-21 as given in table below:

Table 7.2: Energy Sales Projected by PDS For the – FY 2021-22, FY 2022-23&FY 2023-24

(In No.)

Sl. No.	Category	2019-20 (Actual)	2020-21 (Estimated)	2021-22 (Projected)	2022-23 (Projected)	2023-24 (Projected)
1	Domestic	107.94	113.00	155.00	181.00	209.00
2	Commercial	42.05	37.06	40.34	51.00	69.00
3	Public Lighting	0.34	0.31	0.31	0.31	0.31
4	Temporary Supply	2.36	4.00	4.00	4.00	4.00
5	HT Industrial	226.64	198.13	198.61	201.33	205.00
6	LT Industrial	1.85	5.77	5.77	5.77	5.77
7	Bulk Supply	30.17	37.06	34.06	37.06	31.53
8	**Total**	**411.35**	**395.33**	**438.09**	**480.47**	**524.60**

Chart 7.2: Energy Sales projected by PDS for FY 2020-21



The PDS has projected the category-wise energy sales for the FY 2021-22 to 2023-24 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 2019-20is 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)	CAGR for 4 years from FY 2015-16 to FY 2019-20	CAGR for 3 years from FY 2016-17 to FY 2019-20	CAGR for 2 years from FY 2017-18 to FY 2019-20	CAGR for 1 years from FY 2018-19 to FY 2019-20
		(In MUs)					(In %)			
1	Domestic	74.96	96.74	98.72	107.46	107.94	9.54%	3.72%	4.57%	0.45%
2	Commercial	37.43	39.68	38.38	40.91	42.05	2.95%	1.95%	4.67%	2.79%
3	Public Lighting	0.15	0.26	0.17	0.25	0.34	22.70%	9.35%	41.42%	36.00%
4	Temporary Supply	1.16	2.92	3.38	4.69	2.36	19.43%	-6.85%	-16.44%	-49.68%
5	HT Industrial	126.3	156.16	174.43	197.67	226.64	15.74%	13.22%	13.99%	14.66%
6	LT Industrial	1.34	1.31	4.43	4.89	1.85	8.40%	12.19%	-35.38%	-62.17%
7	Bulk Supply	23.37	26.4	24.16	24.94	30.17	6.59%	4.55%	11.75%	20.97%
8	**Total**	**264.71**	**323.47**	**343.67**	**380.81**	**411.35**				

Table 7.4: Specific monthly consumption/consumer

(In Kwh)

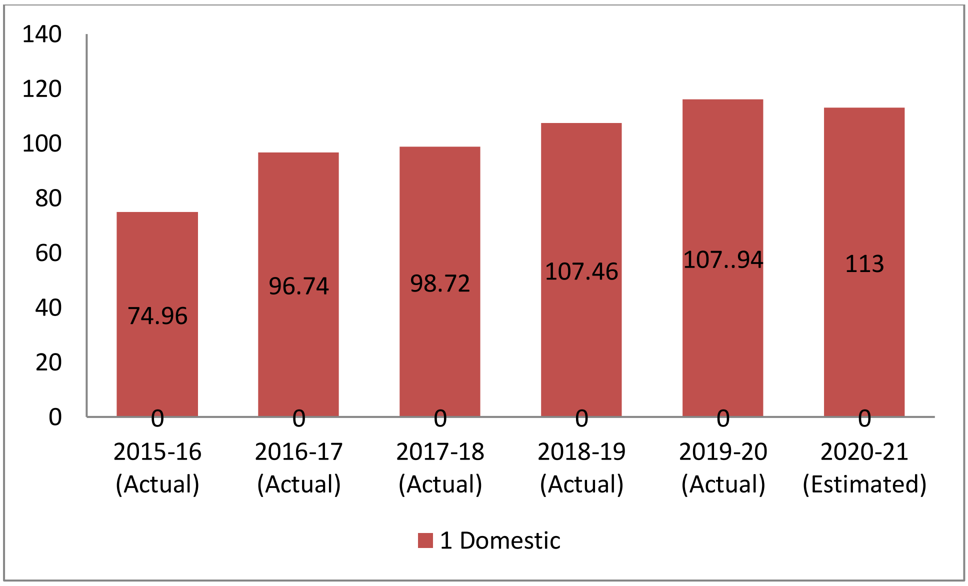
Sl. No.	Category	2019-20 (Actual)
1	Domestic	106
2	Commercial	356
3	HT Industrial	44093
4	LT Industrial	287
5	Bulk Supply	1659

The consumption of each category of consumers is discussed below, so as to arrive at a reasonable projection of energy sales for the FY 2021-22 to 2023-24.

Domestic

The PDS has projected energy sales to this category at 155 MUs, 181 MUs and 209 MUS for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively. 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 7.3: Trend of actual consumption – Domestic Category



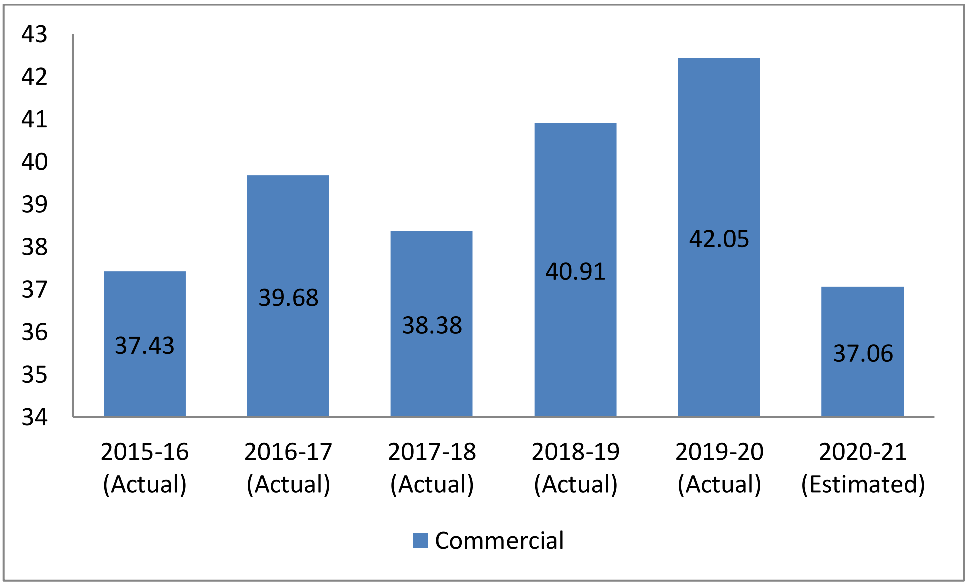
On analysis of the above trend and CAGR over different periods it is seen that the 4 years CAGR (FY 2015-16 to FY 2019-20) is 9.54%%, the 3 years CAGR (FY 2016-17 to FY 2019-20) is 3.72%%, 2 years CAGR (FY 2017-18 to FY2019-20) is 4.57% and the YoY growth (FY 2017-18 to FY 2019-20) is 0.45%. The actual specific consumption during the FY 2019-20is 106 kWh.On analysis of the above trend, the CAGR for 4 years of 9.84%% is considered reasonable & consumption work out to 129.53 MUs for the FY 2021-22, 141.89 MUs for the FY 2022-23 and 155.43 MUs for the FY 2023-24.

The Commission approves energy sales at 129.53 MUs, 141.89 MUs and 155.43 MUs for FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

Commercial

The PDS has projected energy sales to this category at 40.34 MUs, 51 MUs and 69 MUS for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively. 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 7.4: Trend of actual consumption – Commercial Category



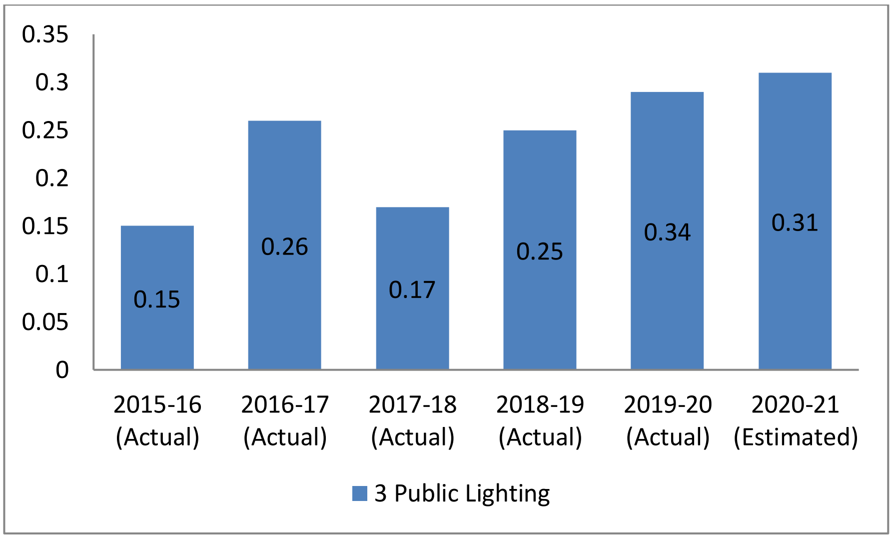
On analysis of the above trend and CAGR over different periods it is seen that the 4 years CAGR (FY 2015-16 to FY 2019-20) is 2.95%, the 3 years CAGR (FY 2016-17 to FY 2019-20) is 1.95%, 2 years CAGR (FY 2017-18 to FY 2019-20) is 4.67 % and the YoY growth (FY 2018-19 to FY 2019-20) is 2.79%. The actual specific consumption during the FY 2019-20 is 356 Kwh.On analysis of the above trend, the CAGR for 4 years of 2.95% is considered reasonable & consumption work out to 44.57 MUs for the FY 2021-22, 45.89 MUs for the FY 2022-23 and 47.24 MUs for the FY 2023-24.

The Commission approves energy sales at 44.57 MUs, 45.89 MUs and 47.24 MUs for FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

Public Lighting

The PDS has projected energy sales to this category at 0.31 MUs for the FY 2021-22to FY 2023-24. 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 7.5: Trend of actual consumption – Public Lighting Category



On analysis of the above trend and CAGR over different periods it is seen that the 4 years CAGR (FY 2015-16 to FY 2019-20) is 22.70%, the 3 years CAGR (FY 2016-17 to FY 2019-20) is9.35%, 2 years CAGR (FY 2017-18 to FY 2019-20) is 41.42% and the YoY growth (FY 2018-19 to FY 2019-20) is 36%. On analysis of the above trend, CAGR over different periods and actual consumption of 0.34 MUs in the FY 2019-20, the consumption work out to 0.41 MUs, 0.44 MUs and 0.49 MUs for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

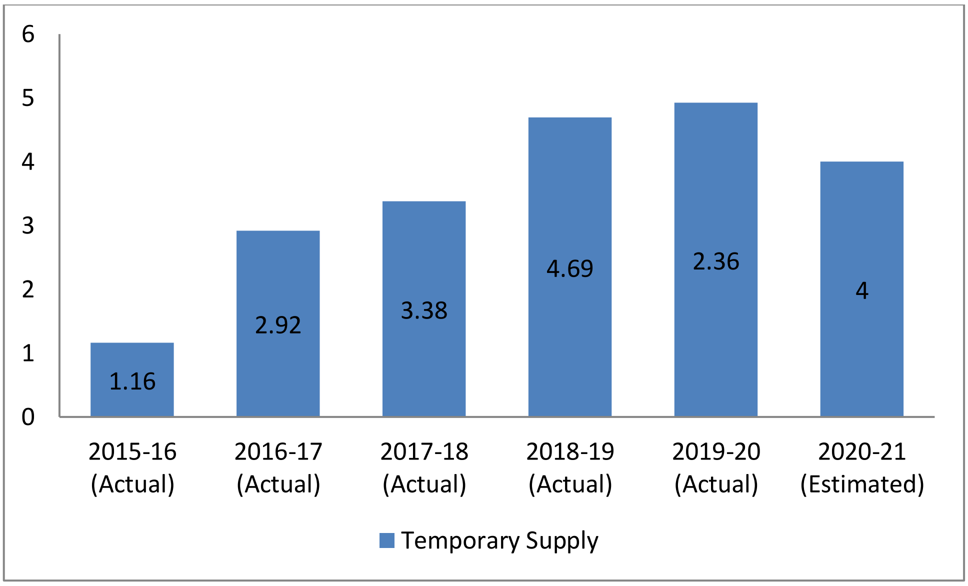
The Commission approves energy sales at 0.41 MUs, 0.44 MUs and 0.49 MUs for FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

Temporary Supply

The PDS has projected energy sales to this category at 4.00 MUs for the FY 2021-22 to

FY 2023-24. 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 7.6: Trend of actual consumption – Temporary Supply Category



On analysis of the above trend and CAGR over different periods it is seen that the 4 years CAGR (FY 2015-16 to FY 2019-20) is 19.43%, the 3 years CAGR (FY 2016-17 to FY 2019-20) is (-) 6.85 %, 2 years CAGR (FY 2017-18 to FY 2019-20) is (-) 16.44 % and the YoY growth (FY 2018-19 to FY 2019-20) is (-)49.68%. On analysis of the above trend, CAGR over different periods and actual consumption of 4.69 MUs in the FY 2019-20, the consumption work out to 2.60 MUs, 2.73 MUs and 2.87 MUs for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

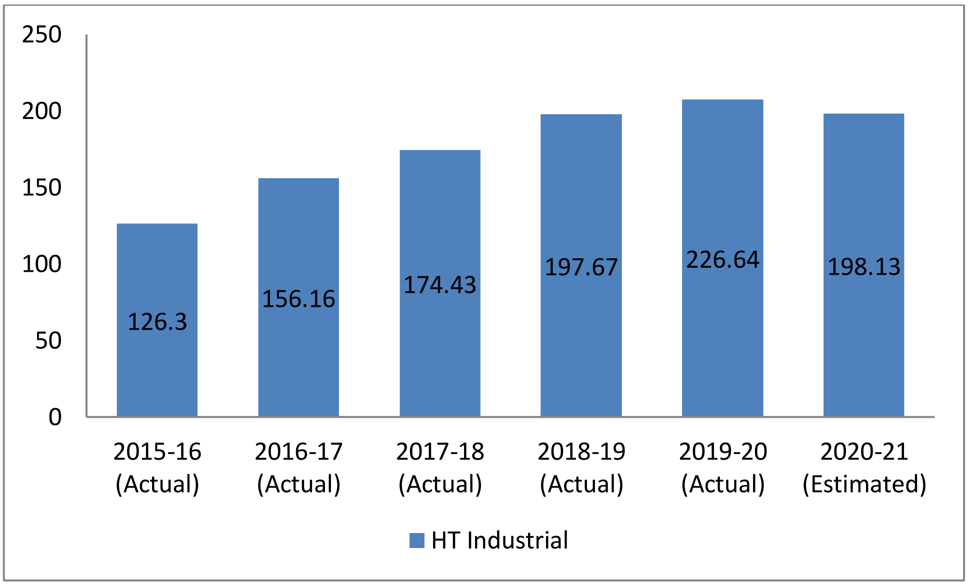
The Commission approves energy sales at 2.60 MUs, 2.73 MUs and 2.87 MUs for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

<u>HT Industrial</u>

The PDS has projected energy sales to this category at 198.61 MUs, 201.33 MUs and 205 MUs for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively. 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



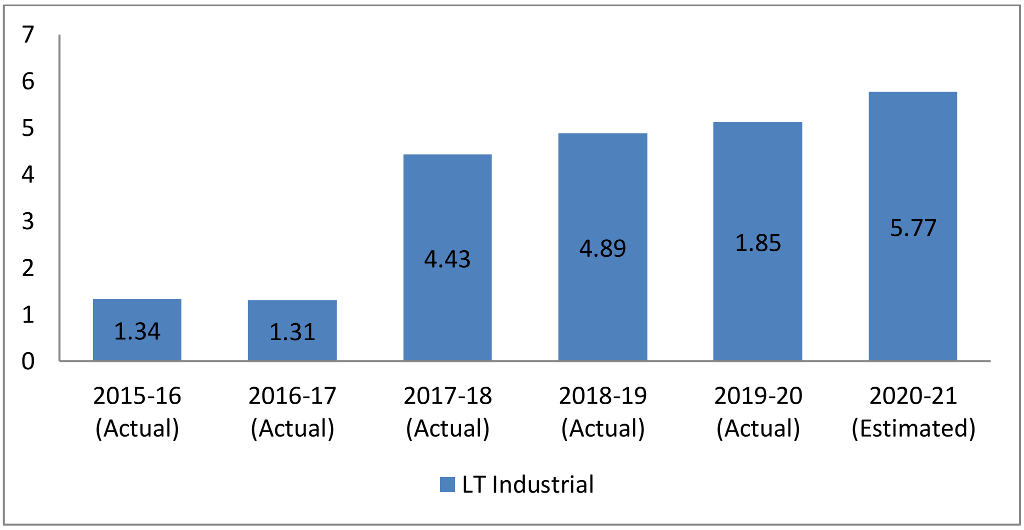
On analysis of the above trend and CAGR over different periods it is seen that the 4 years CAGR (FY 2015-16 to FY 2019-20) is 15.74%, the 3 years CAGR (FY 2016-17 to FY 2019-20) is 13.22%, 2 years CAGR (FY 2017-18 to FY 2019-20) is 13.99% and the YoY growth (FY 2018-19 to FY 2019-20) is 14.66%. The actual specific consumption during the FY 2019-20 is 44093 kWh.On analysis of the above trend, CAGR over different periods and actual consumption of 226.64 MUs in the FY 2019-20, the consumption work out to 208.04 MUs, 240.78 MUs and 278.68 MUs for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

The Commission approves energy sales 208.04 MUs, 240.78 MUs and 278.68 MUs for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

<u>LT Industrial</u>

The PDS has projected energy sales to this category at 5.77 MUs for the FY 2021-22 to FY 2023-24 respectively.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 7.8: Trend of actual consumption – LT Industrial Category



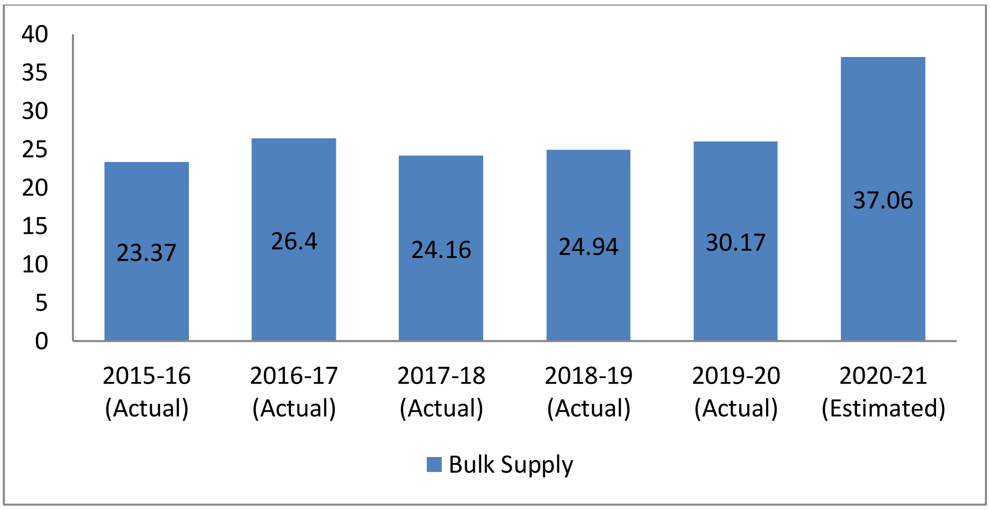
On analysis of the above trend and CAGR over different periods it is seen that the 4 years CAGR (FY 2015-16 to FY 2019-20) is 8.40%, the 3 years CAGR (FY 2016-17 to FY 2019-20) is12.19%, 2 years CAGR (FY 2017-18 to FY 2019-20) is (-) 35.38% and the YoY growth (FY 2018-19 to FY 2019-20) is (-) 62.17 %. The actual specific consumption during the FY 2019-20 is 287 kWh. On analysis of the above trend, CAGR over different periods and actual consumption of 1.85 MUs in the FY 2019-20, the consumption work out to 2.17 MUs, 2.36 MUs and2.55 MUs for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

The Commission approves energy sales at 2.17 MUs, 2.36 MUs and 2.55 MUs for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

Bulk Supply

The PDS has projected energy sales to this category at 34.06 MUs, 37.06 MUs and31.55 MUs for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively. 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 7.9: Trend of actual consumption – Bulk Supply Category



On analysis of the above trend and CAGR over different periods it is seen that the 4 years CAGR (FY 2015-16 to FY 2019-20) is 6.59%, the 3 years CAGR (FY 2016-17 to FY 2019-20) is 4.55%, 2 years CAGR (FY 2017-18 to FY 2019-20) is 11.75% and the YoY growth (FY 2018-19 to FY 2019-20) is 20.97%. The actual specific consumption during the FY 2019-20 is 1659 kWh. On analysis of the above trend, the CAGR for 4 years of 6.59% is considered reasonable & consumption work out to34.28 MUs, 36.54 MUs and38.95 MUs for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

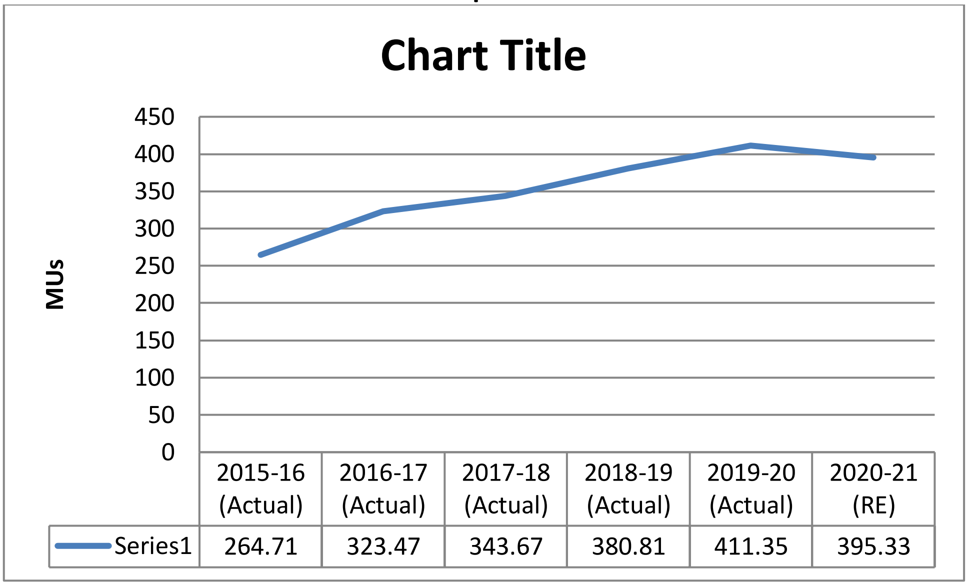
The Commission approves energy sales at 34.28 MUs, 36.54 MUs and 38.95 MUs for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

Total sales

The trend of the actual consumption within the state of Sikkim for the FY 2015-16 to FY

2019-20& RE for the 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 2021-22 , FY 2022-23 and 2023-24 is given in tablebelow:

Table 7.5: Category-wise energy sales approved by the Commission

(In MUs)

Sl. No.	Category	FY 2021-22	FY 2022-23	FY 2023-24
1	Domestic	129.53	141.89	155.43
2	Commercial	44.57	45.89	47.24
3	Public Lighting	0.41	0.44	0.49
4	Temporary Supply	2.60	2.73	2.87
5	HT Industrial	208.04	240.78	278.68
6	LT Industrial	2.17	2.36	2.55
7	Bulk Supply	34.28	36.54	38.95
8	**Total**	**421.59**	**470.63**	**526.21**

The Commission approves total energy sales within the state at 421.59 MUs, 470.63 and 526.21 MUs for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

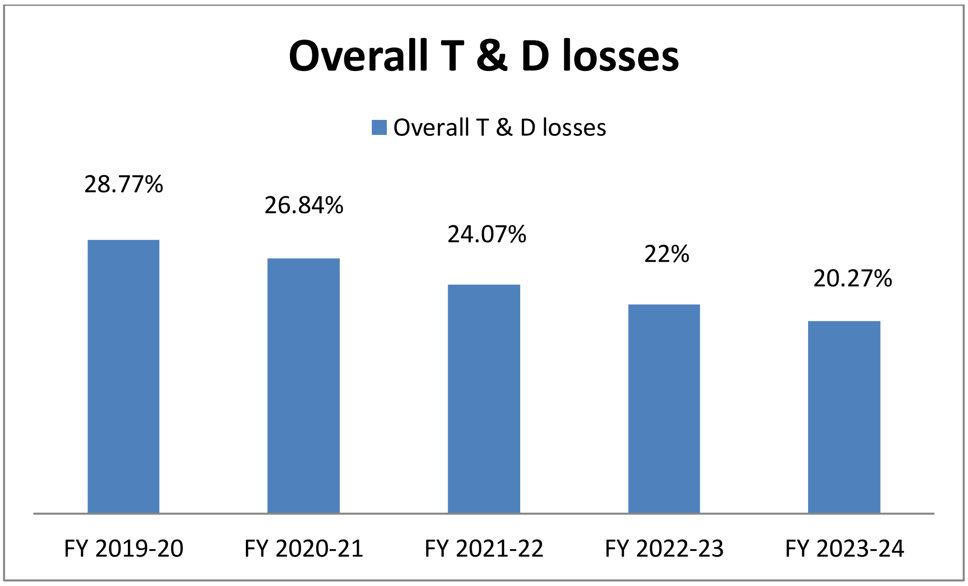
7.4 Transmission and Distribution Losses (T&D Losses)

PDS has submitted that it trying to reduce the distribution losses during recent years. PDS submits that the system improvement works executed every year under the plan schemes have also contributed to the reduction of distribution losses. However, it may also be noted that reduction of distribution losses may not be possible beyond a certain level due to topographical conditions and technical limitations. The distribution losses in the PDS distribution network have been in the range of approximately 28% to 30% in the past.PDS has planned to restrict the losses to the level of 20%-21% by the end of this control period i.e. FY 2023-24.

Commission's Analysis:

The chart below depicts the trend of actual T&D losses for the FY 2019-20 to 2023-24.

Chart 7.11: Trend of T & D Losses



During the FY 2019-20, the actual T&D Losses works out to 28.77%, while in the FY 2019-20 the T&D Losses are approved at 22.00%, as discussed in the review of the respective years. In the Tariff Order for the FY 2019-20, the T&D Losses were fixed and as per the trajectory the Commission has fixed the T&D losses at24.00%, 22.00%

& 20.00%for the FY 2018-19, FY 2019-20& FY 2020-21 respectively. However, PDS has projected T&D losses at 26.84% for the FY 2020-21 and 24.07%, 22.00% and 20.27 for FY 2021-22, FY 2022-23 and FY 2023-24 respectively. Commission observe that due to COVID, the sale and purchase has been on lower side during FY 2020-21, therefore, the Commission considered the Losses for FY 2021-22 at the same level of FY 2020-21 and considered a reeducation of 2% every year thereafter Accordingly, Approve the trajectory of loss of 20%, 18% and 16% for FY 2021-22, FY 2022-23 and FY 2023-24respectively target is considered as reasonable. PDS should take steps to keep the T&D losses as projected for the FY 2021-22 and onwards.

The Commission accordingly approves T&D Losses at 20%, 18% and 16% for FY 2021-22, FY 2022-23 and FY 2023-24 respectively. 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 Balance

Sl. No.	Particulars	Unit	FY 2021-22	FY 2022-23	FY 2023-24
1	Energy sales approved	MUs	421.59	470.63	526.21
2	T & D Losses approved	%	20.00	18.00	16.00
3	T & D Losses approved	MUs	105.40	103.31	100.23
4	Energy requirement	MUs	526.99	573.94	626.44

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
	HYDRO		
1	Lower Lhagap Hydel Power (LLHP)	2 x 6.00	Shut Down Due to 18th September 2011 Earthquake
2	Jali Power House (JPH)	6 x 0.35	Operational
3	Rimbi - I	3 x 0.20	Shut Down
4	Rimbi - II	2 x 0.05	Shut Down
5	Rohtak	2 x 0.10	Powerhouse Abandoned
6	Rongnichu	5 x 0.50	No Generation due to failure of water conductor system
7	Chaten	2 x 0.50	Powerhouse Abandoned
8	Meyungchu	2 x 2.00	Operational
9	Upper Rongnichu Hydel Project (URHP)	4 x 2.00	Project Handed Over to private party for Restoration
10	Kalez	2 x 1.00	Operational
11	Lachung	2 x 0.10	Powerhouse Abandoned
12	Rabomchu	2 x 1.50	Operational
	Diesel		
13	Diesel Power House Gangtok	4 x 1.00	Operational
14	DPH LLHP, Raniphoool	4 x 0.248	Shut Down Due to 18th September 2011 Earthquake
	Total	40.69	

The PDS has projected a generation of 10.00 MUs, 12 MUs and 14 MUs for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively from its own generating stations.

The Commission accordingly approves net own generation at 10 MUs, 12 MUs and 14 MUs from its own generating stations as projected by PDS for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively .

7.5.2 Power purchase from Central Generating Stations

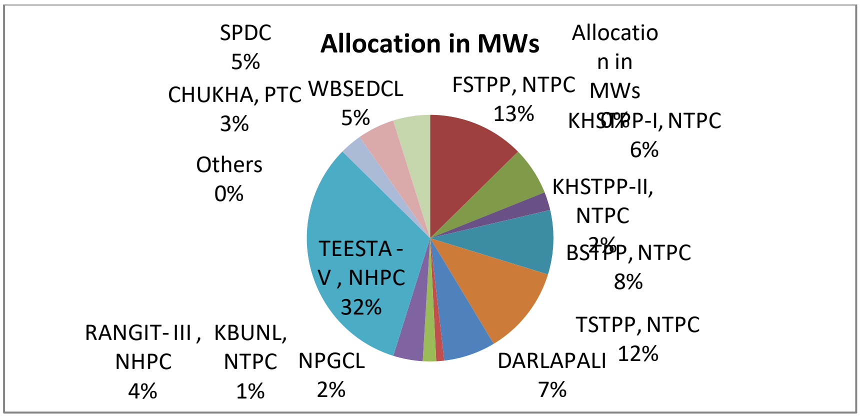
The balance energy requirement of PDS is mainly met from allocation of power from Central Stations of NTPC, NHPC and other sources such as PTC,SPDC and WBSEDCL, as detailed in table below:

Table 7.8 : Power Allocation

Sl. No.	Source	Capacity	Allocation	
		(In MWs)	(In %)	(In MWs)
	Central Sector			
1	FSTPP, NTPC	1600	1.63%	26.08
2	KHSTPP-I, NTPC	840	1.55%	13.02
3	KHSTPP-II, NTPC	1500	0.33%	4.95
4	BSTPP, NTPC	1320	1.32%	17.40
5	TSTPP, NTPC	1000	2.40%	24.00
6	DARLAPALI	1600	0.88%	14.01
7	KBUNL, NTPC	390	0.55%	2.16
8	NPGCL	1980	0.18%	3.60
9	RANGIT- III , NHPC	60	13.33%	8.00
10	TEESTA - V , NHPC	510	13.19%	67.27
	Others			
11	CHUKHA, PTC	270	2.22%	6.00
12	WBSEDCL	50	20.00%	10.00
13	SPDC	10	100.00%	10.00
	Total	**11130**		**206.49**

The chart below depicts the allocation of power from various sources:

Chart 7.12: Allocation of Power



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 hydropower stations.

The power procurement projected for the FY 2021-22, FY 2022-23 and FY 2023-24 is furnished in table below:

Table 7.9 : Power Procurement Projected

Sl. No.	Source	2019-20 (Actual)	2020-21 (Estimates)	2021-22 (Projected)	2022-23 (Projected)	2023-24 (Projected)
	Central Sector					
1	FSTPP, NTPC	129.28	129.28	129.28	129.28	129.28
2	BSTPP, NTPC	88.33	88.33	88.33	88.33	88.33
3	KHSTPP-I, NTPC	68.39	68.39	68.39	68.39	68.39
4	KHSTPP-II, NTPC	31.34	31.34	31.34	31.34	31.34
5	TSTPP, NTPC	136.28	136.28	136.28	136.28	136.28
6	DARLAPALI	1.48	1.48	1.48	1.48	1.48
7	KBNUL	16.1	16.10	16.1	16.1	16.1
8	NPGCL	10.35	10.35	10.35	10.35	10.35
9	RANGIT-III, NHPC	4.6	4.60	4.6	4.6	4.6
10	TEESTA-V, NHPC	53.78	53.78	53.78	53.78	53.78
	Others	0				
11	CHUKHA, PTC	47.43	47.43	47.43	47.43	47.43
12	WBSEDCL	48.92	48.92	48.92	48.92	48.92
13	SPDC	41.53	41.53	41.53	41.53	41.53
14	UI /over drawn (net)	20.83	20.83	20.83	20.83	20.83
15	Free Power	340.65	340.65	340.65	340.65	340.65
	TOTAL	**1039.29**	**1039.29**	**1039.29**	**1039.29**	**1039.29**

Commission's Analysis:

As seen from the power procurement projection, the PDS has projected the power drawl during the financial year at the same level of actual drawl during the FY 2019-20and estimated of the FY 2020-21 onwards.

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 7.10: Power Procurement approved by Commission

(In MUs)

Sl. No.	Source	FY 2021-22	FY 2022-23	FY 2023-24
	Central Sector			
1	FSTPP, NTPC	88.33	88.33	88.33
2	BSTPP, NTPC	129.28	129.28	129.28
3	KHSTPP-I, NTPC	68.39	68.39	68.39
4	KHSTPP-II, NTPC	31.34	31.34	31.34
5	TSTPP, NTPC	136.28	136.28	136.28
6	DARLAPALI	1.48	1.48	1.48
7	KBNUL	16.1	16.1	16.1
8	NPGCL	10.35	10.35	10.35
9	RANGIT-III, NHPC	4.6	4.6	4.6
10	TEESTA-V, NHPC	53.78	53.78	53.78
	Others			
11	CHUKHA, PTC	47.43	47.43	47.43
12	WBSEDCL	48.92	48.92	48.92
13	SPDC	41.53	41.53	41.53
14	UI /over drawn (net)			
15	Free Power	340.65	340.65	340.65
	TOTAL	**1018.46**	**1018.46**	**1018.46**

The Commission approves power procurement of 1018.46 MUs including free power of 340.65 MUs for each FY of the control period for the FY 2021-22 to FY 2023-24.

7.6 Energy requirement and availability

The energy requirement and availability projected for the FY 2021-22 to FY 2023-24 are furnished by the PDS in the table below:

Table 7.11: Energy Requirement

Sl. No.	Particulars	2019-20 (Actual)	2020-21 (Estimates)	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
A.	**ENERGY REQUIREMENT**					
1	Energy Sale within the state	411.35	395.33	438.09	480.47	524.61
2	Outside State sale through UI/ Trading	455.65	494.37	459.69	422.69	382.69
3	Total Energy Sale (1 +2)	867.00	889.70	897.78	903.16	907.30
4	Overall T & D losses	28.67	26.84	24.074	22.00	20.27
5	Overall T & D losses	166.13	145.00	138.91	135.53	133.39
6	Total Energy Requirement	1033.14	1034.70	1036.69	1038.69	1040.69
B.	**ENERGY AVAILABILITY**					
1	Own Generation	6.44	8.00	10.00	12.00	14.00
2	Power Purchase from CGS / UI etc.	698.64	698.64	698.64	698.64	698.64
3	Free Power	340.65	340.65	340.65	340.65	340.65
4	Overall pool loss	12.60	12.60	12.60	12.60	12.60
5	Total Energy Availability (1 + 2 +3 -4)	1033.14	1034.70	1036.69	1038.69	1040.69
C	**ENERGY SURPLUS/ (GAP)**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Commission's Analysis:

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

Table 7.12 : Energy Balance Approved by the Commission

Sl. No.	Particulars	Units	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
A.	**ENERGY REQUIREMENT**				
1	Energy Sale within the state	Mus	421.59	470.63	526.21
2	Overall T & D losses	%	20.00	18.00	16.00
3	Overall T & D losses	Mus	105.40	103.31	100.23
4	**Total Energy Requirement**	**Mus**	**526.99**	**573.94**	**626.44**
B.	**ENERGY AVAILABILITY**				
1	Own Generation	Mus	10.00	12.00	14.00
2	Power Purchase from CGS / UI etc.	Mus	677.81	677.81	677.81
3	Free Power	Mus	340.65	340.65	340.65
4	Overall pool loss	%	2.14	2.14	2.14
5	Overall pool loss	Mus	12.60	12.60	12.60
6	**Total Energy Availability (1 + 2 +3 -5)**	**Mus**	**1015.86**	**1017.86**	**1019.86**
C	**ENERGY SURPLUS/ (GAP)**		**488.87**	**443.92**	**393.42**

The energy balance approved for a surplus energy of 488.87 MUs, 443.92 MUs, 393.42 MUs for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

7.7 Aggregate Revenue Requirement

The PDS has projected Aggregate Revenue Requirement at₹543.03 Crores, ₹570.25 Crores and ₹598.79 Crores for the FY 2021-22, FY 2022-23 and FY 2023-24 as detailed in table below:

Table 7.13 : Aggregate Revenue Requirement Projected by PDS

(Rs. Crores)

Sl. No.	Particulars	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
1	Cost of Fuel	0.18	0.18	0.18
2	Cost of Generation	22.3	22.79	23.31
3	Cost of Power Purchase	311.76	327.35	343.72
4	Employee Costs	105.34	111.66	118.36
5	Repair and Maintenance Expense	22.02	23.34	24.74
6	Administration and General Expenses	3.49	3.7	3.93
7	Depreciation	16.96	17.17	17.25
8	Interest Charges	0.00	0.00	0.00
9	Interest on Working Capital	14.09	14.84	15.62
10	Return on NFA/Equity	0	0	0
11	Transmission Charge (Intra State)	48.18	50.55	53.04
12	**Total Revenue Requirement**	**544.333**	**571.58**	**600.14**
13	Less: Non-Tariff Income	1.30	1.33	1.35
14	**Net Revenue Requirement**	**543.03**	**570.25**	**598.79**

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

7.8 Fuel Cost

The PDS has projected fuel cost at ₹ 0.18 Crores for the FY of the control period

The Commission approves fuel cost at ₹ 0.18 Crores for the control period,as projected by PDS.

7.9 Cost of Generation

The PDS has projected Cost of Generationat₹22.30Crores, ₹22.79 Crores and ₹23.31 Crores for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively. The details of expenses projected by the PDS are furnished in table below:

Table 7.14 : Cost of Generation Projected by PDS

(Rs. Crores)

Sl. No.	Particulars	FY 2021-21 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
1	Cost of Generation	22.30	22.79	23.31

Commission's Analysis:

The Commission approved the Cost of Generation for the FY of control period, as detailed in table below.

Table 7.15 : Cost of Generation Approved by Commission

(Rs. Crores)

Sl. No.	Particulars	FY 2021-21	FY 2022-23	FY 2023-24
1	Cost of Generation	22.30	22.79	23.31

The Commission therefore approves the Cost of Generation at ₹ 22.30 Crores, ₹22.79 Crores and ₹ 23.31 Crores for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

7.10 Power Purchase Cost

PDS has furnished actual power purchase cost including inter State Transmission charges, as shown in table below:

Table 7.16 : Actual Power Purchase Cost Furnished by PDS for FY 2019-20

Sl. No.	Source	Energy Received (Mus)	Variable Cost (Rs./ Unit)	Total Variable Cost	Total Fixed Cost	Others	Cost of Power (Rs. In Crore)	Unit Cost (Rs. / KWH)
1	**NTPC**							
a)	BSTPP	88.33		22.46	28.83	-0.89	50.40	5.71
b)	FSTPP	129.28		32.69	19.28	4.03	56.00	4.33
c)	KHSTPP-I	68.39		15.41	9.33	-0.88	23.86	3.49
d)	KHSTPP-II	31.34		6.69	3.79	-0.57	9.91	3.16
e)	TSTPP	136.28		27.75	14.04	0.41	42.20	3.10
f)	DARLPALI	1.48		0.18	1.3	0	1.48	10.00
g)	KBUNL	16.1		4.3	4.01	1.52	9.83	6.11
h)	NPGCL	10.35		2.13	3.65	-0.02	5.76	5.57
	Total	**481.55**		**111.61**	**84.23**	**3.6**		
2	**NHPC**							
a)	RANGIT- III	4.6		0.85	0.92	0.07	1.84	4.00
b)	TEESTA – V	53.78		3.62	3.61	1.21	8.43	1.57
	Total	**58.38**		**4.47**	**4.53**	**1.28**		
3	**Other Source**							
a)	PTC	47.43					10.53	2.22
b)	WBSEDCL	48.92					6.26	1.28
c)	SPDC	41.53					16.1	3.88
4	**Other Charge**							
	Transmission & Other Charges						23.15	
5	UI/Deviation	20.83					13.63	6.54
6	Free Power	340.65					0	
7	Rebate/ Other Charges						3.39	
8	**Total**	**1039.29**	**0**	**116.08**	**88.76**	**4.88**	**282.78**	

Power Purchase Cost projected for the FY 2021-22, FY 2022-23 and FY 2023-24

The PDS has projected a power purchase cost at₹311.75 Crores, ₹327.35 Crores and ₹343.72 Crores including inter-state transmission charges FY 2021-22, FY 2022-23 and FY 2023-24. Free power is projected at 340.65 MUs. The details are furnished in the table below:

Table 7.17 : Power Purchase Cost Projected by PDS 2021-22

Sl. No.	Source	Energy Received (Mus)	Unit Cost (Rs. / KWH)	Cost (Rs in Crore
1	**NTPC**			
	BSTPP	88.33	6.29	55.56
	FSTPP	129.28	4.78	61.74
	KHSTPP-I	68.39	3.85	26.31
	KHSTPP-II	31.34	3.49	10.93
	TSTPP	136.28	3.41	46.53
	DARLPALI	1.48	11.01	1.63
	KBUNL	16.1	6.74	10.85
	NPGCL	10.35	6.14	6.35
2	**NHPC**			
	RANGIT- III	4.6	4.41	2.03
	TEESTA – V	53.78	1.73	9.30
3	**PTC**			
	PTC	47.43	2.45	11.60
4	**Other Source**			
	WBSEDCL	48.92	1.41	6.90
	SPDC	41.53	4.27	17.75
	UI/Deviation	20.83	7.21	15.02
5	**Total Energy Purchased**	**698.64**		**282.50**
6	Rebate/ Other Charges			3.73
7	REC Purchase			
8	Transmission & Other Charges			25.52
9	Total	**698.64**		**311.76**

Table 7.18 : Power Purchase Cost Projected by PDS 2022-23

Sl. No.	Source	Energy Received (Mus)	Unit Cost (Rs. / KWH)	Cost (Rs in Crore
1	**NTPC**			
	BSTPP	88.33	6.60	58.34
	FSTPP	129.28	5.01	64.83
	KHSTPP-I	68.39	4.04	27.63
	KHSTPP-II	31.34	3.66	11.48
	TSTPP	136.28	3.58	48.85
	DARLPALI	1.48	11.55	1.71
	KBUNL	16.1	7.07	11.39
	NPGCL	10.35	6.44	6.67
2	**NHPC**			
	RANGIT- III	4.6	4.63	2.13
	TEESTA – V	53.78	1.81	9.76
3	**PTC**			
	PTC	47.43	2.57	12.19
4	**Other Source**			
	WBSEDCL	48.92	1.48	7.25
	SPDC	41.53	4.49	18.64
	UI/Deviation	20.83	7.57	15.77
5	**Total Energy Purchased**	**698.64**		**296.64**
6	Rebate/ Other Charges			3.92
7	REC Purchase			
8	Transmission & Other Charges			26.8
9	Total	**698.64**		327.35

Table 7.19 : Power Purchase Cost Projected by PDS 2023-24

Sl. No.	Source	Energy Received (Mus)	Unit Cost (Rs. / KWH)	Cost (Rs in Crore
1	**NTPC**			
	BSTPP	88.33	6.94	61.26
	FSTPP	129.28	5.27	68.07
	KHSTPP-I	68.39	4.24	29.01
	KHSTPP-II	31.34	3.84	12.05
	TSTPP	136.28	3.76	51.30
	DARLPALI	1.48	12.09	1.79
	KBUNL	16.1	7.43	11.96
	NPGCL	10.35	6.77	7.01
2	**NHPC**			
	RANGIT- III	4.6	4.87	2.24
	TEESTA – V	53.78	1.91	10.25
3	**PTC**			
	PTC	47.43	2.70	12.79
4	**Other Source**			
	WBSEDCL	48.92	1.56	7.61

	SPDC	41.53	4.71	19.57
	UI/Deviation	20.83	7.95	16.56
5	**Total Energy Purchased**	**698.64**		**311.47**
6	Rebate/ Other Charges			4.11
7	REC Purchase			
8	Transmission & Other Charges			28.14
9	Total	**698.64**		343.72

Commission Analysis:

As seen from the above, the PDS has claimed the power purchase cost for the FY 2021-22, FY 2022-23 and FY 2023-24 at the escalation of 5.00% year over year where the base rate as actually paid during the FY 2019-20. The Commission has considered the power purchase cost at the escalation of 5.00% year over year where the base rate as the station-wise average rate on the basis of the bill for the month of April, 2020 to December 2020 to compute the power purchase cost for the FY 2021-22 to FY 2023-24. Accordingly, the power purchase cost for the FY of control period is worked out, as detailed in table below.

The PDS has projected cost of ₹15.02Crores, ₹15.77 Crores and ₹ 16.56 Crores under UI/deviation. The Commission has not considered the same asthere is surplus power. The Commission has not considered ₹3.73 Crores, ₹3.92 Crores, and ₹4.11 Crores for the FY 2021-22 to FY 2023-24 under Rebate/Other Charges as projected by PDS.If there is need for such, the same would be considered at the time of True up.

As per the SSERC(Renewable Energy Purchase Obligation and Its Compliance) (First Amendment) Regulations, 2017,the applicable RPO levels for the FY 2020-21 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:

Sl. No.	Source	FY 2021-22	FY 2022-23	FY 2023 - 24
1	RANGIT- III , NHPC	4.6	4.6	4.6
2	TEESTA - V , NHPC	53.78	53.78	53.78
3	CHUKHA, PTC	47.43	47.43	47.43
4	RAMMAM, WBSEDCL	48.92	48.92	48.92
5	SPDC	41.53	41.53	41.53
6	EPDS	10.00	10	10
7	FREE POWER	340.65	340.65	340.65
8	**TOTAL Hydro Generation Available (including Free Power)**	**546.91**	**542.31**	**542.31**
9	**Total Consumption including T & D Loss**	526.99	573.94	626.44
10	**Excess Hydro Generation available (including Free Power)**	19.92	-31.63	-84.13

The table also shows that the PDS is complying the RPO requirement for the FY 2021-22. However, the power procurement projection for the FY 2021-22 to FY 2023-24 shows that there is no provision for procurement of power from solar sources. Further, On 8th March 2019, the Government of India had issued an order detailing various policy measures to promote hydro power sector in India inter-alia declaring large hydropower projects including pumped storage projects having capacity of more than 25 MW (LHPs) which come into commercial operation after 8.03.2019 as renewable energy sources and to specify hydropower purchase obligation (HPO) within Non-Solar Renewable Purchase Obligation (RPO). In super-session of orders dated 22.07.2016 and 14.07.2018, the Ministry of Power, GoI, vide its order dated 29th January 2021 specified the HPO i.e. 0.18% for 2021-22, 0.35% for FY 2022-23 and 0.66% for FY 2023-24. Therefore, PDS has to make efforts for developing solar sources & procuring power from solar sources and meet the HPO. The detail of Power Purchase quantum and cost approved by the Commission is given in the Table below:

Table 7.20 : Power Purchase Cost Approved by Commission FY 2021-22

Sl. No.	Source	Energy Received (Mus)	Unit Cost (Rs. / KWH)	Total cost
1	**NTPC**			
	BSTPP	88.33	5.20	45.95
	FSTPP	129.28	4.52	58.44
	KHSTPP-I	68.39	3.88	26.57
	KHSTPP-II	31.34	3.48	10.91
	TSTPP	136.28	3.05	41.54
	DARLPALI	1.48	6.62	0.98
	KBUNL	16.10	5.62	9.05
	NPGCL	10.35	5.16	5.34
2	**NHPC**			0.00
	RANGIT- III	4.60	4.14	1.90
	TEESTA – V	53.78	2.34	12.60
3	**PTC**			0.00
	PTC	47.43	2.52	11.96
4	**Other Source**			0.00
	WBSEDCL	48.92	1.34	6.57
	SPDC	41.53	4.20	17.44
	UI/Deviation			
5	**Total Energy Purchased**	**677.81**		**249.26**
6	Transmission & Other Charges			28.75
7	**Total**	**677.81**		**278.01**

Table 7.21 : Power Purchase Cost Approved by Commission FY 2022-23

Sl. No.	Source	Energy Received (MUs)	Unit Cost (Rs. / Kwh)	Unit Cost (Rs. / Kwh)
1	**NTPC**			
	BSTPP	88.33	5.46	48.25
	FSTPP	129.28	4.75	61.37
	KHSTPP-I	68.39	4.08	27.90
	KHSTPP-II	31.34	3.66	11.46
	TSTPP	136.28	3.20	43.61
	DARLPALI	1.48	6.95	1.03
	KBUNL	16.10	5.90	9.51
	NPGCL	10.35	5.42	5.61
2	**NHPC**			
	RANGIT- III	4.60	4.35	2.00
	TEESTA – V	53.78	2.46	13.23
3	**PTC**			
	PTC	47.43	2.65	12.56
4	**Other Source**	0.00	0.00	0.00
	WBSEDCL	48.92	1.41	6.90
	SPDC	41.53	4.41	18.31
	UI/Deviation			
5	**Total Energy Purchased**			**261.73**
6	Transmission & Other Charges			30.19
7	**Total**			**291.91**

Table 7.22 : Power Purchase Cost Approved by Commission FY 2023-24

Sl. No.	Source	Energy Received (MUs)	Unit Cost (Rs. / KWH)	Unit Cost (Rs. / KWH)
1	**NTPC**			
	BSTPP	88.33	5.74	50.66
	FSTPP	129.28	4.98	64.44
	KHSTPP-I	68.39	4.28	29.29
	KHSTPP-II	31.34	3.84	12.03
	TSTPP	136.28	3.36	45.79
	DARLPALI	1.48	7.30	1.08
	KBUNL	16.10	6.20	9.98
	NPGCL	10.35	5.69	5.89
2	**NHPC**	0.00	0.00	0.00
	RANGIT- III	4.60	4.56	2.10
	TEESTA – V	53.78	2.58	13.89
3	**PTC**	0.00	0.00	0.00
	PTC	47.43	2.78	13.19
4	**Other Source**	0.00	0.00	0.00
	WBSEDCL	48.92	1.48	7.25
	SPDC	41.53	4.63	19.23
	UI/Deviation			
5	**Total Energy Purchased**	**677.81**		**274.81**
6	Transmission & Other Charges			31.70
7	**Total**	**677.81**		**306.51**

The Commission approves the power purchase cost at ₹278.01 Crores, ₹291.91 Crores and ₹306.51Crores including transmission charges for FY 2021-22, FY 2022-23 and FY 2023-24.

7.11 Intra State Transmission Charges

The PDS has projected Intra State Transmission Chargesat₹48.18Crores, ₹50.55 Crores and ₹53.04 Crores for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively. The details of expenses projected by the PDS are furnished in the table below:

Table 7.23: Intra State Transmission Charge Projected by PDS

(Rs. Crores)

Sl. No.	Particulars	FY 2021-21 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
1	Intra State Transmission Charge	48.18	50.55	53.04

Commission's Analysis:

The Commission approved the Intra State Transmission Charges for the FY 2021-22, FY 2022-23 and FY 2023-24 as projected by the PDS, as detailed in table below.

Table 7.24 : Intra State Transmission Charge approved by the Commission

(Rs. Crores)

Sl. No.	Particulars	FY 2021-21	FY 2022-23	FY 2023-24
1	Intra State Transmission Charge	48.18	50.55	53.04

The Commission therefore approves the Intra State Transmission Charges at ₹48.18Crores,₹50.55 Crores and ₹53.04 Crores for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

7.12 Employee Cost

PDS has furnished the total strength of employees in the table below:

Table 7.25 : Employee Strength

(Rs. Crores)

Sl. No.	Particulars	FY 2019-20 (Actual)	FY 2020-21 (Estimated)	FY 2021-21 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
1	No. of Employees	4276.00	4615.00	4845.00	5089	5345

Employee productive parameters as shown below:

Table 7.26 : Employee Productive Parameters

Sl. No.	Particulars	FY 2019-20 (Actual)	FY 2020-21 (Estimated)	FY 2021-21 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
1	Number of Consumers	116508	118007	119508	120870	122233
2	Number of Employees	4276	4615	4845	5089	5345
3	Energy Sold within State in MU	411.35	395.33	421.59	470.63	526.21
4	Employees per MU of energy Sold	10.40	11.67	11.49	10.81	10.16
5	Employees for1000 Consumers	36.70	39.11	40.54	42.10	43.73

PDS has projected employee cost for the FY 2021-22 as shown in the table below:

Table 7.27 : Employee Cost Furnished by PDS

(Rs. Crores)

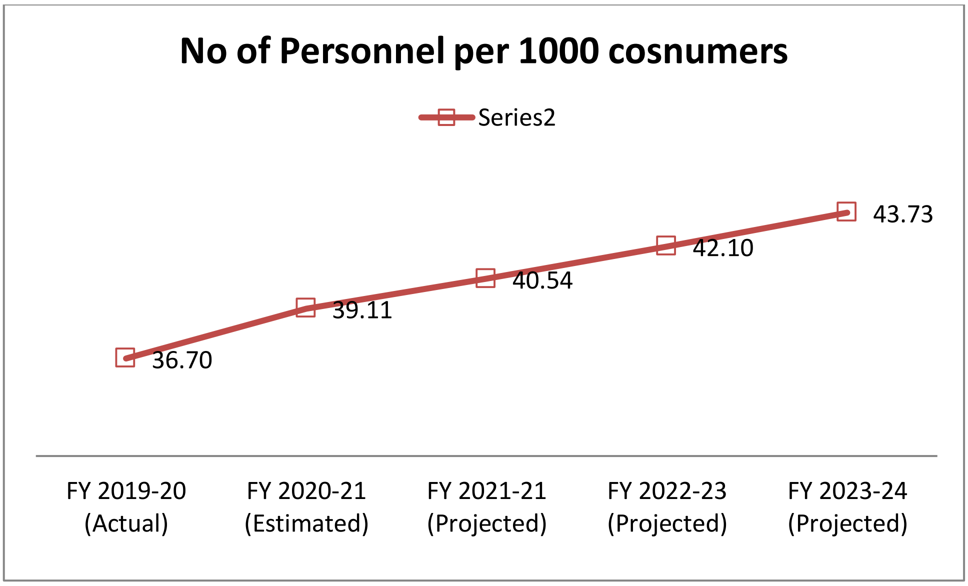
Sl. No.	Particulars	FY 2021-21 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
1	Employees Expense	105.34	111.66	118.36

PDS has stated that employee cost include salaries, allowances, Bonus,Leave Travel Concession (LTC) & Honorarium etc. Employee Cost have been estimated based on the actual of the FY 2019-20. Employee Cost for the FY 2021-22 onwards is projected by escalating the cost of FY 2019-20 by 6%.

Commission's Analysis:

PDS has furnished actuals for the FY 2019-20 in the Format prescribed. The employee's productivity parameters over 5 years are provided below:

Chart 7.13: Number of personnel per 1000 consumers



It is observed that PDS has projected to increase the number of personnel per 1000 consumers FY 2019-20 onwards. Further, the PDS should take steps for rationalization & effective utilization of its manpower.

The Commission has considered all the factors, the employee cost are approved by the Commission for the FY 2021-22 to FY 2023-24as shown in table below.Further, the Commission directs PDS to furnish the details of Employee Cost at the time of Review & True-up.

Table 7.28 : Employees Cost Approved by Commission

(Rs. Crores)

Sl. No.	Particulars	FY 2021-22	FY 2022-23	FY 2023-24
1	Employees Expenses	105.34	111.66	118.36

The Commission therefore approves the employee cost at ₹105.34Crores, ₹111.66 Crores and ₹118.36 Crores as projected by the PDS for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively. The above Employee Expenses are approved only for Distribution Function.

7.13 Administrative and General Expenses

The PDS has projected Administrative and General Expenses at₹3.49Crores, ₹3.70 Crores and ₹3.93 Crores for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively. The Administrative and General Expenses include Computerization, Communication, Rent, Rates and Taxes, Travelling& Conveyance expenses, Insurance, Telephone and Postage expenses, Electricity and Water charges, Technical and Consultancy fee, freight and notional related expenses etc.The details of expenses projected by the PDS are furnished in the table below:

Table 7.29 : Administration and General Expenses Projected by PDS

(Rs. Crores)

Sl. No.	Particulars	FY 2021-21 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
1	Administration & General Expense	3.49	3.70	3.93

Commission's Analysis:

The Commission has considered all the factors, the A&G expenses are approved by the Commission for the FY 2021-22 to FY 2023-24 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 7.30 : Administration and General Expenses Approved by Commission

(Rs. Crores)

Sl. No.	Particulars	FY 2021-21	FY 2022-23	FY 2023-24
1	Administration & General Expenses	3.49	3.70	3.93

The Commission therefore approves the Administrative and General Expenses at ₹ 3.49 Crores, ₹ 3.70 Crores and ₹ 3.93 Crores for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively as projected by the PDS for the FY 2021-22 to FY 2023-24. The above Administrative and General Expenses are approved only for Distribution Function.

7.14 Repairs and Maintenance Expenses

The PDS has projected at ₹22.02Crores, ₹23.34 Crores and ₹24.74 Crores for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively 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 7.31 : Repair & Maintenance Expenses Projected by PDS

(Rs. Crores)

Sl. No.	Particulars	FY 2021-21 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
1	Repair &Maintenance Expense	22.02	23.34	24.74

Commission's Analysis:

The Commission has considered all the factors, the Repair and Maintenance Expenses are approved by the Commission for the FY 2021-22 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 7.32 : Repair & Maintenance Expenses Approved by Commission

(Rs. Crores)

Sl. No.	Particulars	FY 2021-21	FY 2022-23	FY 2023-24
1	Repair &Maintenance Expense	22.02	23.34	24.74

The Commission therefore approves the Repair and Maintenance Expenses at ₹22.02 Crores, ₹23.34 Crores and ₹24.74 Crores for the FY 2021-22, FY 2022-23 and FY 2023-24. The above Repair and Maintenance Expenses are approved only for Distribution Function.

7.15 Capital Investment

The PDS has proposed aCapitalInvestmentof₹7.00Crores, ₹5.18 Crores and ₹0.00 Crores during the FY 2021-22.The Capital Investment had projected by the PDS for the FY 2021-22to 2023-24,is furnished in the table below:

Table 7.33 : Investment Plan Projected by PDS

(Rs. Crores)

Sl. No.	Particulars	FY 2021-21 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
1	Schemes Sanctioned under MDs	2.00	2.24	0
2	Building/Up gradation of Transformer			
3	R- APDRP	0	0	0
4	NEC Scheme	5	2.94	0
5	NLCPR Schemes	0	0	0
6	State Share of NEC/NLCPR Schemes	0	0	0
7	CSS Schemes	0	0	0
8	RGGVY	0	0	0
9	Deen Dayal Upadhya Gram Jyoty Yojana (DDUGJY)	0	0	0
10	Integrated Power Dev. Scheme (IPDS)	0	0	0
11	State Share For Integrated Power Dev. Scheme (IPDS)	0	0	0
12	Land Compensation	0	0	0
13	Others	0	0	0
14	**Grand Total**	**7.00**	**5.18**	**0.00**

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

Table 7.34 : Work in Progress

(Rs. Crores)

Sl. No.	Particulars	FY 2021-21 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
1	Opening Balance	46.44	20.91	10.21
2	Add: New Investments	7.00	5.18	0
3	**Total (1+2)**	**53.44**	**26.09**	**10.21**
4	Less : Investment Capitalized	32.53	15.88	6.21
5	**Closing Balance (3-4)**	**20.91**	**10.21**	**4.00**

Commission's Analysis:

As seen from the above, the PDS has projected a capital investment of ₹7.00 Crores, ₹5.18 Crores and ₹0.00 Crores for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively. Further, the PDS has projected a capitalization of ₹32.53 Crores, ₹15.88 Crores and ₹6.21 Crores for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively.It is showing that the Petitioner has not submitted the detailed investment plan and cost benefit analysis of the schemes envisaged during the period. Regulation 25 & 26of SSERC (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2020, provides as follows:

"Capital Cost

25. Capital Cost

25.1 Capital cost to be allowed by the Commission for the purpose of determination of tariff for Generating Company, Transmission Licensee and Distribution Licensee for their respective businesses will be based on the capital investment plan prepared by the Generating Company, Transmission Licensee or Distribution Licensee.

25.2 Capital cost for a project shall include: (a) The expenditure incurred or projected to be incurred, including interest during construction and financing *charges, any gain or loss on account of foreign exchange rate variation on the loan during construction up to the date of commercial operation of the project, as admitted by the Commission after prudence check; (b) capitalized initial spares subject to the ceiling rates specified in these Regulations; and (c) additional capitalization determined under Regulation 26: Provided that the assets forming part of the project but not put to use or not in use, shall be taken out of the capital cost.*

25.3 The capital cost admitted by the Commission after prudence check shall form the basis for determination of tariff: Provided that prudence check may include scrutiny of the reasonableness of the capital expenditure, financing plan, interest during construction, use of efficient technology, cost over-run and time over-run, and such other matters as may be considered appropriate by the Commission for determination of tariff.

25.4 The approved Capital Cost shall be considered for determination of tariff and if sufficient justification is provided for any escalation in the Capital Cost, the same may be considered by the Commission subject to the prudence check: Provided that in case the actual capital cost is lower than the approved capital cost, then the actual capital cost will be considered for determination of tariff of the Generating Company or Transmission Licensee or Distribution Licensee.

25.5 The actual capital expenditure on date of completion, for the original scope of work based on audited accounts of the Company, limited to original cost, may be considered subject to the prudence check by the Commission.

25.6 Where the power purchase agreement or bulk power transmission agreement provides for a ceiling of capital cost, the capital cost to be considered shall not exceed such ceiling.

25.7 The capital cost may include capitalized initial spares: (a) Upto 2.5% of original capital cost in case of coal based/lignite fired generating stations; (b)

Upto 4.0% of original capital cost in case of gas turbine/combined cycle generating stations; (c) Upto 1.5% of original capital cost in case of hydro-generating stations; and (d) Upto 1.5% of original capital cost in case of Transmission Licensee and Distribution Licensee.

25.8 The amount of any contribution or deposit made by the consumers and Government grant, towards works for connection to the distribution system or transmission system of the Distribution Licensee or Transmission Licensee, shall be deducted from the original cost of the project for the purpose of calculating the amount under debt and equity under Regulation, 28.

25.9 Any expenditure on replacement, renovation and modernization or extension of life of old fixed assets, as applicable to Generating Company, Transmission Licensee and Distribution Licensee, shall be considered after writing off the net value of such replaced assets from the original capital cost and will be calculated as follows:

Net Value of Replaced Assets = OCFA – AD – CC;

Where; OCFA : Original Capital Cost of Replaced Assets;

AD : Accumulated depreciation pertaining to the Replaced Assets;

CC : Total Consumer Contribution pertaining to the Replaced Assets

26. Additional Capitalization

26.1 The following capital expenditure, actually incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to the prudence check: (a) Due to Un-discharged liabilities within the original scope of work; (b) On works within the original scope of work, deferred for execution; (c) To meet award of arbitration and compliance of final and unappeasable order or decree of a court arising out of original scope of works; (d)

On account of change in law; (e) On procurement of initial spares included in the original project costs subject to the ceiling norm laid down in Regulation 25.7; (f) Any additional works/services, which have become necessary for efficient and successful operation of a generating station or a transmission system or a distribution system but not included in the original capital cost:

Provided that original scope of work along with estimates of expenditure shall be submitted as a part of Business Plan: Provided further that a list of the deferred liabilities and works deferred for execution shall be submitted along with the application for final tariff after the date of commercial operation of the generating Unit/Station or transmission system or distribution system. Provided further that the assets forming part of the project but not put to use shall not be considered. 26.2 Impact of additional capitalization on tariff, as the case may be, shall be considered during Truing Up of each financial year of the Control Period.

As required above the petitioner is directed to provide the scheme wise details as required along with cost benefit analysis and approvals with future filings. Further, the petitioner has not submitted the basis of the capex and capitalization considered for FY of control period. The petitioner is directed to submit the same &scheme wise detailed breakup for the ensuing year as well as for the past FY with next filings.

In view of the above the Commission provisionally approves the capital investment and capitalization as projected by the PDS for the FY 2021-22 to FY 2023-24.

7.16 Gross Fixed Assets (GFA)

The PDS has stated that the opening GFA for the FY 19-20 has been taken from the assets register as on 31.03.2020 and the same has been increased by estimated addition during FY 2020-21. Thereafter, planned additions during 2021-22,FY 2022-23 & FY 2023-24 have been considered and accordingly, GFA has been computed for FY 2021-22, FY 2022-23 & FY 2023-24, as detailed in the table below:

Table 7.35 : Gross Fixed Assets Movement

(Rs. Crores)

Sl. No.	Particulars	FY 2021-21 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
1	Opening Balance	672.63	705.16	721.05
2	Add: New Investments	32.53	15.88	6.21
3	**Closing Balance (3-4)**	**705.16**	**721.05**	**727.26**

Commissions Analysis:

In the absence of audited accounts the opening GFA as on 01.04.2020, furnished by the PDS cannot be taken into consideration for the purpose of allowing depreciation or return on equity etc.

7.17 Depreciation

The PDS has projected depreciation of ₹16.96Crores, ₹17.17 Crores and ₹17.25 Crores for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively. 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 7.36 : Depreciation Projected by PDS

(Rs. Crores)

Sl. No.	Particulars	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
1	Depreciation	16.96	17.17	17.25

Commission's Analysis:

As discussed earlier, the depreciation on the opening GFA cannot be considered. The Commission has approved the Depreciationof₹25.35 Crores, ₹26.63 Crores and ₹27.21 Crores for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively as detailed in the table below:

Table 7.37 : Depreciation approved by Commission

(Rs. Crores)

Sl. No.	Particulars	FY 2021-21	FY 2022-23	FY 2023-24
1	Opening GFA	421.65	454.18	470.06
2	Addition during the Year	32.53	15.88	6.21
3	Closing GFA	454.18	470.06	476.27
4	Average GFA	437.915	462.12	473.165
5	Rate of Depreciation	5.28	5.28	5.28
6	**Depreciation**	**23.12**	**24.40**	**24.98**

The Commission therefore approves the Depreciation at ₹ 23.12 Crores, ₹ 24.40 Crores and ₹ 24.98 Crores for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively. The above Depreciation are approved only for Distribution Function.

7.18 Interest and Finance Charges

The PDS has not projected interest and finance charges during the FY 2021-22 to FY 2023-24.

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 2021-22 to FY 2023-24.**

7.19 Interest on Working Capital

The PDS has projected interest on working capital on normative basis as per 32.3 of SSERC(Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2020, on requirement of:

- Operation & maintenance expenses for one month; plus

- Maintenance spares at one (1) per cent of the historical cost escalated at 6% from the date of commercial operation; plus
- Receivables equivalent to two (2) months of the expected revenue from charges for use of Distribution Wires at the prevailing tariffs; minus month Repair &Maintenance Cost and
- 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.

The rate of interest on working capital has been considered as per State Bank Advance Rate (SBAR)as on 1st April of the respective year i.e. 01.04.2020.

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

Table 7.38 : Interest on Working Capital Projected by PDS

(Rs. Crores)

Sl. No.	Particulars	FY 2021-21 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
1	O & M Expenses for 1 month	10.90	11.56	12.25
2	Maintenance Spares @ 1% plus Escalation @ 6% per annum	7.84	8.47	9.04
3	Receivable equivalent to 2 month's Revenue	90.5	95.04	99.8
4	**Total Working Capitals**	**109.24**	**115.07**	**121.09**
5	Less : Security Deposit of Consumers	0	0	0
6	**Net Working Capital**	**109.24**	**115.07**	**121.09**
7	SBI Advance Rate	12.90	12.90	12.90
8	**Interest on Working Capital**	**14.09**	**14.84**	**15.62**

Commission's Analysis:

As per Regulation as per 32.3 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,not withstanding 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 7.39 : Interest on Working Capital Approved by Commission

(Rs. Crores)

Sl. No.	Particulars	FY 2021-21	FY 2022-23	FY 2023-24
1	O & M Expenses for 1 month	10.90	11.56	12.25
2	Maintenance Spares @ 1% plus Escalation @ 6% per annum	4.38	4.62	4.73
3	Receivable equivalent to 2 month's Revenue	84.99	89.37	93.86
4	**Total Working Capitals**	100.28	105.55	110.84
5	Less : Security Deposit of Consumers			
6	**Net Working Capital**	100.28	105.55	110.84
7	SBI Advance Rate	7.30	7.30	7.30
8	**Interest on Working Capital**	**7.32**	**7.71**	**8.09**

The Commission approves the Interest on Working Capital at ₹7.32Crores, ₹7.71 Crores and ₹8.09 Crores for the FY 2021-22, FY 2022-23 & FY 2023-24 respectively. The above Interest on Working Capital are approved only for Distribution Function.

7.20 Return on Equity

The PDS has not projected Return on Equity during the FY 2021-22 to FY 2023-24.

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.**

7.21 Provision for Bad Debts

The PDS has not claimed any provision for bad debts during the FY 2021-22 to FY 2023-24.

7.22 Non-Tariff Income

The PDS has projected a Non-Tariff Income₹1.30 Crores, ₹1.33 Crores and FY ₹1.35 Crores for the FY 2021-22, FY 2022-23 and FY 2023-24.

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) Regulations, 2020, non-tariff income comprises of:

- Income from rent of land or buildings;
- Income from sale of scrap;
- Income from statutory investments;
- Interest on delayed or deferred payment on bills;
- Interest on advances to suppliers/contractors;
- Rental from staff quarters;
- Rental from contractors;
- Income from hire charges from contactors and others;
- Income from advertisements, etc.;
- Meter/Metering equipment rentals;
- Revenue from late payment charges;
- Recovery for theft and pilferage of energy
- Miscellaneous receipts;
- Interest on advances to suppliers;
- Excess found on physical verification;
- Prior period income.

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 ₹1.30 Crores, ₹1.33 Crores and ₹1.35 Crores.

The Commission approves the Non-Tariff Income at ₹ 1.30 Crores, ₹ 1.33 Crores and FY ₹ 1.35 Crores for the FY 2021-22, FY 2022-23 and FY 2023-24, as projected by the PDS.

7.23 Revenue from Existing Tariff

The PDS has projected revenue from sale of energy with existing tariff at ₹260.56Crores, ₹277.73 Crores and ₹289.89 Crores within the states for the FY 2021-22, FY 2022-23 and FY 2023-24. Further, the PDS has projected revenue from outside state sale at ₹121.78 Crores, ₹125.28 Crores and ₹128.61 Crores for the FY 2021-22, FY 2022-23 and FY 2023-24.

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 7.40 : Revenue at Existing Tariff as approved by Commission

Sl. No.	Particulars	FY 2021-22
1	**Total Sales within the State**	**259.32**
2	Sale outside State	146.66
3	**Total Sales (1+2)**	**405.98**

The Commission approves revenue from sale of energy with existing tariff at ₹259.32Crores on sale of 421.59 MUs within the state at an average rate of ₹6.15/kWh & ₹146.66 Crores on sale of 488.87 MUs from outside State sale at an average rate of ₹3.00/kWh for the FY 2021-22.

7.24 Aggregate Revenue Requirement (ARR) and Gap

The Aggregate revenue requirement and gap projected by PDS for the FY 2021-22, FY 2022-23 and FY 2023-24is furnished in table below.

Table 7.41 : Aggregate Revenue Requirement Projected by PDS

Sl. No.	Particulars	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
1	Cost of Fuel	0.18	0.18	0.18
2	Cost of Generation	22.3	22.79	23.31
3	Cost of Power Purchase	311.76	327.35	343.72
11	Intra State Transmission Charge	48.18	50.55	53.04
4	Employee Costs	105.34	111.66	118.36
5	Repair and Maintenance Expense	22.02	23.34	24.74
6	Administration and General Expenses	3.49	3.7	3.93
7	Depreciation	16.96	17.17	17.25
8	Interest Charges	0.00	0.00	0.00
9	Interest on Working Capital	14.09	14.84	15.62
10	Return on NFA/Equity	0	0	0
12	**Total Revenue Requirement**	**544.32**	**571.58**	**600.15**
13	Less: Non-Tariff Income	1.30	1.33	1.35
14	**Net Revenue Requirement**	**543.02**	**570.25**	**598.80**
15	Revenue from Tariff	260.56	277.73	289.89
16	Revenue from Outside State Sales	121.78	125.28	128.61
17	**Gap (14-15-16)**	**160.68**	**167.24**	**180.29**
18	Additional Revenue from proposed	11.54	13.06	15.33
19	Net Gap	149.14	154.18	164.96

Based on the approvals of the above projections, the ARR and Gap of PDS for the FY 2021-22, FY 2022-23 and FY 2023-24 works out as detailed in table below:

Table 7.42 : Aggregate Revenue Requirement Approved by the Commission

Sl. No.	Particulars	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
1	Cost of Fuel	0.18	0.18	0.18
2	Cost of Generation	22.30	22.79	23.31
3	Cost of Power Purchase	278.01	291.91	306.51
4	Intra State Transmission Charge	48.18	50.55	53.04
5	Employee Costs	105.34	111.66	118.36
6	Repair and Maintenance Expense	22.02	23.34	24.74
7	Administration and General Expenses	3.49	3.70	3.93

8	Depreciation	23.12	24.40	24.98
9	Interest Charges	0.00	0.00	0.00
10	Interest on Working Capital	7.32	7.71	8.09
11	Return on NFA/Equity	0.00	0.00	0.00
12	**Total Revenue Requirement**	**509.97**	**536.24**	**563.14**
13	Less: Non-Tariff Income	1.3	1.33	1.35
14	**Net Revenue Requirement**	**508.67**	**534.91**	**561.79**
15	Revenue from Tariff	259.32	286.03	312.87
16	Revenue from Outside State Sales	146.66	133.18	118.03
17	**Gap (14-15-16)**	**102.69**	**115.70**	**130.90**

Accordingly, the Commission approves the Aggregate Revenue Requirement at ₹ 508.67 Crores, ₹ 534.91 Crores and ₹ 561.79 Crores for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

7.25 Revenue Gap for the FY 2021-22, FY 2022-23 and FY 2023-24

Based on the Aggregate Revenue Requirement and revenue from existing tariffs for FY 2021-22, FY 2022-23 and FY 2023-24 the resultant GAP is as shown in the table below.

Table 7.43 : Approved Revenue at Existing Tariff & Gap

Sl. No.	Particulars	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
1	**Net Revenue Requirement**	508.67	534.91	561.79
2	Revenue from Tariff	259.32	286.03	312.87
3	Revenue from Sale Outside the State	146.66	133.18	118.03
4	**GAP**	**102.69**	**115.70**	**130.90**
5	Energy Sale within the State	421.59	470.63	526.21
6	Energy Sale Outside the State	488.87	443.92	393.42
7	**Average Cost of Supply Rs/ kWh**	**5.59**	**5.85**	**6.11**

The Revenue gap of ₹ 102.69Croreshas been arrived at on the basis of the approved data for the FY 2021-22. The Revenue Gap is about 20% of the net Revenue Requirement. The average cost of supply for the FY 2021-22 is ₹5.59/kWh & average revenue from tariff is ₹4.46/kWh. The average revenue gap is ₹1.13/kWh.

The Commissions of the view that the PDS shall 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.

7.26 Recovery of Revenue Gap for the FY 2021-22

As seen from para7.25 above, there is a revenue gap of ₹102.69Croresduring the FY 2021-22 which is 20% of net ARR for the FY 2021-22.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, economic and financial well-being of the public at large as well as the viability and growth of 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 to revise the tariffs without giving tariff shock to consumers. Owing to revision of tariffs, the PDS is not expected to get additional revenue detailed in table below:

Table 7.44 : Revenue from Revised Tariff Approved by the Commission

Sl. No.	Particulars	Sales (in MUs)	Proposed Revenue
		MUs	Rs In Crore
1	**Domestic (DLT)**		
a)	Up to 50 Units	40	4.01
b)	51 to 100 Units	33	6.69
c)	100 to 200 Units	28	8.52
d)	200 to 400 Units	14	4.97
e)	401 & above	13	5.35
	Total		**29.54**
2	Commercial		
a)	Up to 50 Units	10	2.98
b)	51 to 100 Units	9	3.77
c)	100 to 200 Units	8	3.87
d)	200 to 400 Units	7	3.98
e)	401 & above	11	6.83
	Total		**21.43**
3	Public Lighting		
a)	Rural Areas	0.12	0.05
b)	Urban Areas	0.28	0.14
	Total		**0.19**
4	**Temporary**	2.60	2.60
5	**Industrial**		
A	HT		
a)	HT (AC) above 3.3 KV		
a)	Upto 100 KVA	39.80	24.30
b)	100-250 KVA	37.71	28.99
c)	250-500 KVA	51.96	44.40
d)	500KVA and Above	78.56	82.87
	Total HT		**180.56**
B	**LT (Rural)**		
a)	Up to 500 Units	1.56	0.56
b)	501-1000 Units	0.00	0.00
c)	1001 & Above	0.55	0.32
	Total		**0.88**
C	**LT(Urban)**		
a)	Up to 500 Units	0.00	0.00
b)	501-1000 Units	0.00	0.00
c)	1001 & Above	0.06	0.04
	Total		**0.04**
6	**BULK SUPPLY**		
a)	LT	3.54	3.39
b)	HT	30.74	18.70
	Total		**22.09**
7	**Grand Total**	**421.59**	**257.34**

The Commission has decided to reduce the tariff of LT (Rural & Urban) and Bulk Supply, whereas PDS proposal of increase in tariff of HT Industrial category has been considered, further the gap which the PDS shall meet by improving internal efficiency.

The Commission, accordingly, approves revenue from revised tariffs at ₹ 257.34 Crores with the energy sales of 421.59 MUs.The Revenue gap after tariff Revision will be ₹104.66 Crores for the FY 2021-22.

8. DIRECTIVES AND ADVISORIES

Introduction

The Hon'ble Commission in its Tariff Order dated 16th March, 2020 for the FY 2020-21 had issued a number of directives and advisories for compliance by the PDS. The directives and advisories were issued by the Commission with the aim and objective of not only improving the overall performance and efficiency of the department but also to ensure that the quality of service to the consumers improves in the long run. The advisories and directives were issued with the sole intention that the Department would slowly but steadily be able to improve its financial health and reduce the revenue gap in the future.

This section of the Tariff Order deals with the different directives issued by the Hon'ble Commission and status of compliance of the directives by the PDS, the views/comments of Commission on the past directives and fresh directives for compliance.

Directives issued in the FY 2016-17 Tariff Order

Directive 1: Improving Own Generation

The own generation form 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:

The department has initiated a proposal to identify a technical partner in Public-Private Partnership mode (PPP) for renovation, operation & maintenance of the State owned power houses wherein the technical partner will be investing the required funds for renovation, operation & maintenance of the State owned power houses. In PPP mode State will be entitled to receive free power.

Commission's comments:

The Hon'ble Commission welcomes the step initiated by the Department and opines that brining in a partner for handing the operation and maintenance of the ailing projects, with no investment by the Department will go a long way in improving both the generation and revenue inflow from the projects. However the Commission feels that the Department should not linger or delay the identification of the technical partner and prompt decision must be taken in this regard. The Department is directed to furnish the status of the identification of the technical partner within a period of thirty days to the Commission.

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:

Department is taking action as per the directives of the Commission.

Commission's comments:

The Commission reiterates the directive and directs the Department to submit the details of the action taken by the Department within a period of thirty days to the

Commission.

Directive 6: Energy Audit

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

Compliance:

Advice of the Hon’ble Commission is noted please.

Commission’s comments:

The Commission reiterates the directive and directs the Department to take immediate action for compliance of the directive.

<u>Directives issued in the FY 2017-18 Tariff Order</u>

Directive 1: Solar Rooftop Projects

The PDS is directed to submit the status of the master plan/proposal prepared/proposal already approved and sanctioned by the Government of India for implementation of Roof Top Solar Projects in Private and Government Buildings in the State along with the details of capacity anticipated and area of roof top available within a period of two months from the date of this order.

Compliance:

The ECBC rule has been notified please.

Commission’s comments:

The Commission is happy to note the steps taken by the Department.

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 DarlipalliII,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 takes note of the efforts made by the Department and advises the Department to continue approaching the Ministry of Power, Government of India

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 ECBC rule has been notified please.

Commission's comments:

The Commission is of the view that notification of rules alone is not sufficient and immediate action needs to be taken for timely development of solar power in the State. The Ministry of Power, Government of India has revised not only the RPO targets (both solar and non solar RPO) but also introduced Hydro Purchase Obligation (HPO) vide its order dated 29th January 2021. For meeting the revised solar RPO for the F.Y 2019-20 to F.Y 2021-22 and the HPO beginning the F.Y 2021-22 to F.Y 2029-30 , the Department has to take tangible action. If the Department and the SREDA is unable to develop solar power to fulfill the RPO, the Department will be bound to purchase RECs. Therefore the Commission advises the Department and the SREDA to take tangible action towards development of solar power in the State.

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 30th 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 30th April of every year.

Compliance:

Advice of the Hon'ble Commission is noted please.

Commission's comments:

The Commission reiterates the directive and calls upon the Power Department to make the CGRFs fully functional in all the four districts immediately. Further the Department is directed to create awareness among the consumers and general public about the functioning and role of the CGRFs through print and electronic media.

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, 2019-20 and 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:

DRAWL OF HYDRO POWER FOR THE STATE OF SIKKIM.

Sl No	NAME OF PLANT	2017-18(MU)	2018-19(MU)	2019-20(Mu)
1	Rangit III	43.86	44.58	46.08
2	Teesta V	356.67	341.19	352.93
3	Chukha	37.29	32.72	37.04
4	Rammam	23.96	43.84175	45.25
5	Sikkim Power Development Corporation (SPDC)	26.35	33.83	41.41

6	Power Department	11.25	7.41	6.45
7	Jorethang Loop	48.71	49.12	48.55
8	Dikchu	45.76	53.914	56.6
9	Tashiding	8.8	53.088	56.26
	TOTAL	602.65	659.693	690.57
	Power injection in MUs	509.64	548.03	577.15

Since the power injection to the state is less as compared to the drawl, hence no RPO is required.

Commission's comments:

The Ministry of Power, Government of India has revised the RPO trajectory vide its order dated 29th January 2021 for the F.Y 2019-20 to FY 2021-22. In view of the said order , the Power Department is directed to ensure that the RPO compliance is in-line with the trajectory given by the Government of India.

<u>Fresh Directives for F.Y 2021-22</u>

Information on RPO/HPO Compliance

The Power Department is directed to create a separate page in its official website to 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.

Introduction of Direct Benefit Transfer

In order to prevent and curtail the revenue losses, especially in the rural areas, where the State Government is proving free electricity upto 100 units, the Department is directed to introduce 'Direct Benefit Transfer" 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.

9. TARIFF PRINCIPLES AND DESIGN

9.1 Background

(a) The Commission in determining the revenue requirement of PDS for the ARR and retail tariff for the FY 2021-22 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 1st 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 multiyear 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.The PDS had filed its petition before the Hon'ble Commission for the FY 2019-20 as per the MYT Regulation, 2013 and the Commission issued the MYT Order on 28th March, 2018. Now, the PDS had filed its petition before the Hon'ble Commission for the FY 2021-22 to 2023-24 as per the MYT Regulation, 2020.

(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 a 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 ± 20% of the average cost of supply. The road map would have intermediate milestones, based on the approach of a gradual reduction in Cross subsidy.

For example, if the average cost of service is ₹3.00 per unit, at the end of year 2019-20, the tariff for the Cross subsidized categories excluding those referred to in para-1 above should not be lower than ₹ 2.40 per unit and that for any of the Cross subsidizing categories should not go beyond ₹3.60 per unit.

(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 endeavors that 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 2021-22 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 2021-22

Sl. No.	Particulars	Existing	Proposed
		Rate (Rs)	Rate (Paisa/kWh)
1	**Domestic (DLT)**		
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
	Total		
2	Commercial		
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
	Total		
3	Public Lighting		
a)	Rural Areas	400	300
b)	Urban Areas	500	500
	Total		
4	**Temporary**	1000	1000
5	**Industrial**		
A	HT		
a)	HT (AC) above 3.3 KV		
a)	Upto 100 KVA	500	520
b)	100-250 KVA	550	570

c)	250-500 KVA	600	620
d)	500KVA and Above	650	670
	Total HT		
B	**LT (Rural)**		
a)	Up to 500 Units	450	360
b)	501-1000 Units	600	440
c)	1001 & Above	650	580
	Total		
C	**LT(Urban)**		
a)	Up to 500 Units	650	530
b)	501-1000 Units	700	620
c)	1001 & Above	800	715
	Total		
6	**BULK SUPPLY**		
a)	LT	700	650
b)	HT	700	660

(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.: MYT/2020-21/P-01/PDS 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 2021-22

Sl No.	Category of Consumers	Monthly Minimum Charges (₹/consumer)		Demand Charges (₹/KVA/Month)		Proposed Energy Charges (Paisa/Kwh)
1	**Domestic**					
a)	Up to 50 units	Single Phase– 50 3 Phase-200		…….		100
b)	51 to 100 units					200
c)	101-200 units					300
d)	201 to 400 units					350
e)	401 & above					400
2	**Commercial**			Rural	Urban	
a)	Up to 50 units	Single Phase–200 3 Phase-500		60**	100**	300
b)	51 to 100 units					400
c)	101 to 200 units					500
d)	201 to 400 units					600
e)	401 & above					630
3	**Public lighting**					
	Rural Areas					400
	Urban Areas					500
4	**Industrial**					
A	HT(AC) above 3.3 KV	………				
a)	Up to 100 KVA			200		520
b)	101 - 250 KVA			250		570
c)	251- 500 KVA			290		620
d)	501 KVA & above			560		670
B	**LT (Rural)**	<45KW	>45kW			
a)	Up to 500 units	500/ Month	120/ KVA/ Month	60**		360
b)	501 - 1000 units					440
c)	1001 & above					580
C	**LT (Urban)**	<45KW	>45kW	100**		
a)	Up to 500 units	500/ Month	200/ KVA/ Month			530
b)	501 - 1000 units					620
c)	1001 & above					715
5	**Bulk supply**	<45KW	>45kW	………		
a)	LT	500/ Month	150/ KVA/Month			550
b)	HT	500/ Month	150/ KVA/Month			550

****For those establishments whose sanctioned load is more than 25KVA and does not have independent transformer but run their unit though shared transformer.**

Details are given in tariff schedule in the Appendix.

This order shall come into force from 01.04.2021 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. MYT/2020-21/P-01/PDS stands disposed of.

(N. R. Bhattarai)

Chairperson

Place: Gangtok

Date: 26.02.2021

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

Sl 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 &Maintenance 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 21-22

(In Crore.)

Sl No.	Particulars	Approved Cost	Wire Business	Retail Supply Business
1	Cost of Fuel	0.18	-	0.18
2	Cost of Generation	22.30	-	22.30
3	Cost of Power Purchase	278.01	-	278.01
4	Intra State Transmission Charge	48.18	48.18	-
5	Employees Costs	105.34	63.20	42.14
6	Repair &Maintenance Expense	22.02	19.82	2.20
7	Administration & General Expense	3.49	1.75	1.75
8	Depreciation	23.12	20.81	2.31
9	Interest Charge	0.00	0.00	0.00
10	Interest on Working Capital	7.32	0.73	6.59
11	Return on NFA/Equity	0.00	0.00	0.00
12	Less : Non-Tariff Income	1.30	0.13	1.17
13	**Total**	**508.67**	**154.36**	**355.48**

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 2021-22and shown in the table below:

Table 10.3: Wheeling Tariff approved by the Commission

Sl No.	Particulars	FY 2021-22
1	ARR for Wheeling Function approved by Commission (In Rs Crore)	154.62
2	Total Sale within State - Approved (In MUs)	421.59
3	Wheeling Tariff (Rs/kWh)	3.66

The Commission approves wheeling Tariff at ₹ 3.66/kWh for the FY 2021-22.

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:

$$\text{FPPCA (Ps./kWh)} = \frac{Q_c(RC_2 - RC_1) + Q_0(RO_2 - RO_1) + Q_{pp}(R_{Pp2} - R_{pp1}) + V_z + A}{(QP_{g1} + Q_{pp1} + Q_{pp2}) \quad X \quad \left[1 - \frac{L}{100}\right]} \quad X \quad 100$$

Where,

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

= (SHR X Q_{pg}) (1+TSL) X 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 station supplied(₹/KL)during the adjustment period.
Q_{pp}	=	Total power purchased from different sources(kWh)=Qpp2+Qpp3
Q_{pp1}	=	$Q_{pp3} \quad \left[1 - \frac{TL}{100}\right]$ 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-Kutir Jyoti Consumers)

If there are more than one power station owned by the Licensee Qc, Rc1, Rc2, Qo, Ro1, Rot, Qpg and Qpgi 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 TARIFFFOR THE FY 2020-21 **Annexure -1**

Sl. No.	Particulars	No of Consumer	Contracted Max. Demand	Sales	Demand Charges (₹/KVA/Month)	Energy Charges (Paisa/Kwh)	Demand Charges	Energy Charges	Total
								(₹ Crores)	
1	**Domestic (DLT)**								
a)	Up to 50 Units	103486		40		100		4.01	4.01
b)	51 to 100 Units	82789		33		200		6.69	6.69
c)	100 to 200 Units	31046		28		300		8.52	8.52
d)	200 to 400 Units	6209		14		350		4.97	4.97
e)	401 & above	621		13		400		5.35	5.35
	Total	**224151**		**130**				**29.54**	**29.54**
2	**Commercial**								
a)	Up to 50 Units	12887		10		300		2.98	2.98
b)	51 to 100 Units	10310		9		400		3.77	3.77
c)	100 to 200 Units	6186		8		500		3.87	3.87
d)	200 to 400 Units	4124		7		600		3.98	3.98
e)	401 & above	3093		11		630		6.83	6.83
	Total	**36600**		**45**				**21.43**	**21.43**
3	**Public Lighting**								
a)	Rural Areas	13		0		400		0.05	0.05
b)	Urban Areas	24		0		500		0.14	0.14
	Total	**37**		**0.41**				**0.19**	**0.19**
4	**Temporary**			**3**		1000		2.60	2.60
5	**Industrial**								
A	**HT**								
a)	HT (AC) above 3.3 KV								
a)	Upto 100 KVA	535	15000	40	200	520	3.60	20.70	24.30
b)	100-250 KVA	379	25000	38	250	570	7.50	21.49	28.99
c)	250-500 KVA	195	35000	52	290	620	12.18	32.22	44.40
d)	500KVA and Above	119	45000	79	560	670	30.24	52.63	82.87
	Total HT	**1228**		**208**				**127.04**	**180.56**
B	**LT (Rural)**								
a)	Up to 500 Units	573		2		360		0.56	0.56
b)	501-1000 Units	253		0		440		0.00	0.00
c)	1001 & Above	122		1		580		0.32	0.32
	Total	**948**		**2.11**				**0.88**	**0.88**
C	**LT(Urban)**								
a)	Up to 500 Units	98		0		530		0.00	0.00
b)	501-1000 Units	39		0		620		0.00	0.00
c)	1001 & Above	5		0		715		0.04	0.04
	Total	**142**		**0.06**				**0.04**	**0.04**
6	**BULK SUPPLY**								
a)	LT	1602	8000	4	150	550	1.44	1.95	3.39
b)	HT	290	10000	31	150	550	1.80	16.90	18.70
	Total	**1892**		**34.3**			**3.24**	**18.85**	**22.09**
	Total	**264998**		**421.59**				**200.58**	**257.34**

APPENDIX

TARIFF SCHEDULE FOR THE FY 2021-22

I. DOMESTIC SUPPLY (DS):

Type of Consumer:

Power supply to private house, residential flats and Government schools, residential buildings for light,Heating/electricalappliances,fansetc.Fordomesticpurpose.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.

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 400units	400

(c) Monthly Minimum Charge:

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

(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%

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

Free supply of electricity for consumption upto 100 units applicable to all the domestic consumers in rural areas under Gram Panchayat Unit (GPU) as notified by the Rural Management and Development Department as per clause 1 of the Government Gazette Notification No. 500 dated 26.11.2014 shall be determined on the basis of assessment recorded through energy meters only and assessment accounted on average basis shall not be entertained for subsidy. In the event of crossing the subsidized limit of 100 units of electricity in any month, the entire consumption for the month shall be charged to such consumer as per the tariff.

II. COMMERCIALSUPPLY (CS):

Type of Consumer:

Supply of energy for light, fan, heating and power appliances in commercial and non-domestic establishments such as shops, business houses, hotel, restaurants, petrol pumps, service stations, garages, auditoriums, cinema houses, nursing homes, dispensaries, doctors clinic which are used for privates gains, telephone exchange, nurseries, show rooms, x-ray plants, libraries banks, video parlors, saloons, beauty parlors, health clubs or any house of profit as identified by the Assistant Engineer/Executive Engineer concerned of the Department. In the event of exceeding connected load beyond25 KVA, the Demand charge at the following rates shall be imposed. The seasonal consumers are allowed to install MDI meter for assessment of their monthly load profile.

(a) Nature of supply:

Low Tension 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	
Demand Charges- For those establishments whose sanctioned load is more than 25 KVA and does not have independent transformer but run their unit through shared transformers.	**Rural**	**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.

(c) Monthly Minimum Charge:

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

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

(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 TENTION 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**	
Area	**Rural**	**Urban**
Upto 500	360	530
501 to 1000	440	620
1001 & Above	580	715
Demand Charge – for those establishments whose sanction load is more than 25 KVA & does not have independent transformer but run their unit through shared transformers.	₹ 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.

Rural Areas	₹500/Month
Urban Areas	₹500/Month

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

Rural Areas	₹ 120/KVA/Month of sanctioned load
Urban Areas	₹ 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 (HTS):

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 TensionAC,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 200KVA.The meters are also allowed to install on LT side of those consumers having transformer capacity less than 200 KVA, but is such case the assessed energy consumption shall be grossed up by 4% to account for as transformation loss.

(b) Rate:

Units Consumption	Charges
Up to 100 kVA Demand Charge Plus Energy Charge	₹ 200/kVA/Month +520 Paisa/Unit
Above 100 to 250 kVA Demand Charge Plus Energy Charge	₹250/kVA/Month + 570 Paisa/Unit
Above 250 to 500 kVA Demand Charge Plus Energy Charge	₹290/kVA/Month + 620 Paisa/Unit
Above 500 kVA Demand Charge Plus Energy Charge	₹560/kVA/Month + 670 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), 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 tension11 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 or 66kV)	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 45 KW and above shall have the option of installing Maximum Demand Indicator (MDI) meter at their premises if the consumer so desires.**

VI. SUPPLY TOARMYPENSIONERS:

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

Minimumcharges,surcharges,andrebateetc.willbeapplicableasperdomesticsupply 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 OFWORSHIP (PW):

Type of Consumer:

SupplyofpowertoGumpas,Manilakhangs,Tsamkhangs,Mandirs,Churches,andMosques as identified by the State Ecclesiastical Department.

(a) Nature of service:

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

b) Rate:

Unit Consumption Slab	Paisa per kWh (Unit)
Places of worship having: (i) Having 3 light points A) up to 100 units B)Above 101 units (ii) Having 4 to 6 light points. A) up to 150 units B)Above 151 units	Domestic rate is applicable

(iii) Having 7 to 12 light points A) up to 300 units B)Above 301 units (iv) Having 13 and more light points A) up to 500 units B)Above 501 units **A) To be billed to Secretary, Ecclesiastical Department and to be submitted to the head of Department in the District.** **B) To be billed to Head of the Place of worship.**	Domestic rate is applicable.

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

IX. PUBLIC LIGHTINGENERGY 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 fight etc. in rural areas shall be paid by the concerned Panchayat / Rural Management & Development Department. The necessary meter/metering equipments shall be provided by the Energy & Power Department and for which the standard (Tariff Schedule) charges is also applicable in accordance with rules and regulations of the Department.

Rate:

Category	Rate
Rural Areas	400 Paisa/KWH
Urban Areas	500 Paisa/KWH

X. TEMPORARY SUPPLY:

Type of consumer:

Available for temporary purposes and for the period not exceeding two months in the first instance but can be extended for the further-period not exceeding one month on each occasion. The Assessment of energy consumption shall be on the basis of recorded meter reading and not on average, however if the connection is being taken for less than one month, an advance payment should be taken from the consumer as per his/her connected load based on the average system of calculation shown in the tariff schedule. Approval of the Temporary Supply and its duration will be the discretion of the Assistant Engineer of the Department. If the temporary connection is more than approved period, such use of electricity will be treated as theft of power.

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.

XII. SCHEDULE FOR MISCELLANEOUSCHARGES

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 ₹ 25/- (Rupees Twenty Five Only). He/ She will complete the form in all respect and submit to the office of the Assistant Engineer. Assistant Engineer will issue the service connection estimate with the approval of the Executive Engineer. If the Substation of the area or any other connected Electrical network is under capacity, the department can decline the service connection till the capacity is increased as required. If the demand is more than 25 kVA the Department reserves the right to ask the applicant to provide suitable substation at his/her cost. The Energy & Power Department also reserves the right to disconnect the service connection of any consumer if he/she increases the load above sanctioned load without written approval of the Department and will treat such cases as theft of power. (a) Single connection will be provided to the legal landlord of the building. However, an additional connection can also be given in the name of his legal heir subject to production of valid agreement by the landlord stating that he/she shall take the responsibility to clear all the electricity dues created thereof by his legal heir before the close of every financial year. (b) In case the flat or part of the private building is occupied by Government / Semi Government/Government Undertakings offices, separate service connection in the name of head of office can be given with the approval of the concerned Executive Engineer. (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. TESTINGOFMETERS

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. RESEALINGOFMETERS

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.

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 give not less than 2 months notice before the supply or additional supply is required. In the case of HTIS/LTIS/BS consumers, longer notice which may extend to six months or more may be required to enable the

Department to make necessary arrangement for such supply, which will subject to its availability in the system and seven clear days notice shall be given by the Assistant Engineer of the area to the applicant for the Purpose of inspecting the premises and investigating the feasibility of power supply. If service can be affected by extending service line alone, the consumer will be given a written permission from the office of the Assistant Engineer about providing the service connection to his premises.

(e) Sketch of the premises

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

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

(f) Load sanction

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

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 over headlines 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. DISCONNECIION OF SUPPLY FOR NON-PAYMENT OF ELECTRICITY BILL AND LEGAL ACTION

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

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 may be 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