TARIFF ORDER

Annual Performance Review for FY 2020-21 and Aggregate Revenue Requirement (ARR) and Determination of Retail Tariff for the FY 2021-22

Petition No. 41/2020

For

Lakshadweep Electricity Department (LED)

31st March 2021

JOINT ELECTRICITY REGULATORY COMMISSION
For the State of Goa and Union Territories,
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List of abbreviations

Abbreviation	Full Form
A&G	Administrative and General
Act	The Electricity Act, 2003
APR	Annual Performance Review
ARR	Aggregate Revenue Requirement
ATE	Appellate Tribunal of Electricity
CAGR	Compound Annualized Growth rate
Capex	Capital Expenditure
CEA	Central Electricity Authority
CGS	Central Generating Stations
Cr	Crores
DG	Diesel Generator
Discom	Distribution Company
FY	Financial Year
GoI	Government of India
HT	High Tension
HSD	High Speed Diesel
JERC	Joint Electricity Regulatory Commission for the state of Goa and Union Territories
kVA	Kilo Volt Ampere
kWh	Kilo Watt Hour
LED	Lakshadweep Electricity Department
LT	Low Tension
MoP	Ministry of Power
MU	Million Units
MW	Mega Watt
MYT	Multi Year Tariff
NTPC	National Thermal Power Corporation
O&M	Operation and Maintenance
PLF	Plant Load Factor
PPA	Power Purchase Agreement
REC	Renewable Energy Certificate
RPO	Renewable Purchase Obligation
SECI	Solar Energy Corporation of India Limited
SERC	State Electricity Regulatory Commission
T&D	Transmission & Distribution
TVS	Technical Validation Session
UI	Unscheduled Interchange
UT	Union Territory
YoY	Year on Year

Before the

Joint Electricity Regulatory Commission

For the State of Goa and Union Territories, Gurugram

QUORUM

Sh. M. K. Goel, Chairperson

Petition No. 41/2020

In the matter of

Approval for the Annual Performance Review for the FY 2020-21, Aggregate Revenue Requirement (ARR) and Retail Tariff for the FY 2021-22.

And in the matter of

Lakshadweep Electricity Department (LED)...Petitioner

ORDER

Dated: 31st March 2021

1) This Order is passed in respect of a Petition filed by the Lakshadweep Electricity Department (LED) (herein after referred to as "The Petitioner" or "LED" or "The Licensee") for approval of Annual Performance Review for the FY 2020-21, Aggregate Revenue Requirement (ARR) and Retail Tariff for the FY 2021-22 before the Joint Electricity Regulatory Commission (herein after referred to as "The Commission" or "JERC").

2) The Commission scrutinised the said Petition and generally found it in order. The Commission admitted the Petition on 16th February 2021. The Commission thereafter requisitioned further information/ clarifications on the data gaps observed to take a prudent view of the said Petition. The Commission also held a Technical Validation Session to determine sufficiency of data and the veracity of the information submitted. Further, suggestions/ comments/ views and objections were invited from the Stakeholders and Electricity Consumers. Further, due to the COVID-19 pandemic that had adversely impacted the movement of people as per the guidelines of GoI which had suggested avoiding of travel and gathering of people as far as possible, the Commission had decided to conduct the Public Hearing virtually. The virtual Public Hearing was held on 10th March 2021, and all the Stakeholders/Electricity Consumers present in the Public Hearing were heard.

3) In order to mitigate the hardship of Electricity Consumers and DISCOMs/EDs in view of nationwide lockdown due to COVID-19, the Commission had issued SUO MOTU ORDER NO. JERC/LEGAL/SMP/27/2020 on 10th April, 2020 wherein the Commission provided relief to industrial and commercial consumers and acknowledged the need for additional working capital requirement by

the Distribution Licensees. Further, the Commission viewed that the lockdown will also impact certain other parameters of ARR like sales/sales mix, power purchase quantum and cost and revenue. The Commission opined that it will consider all such additional costs and variations in parameters appropriately while evaluating the APR of FY 2020-21 and thereafter in True-up of FY 2020-21. Accordingly, the Commission has considered the impact of lower sales, rebate received in power purchase cost and some other parameters due to COVID 19 as part of APR for FY 2020-21. Further, the Commission will consider the actual impact of COVID 19 on various parameters of ARR while carrying out the truing up for FY 2020-21.

4) The Petitioner has not submitted the true-up petition for FY 2017-18, FY 2018-19 and FY 2019-20; therefore, the Commission has not carried out the True-up for FY 2017-18, FY 2018-19 and FY 2019-20. The Commission shall revisit the ARR for the FY 2017-18, FY 2018-19 and FY 2019-20 after the submission of true-up petition along with audited accounts by the Petitioner.

5) The Commission based on the Petitioner's submission, relevant MYT Regulations, facts of the matter, rules and provisions of the Electricity Act, 2003 and after proper due diligence and prudence check has approved the APR of FY 2020-21 and ARR along with Retail Tariff for the FY 2021-22.

6) A Summary has been provided as follows:

(a) The following table provides ARR, Revenue and gap as submitted by the Petitioner and approved by the Commission in the APR of FY 2020-21:

Table 1: Standalone Revenue Gap/ (Surplus) approved for FY 2020-21 (INR Crore)

S. No	Particulars	Petitioners submission	Approved by Commission
1	Net Revenue Requirement	150.42	151.36
2	Revenue from Retail Sales at Existing Tariff	24.36	24.25
3	**Net Gap /(Surplus)**	**126.06**	**127.11**

(b) The following table provides ARR, Revenue and gap as submitted by the Petitioner and approved by the Commission for FY 2021-22:

Table 2: Standalone Revenue Gap/ (Surplus) approved for FY 2021-22 (INR Crore)

S. No	Particulars	Petitioners submission	Approved by Commission
1	Net Revenue Requirement	162.45	166.77
2	Revenue from Retail Sales at Approved Tariff	25.46	25.58
3	**Net Gap /(Surplus)**	**136.99**	**141.19**

(c) The Petitioner has proposed a hike of 4.90% in the energy charges and the remaining revenue gap shall be met through the budgetary support.

(d) However, the Commission has not approved any hike in the existing tariff for FY 2021-22.

(e) The Commission has approved the average revenue for FY 2021-22 as INR 4.79/kWh as against the approved Average Cost of Supply of INR 31.20/kWh.

(f) This Order shall come into force with effect from 1st April 2021 and shall, unless amended or revoked, continue to be in force till further orders of the Commission.

7) The licensee shall publish the Tariff Schedule and salient features of Tariff as determined by the Commission in this Order within one week of receipt of the Order in three daily newspapers in the respective local languages of the region, besides English, having wide circulation in their respective areas of supply and also upload the Tariff Order on its website.

8) Ordered accordingly, the attached documents giving detailed reasons, grounds and conditions are the Integral part of this Order.

Sd/-
(M.K. Goel)
Chairperson

Place: Gurugram
Date: 31st March 2021

(Certified Copy)

(Rakesh Kumar)
Secretary

1. Chapter 1: Introduction

1.1. About Joint Electricity Regulatory Commission (JERC)

In exercise of powers conferred by the Electricity Act 2003, the Central Government constituted a Joint Electricity Regulatory Commission for all the Union Territories except Delhi to be known as "the Joint Electricity Regulatory Commission for the Union Territories" vide notification no. 23/52/2003-R&R dated 2^{nd} May 2005. Later with the joining of the State of Goa, the Commission came to be known as "Joint Electricity Regulatory Commission for the State of Goa and Union Territories" (hereinafter referred to as "the JERC" or "the Commission") vide notification no. 23/52/2003-R&R (Vol. II) dated 30^{th} May 2008.

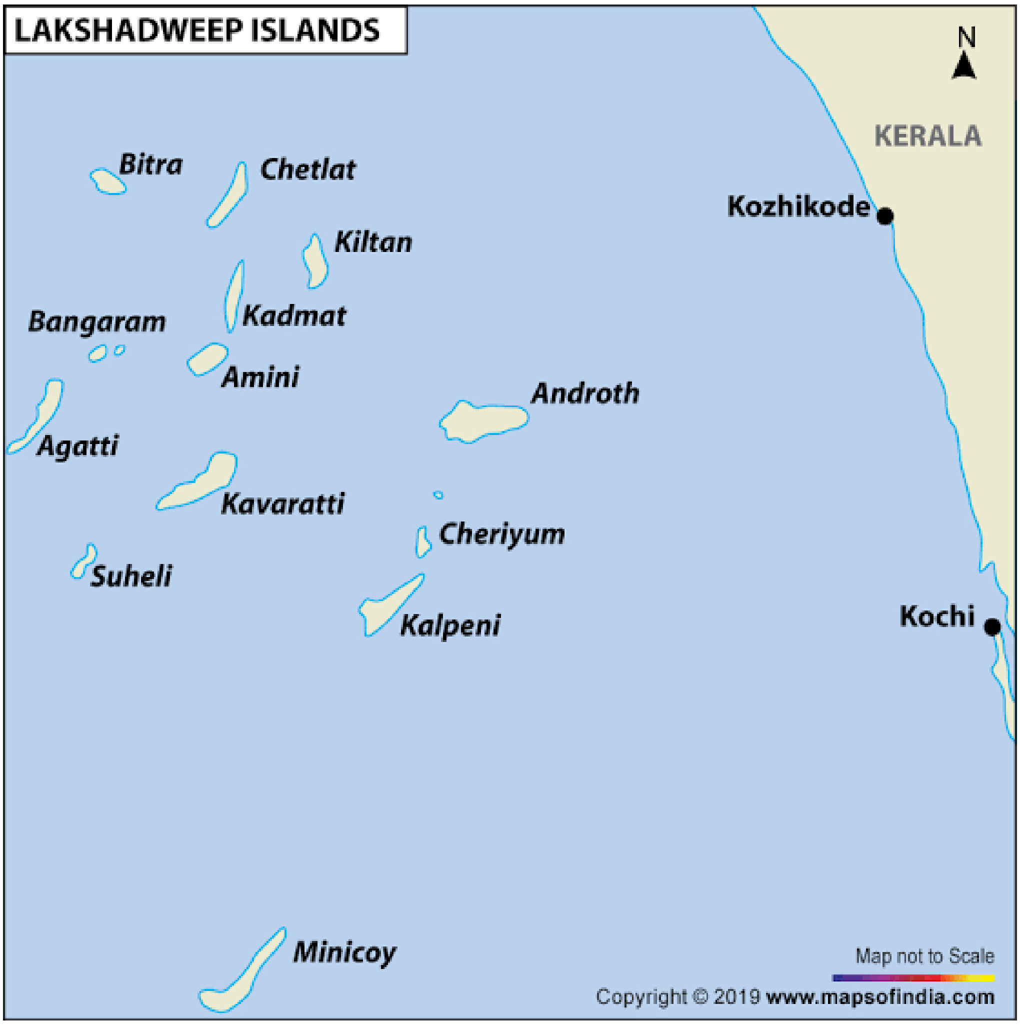
JERC is a statutory body responsible for regulation of the Power Sector in the State of Goa and the Union Territories of Andaman & Nicobar Islands, Lakshadweep, Chandigarh, Dadra & Nagar Haveli and Daman & Diu and Puducherry, consisting of generation, transmission, distribution, trading and use of electricity. Its primary objective includes taking measures conducive to the development of the electricity industry, promoting competition therein, protecting the interest of consumers and ensuring the supply of electricity to all areas. 1

1.2. Lakshadweep Islands

Lakshadweep Islands is a group of islands in the Laccadive Sea, 200 to 440 km off the southwestern coast of India. The Union Territory (UT) of Lakshadweep is an archipelago consisting of 12 atolls, three reefs and five submerged banks, with a total of about thirty-nine islands and islets. It is a uni-district Union Territory with an area of 32 Sq. Kms and is comprised of ten inhabited islands, 17 uninhabited islands attached islets, four newly formed islets and 5 submerged reefs. The inhabited islands are Kavaratti, Agatti, Amini, Kadmat, Kiltan, Chetlat, Bitra, Andrott, Kalpeni and Minicoy. As per the 2011 Indian census, the population of the Union Territory was 64,473. The main occupation of the people is fishing and coconut cultivation with tuna being the main item of export.

Electrification of Lakshadweep Islands was initiated during the second Five Year Plan. Minicoy was the first island electrified in 1962 followed by Kavaratti Island in 1964, then Amini and Andrott in 1965 and 1966 respectively. Bitra was the last island electrified in 1982. Initially power supply was limited to 6-12 hours till 1982 to 1983 except in Kavaratti where 24 hours power supply was provided from 1964 itself. Round the clock power supply is provided in all islands since 1983.

Lakshadweep islands comprises of an area of 32 sq. kms. For operational purpose the area has been divided into 1 division and 10 sub-divisions. Pictorial view of the Islands is given below:



1.3. About Lakshadweep Electricity Department (LED)

Lakshadweep Electricity Department (hereinafter referred to as "LED" or "Utility" or "Petitioner") is solely responsible for power supply in the Union territory. Power requirement of LED is met by own generating stations only.

Starting with a modest capacity of 51.6 kW in 1962 from two Diesel Generating Sets, the generating capacity of Lakshadweep Electricity Department has grown over the years to meet the demand of the people in the Islands. Since, the diesel generating sets were the only source of power, diesel has to be transported from Calicut (Kerala) in barrels. These barrels are transported in cargo barges to the Islands and stored for use. To alleviate this problem of transportation, oil storage facilities at Kavaratti and Minicoy Islands are under installation.

Due to geographical & topographical peculiarities of these islands including separation by sea over great distances there is no single power grid for the entire electrified Islands and instead separate generating units caters independently to power requirements of individual Islands.

The Petitioner is operating and maintaining power generation, transmission & distribution system network in these islands for providing electric power supply to general public. It implements various Planned & Non-Planned schemes for augmentation of DG Generating Capacity, establishment of new power houses and Transmission & Distribution infrastructure. LED is also functioning as a Nodal Agency for implementing renewable energy program of the Ministry of New & Renewable Energy (MNRE) on these islands. Presently, LED is headed by an Executive Engineer.

The key duties being discharged by LED are:

- Laying and operating of such electric lines and sub-stations that are primarily maintained for the purpose of distributing electricity in the area of Lakshadweep Islands, notwithstanding that such lines and sub-station are high tension cables or overhead lines or associated with such high-tension cables or overhead lines; or used incidentally for the purpose of transmitting electricity for others, in accordance with Electricity Act, 2003 or the Rules framed there under.

- Operating and maintaining sub-stations and dedicated transmission lines connected there with as per the provisions of the Act and the rules framed there under.

- Generation of electricity for the supply of electricity required within the boundary of the UT and for the distribution of the same in the most economical and efficient manner;

- Supplying electricity, as soon as practicable to any person requiring such supply, within its competency to do so under the said Act;

- Preparation and implementation of schemes for distribution and generally for promoting the use of electricity within the UT.

The table below gives an overview of present generation, transmission and distribution infrastructure of LED.

Table 3: Electricity Department at a glance (FY 2019-20)

S. No.	Particulars	Details
1	Total Installed Capacity	28.34 MW
1(a)	Diesel Generation	27.30 MW
1 (b)	Solar Generation	1.04 MW
2	No. of Power Houses	22 Nos (11 Nos of Diesel power plant, 11 Nos of solar power plant)
3	Total Staff Strength	279
4	HT Line	111.953 kms
5	LT Line	321.869 kms
6	Distribution Transformer	106 Nos.
7	No. of consumers	24,303
8	Units Sold	48.90 MUs
9	T&D Loss	14.12%

1.4. Multi Year Tariff Regulations, 2018

The Commission notified the Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2018 (hereinafter referred to as MYT Regulations, 2018) on August 10, 2018. These Regulations are applicable in the 2nd MYT Control Period comprising of three financial years from FY 2019- 20 to FY 2021-22. These Regulations are applicable to all the generation companies, transmission and distribution licensees in the State of Goa and Union Territories of Andaman & Nicobar Islands, Lakshadweep, Chandigarh, Dadra & Nagar Haveli and Daman & Diu and Puducherry.

1.5. Filing and Admission of the Present Petition

The present Petition was admitted on February 16, 2021 and marked as Petition No. 41/2020. The Commission and the Petitioner subsequently uploaded the Petition on their respective websites.

1.6. Interaction with the Petitioner

A preliminary scrutiny/analysis of the Petition was conducted and certain deficiencies were observed. Accordingly, discrepancy notes were issued to the Petitioner. Further, additional information/clarifications were solicited from the Petitioner as and when required. The Commission and the Petitioner also discussed various concerns of the Petitioner and key data gaps, which included retail sales, revenue from retail tariff, capitalization, tariff proposal etc. The Petitioner submitted its response to the issues through various letters/emails.

The Commission conducted the Technical Validation Session (TVS) with the Petitioner at the Commission's office in Gurugram, during which the discrepancies in the Petition were conveyed and additional information required by the Commission was sought. Subsequently, the Petitioner submitted replies to the issues raised in this session and provided documentary evidence to substantiate its claims regarding various submissions. The following table provides the list of interactions with the Petitioner along with the dates:

Table 4: List of interactions with the Petitioner

S. No	Subject	Date
1	Issue of First Discrepancy Note	18.02.2021
2	Reply received from the Petitioner with regard to first discrepancy Note	22.02.2021
3	Technical Validation Session	08.03.2020
4	Public hearing	10.03.2021
5	Petitioner's reply to the Stakeholders' comments sought by the Commission	23.03.2021

1.7. Notice for Public Hearing

The Petitioner published the Public Notices for inviting suggestions/ comments from stakeholders on the Tariff Petition as given below:

Table 5: Details of Public Notices published by the Petitioner

S. No.	Date	Name of Newspaper	Language	Place of circulation
1	February 16, 2021	The Lakshadweep Times	English	Kavaratti, Kalpeni
2	February 26, 2021	The Lakshadweep Times	English	Kavaratti, Kalpeni

In the absence of publication of regular newspapers in the UT of Lakshadweep, the Commission directed the Petitioner to make public announcements and to advertise in the local cable network giving wide publicity to the Public Hearing mentioning the date and time.

The Petitioner uploaded the Petition on its website (http://lakpower.nic.in) for inviting objections and suggestions on the Petition. The Commission also uploaded the Tariff Petition and the Public Notice on its website www.jercuts.gov.in giving due intimation to stakeholders, consumers, objectors and the public at large about the Public Hearing to be conducted by the Commission on March 10, 2021 through Video Conferencing due to ongoing COVID19 pandemic.

1.8. Public Hearing

The COVID-19 pandemic has adversely impacted the movement of people as per the guidelines of GoI. These guidelines have also suggested avoiding of travel and gathering of people as far as possible. In view of above, the physical conduct of proceedings by the Commission was not possible. So, The Commission deemed it is necessary to provide an access to all the stakeholders by conducting proceedings remotely, by the use of audio and video enabled hearings in the matters of Petition submitted by Lakshadweep Electricity Department. Therefore, the Commission has decided that the comments/suggestions of the stakeholders need to be heard virtually through video conferencing for seeking their opinion.

Accordingly, the Virtual Public Hearing was held on March 10, 2021 from 11 AM to discuss the issues, if any, related to the Petition filed by the Petitioner. The issues and concerns raised by the stakeholders in writing and as voiced by them during the Public Hearing have been examined by the Commission. The names of the stakeholders who attended the Public Hearing are provided in Annexure-I. The major issues discussed, the responses of the Petitioner thereon and the views of the Commission have been summarized in Chapter 2 of this Order.

2. Chapter 2: Public Hearing

2.1. Regulatory Process

On admitting the Petition, the Commission directed the Petitioner to make copies of the Petition available to the public, upload the Petition on the website and also publish the same in the newspapers in an abridged form in the given format duly inviting suggestions/ comments from the public as per the provisions of the MYT Regulations, 2018.

The Public Hearing was held on 10th March 2021 through Video Conferencing on the Petition for the APR of the FY 2020-21, Aggregate Revenue Requirement (ARR) and Tariff for the FY 2021-22. During the Public Hearing, a few stakeholders who had submitted their comments in writing also presented their views in person before the Commission. Other participants from the general public, who had not submitted written suggestions/ comments earlier, were also given an equal opportunity to present their views/ suggestions in respect to the Petition.

The list of the Stakeholders is attached as **Annexure 1** of this Order.

2.2. Suggestions/ Comments of the Stakeholders, Petitioner's Response and Commission's Views

The Commission is appreciative of the efforts of various stakeholders in providing their suggestions/ comments/ observations to make the Electricity Distribution Sector responsive and efficient. The Commission has noted the concerns of all the stakeholders and has tried to address them to the extent possible in the Chapters on tariff design and Directives. The Commission while finalizing the Tariff Order has suitably considered relevant observations. The submissions of the stakeholders, Petitioner's response and views of the Commission are summarized below:

2.2.1. Defer Tariff Hike due to COVID19

Stakeholders' Comments

The stakeholder submitted that COVID-19 has adversely impacted the financial condition of the residents of the Island. Therefore, he requested the Commission that there should be no tariff hike for the FY 2021-22.

Petitioner's Response

It is submitted that the Department is unable to recover its ARR at the current tariff. Even at the proposed tariff only 16.44 % of the ARR would be recovered. Hence, Hon'ble Commission may approve the proposed hike.

Commission's View

The Commission understands the difficulties of life in the island of Lakshadweep and the adverse impact of ongoing COVID19 pandemic on the economic activities and accordingly, has not raised the tariff. The Commission has discussed the principles adopted for approving the Tariff in Chapter 7 of the Tariff Order.

2.2.2. No hike in Tariff

Stakeholders' Comments

Stakeholder submitted that there has been tariff hike every year for past several years. Hence, there should not be any tariff hike for the FY 2021-22.

Petitioner's Response

It is submitted that the Department is unable to recover its ARR at the current Tariff. Even at the proposed Tariff only 16.44 % of the ARR would be recovered. Hence, the Hon'ble Commission may approve the proposed hike.

Commission's View

The Commission has noted the submission of the stakeholders and accordingly, has not raised the retail tariff of the consumers. The Commission has discussed the principles adopted for approving the Tariff in Chapter 7 of the Tariff Order.

3. Chapter 3: True-up of FY 2017-18, FY 2018-19 and FY 2019-20

3.1. Background

The True-up for the FY 2017-18 and FY 2018-19 has to be carried out in accordance with Regulation 8(2) of the MYT Regulations, 2014, stated as follows:

"(2) After audited accounts of a year are made available, the Commission shall undertake similar exercise as above with reference to the final actual figures or the provisional actual accounts as available as per the audited accounts. This exercise with reference to audited accounts shall be called 'Truing Up'.

The Truing Up for any year will ordinarily not be considered after more than one year of 'Review'.

(3) The revenue gap/surplus, if any, of the ensuing year shall be adjusted as a result of review and truing up exercises.

(4) While approving such expenses/revenue to be adjusted in the future years as arising out of the Review and/or Truing up exercises, the Commission may allow the carrying costs as determined by the Commission of such expenses/revenue. Carrying costs shall be limited to the interest rate approved for working capital borrowings.

(5) For any revision in approvals, the licensee would be required to satisfy the Commission that the revision is due to conditions beyond its control.

(6) In case additional supply is required to be made to any particular category, the licensee may, any time during the year make an application to the Commission for its approval. The application will demonstrate the need for such additional supply of power and also indicate the manner in which the licensee proposes to meet the cost for such additional supply of power."

Further, the True-up of FY 2019-20 has to be carried out in accordance with Regulation 11 of the MYT Regulations, 2018, stated as follows:

"11 Annual Performance Review, Truing-up and tariff determination during the Control Period

11.1 The Generating Company, Transmission Licensee and Distribution Licensee shall be subject to annual performance review and truing up of expenses and revenue during the Control Period in accordance with these Regulations.

11.2 The Generating Company, Transmission Licensee and Distribution Licensee shall file an application for the annual performance review of the current year, truing up of the previous Year or the Year for which the audited accounts are available and determination of tariff for the ensuing Year on or before 30th November of each Year, in formats specified by the Commission from time to time :

Provided that the Generating Company, Transmission Licensee or Distribution Licensee, as the case may be, shall submit to the Commission information in such form as may be specified by the Commission, together with the audited accounts, extracts of books of account and such other details as the Commission may require to assess the reasons for and extent of any variation in financial performance from the approved forecast of Aggregate Revenue Requirement and Expected Revenue from Tariff and Charges.

11.3 The scope of the annual performance review, truing up and tariff determination shall be a comparison of the performance of the Generating Company, Transmission Licensee or Distribution Licensee with the *approved forecast of Aggregate Revenue Requirement and Expected Revenue from Tariff and Charges and shall comprise of the following:*

a) True-up: a comparison of the audited performance of the Applicant for the Financial Year for which the true up is being carried out with the approved forecast for such previous Financial Year, subject to the prudence check;….."

3.2. Approach for True-up for FY 2017-18, FY 2018-19 and FY 2019-20

Petitioner's submission:

The Petitioner has not submitted the True-Up Petition for FY 2017-18, FY 2018-19 and FY 2019-20 as the accounts for FY 2017-18 and FY 2018-19 are pending with CAG for audit. Further, the Petitioner has submitted that the preparation of financial statements for FY 2019-20 is under progress post which the audit shall be undertaken.

Commission's analysis:

The Commission in its previous Orders had stressed upon the requirement of the audited accounts to reflect the true picture and bring in accuracy in the estimates made by the Commission. The JERC MYT Regulations, 2014 and JERC MYT Regulations, 2018 also require the licensee to file the True up along with the audited accounts in the filing.

The Commission directs that the audit of FY 2017-18 and FY 2018-19 to be completed on priority. The Commission reiterates its direction to the Petitioner to prepare and submit the audited accounts for FY 2018-19 and FY 2019-20 based on commercial principles along with the True-up Petitions by 30th November 2021.

The True-up would therefore be taken up only after submission of the audited accounts. Accordingly, the Commission has decided not to take up True-up for the FY 2017-18, FY 2018-19 and FY 2019-20 in the current Order. Any parameter considered for the determination of ARR and revenue gap/surplus in the subsequent chapters will be considered as per the Commission's Tariff Order for the FY 2020-21 dated 18th May 2020 and MYT Order dated 20th May 2019. Further, the Commission directs the Petitioner to submit the audited accounts for the FY 2017-18, FY 2018-19 and FY 2019-20 along with Petition for determination of ARR for the FY 2022-23.

4. Chapter 4: Annual Performance Review of FY 2020-21

4.1. Background

The Tariff Order for the FY 2020-21 was issued by the Commission on May 18, 2020 approving the ARR and Retail Tariff for the FY 2020-21. This Chapter covers the Annual Performance Review (APR) of the FY 2020-21 vis-à-vis the cost parameters approved by the Commission in the Tariff Order the 2nd MYT Control Period. The Annual Performance Review for the FY 2020-21 is to be carried out as per provisions of Regulation 11 of the Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2018.

4.2. Approach for Review for the FY 2020-21

The review of the Aggregate Revenue Requirement requires assessment of the quantum of energy sales, energy loss as well as the various cost elements like Power Purchase Cost, O&M Expenses, interest on long-term loans, interest on working capital loans, depreciation etc. The Annual Performance Review for the FY 2020-21 has been done based on the actual data as provided by the Petitioner for the FY 2020-21 of the Power Purchase Quantum and the Cost, Energy Sales, Capitalisation etc. depending on which the estimates for the remaining months of the financial year have been made. The various cost elements constituting the Aggregate Revenue Requirement have been approved based on the actual information submitted by the Petitioner, the MYT Regulations, 2018 and on the basis of the norms approved in the MYT Order dated May 20, 2019 and Tariff Order dated May 18, 2020.

4.3. Energy Sales, Connected Load and Number of Consumers

Petitioner's Submission

The Petitioner has submitted a revised estimate of energy sales as 50.86 MU for the FY 2020-21, based on the actual energy sales of FY 2019-20 and CAGR for various categories as approved by the Commission in the MYT Order dated May 20, 2019. Similarly, the Petitioner has proposed the connected load and consumers of 118,470 kW and 25992 respectively for FY 2020-21.

Commission's Analysis

The Commission has considered the actual category wise sales data for FY 2019-20 and CAGR for various categories as approved in Business Plan order dated December 21, 2018 for calculating the category wise sales, connected load and number of consumers respectively for FY 2020-21.

4.3.1. Energy Sales

The Commission has considered the actual category wise sales data, connected load and number of consumers as submitted by the Petitioner for FY 2019-20 for calculating the category wise sales, connected load and number of consumers respectively for FY 2020-21. Hence, the Commission has extrapolated the approved sales data from the category wise sales figure of FY 2019-20 using the approved CAGR for each category of sales as shown in the following table:

Table 6: Sales projected for FY 2020-21 (MU)

S. No.	Category	Actual Sales FY 2019-20	CAGR considered	Projected Sales for FY 2020-21
1	Domestic	35.59	5.68%	37.61
2	Commercial	3.12	6.27%	3.31
3	Govt. Connection	7.60	1.54%	7.72
4	Industrial	0.36	1.97%	0.36
5	HT Consumers	0.81	10.00%	0.89
6	Public Lighting	0.81	2.43%	0.83
7	Temporary Connection	0.14	0.00%	0.14
8	**Total Sales**	**48.42**		**50.86**

The table below provides the energy sales approved by the Commission in the Tariff Order, the Petitioner's submission and now approved by the Commission.

Table 7: Energy Sales (MU) approved for FY 2020-21 by the Commission

S. No.	Category	Approved in Tariff Order	Petitioner's Submission	Now Approved by Commission
1	Domestic	39.29	37.61	37.61
2	Commercial	3.25	3.31	3.31
3	Govt. Connection	7.68	7.72	7.72
4	Industrial	0.35	0.36	0.36
5	HT Consumers	1.03	0.89	0.89
6	Public Lighting	0.82	0.83	0.83
7	Temporary Connection	0.12	0.14	0.14
8	**Total Sales**	**52.54**	**50.86**	**50.86**

4.3.2. Number of Consumers

The Commission has considered the category wise number of consumers for FY 2020-21 as per the number of consumers in initial six months of FY 2020-21 as shown in table below:

Table 8: Number of Consumers projected for FY 2020-21 (MU)

S.No.	Category	Actual Consumers Apr'20 – Sept'20	Projected Number of Consumers for FY 2020-21
1	Domestic	20109	20109
2	Commercial	3023	3023
3	Govt. Connection	1433	1433
4	Industrial	347	347
5	HT Consumers	8	8
6	Public Lighting	74	74
7	Temporary Connection	184	184
8	**Total Consumers**	**25,178**	**25,178**

The table below provides the number of consumers approved by the Commission in the Tariff Order, the Petitioner's submission and now approved by the Commission.

Table 9: Number of Consumers approved for FY 2020-21 by the Commission

S. No.	Category	Approved in Tariff Order	Petitioner's Submission	Now Approved by Commission
1	Domestic	20,581	20,781	20,109
2	Commercial	3,020	3,092	3,023
3	Govt. Connection	1,217	1,452	1,433
4	Industrial	359	357	347
5	HT Consumers	8	9	8
6	Public Lighting	76	76	74
7	Temporary Connection	193	225	184
8	**Total Consumers**	**25,453**	**25,992**	**25,178**

4.3.3. Connected Load

Similarly, the Commission has considered the category wise connected load for FY 2020-21 as per the connected load for initial six months of FY 2020-21 as shown in table below:

Table 10: Connected Load projected for FY 2020-21 (kW)

S. No.	Category	Actual Connected Load Apr'20 – Sept'20	Projected Connected Load for FY 2020-21
1	Domestic	91889	91889
2	Commercial	12479	12479
3	Govt. Connection	7988	7988
4	Industrial	3757	3757
5	HT Consumers	728	728
6	Public Lighting	277	277
7	Temporary Connection	305	305
8	**Total Connected Load**	**117,423**	**117,423**

The table below provides the category wise connected load approved by the Commission in the Tariff Order, the Petitioner's submission and now approved by the Commission:

Table 11: Connected Load approved by the Commission for FY 2020-21 (kW)

S. No.	Category	Approved in Tariff Order	Petitioner's Submission	Now Approved by Commission
1	Domestic	90,951	92,433	91,889
2	Commercial	16,855	12,658	12,479
3	Govt. Connection	8,455	8,121	7,988
4	Industrial	3,972	3,879	3,757
5	HT Consumers	698	787	728
6	Public Lighting	319	287	277
7	Temporary Connection	201	305	305
8	**Total Connected Load**	**121,450**	**118,470**	**117,423**

The Commission approves energy sales of 50.86 MU, connected load of 117,423 kW and number of consumers as 25,178 in the APR of FY 2020-21.

4.4. Intra-State Transmission and Distribution (T&D) loss

Petitioner's submission

The Petitioner has proposed Intra-State T&D loss level at 12.50% against an approved loss of 12.50% in the Tariff Order. Further, the Petitioner has submitted the actual T&D loss achieved for initial six months as 15.62%.

Commission's analysis

The Commission had approved loss level of 12.50% for FY 2020-21 in the MYT Order dated May 20, 2019 and as 12.50% in the Tariff Order dated May 18, 2020 while determining ARR for the FY 2020-21. The Commission, in the Business Plan Order dated December 21, 2018, had set the loss trajectory for the 2nd Control Period considering the actual loss of 13.03% in FY 2017-18. The Commission in the APR of FY 2020-21 finds it appropriate to consider the loss level of 12.50% as approved in the MYT Order for FY 2020-21. The following table provides the Intra-State distribution loss approved in the Tariff Order, the Petitioners submission and now approved by the Commission.

Table 12: Intra-State distribution loss (%)

S. No	Particulars	Approved in Tariff Order	Petitioner's Submission	Now Approved by Commission
1	Intra-State distribution loss	12.50%	12.50%	12.50%

The Commission approves Intra-State T&D loss of 12.50% in the APR of FY 2020-21.

4.5. Energy Balance

Petitioner's submission

The Petitioner has submitted the energy balance as shown in the table below:

Table 13: Energy Balance (MU) submitted by Petitioner

S. No.	Particulars	Petitioner's Submission
A	**Energy Requirement**	
1	Total Sales within the UT	50.86
2	Distribution losses (%)	12.50%
	Distribution losses (MU)	7.18
3	**Energy Requirement @ periphery**	**58.04**
B	**Energy Availability**	
1	Renewable Generation	0.64
2	Diesel Generation	57.40
3	**Total Energy Availability**	**58.04**
C	**Total shortfall/(Surplus)**	**0.00**

Commission's analysis

The Commission has determined the Energy Balance based on the revised estimates of energy sales. The table below provides the Energy Balance as approved by the Commission in the Tariff Order of FY 2020-21, the Petitioner's submission and the Energy Balance now approved by the Commission.

Table 14: Energy Balance (MU) approved by the Commission for FY 2020-21

S. No.	Particulars	Approved in Tariff Order	Petitioner's Submission	Now Approved by Commission
A	**Energy Requirement**			
1	Total Sales within the UT	52.54	50.86	50.86
2	Distribution losses (%)	12.50%	12.50%	12.50%
	Distribution losses (MU)	7.51	7.18	7.27
3	**Energy Requirement @ periphery**	**60.05**	**58.04**	**58.13**
B	**Energy Availability**			
1	Renewable Generation	1.18	0.64	0.64
2	Diesel Generation	58.86	57.40	57.49
3	**Total Energy Availability**	**60.05**	**58.04**	**58.13**
C	**Total shortfall/(Surplus)**	**0.00**	**0.00**	**0.00**

In the APR of FY 2020-21, the Commission has estimated a shortfall/(surplus) quantum of 0.00 MU.

4.6. Power Purchase Quantum & Cost

Petitioner's submission

The Petitioner has submitted that the energy requirement of LED is met through its own generation with a mix of renewable and diesel generation as there is no availability of power from Central Generating Stations or from other sources/ open market/ power exchanges etc. Accordingly, the Petitioner has claimed the fuel cost of INR 90.63 crore (HSD Cost – INR 89.94 crore and Lube Cost – INR 0.69 crore) as against the approved cost of INR 94.97 crore (HSD Cost – INR 93.87 crore and Lube Cost – INR 1.10 crore) in the Tariff Order.

Commission's Analysis

As per Regulation 12.1 of the MYT Regulations, 2018, power purchase and fuel cost are an uncontrollable parameter. Thus, the power purchase and fuel cost need to be revisited every year by the Commission. The Commission has considered the energy required to be generated from the Diesel generation sets based on sales projected for FY 2020-21 as Diesel generation is the main source of power in Lakshadweep Islands and shall be available as per the consumers need. Accordingly, the Commission has computed the cost of fuel for Diesel generation considering the approved values of specific fuel consumption as shown in table below:

Table 15: Fuel Cost approved by the Commission for FY 2020-21

S. No.	Particulars	Petitioner's Submission	Commission's Analysis
1	Total Gross Generation (MUs)	58.34	58.13
2	Less: Solar Generation (MUs)	0.64	0.64
3	Total DG Generation (MUs) (1 - 2)	57.69	57.49
4	Specific HSD Consumption (ml per kWh) as approved in MYT Tariff order	266.12	266.12
5	Average Cost of HSD per litre as per bills submitted for Jun' 20 and Jul' 20 (INR)	58.58	64.27
6	**Cost of HSD [(3 X 4/1000 X 5)/10] (INR crores)**	**89.94**	**98.32**
7	Specific Lube oil consumption (ml per kWh) as approved in MYT Tariff order	0.99	0.99
8	Average Cost of Lube Oil per as per bills submitted for Jun' 20, Jul' 20 and Dec' 20 (INR)	120.77	174.10
9	**Cost of Lube Oil [(3 X 7/1000 X 8)/10] (INR crores)**	**0.69**	**0.99**
10	**Total Fuel Cost (6+9) (INR crores)**	**90.63**	**99.32**

The Commission would like to highlight that the fuel cost as claimed by the Petitioner is lower than the fuel cost as approved by the Commission in the ARR of FY 2020-21, as the Petitioner has considered the average per litre fuel cost on last year's basis instead of the fuel cost reflecting in the purchase bills submitted by the Petitioner.

The Commission would also like to highlight that the approved cost towards diesel-based generation consists of cost incurred towards consumption of HSD oil and Lube oil only as the fixed cost incurred against own generation (i.e. O&M expenses, interest and finance charges, depreciation, interest on working capital etc.) has been considered and revised for the department as a whole in subsequent sections. Accordingly, no separate cost has been approved for own renewable based generation.

The Commission approves power purchase quantum of 58.13 MU and cost of INR 99.32 Crore in the APR of FY 2020-21.

4.7. Renewable Purchase Obligations (RPOs)

As per Regulation 1, Sub-regulation (1) of the JERC for the State of Goa and UTs (Procurement of Renewable Energy) Regulations, 2010

"Each distribution licensee shall purchase electricity (in kWh) from renewable energy sources, at a defined minimum percentage of the total consumption of all the consumers in its area during a year."

The Commission notified the JERC (Procurement of Renewable Energy), (Third Amendment) Regulations, 2016 on 22nd August 2016 and revised the RPO targets, according to which the Petitioner had to purchase 14.10% of its total consumption (including 6.10% from Solar) from renewable sources for the FY 2020-21.

For the FY 2020-21, the Commission approves the RPO target of 7.17 MU comprising of 3.10 MU Solar and 4.07 MU Non-Solar. Out of which, the Petitioner has only claimed to purchase the solar energy of around 0.64 MU, thereby resulting in a shortfall in RPO compliance. Accordingly, the table below provides the cumulative shortfall in RPO compliance till FY 2020-21:

Table 16: Cumulative RPO compliance till FY 2020-21

Particulars	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21
Solar Target	0.85%	1.65%	2.50%	3.60%	4.70%	6.10%
Non-Solar Target	2.70%	3.20%	4.20%	5.40%	6.80%	8.00%
Total Target	**3.55%**	**4.85%**	**6.70%**	**9.00%**	**11.50%**	**14.10%**
Sales Within UT	50.65	50.13	48.50	48.91	48.42	50.86
RPO Target						
Solar	0.43	0.83	1.21	1.76	2.28	3.10
Non-Solar	1.37	1.60	2.04	2.64	3.29	4.07
Total RPO Target	**1.80**	**2.43**	**3.25**	**4.40**	**5.57**	**7.17**
RPO Compliance (Actual Purchase)						
Solar	1.06	1.59	1.79	1.18	0.64	0.64
Non-Solar	0.00	0.00	0.00	0.00	0.00	0.00
Total RPO Compliance (Actual Purchase)	**1.06**	**1.59**	**1.79**	**1.18**	**0.64**	**0.64**
RPO Compliance (REC Certificate Purchase)						
Solar	0.00	0.00	0.00	0.00	0.00	0.00
Non-Solar	0.00	0.00	0.00	0.00	0.00	0.00
Total RPO Compliance (REC Certificate)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
RPO Compliance (REC+ Actual)						
Solar	1.06	1.59	1.79	1.18	0.64	0.64
Non-Solar	0.00	0.00	0.00	0.00	0.00	0.00
Total RPO Compliance	**1.06**	**1.59**	**1.79**	**1.18**	**0.64**	**0.64**
Net Shortfall/(Surplus) for this year	0.74	0.84	1.46	3.22	4.92	6.53
Cumulative Shortfall in RPO Compliance till current year	**0.74**	**1.58**	**3.04**	**6.25**	**11.18**	**17.71**

The Commission notes that there is a net shortfall in RPO compliance for FY 2020-21 (6.53 MU) and cumulative shortfall of 17.71 MU till FY 2020-21. The Commission also directs the Petitioner to complete the RPO obligation on priority.

4.8. Operation & Maintenance Expenses

The Operation & Maintenance Expenses comprise of the Employee Expenses, Administrative and General Expenses (A&G) and the Repair & Maintenance Expenses (R&M). Regulation 51 of the MYT Regulation, 2018 states the following:

"51.1 The Operation and Maintenance expenses for the Distribution Wires Business shall be computed in accordance with this Regulation.

51.2 Operation and Maintenance (O&M) expenses shall comprise of the following:

a) Employee expenses - salaries, wages, pension contribution and other employee costs;

b) Administrative and General expenses including insurance charges if any; and

c) Repairs and Maintenance expenses.

51.3 The Distribution Licensee shall submit the required O&M expenses for the Control Period as a part of Multi Year Tariff Petition. O&M expenses for the base Year shall be approved by the Commission taking into account the latest available audited accounts, business plan filed by the transmission Licensee, estimates of the actuals for the Base Year, prudence check and any other factors considered appropriate by the Commission.

51.4 O&M expenses for the nth Year of the Control Period shall be approved based on the formula given below:

O&Mn = (R&Mn + EMPn + A&Gn) x (1 - Xn) + Terminal Liabilities

Where,

R&Mn = K x GFAn-1 x (WPI inflation)

EMPn = (EMPn-1) x (1+Gn) x (CPI inflation)

A&Gn = (A&Gn-1) x (CPI inflation)

'K' is a constant (expressed in %). Value of K for each Year of the Control Period shall be determined by the Commission in the Multi Year Tariff Order based on Licensee's filing, benchmarking of repair and maintenance expenses, approved repair and maintenance expenses vis-à-vis GFA approved by the Commission in past and any other factor considered appropriate by the Commission;

CPI inflation – is the average increase in Consumer Price Index (CPI) for immediately preceding three (3) Years before the base Year;

WPI inflation – is the average increase in the Wholesale Price Index (CPI) for immediately preceding three (3) Years before the base Year;

EMPn – Employee expenses of the Distribution Licensee for the nth Year;

A&Gn – Administrative and General expenses of the Distribution Licensee for the nth Year;

R&Mn – Repair and Maintenance expenses of the Distribution Licensee for the nth Year;

Xn is an efficiency factor for nth Year. Value of Xn shall be determined by the Commission in the Multi Year Tariff Order based on Licensee's filing, benchmarking, approved cost by the Commission in past and any other factor the Commission feels appropriate;

Gn is a growth factor for the nthYear. Value of Gn shall be determined by the Commission for each Year in the Multi Year Tariff Order for meeting the additional manpower requirement based on Licensee's filings, benchmarking, approved cost by the Commission in past and any other factor that the Commission feels appropriate:

Provided that in case the Distribution Licensee has been in operation for less than three (3) Years as on the date of effectiveness of these Regulations, O&M Expenses shall be determined on case to case basis.

51.5 Terminal liabilities of employees of Licensee including pension expenses etc. shall be approved as per actuals submitted by the Licensee, subject to prudence check or be established through actuarial studies. Additionally, any variation due to changes recommended by the pay commission shall be allowed separately by the Commission, subject to prudence check.

51.6 For the purpose of estimation, the same value of factors – CPIinflation and WPIinflation shall be used for all Years of the Control Period. However, the Commission shall consider the actual values of the factors – CPIinflation and WPIinflation during the truing up exercise for the Year for which true up is being carried out and true up the O&M Expenses for that Year, only to the extent of inflation."

GFAn-1 – Gross Fixed Asset of the transmission Licensee for the n-1th Year;

In accordance with above Regulations, the Commission has approved the Employee Expenses, A&G Expenses and R&M Expenses as elaborated below.

4.8.1. Employee Expenses

Petitioner's submission

The Petitioner has submitted employee expenses of INR 25.73 Crore against the approved expenses of INR 23.87 Crore in the Tariff Order.

Commission's analysis

In accordance with the MYT Regulations, 2018, the Commission has determined the Employee expenses for each year of the MYT Control Period in MYT Order. The Regulation 6 of the MYT Regulations, 2018 stipulates the following:

"*6. Values for Base Year*

6.1 The values for the Base Year of the Control Period shall be determined on the basis of the audited accounts or provisional accounts of last three (3) Years, and other factors considered relevant by the Commission:

Provided that, in absence of availability of audited accounts or provisional accounts of last three (3) Years, the Commission may benchmark the parameters with other similar utilities to establish the values for Base Year:

Provided further that the Commission may change the values for Base Year and consequently the trajectory of parameters for Control Period, considering the actual figures from audited accounts."

In accordance with MYT Regulations, the Employee expenses shall be revised to the extent of change in inflation and growth rate during the control period. Accordingly, the Commission has considered the approved value of employee expenses for FY 2018-19 for computation of revised employee expenses of FY 2020-21. The Commission has considered the employee growth rate for FY 2019-20 and FY 2020-21 as submitted by the Petitioner along with the average CPI of previous three years to arrive at the employee expenses for FY 2020-21.

The CPI Inflation has been computed as follows:

Table 17: Computation of CPI Inflation (%)

<table>
<tr><th>FY</th><th>Increase in CPI Index</th><th>Average increase in CPI Index over 3 years</th><th>Average increase in CPI Index over 3 years</th></tr>
<tr><td>2016-17</td><td>4.12%</td><td rowspan="3">4.22%</td><td></td></tr>
<tr><td>2017-18</td><td>3.08%</td><td rowspan="3">5.35%</td></tr>
<tr><td>2018-19</td><td>5.45%</td></tr>
<tr><td>2019-20</td><td>7.53%</td><td></td></tr>
</table>

Table 18: Employee recruitment plan as submitted by the Petitioner

S. No	Particulars	FY 2018-19 (Base Year)	FY 2019-20	FY 2020-21	FY 2021-22
1	Opening Employee	340	324	352	339
2	Recruitment	1	44	3	31
3	Retirement	17	16	16	12
4	Closing Employee	324	352	339	358
5	Growth rate	-4.71%	8.64%	-3.69%	5.60%

Table 19: Employee Expenses approved for FY 2020-21 (INR Crore)

S. No	Particulars	FY 2019-20	FY 2020-21
1	EMPn-1 (INR Crore)	21.98	24.89
2	Gn (%)	8.64%	-3.69%
3	CPIinflation (%)	4.22%	5.35%
4	**Employee Expenses = (EMPn-1) x (1+Gn) x (CPIinflation)**	24.89	25.25

Table 20: Employee Expenses approved by the Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in Tariff Order	Petitioner's Submission	Now Approved by Commission
1	EMPn-1 (INR Crore)	22.91		24.89
2	Gn (%)	0.00%		-3.69%
3	CPIinflation (%)	4.22%	**25.73**	5.35%
4	**Employee Expenses = (EMPn-1) x (1+Gn) x (CPIinflation)**	**23.87**		**25.25**

The Commission now approves employee expenses of INR 25.25 Crore in the APR of the FY 2020-21.

4.8.2. Administrative and General (A&G) Expenses

Petitioner's submission

The Petitioner has submitted a revised estimate of A&G expenses of INR 3.03 crore as against the approved value of INR 2.90 crore in Tariff Order.

Commission's analysis

In accordance with MYT Regulations, the A&G expenses shall be revised to the extent of change in inflation during the control period. Accordingly, the Commission has considered the approved value of A&G expenses for FY 2018-19 for computation of revised A&G expenses of FY 2020-21. The A&G expenses for FY 2018-19 has been escalated with the average CPI of previous three years as computed above to arrive at the A&G expenses for FY 2019-20 and subsequently, for FY 2020-21.

The table below provides the A&G expenses approved in Tariff Order, Petitioner's Submission and now approved by the Commission:

Table 21: A&G Expenses approved for FY 2020-21 (INR Crore)

S. No	Particulars	FY 2019-20	FY 2020-21
1	A&Gn-1 (INR Crore)	2.67	2.78
2	CPIinflation (%)	4.22%	5.35%
3	Provision (INR Crore)	0.00	0.00

S. No	Particulars	FY 2019-20	FY 2020-21
4	**Gross A&Gn = A&Gn-1 x (1+CPIinflation) (INR Crore)**	**2.78**	**2.93**

Table 22: A&G Expenses approved by the Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in Tariff Order	Petitioner's Submission	Now Approved by Commission
1	A&Gn-1 (INR Crore)	2.78	**3.03**	2.78
2	CPIinflation (%)	4.22%		5.35%
3	Provision (INR Crore)	0.00		0.00
4	**Gross A&Gn = A&Gn-1 x (1+CPIinflation) (INR Crore)**	**2.90**		**2.93**

The Commission now approves the Administrative & General (A&G) expenses of INR 2.93 Crore in the APR of the FY 2020-21.

4.8.3. Repair & Maintenance Expenses (R&M)

Petitioner's submission

The Petitioner has submitted a revised estimate of R&M expenses of INR 13.23 crore as against the approved value of INR 8.22 crore in the Tariff Order dated May 18, 2020.

Commission's analysis

In accordance with MYT Regulations, the R&M expenses shall be revised to the extent of change in inflation during the control period. The Commission has considered the k-Factor as approved in the MYT Order and multiplied the same with the opening GFA of FY 2020-21. The resultant amount is then escalated by average WPI Inflation of previous three years to arrive at the R&M expenses for FY 2020-21.

The WPI Inflation has been computed as follows:

Table 23: Computation of WPI Inflation (%)

FY	Increase in WPI Index	Average increase in WPI index over 3 years
2016-17	2.92%	**2.96%**
2017-18	4.28%	
2018-19	1.68%	

The R&M expenses as approved by the Commission for FY 2020-21 have been provided in the following table:

Table 24: R&M Expenses approved by Commission for FY 2020-21 (INR Crore)

S. No	Particulars	FY 2020-21
1	Opening GFA (GFA_{n-1})	186.41
2	K factor approved (K) (%)	4.26%
3	Avg. WPI Inflation (%)	2.96%
4	**R&M Expenses = K x (GFA_{n-1}) x (1+$WPI_{inflation}$)**	**8.18**

Table 25: R&M Expenses approved by the Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in Tariff Order	Petitioner's Submission	Now Approved by Commission
1	**Repair & Maintenance Expenses (R&M)**	**8.22**	**13.23**	**8.18**

The Commission approves the Repair & Maintenance (R&M) expenses of INR 8.18 Crore in the APR of FY 2020-21.

4.8.4. Total Operation and Maintenance Expenses (O&M)

The following table provides the O&M expenses approved in the ARR of FY 2020-21, Petitioner's submission and now approved by the Commission.

Table 26: O&M Expenses approved by Commission (INR Crore)

S. No	Particulars	Approved in Tariff Order	Petitioner's Submission	Now Approved by Commission
1	Employee Expenses	23.87	25.73	25.25
2	Administrative & General Expenses (A&G)	2.90	3.03	2.93
3	Repair & Maintenance Expenses	8.22	13.23	8.18
	Total Operation & Maintenance Expenses	**34.99**	**41.99**	**36.36**

The Commission approves the Operation & Maintenance (O&M) Expenses of INR 36.36 Crore in the APR of FY 2020-21.

4.9. Capital Expenditure & Capitalisation

Petitioner's submission

The Petitioner has submitted revised capitalisation of INR 12.50 Crore as against the approved capitalisation of INR 13.00 Crore in the Tariff Order dated May 18, 2020.

Commission's analysis

The Commission with regard to the capitalisation proposed to be undertaken during the year, directed the Petitioner to submit the details of the schemes to be undertaken during the year along with the supporting documents. In accordance with the submission of the Petitioner and the Capital Expenditure and Capitalisation approved in MYT Order, the Commission approves the capital expenditure and capitalisation for the year as shown in the following table:

Table 27: Capitalisation approved by the Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in Tariff Order	Petitioner's Submission	Now Approved by Commission
1	Capitalisation	13.00	12.50	12.50

The Commission approves capitalisation of INR 12.50 Crore in the APR of FY 2020-21. The same shall be trued up at the time of True-up.

4.10. Capital Structure

Petitioner's Submission

The Petitioner has submitted that all the capital assets have been created out of equity contribution from Lakshadweep Administration.

Commission's analysis

Regulation 26 of the MYT Regulations, 2018 specifies the following:

"26. Debt to Equity Ratio

26.1 In case of Existing Projects, debt to equity ratio allowed by the Commission for determination of tariff for the period ending March 31, 2018 shall be considered:

Provided that in case of retirement or replacement or De-capitalization of the assets, the equity capital approved as mentioned above, shall be reduced to the extent of 30% (or actual equity component based on documentary evidence, if it is lower than 30%) of the original cost of such assets:

Provided further that in case of retirement or replacement or De-capitalization of the assets, the debt capital approved as mentioned above, shall be reduced to the extent of outstanding debt component based on documentary evidence, or the normative loan component, as the case may be, of the original cost of such assets.

26.2 For New Projects, the debt-equity ratio as on the Date of Commercial Operation shall be 70:30 of the amount of capital cost approved by the Commission under Regulation 23, after prudence check for determination of tariff:

Provided that where equity actually deployed is less than 30% of the capital cost of the capitalised asset, the actual equity shall be considered for determination of tariff:

Provided also that if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as a normative loan for the Licensee for determination of tariff:

Provided also that the Licensee shall submit documentary evidence for the actual deployment of equity and explain the source of funds for the equity:

Provided also that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:

Provided further that the premium, if any, raised by the Licensee while issuing share capital and investment of internal resources created out of its free reserves, for the funding of the scheme, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilized for meeting the capital expenditure of the transmission system or the distribution system, and are within the ceiling of 30% of capital cost approved by the Commission.

26.3 Any expenditure incurred or projected to be incurred on or after April 1, 2019, as may be admitted by the Commission, as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in this Regulation."

For the purpose of calculating the opening value of GFA in FY 2020-21, the Commission has considered the closing value of GFA for FY 2016-17 as approved in Tariff Order dated May 18, 2020 and capitalisation for FY 2017-18, FY 2018-19 and FY 2019-20 as submitted by the Petitioner as shown in following table:

Table 28: Capitalisation for FY 2017-18 and FY 2018-19 as submitted by the Petitioner (INR Crore)

Particulars	FY 2017-18	FY 2018-19	FY 2019-20
Opening GFA	162.30	168.74	174.41
Additions during the FY	6.44	5.66	12.00
Adjustment/Retirement During the FY	0.00	0.00	0.00
Closing GFA	168.74	174.41	186.41

In accordance with the MYT Regulations, 2018, the Commission has determined the Capital Structure for FY 2020-21 as follows:

Table 29: GFA addition approved by the Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in Tariff Order	Petitioner's Submission	Now Approved by Commission
1	Opening Gross Fixed Assets	187.41	186.41	186.41
2	Addition During the FY	13.00	12.50	12.50
3	Adjustment/Retirement During the FY	0.00	0.00	0.00
4	Closing Gross Fixed Assets	200.41	198.91	198.91

Table 30: Normative Loan addition approved by the Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in MYT Order	Petitioner's Submission	Now Approved by Commission
1	Opening Normative Loan	19.05	18.29	19.19
2	Add: Normative Loan During the year	7.25	9.10	8.75
3	Less: Normative Repayment equivalent to Depreciation	6.11	7.38	5.18*
4	Closing Normative Loan	20.19	20.01	22.76

**Depreciation calculated in next section*

Table 31: Normative Equity addition approved by the Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in MYT Order	Petitioner's Submission	Now Approved by Commission
1	Opening Equity	56.22	55.92	55.92
2	Additions on account of new capitalisation	3.90	3.90	3.75
3	Closing Equity	60.12	59.82	59.67

4.11. Depreciation

Petitioner's submission

The Petitioner has submitted the depreciation of INR 7.38 crore as per MYT Regulations 2018 as against the approved depreciation of INR 6.11 crores in the Tariff Order dated May 18, 2020.

Commission's analysis

Regulation 30 of the MYT Regulations, 2018 stipulates the following:

"30. Depreciation

30.1 The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission:

Provided that the depreciation shall be allowed after reducing the approved original cost of the retired or replaced or decapitalized assets: In the ARR Order, the Commission approved the following asset wise depreciation rate as per the CERC Tariff Regulations, 2014:

Provided also that the no depreciation shall be allowed on the assets financed through consumer contribution, deposit work, capital subsidy or grant.

30.2 The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to a maximum of 90% of the capital cost of the asset.

30.3 Land other than the land held under lease shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the assets.

30.4 In case of existing assets, the balance depreciable value as on April 1, 2019, shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to March 31, 2018, from the gross depreciable value of the assets.

30.5 The depreciation shall be chargeable from the first Year of commercial operations. In case of projected commercial operation of the assets during the Year, depreciation shall be computed based on the average of opening and closing value of assets:

Provided that depreciation shall be re-calculated during truing-up for assets capitalised at the time of truing up of each Year of the Control Period, based on documentary evidence of asset capitalised by the Applicant, subject to the prudence check of the Commission.

30.6 For Transmission Licensee, the depreciation shall be calculated at rates and norms specified in the prevalent CERC Tariff Regulations for transmission system.

30.7 The depreciation for a Distribution Licensee shall be calculated annually, based on the Straight Line Method, over the Useful Life of the asset at rates specified in Appendix I of the Regulations.

30.8 In addition to allowable depreciation, the Distribution Licensee shall be entitled to advance against depreciation (AAD), computed in the manner given hereunder:

AAD = Loan (raised for capital expenditure) repayment amount based on loan repayment tenure, subject to a ceiling of 1/10th of loan amount minus depreciation as calculated on the basis of these Regulations:

Provided that advance against depreciation shall be permitted only if the cumulative repayment upto a particular Year exceeds the cumulative depreciation upto that Year:

Provided further that advance against depreciation in a Year shall be restricted to the extent of difference between cumulative repayment and cumulative depreciation upto that Year.

30.9 The Distribution Licensee shall provide the list of assets added during each Year of Control Period and list of assets completing 90% of depreciation in the Year along with Petition for annual performance review, true-up and tariff determination for ensuing Year.

30.10 The remaining depreciable value for a Distribution Licensee shall be spread over the balance useful life of the asset, on repayment of the entire loan."

The Commission has derived the weighted average rate of depreciation based on the asset wise depreciation rate prescribed in MYT Regulations, 2018, provided in the following table:

Table 32: Depreciation Rate (%)

Description	Rate
Plant & Machinery	3.60%
Buildings	1.80%
Furniture & Fixtures	6.00%
Land	0.00%
Vehicles	18.00%
Computers	6.00%

The overall depreciation rate is considered as the weighted average depreciation rate calculated based on the asset wise depreciation rates and asset classification as per the true-up of FY 2016-17. The opening and closing GFA has been considered as approved in the *Section 5.10: Capital Structure* of this Order. Further, depreciation has been computed on average Gross Fixed Assets (GFA) after considering the net addition proposed during each year.

The following table provides the calculation of depreciation as approved in the tariff order, Petitioner's submission and now approved by the Commission.

Table 33: Depreciation approved by the Commission for FY 2020-21 (In INR Crore)

S. No	Particulars	Approved in Tariff Order	Petitioner's Submission	Now Approved by Commission
1	Opening Gross Fixed Assets	187.41	186.41	186.41
2	Less: Assets depreciated upto 90% till FY 2020-21	0.00	0.00	22.44
3	Net Gross Fixed Assets	187.41	186.41	163.98
4	Addition During the FY	13.00	12.50	12.50
5	Closing Gross Fixed Assets	200.41	198.91	176.47
6	Average Gross Fixed Assets	193.91	192.66	170.22
7	Weighted Average Depreciation rate (%)	3.15%	3.83%	3.04%
	Depreciation	**6.11**	**7.38**	**5.18**

The Commission now approves depreciation of INR 5.18 Crore in the APR of the FY 2020-21.

4.12. Interest and Finance Charges

Petitioner's submission

The Petitioner has estimated the Interest and Finance charges as per the JERC MYT Regulations, 2018 for the year FY 2020-21. The Petitioner has submitted that the majority of capital assets are created out of the equity contribution from Lakshadweep Administration only. The rate of interest considered is SBI MCLR as on 1stApril of that relevant year plus 100 basis points.

Commission's analysis

Regulation 28 of the MYT Regulations, 2018 stipulates the following:

"28. Interest on Loan

28.1 The loans arrived at in the manner indicated in Regulation 26 on the assets put to use, shall be considered as gross normative loan for calculation of interest on the loan:

Provided that interest and finance charges on capital works in progress shall be excluded:

Provided further that in case of De-capitalization or retirement or replacement of assets, the loan capital shall be reduced to the extent of outstanding loan component of the original cost of the de-capitalised or retired or replaced assets, based on documentary evidence.

28.2 The normative loan outstanding as on April 1, 2019, shall be worked out by deducting the cumulative repayment as admitted by the Commission up to March 31, 2018, from the gross normative loan.

28.3 Notwithstanding any moratorium period availed by the Transmission Licensee or the Distribution Licensee, as the case may be, the repayment of loan shall be considered from the first Year of commercial *operation of the project and shall be equal to the annual depreciation allowed in accordance with Regulation 30.*

28.4 The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each Year applicable to the Transmission Licensee or the Distribution Licensee:

Provided that at the time of truing up, the weighted average rate of interest calculated on the basis of the actual loan portfolio during the Year applicable to the Transmission Licensee or the Distribution Licensee shall be considered as the rate of interest:

Provided also that if there is no actual loan for a particular Year but normative loan is still outstanding, the last available weighted average rate of interest for the actual loan shall be considered:

Provided further that if the Transmission Licensee or the Distribution Licensee does not have actual loan, then one (1) Year State Bank of India (SBI) MCLR / any replacement thereof as notified by RBI for the time being in effect applicable for one (1)Year period, as may be applicable as on 1st April of the relevant Year plus 100 basis points shall be considered as the rate of interest for the purpose of allowing the interest on the normative loan.

28.5 The interest on loan shall be calculated on the normative average loan of the Year by applying the weighted average rate of interest:

Provided that at the time of truing up, the normative average loan of the Year shall be considered on the basis of the actual asset capitalization approved by the Commission for the Year.

28.6 For new loans proposed for each Financial Year of the Control Period, interest rate shall be considered as lower of (i) one (1) Year State Bank of India (SBI) MCLR / any replacement thereof as notified by RBI for the time being in effect applicable for one (1)Year period, as may be applicable as on 1st April of the relevant Year plus 100 basis points, and (ii) weighted average rate of interest proposed by the Distribution Licensee.

28.7 The above interest computation shall exclude the interest on loan amount, normative or otherwise, to the extent of capital cost funded by consumer contribution, deposit work, capital subsidy or grant, carried out by Transmission Licensee or Distribution Licensee.

28.8 The finance charges incurred for obtaining loans from financial institutions for any Year shall be allowed by the Commission at the time of Truing-up, subject to prudence check.

28.9 The excess interest during construction on account of time and/or cost overrun as compared to the approved completion schedule and capital cost or on account of excess drawal of the debt funds disproportionate to the actual requirement based on Scheme completion status, shall be allowed or disallowed partly or fully on a case to case basis, after prudence check by the Commission:

Provided that where the excess interest during construction is on account of delay attributable to an agency or contractor or supplier engaged by the Transmission Licensee, any liquidated damages recovered from such agency or contractor or supplier shall be taken into account for computation of capital cost:

Provided further that the extent of liquidated damages to be considered shall depend on the amount of excess interest during construction that has been allowed by the Commission.

28.10 The Transmission Licensee or the Distribution Licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the equally between the beneficiaries and the Transmission Licensee or the Distribution Licensee and the Consumers of Distribution Licensee.

28.11 Interest shall be allowed on the amount held as security deposit held in cash from Retail Consumers at the Bank Rate as on 1st April of the Financial Year in which the Petition is filed:

Provided that at the time of truing-up, the interest on the amount of security deposit for the Year shall be considered on the basis of the actual interest paid by the Licensee during the Year, subject to prudence check by the Commission."

Hence, the rate of interest to be considered while determining the ARR shall be the weighted average interest rate of the actual loan portfolio. However, in absence of detailed data with respect to the actual loan portfolio, the Commission has considered the SBI 1 Year MCLR rate plus 100 basis points as Rate of Interest, in accordance with the MYT Regulations, 2018.

As per the MYT Regulations, 2018, if the equity deployed is more than 30% of the capital cost, then equity in excess of 30% is considered as normative loan. The Interest on Loan has been has considered as the SBI 1 Year MCLR rate plus 100 basis points as Rate of Interest, in accordance with the MYT Regulations, 2018.

The following table provides the Interest on Loan approved by the Commission.

Table 34: Interest and Finance Charges approved by the Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in Tariff Order	Petitioner's Submission	Now Approved by Commission
1	Opening Normative Loan	19.05	18.29	19.19
2	Add: Normative Loan During the year	7.25	9.10	8.75
3	Less: Normative Repayment equivalent to Depreciation	6.11	7.38	5.18
4	Closing Normative Loan	20.19	20.01	22.76
5	Average Normative Loan	19.62	19.15	20.97
6	Rate of Interest (%)	8.85%	8.75%	8.75%
7	**Interest on Loan**	**1.74**	**1.68**	**1.83**

The Commission approves Interest and Finance Charges of INR 1.83 Crore in the APR of the FY 2020-21.

4.13. Return on Equity (RoE)

Petitioner's submission

Return on Equity (RoE) is computed in accordance with the MYT Regulations 2018, RoE is computed on 30% of the capital base. Opening equity is considered equivalent to closing equity for FY 2019-20 and additional equity to the tune of 30% is proposed to be capitalized during the year. Accordingly, RoE is computed at 16% post-tax.

Commission's analysis

RoE has been calculated on normative basis on the average of opening and closing of equity during the year at the rate of 16% (on post-tax basis) with an opening equity considered equivalent to the closing equity of FY 2019-20 as derived in Section 4.10: Capital Structure above. Income Tax payable shall be considered taken on actual basis at the time of True-up. The following table provides the RoE approved in the ARR of FY 2020-21, the Petitioner's submission and RoE now approved by the Commission.

Table 35: RoE approved by the Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	Opening Equity	56.22	55.92	55.92
2	Additions on account of new capitalisation	3.90	3.90	3.75
3	Closing Equity	60.12	59.82	59.67
4	Average Equity	58.17	57.87	57.80
5	Rate of Return	16.00%	16.00%	16.00%
6	**Return on Equity**	**9.31**	**9.26**	**9.25**

The Commission approves the Return on Equity of INR 9.25 Crore in the APR of the FY 2020-21.

4.14. Interest on Security Deposits

Petitioner's submission

The Petitioner has claimed an Interest on consumer security of INR 0.07 crore in line with the Interest on consumer security as approved by the commission in the MYT order.

Commission's analysis

Interest on Security Deposits has been calculated in accordance with the MYT Regulations, 2018 based on the average of opening and closing consumer security deposits during the year. Since, the annual audited accounts of FY 2017-18, FY 2018-19 and FY 2019-20 are still pending with the Petitioner, the opening security deposit has been considered as approved by the Commission in MYT order. The addition during the year has been considered the same as submitted by the Petitioner. The same shall be trued-up as per actuals in the True- up of FY 2020-21. The rate of interest has been considered equivalent to the prevailing RBI Bank rate. The table below provides the calculation of interest on consumer security deposits for the year.

Table 36: Interest on Security Deposits approved by the Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	Opening Security Deposit	0.94	0.94	0.94
2	Add: Deposits During the year	0.26	0.26	0.26
3	Less: Deposits refunded	0.00	0.00	0.00
4	Closing Security Deposit	1.20	1.20	1.20
5	Average Security Deposit	1.07	1.07	1.07
6	Rate of Interest (%)	6.25%	6.25%	4.65%
	Interest on Security Deposit (IoSD)	**0.07**	**0.07**	**0.05**

The Commission approves Interest on Security Deposit as INR 0.05 Crore in the APR of the FY 2020-21.

4.15. Interest on Working Capital

Petitioner's submission

Interest on Working Capital has been calculated based on the normative principles outlined in the JERC MYT Regulations, 2018.

The Petitioner has computed the Interest on Working Capital at rate of 9.75%.

Commission's analysis

The Commission has considered the receivables as proportionate revenue for 2 months as gap funding is done month on month basis from the Lakshadweep Administration, the revised power purchase cost of FY 2020-21 as determined above and the average consumer security deposit amount during the year for computing the Working Capital Requirement for the year. The maintenance spares have been considered @40% of R&M expenses for 1 month.

The Commission has considered the SBI Base rate as on 1st April 2010 for calculation of interest, as stipulated in the MYT Regulations, 2018.

Accordingly, the Interest on Working Capital has been calculated, as shown in the table below:

Table 37: Interest on Working Capital approved by the Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	O&M Expense for 1 month	2.92	3.50	3.03
2	Maintenance spares at 40% of R&M expenses for one (1) month;	0.27	0.44	0.27
3	Receivables equivalent to two (2) months of the expected revenue at the prevailing tariff	4.17	4.06	4.04
4	Less: Amount held as security deposits	1.20	1.20	1.07
5	Net Working Capital	6.16	6.80	6.27
6	Rate of Interest (%)	10.15%	9.75%	9.75%
7	**Interest on Working Capital**	**0.63**	**0.66**	**0.61**

The Commission approves the Interest on Working Capital as INR 0.61 Crore in the APR of the FY 2020-21.

4.16. Provision for Bad & Doubtful Debts

Petitioner's submission

The Petitioner has not earmarked any provision for bad and doubtful debts for the year.

Commission's analysis

The Commission also has not considered any provision towards Bad & Doubtful Debts. The same shall be accounted for as per actuals in the True-up of FY 2020-21.

4.17. Non-Tariff Income

Petitioner's submission

The Petitioner has submitted the Non-Tariff Income of INR 1.24 Crore as approved by the Commission in the MYT Order.

Commission's analysis

The Commission also has considered the same NTI as submitted by the Petitioner. The NTI approved in the Tariff Order, the Petitioner's submission and the NTI now approved by the Commission is shown in the table below:

Table 38: Non-Tariff Income approved by the Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in Tariff Order	Petitioner's Submission	Now Approved by Commission
	Non-Tariff Income	**1.24**	**1.24**	**1.24**

The Commission approves Non-Tariff Income of INR 1.24 crore in the APR of FY 2020-21. The same shall be considered at actuals at the time of True-up of FY 2020-21.

4.18. Aggregate Revenue Requirement (ARR)

Petitioner's submission

Based on the expenses as detailed above, the Petitioner has submitted the net aggregate revenue requirement of INR 150.42 Crore after adjusting the Non -Tariff Income for FY 2020-21.

Commission's analysis

On the basis of the detailed analysis of the cost parameters of the ARR, the Commission has considered and approved the revenue requirement in the APR of the FY 2020-21 as provided in the table below:

Table 39: Aggregate Revenue Requirement approved by the Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in Tariff Order	Petitioner's Submission	Now Approved by Commission
1	Power Purchase Cost	0.00	0.00	0.00
2	Fuel Cost	94.97	90.63	99.32
3	O&M Expenses	34.99	41.99	36.36
4	Depreciation	6.11	7.38	5.18
5	Interest and Finance charges	1.74	1.68	1.83
6	Interest on Working Capital	0.63	0.66	0.61
7	Return on Equity	9.31	9.26	9.25
8	Interest on Security Deposit	0.07	0.07	0.05
9	Income Tax	0.00	0.00	0.00
10	**Total Revenue Requirement**	**147.80**	**151.66**	**152.60**
11	Less: Non-Tariff Income	1.24	1.24	1.24
12	**Net Revenue Requirement**	**146.56**	**150.42**	**151.36**

The Commission now approves the net ARR of INR 151.36 crore in the APR of FY 2020-21.

4.19. Revenue at existing Retail Tariff

Petitioner's submission

The Petitioner has submitted the revenue from the sale of power at existing tariff as INR 24.36 crore determined on the basis of energy sales in the territory for FY 2020-21.

Commission analysis

The category wise revenue at existing retail tariff is calculated as per the tariff rates applicable for FY 2020-21 as per tariff order dated May 18, 2020. The revenue from demand charges and the energy charges have been projected for each category. The Commission has considered number of single phase and three phase consumers in the ratio of 70%-30% and has considered the power factor of 0.9 for computing fixed charges (specified in kVA) linked with connected load as projected load is in kW terms. The revenue from category tariff as computed by the Commission for the FY 2020-21 has been shown in the following table:

Table 40: Revenue at existing tariff computed by the Commission for FY 2020-21 (INR Crore)

S. No.	Category	Sales (MUs)	Revenue from Energy Charges	Revenue from Fixed charges	Total	ABR (INR/unit)
1	Domestic	37.61	11.09	0.70	11.79	3.14
2	Commercial	3.31	2.86	0.09	2.95	8.91
3	Government Connections	7.72	7.42	0.09	7.51	9.72
4	Industrial	0.36	0.24	0.21	0.44	12.25
5	HT Industrial	0.89	0.82	0.12	0.94	10.56
6	Public Lighting	0.83	0.50	0.02	0.51	6.19
7	Temporary	0.14	0.10	0.00	0.10	7.15
	TOTAL	**50.86**	**23.02**	**1.23**	**24.25**	**4.77**

The Commission has determined revenue from the sale of power at existing tariff as INR 24.25 Crore in the APR of FY 2020-21.

4.20. Standalone Revenue Gap/Surplus

Petitioner’s submission

Based on the ARR and the revenue from Retail tariff, the standalone revenue gap of INR 126.06 Crore is arrived at in the APR of FY 2020-21.

Commission analysis

The Commission based on the approved ARR and retail tariff has approved the Revenue Gap/Surplus as follows:

Table 41: Standalone Revenue Gap/ Surplus at existing tariff for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in Tariff Order	Petitioner's Submission	Now Approved by Commission
1	Net Revenue Requirement	146.56	150.42	151.36
2	Revenue from Retail Sales at Existing Tariff	25.02	24.36	24.25
3	**Net Gap /(Surplus)**	**121.54**	**126.06**	**127.11**

The Commission approves the standalone gap at INR 127.11 Crore in the APR of FY 2020-21.

5. Chapter 5: Determination of Aggregate Revenue Requirement for the FY 2021-22

5.1. Background

In this Chapter, the Commission has determined the Aggregate Revenue Requirement (ARR) for the FY 2021-22. The determination of Aggregate Revenue Requirement has been done in accordance with the MYT Regulations, 2018.

5.2. Approach for determination of ARR for each year of the FY 2021-22

The Commission has computed the individual elements constituting the Aggregate Revenue Requirement for each year based on figures approved in the Business Plan Order dated December 21, 2018, the actual available information of various parameters for the FY 2017-18, FY 2018-19, FY 2019-20 and the first half of FY 2020-21.

5.3. Projection of Number of consumers, Connected Load and Energy Sales

Petitioner's Submission

The Petitioner has revised the number of consumers, connected load and energy sales considering the actual figures of FY 2019-20 and the CAGR for various categories as approved by the Commission in the Business Plan Order.

Table 42: Number of consumers, Connected Load, and Energy Sales submitted by the Petitioner for the FY 2021-22

S. No.	Particulars	No. of Consumers	Connected Load	Energy Sales (MU)
1	Domestic	21590	94624	39.75
2	Commercial	3233	13089	3.52
3	Govt. Connection	1491	8390	7.84
4	Industrial	370	4040	0.37
5	HT Consumers	10	851	0.98
6	Public Lighting	77	298	0.85
7	Temporary Connection	225	305	0.14
	Total	**26996**	**121,597**	**53.44**

Commission's Analysis

The Commission has considered the category wise sales data, connected load and number of consumers as approved for FY 2020-21 in APR and CAGR for various categories as approved in Business Plan order dated December 21, 2018 for calculating the category wise sales, connected load and number of consumers respectively for FY 2021-22.

5.3.1. Energy Sales

The Commission has extrapolated the approved sales data from the category wise sales figure of FY 2021-22 using the approved CAGR for each category of sales as shown in the following table:

Table 43: Sales projected for FY 2021-22 (MU)

S. No.	Category	Approved Sales for FY 2020-21	CAGR as approved in MYT Order	Projected Sales for FY 2021-22
1	Domestic	37.61	5.68%	39.75
2	Commercial	3.31	6.27%	3.52
3	Govt. Connection	7.72	1.54%	7.84
4	Industrial	0.36	1.97%	0.37
5	HT Consumers	0.89	10.00%	0.98
6	Public Lighting	0.83	2.43%	0.85
7	Temporary Connection	0.14	0.00%	0.14
8	**Total Sales**	**50.86**		**53.44**

The table below provides the energy sales approved by the Commission in the MYT Order, the Petitioner's submission and as now approved by the Commission.

Table 44: Energy Sales (MU) approved by the Commission for FY 2021-22

S. No.	Category	Approved in MYT Order	Petitioner's Submission	Now Approved by Commission
1	Domestic	44.78	39.75	39.75
2	Commercial	3.66	3.52	3.52
3	Govt. Connection	8.52	7.84	7.84
4	Industrial	0.46	0.37	0.37
5	HT Consumers	0.78	0.98	0.98
6	Public Lighting	0.7	0.85	0.85
7	Temporary Connection	0.09	0.14	0.14
8	**Total Sales**	**59.00**	**53.44**	**53.44**

5.3.2. Number of Consumers

Similarly, the Commission has extrapolated the category wise number of consumers for FY 2020-21 using the approved CAGR for each category for number of consumers as shown in table below:

Table 45: Number of Consumers projected for FY 2021-22 (MU)

S. No.	Category	Approved Number of consumers for FY 2020-21	CAGR as approved in MYT Order	Projected Number of Consumers for FY 2021-22
1	Domestic	20109	3.89%	20891
2	Commercial	3023	4.56%	3161
3	Govt. Connection	1433	2.68%	1471
4	Industrial	347	3.51%	359
5	HT Consumers	8	10.00%	9
6	Public Lighting	74	1.35%	75
7	Temporary Connection	184	0.00%	184
8	**Total Consumers**	**25,178**		**26,150**

The table below provides the number of consumers approved by the Commission in the MYT Order, the Petitioner's submission and as now approved by the Commission.

Table 46: Number of Consumers approved by the Commission for FY 2021-22

S. No.	Category	Approved in MYT Order	Petitioner's Submission	Now Approved by Commission
1	Domestic	22,982	21590	20891
2	Commercial	2,871	3233	3161
3	Govt. Connection	1,354	1491	1471
4	Industrial	409	370	359
5	HT Consumers	9	10	9
6	Public Lighting	80	77	75
7	Temporary Connection	160	225	184
8	**Total Consumers**	**27,865**	**26996**	**26,150**

5.3.3. Connected Load

Similarly, the Commission has extrapolated the approved category wise connected load for FY 2020-21 using the approved CAGR for each category for connected load as shown in table below:

Table 47: Connected Load projected for FY 2021-22 (kW)

S. No.	Category	Connected Load for FY 2020-21	CAGR as approved in MYT Order	Projected Connected Load for FY 2021-22
1	Domestic	91889	2.40%	94094
2	Commercial	12479	3.41%	12905
3	Govt. Connection	7988	3.32%	8253
4	Industrial	3757	4.17%	3914
5	HT Consumers	728	8.16%	787
6	Public Lighting	277	3.67%	287
7	Temporary Connection	305	0.00%	305
8	**Total Connected Load**	**117,423**		**120,545**

The table below provides the category wise connected load approved by the Commission in the MYT Order, the Petitioner's submission and as now approved by the Commission.

Table 48: Connected Load approved by the Commission for FY 2021-22 (kW)

S. No.	Category	Approved in MYT Order	Petitioner's Submission	Now Approved by Commission
1	Domestic	94,109	94624	94094
2	Commercial	18,090	13089	12905
3	Govt. Connection	9,139	8390	8253
4	Industrial	4,366	4040	3914
5	HT Consumers	711	851	787
6	Public Lighting	342	298	287
7	Temporary Connection	66	305	305
8	**Total Connected Load**	**126,824**	**121,597**	**120,545**

The Commission approves energy sales of 53.44 MU, connected load of 120,545 kW and number of consumers as 26,150 in the ARR of FY 2021-22.

5.4. Intra-State Distribution Loss

Petitioner's submission

The Petitioner has proposed the T&D loss as approved by the Commission in the Business Plan Order i.e. at 12.25%.

Commission's analysis

The Commission, in the Business Plan Order, had set the loss trajectory for the 2nd Control Period considering the actual loss of 13.03% in FY 2017-18. The Commission approves the T&D loss for FY 2021-22 as approved in the Business Plan Order. The table below provides the T&D loss approved by the Commission in the MYT Order, the Petitioner's submission and as now approved by the Commission

Table 49: Intra-State Distribution Loss approved by the Commission for FY 2021-22 (%)

S. No	Particulars	Approved in MYT Order	Petitioner's Submission	Now Approved by Commission
1	Intra-State Distribution Loss	12.25%	12.25%	12.25%

The Commission approves the Intra-State Distribution Loss of 12.25% for the FY 2021-22.

5.5. Energy Balance

Petitioner's submission

The Petitioner has submitted the energy balance as shown in the table below:

Table 50: Energy Balance (MU) submitted by Petitioner

S. No.	Particulars	Petitioner's Submission
A	**Energy Requirement**	
1	Total Sales within the UT	53.44
2	Distribution losses (%)	12.25%
	Distribution losses (MU)	7.46
3	**Energy Requirement @ periphery**	**60.90**
B	**Energy Availability**	
1	Renewable Generation	0.64
2	Diesel Generation	60.90
3	**Total Energy Availability**	**61.54**
C	**Total shortfall/(Surplus)**	**0.00**

Commission's analysis

The Commission has determined the Energy Balance based on the revised estimates of energy sales and considering all the requirement shall be met by the Diesel generation along with Solar generation. The table below provides the Energy Balance as approved by the Commission in the MYT Order, the Petitioner's submission and the Energy Balance now approved by the Commission.

Table 51: Energy Balance (MU) approved by the Commission for FY 2021-22

S. No.	Particulars	Approved in MYT Order	Petitioner's Submission	Now Approved by Commission
A	**Energy Requirement**			
1	Total Sales within the UT	59.00	53.44	53.44
2	Distribution losses (%)	12.25%	12.25%	12.25%
	Distribution losses (MU)	8.24	7.46	7.46
3	**Energy Requirement @ periphery**	**67.24**	**60.90**	**60.90**
B	**Energy Availability**			
1	Power Purchase	7.83		
2	Renewable Generation		0.64	0.64
3	Diesel Generation	59.40	60.90	60.90
4	**Total Energy Availability**	**67.23**	**61.54**	**61.54**
C	**Total shortfall/(Surplus)**	**0.00**	**0.00**	**0.00**

In the ARR of FY 2021-22, the Commission has estimated a shortfall/(surplus) quantum of 0.00 MU considering all the demand net of renewable generation shall be met by the Diesel generation.

5.6. Power Purchase Quantum & Cost

Petitioner's submission

The Petitioner has submitted that the energy requirement of LED is met through its own generation with a mix of renewable and diesel generation as there is no availability of power from Central Generating Stations or from other sources/ open market/ power exchanges etc. Accordingly, the Petitioner has claimed the fuel cost of INR 99.92 crore (HSD Cost – INR 99.16 crore and Lube Cost – INR 0.76 crore) as against the approved cost of INR 83.74 crore (HSD Cost – INR 82.72 crore and Lube Cost – INR 1.02 crore) in the MYT Order.

Commission's Analysis

As per Regulation 12.1 of the MYT Regulations, 2018, power purchase and fuel cost are uncontrollable parameters. Thus, the power purchase and fuel cost have to be revisited every year by the Commission based on the audited accounts. The Commission has considered the energy demand net of renewable generation shall be met from the Diesel Generation based on sales projected for FY 2021-22 as Diesel generation is the main source of power in Lakshadweep Islands and may vary as per the demand. Accordingly, the Commission has computed the cost of fuel for Diesel generation considering the approved values of specific fuel consumption in MYT order as shown in table below:

Table 52: Fuel Cost approved by the Commission for FY 2021-22

S. No.	Particulars	Petitioner's Submission	Now Approved by Commission
1	Total Gross Generation (MUs)	61.22	61.54
2	Less: Solar Generation (MUs)	0.64	0.64
3	Total DG Generation (MUs) (1 - 2)	60.58	60.90
4	Specific HSD Consumption (ml per kWh) as approved by JERC MYT Tariff order Dated 20.05.2019	266.12	266.12
5	Average Cost of HSD per litre as per bills submitted for Jun' 20 and Jul' 20 (INR)	58.58	64.27
6	Average Cost of HSD per litre considered for FY 2019-20 escalated by 5% (5*105%) (INR)	61.51	67.48
7	**Cost of HSD [(3 X 4/1000 X 6)/10] (INR crores)**	**99.16**	**109.37**
8	Specific Lube oil consumption (ml per kWh) as approved by JERC MYT Tariff order Dated 20.05.2019	0.99	0.99
9	Average Cost of Lube Oil per litre as per bills submitted for Jun' 20, Jul' 20 and Dec' 20 (INR)	120.77	174.10
10	Average Cost of Lube oil per litre considered for FY 2019-20 escalated by 5% (9*105%) (INR)	126.81	182.80
11	**Cost of Lube Oil [(3 X 8/1000 X 10)/10] (INR crores)**	**0.76**	**1.10**
12	**Total Fuel Cost (INR crores)**	**99.92**	**110.47**

The Commission would like to highlight that the approved cost towards diesel-based generation consists of cost incurred towards consumption of HSD oil and Lube oil only as the fixed cost incurred against own generation (i.e. O&M expenses, interest and finance charges, depreciation, interest on working capital etc.) has been considered as part of various components of Annual Revenue Requirement for the department as a whole and has been discussed in the subsequent sections. Similarly, no separate cost has been approved for own renewable based generation.

The Commission approves power purchase quantum of 53.44 MU and cost of INR 110.47 Crore in the ARR of FY 2021-22.

5.7. Renewable Purchase Obligation (RPO)

As per Regulation 1, Sub-regulation (1) of the JERC for the State of Goa and UTs (Procurement of Renewable Energy) Regulations, 2010

"Each distribution licensee shall purchase electricity (in kWh) from renewable energy sources, at a defined minimum percentage of the total consumption of all the consumers in its area during a year."

The Commission notified the JERC (Procurement of Renewable Energy), (Third Amendment) Regulations, 2016 on 22nd August 2016 and revised the RPO targets, according to which the Petitioner had to purchase 17.00% of its total consumption (including 8.00% from Solar) from renewable sources for the FY 2021-22.

For the FY 2021-22, the Commission approves the RPO target of 9.09 MU comprising of 4.28 MU Solar and 4.81 MU Non-Solar. Out of which, the Petitioner has only claimed to purchase the solar energy of around 0.64 MU, thereby resulting in a shortfall in RPO compliance. Accordingly, the table below provides the cumulative shortfall in RPO compliance till FY 2021-22:

Table 53: Cumulative RPO compliance till FY 2021-22

Particulars	FY 16	FY 17	FY 18	FY 19	FY 20	FY21	FY22
Solar Target	0.85%	1.65%	2.50%	3.60%	4.70%	6.10%	8.00%
Non-Solar Target	2.70%	3.20%	4.20%	5.40%	6.80%	8.00%	9.00%
Total Target	**3.55 %**	**4.85%**	**6.70%**	**9.00%**	**11.50 %**	**14.10 %**	**17.00 %**
Sales Within UT	50.65	50.13	48.50	48.91	48.42	50.86	53.44
RPO Target							
Solar	0.43	0.83	1.21	1.76	2.28	3.10	4.28
Non-Solar	1.37	1.60	2.04	2.64	3.29	4.07	4.81
Total RPO Target	**1.80**	**2.43**	**3.25**	**4.40**	**5.57**	**7.17**	**9.09**
RPO Compliance (Actual Purchase)							
Solar	1.06	1.59	1.79	1.18	0.64	0.64	0.64
Non-Solar	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total RPO Compliance (Actual Purchase)	**1.06**	**1.59**	**1.79**	**1.18**	**0.64**	**0.64**	**0.64**
RPO Compliance (REC Certificate Purchase)							
Solar	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Non-Solar	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total RPO Compliance (REC Certificate)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
RPO Compliance (REC+ Actual)							
Solar	1.06	1.59	1.79	1.18	0.64	0.64	0.64
Non-Solar	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total RPO Compliance	**1.06**	**1.59**	**1.79**	**1.18**	**0.64**	**0.64**	**0.64**
Net Shortfall/(Surplus) for this year	0.74	0.84	1.46	3.22	4.92	6.53	8.44
Cumulative Shortfall in RPO Compliance till current year	**0.74**	**1.58**	**3.04**	**6.25**	**11.18**	**17.71**	**26.15**

The Commission notes that there is a net shortfall in RPO compliance for FY 2021-22 (8.44 MU) and cumulative shortfall of 26.15 MU till FY 2021-22. The Commission also directs the Petitioner to complete the RPO obligation on priority.

5.8. Operation & Maintenance Expenses

The Operation & Maintenance Expenses comprise of the Employee Expenses, Administrative and General Expenses (A&G) and the Repair & Maintenance Expenses (R&M). Regulation 51 of the MYT Regulation, 2018 states the following:

"51.1 The Operation and Maintenance expenses for the Distribution Wires Business shall be computed in accordance with this Regulation.

51.2 Operation and Maintenance (O&M) expenses shall comprise of the following:

a) Employee expenses - salaries, wages, pension contribution and other employee costs;

b) Administrative and General expenses including insurance charges if any; and

c) Repairs and Maintenance expenses.

51.3 The Distribution Licensee shall submit the required O&M expenses for the Control Period as a part of Multi Year Tariff Petition. O&M expenses for the base Year shall be approved by the Commission taking into account the latest available audited accounts, business plan filed by the transmission Licensee, estimates of the actuals for the Base Year, prudence check and any other factors considered appropriate by the Commission.

51.4 O&M expenses for the nthYear of the Control Period shall be approved based on the formula given below:

O&Mn = (R&Mn + EMPn + A&Gn) x (1 - Xn) + Terminal Liabilities

Where,

R&Mn = K x GFAn-1 x (WPIinflation)

EMPn = (EMPn-1) x (1+Gn) x (CPIinflation)

A&Gn = (A&Gn-1) x (CPIinflation)

'K' is a constant (expressed in %). Value of K for each Year of the Control Period shall be determined by the Commission in the Multi Year Tariff Order based on Licensee's filing, benchmarking of repair and maintenance expenses, approved repair and maintenance expenses vis-à-vis GFA approved by the Commission in past and any other factor considered appropriate by the Commission;

CPIinflation – is the average increase in Consumer Price Index (CPI) for immediately preceding three (3) Years before the base Year;

WPIinflation – is the average increase in the Wholesale Price Index (CPI) for immediately preceding three (3) Years before the base Year;

EMPn – Employee expenses of the Distribution Licensee for the nth Year;

A&Gn – Administrative and General expenses of the Distribution Licensee for the nth Year;

R&Mn – Repair and Maintenance expenses of the Distribution Licensee for the nth Year;

GFAn-1 – Gross Fixed Asset of the transmission Licensee for the n-1th Year;

Xn is an efficiency factor for nth Year. Value of Xn shall be determined by the Commission in the Multi Year Tariff Order based on Licensee's filing, benchmarking, approved cost by the Commission in past and any other factor the Commission feels appropriate;

Gn is a growth factor for the nthYear. Value of Gn shall be determined by the Commission for each Year in the Multi Year Tariff Order for meeting the additional manpower requirement based on Licensee's filings, benchmarking, approved cost by the Commission in past and any other factor that the Commission feels appropriate:

Provided that in case the Distribution Licensee has been in operation for less than three (3) Years as on the date of effectiveness of these Regulations, O&M Expenses shall be determined on case to case basis.

51.5 Terminal liabilities of employees of Licensee including pension expenses etc. shall be approved as per actuals submitted by the Licensee, subject to prudence check or be established through actuarial studies. Additionally, any variation due to changes recommended by the pay commission shall be allowed separately by the Commission, subject to prudence check.

51.6 For the purpose of estimation, the same value of factors – CPIinflation and WPIinflation shall be used for all Years of the Control Period. However, the Commission shall consider the actual values of the factors – CPIinflation and WPIinflation during the truing up exercise for the Year for which true up is being carried out and true up the O&M Expenses for that Year, only to the extent of inflation."

In accordance with above Regulations, the Commission has approved the Employee Expenses, A&G Expenses and R&M Expenses as elaborated below.

5.8.1. Employee Expenses

Petitioner's submission

The Petitioner has determined the revised estimates of the employee cost for the FY 2021-22 based on the actual expenses for the FY 2019-20 & 1st Half (April 20 to September 20) of the FY 2020-21. Accordingly, the Petitioner has claimed the employee expenses of INR 27.02 crore as against the approved employee expenses of INR 29.85 crore.

Commission's analysis

In accordance with the MYT Regulations, 2018, the Commission has determined the Employee expenses for each year of the MYT Control Period. The Regulation 6 of the MYT Regulations, 2018 stipulates the following:

"6. Values for Base Year

6.1 The values for the Base Year of the Control Period shall be determined on the basis of the audited accounts or provisional accounts of last three (3) Years, and other factors considered relevant by the Commission:

Provided that, in absence of availability of audited accounts or provisional accounts of last three (3) Years, the Commission may benchmark the parameters with other similar utilities to establish the values for Base Year:

Provided further that the Commission may change the values for Base Year and consequently the trajectory of parameters for Control Period, considering the actual figures from audited accounts."

In accordance with MYT Regulations, the Employee expenses shall be revised to the extent of change in inflation and growth rate during the control period. Accordingly, the Commission has considered the approved value of employee expenses for FY 2020-21 for computation of revised employee expenses of FY 2021-22. The approved employee expenses for FY 2021-22 has been escalated with the average CPI of previous three years and employee growth rate to arrive at the employee expenses for FY 2021-22.

The CPI Inflation has been computed as follows:

Table 54: Computation of CPI Inflation (%)

FY	Increase in CPI Index	Average increase in CPI Index over 3 years
2017-18	3.08%	**5.35%**
2018-19	5.45%	
2019-20	7.53%	

Table 55: Employee Expenses approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in MYT Order	Petitioner's Submission	Now Approved by Commission
1	EMPn-1 (INR Crore)	26.04	27.02	25.25
2	Gn (%)	9.80%		5.60%
3	CPIinflation (%)	4.28%		5.35%
4	**Employee Expenses = (EMPn-1) x (1+Gn) x (CPIinflation)**	**29.82**		**28.09**

The Commission approves Employee Expenses of INR 28.09 Cr for FY 2021-22.

5.8.2. Administrative and General (A&G) Expenses

Petitioner's submission

The Petitioner has submitted the Administrative & General Expenses of INR 3.09 Crore as against the approved figure of INR 3.03 crore in the MYT Order.

Commission's analysis

In accordance with MYT Regulations, the A&G expenses shall be revised to the extent of change in inflation during the control period. Accordingly, the Commission has considered the approved value of A&G expenses for FY 2020-21 for computation of revised A&G expenses of FY 2021-22. The A&G expenses for FY 2020-21 has been escalated with the average CPI of previous three years to arrive at the A&G expenses for FY 2021-22.

The table below provides the A&G expenses approved in MYT Order, Petitioner's Submission and now approved by the Commission:

Table 56: A&G Expenses approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in MYT Order	Petitioner's Submission	Now Approved by Commission
1	A&Gn-1 (INR Crore)	2.90	**3.09**	2.93
2	CPIinflation (%)	4.28%		5.35%
3	**Gross A&Gn = A&Gn-1 x (1+CPIinflation) (INR Crore)**	3.03		**3.09**

The Commission approves the Administrative & General (A&G) expenses of INR 3.09 Crore for FY 2021-22.

5.8.3. Repair & Maintenance Expenses (R&M)

Petitioner's submission

The Petitioner has submitted the Repair & Maintenance Expenses of INR 13.78 Crore as against the approved figure of INR 8.77 crore in the MYT Order.

Commission's analysis

In accordance with MYT Regulations, the R&M expenses shall be revised to the extent of change in inflation during the control period. The Commission has considered the k-Factor as approved in the MYT Order and multiplied the same with the opening GFA of FY 2021-22. The resultant amount is then escalated by average WPI Inflation of previous three years to arrive at the R&M expenses for FY 2021-22.

The WPI Inflation has been computed as follows:

Table 57: Computation of WPI Inflation (%)

FY	Increase in WPI Index	Average increase in WPI index over 3 years
2016-17	2.92%	**2.96%**
2017-18	4.28%	
2018-19	1.68%	

The R&M expenses approved by the Commission for FY 2021-22 have been provided in the following table:

Table 58: R&M Expenses approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	FY 2021-22
1	Opening GFA (GFA_{n-1})	198.91
2	K factor approved (K) (%)	4.26%
3	Avg. WPI Inflation (%)	2.96%
4	**R&M Expenses =** **K x (GFA_{n-1}) x ($1+WPI_{inflation}$)**	**8.72**

The Commission approves the Repair & Maintenance (R&M) expenses of INR 8.72 Crore for the FY 2021-22.

5.8.4. Total Operation and Maintenance Expenses (O&M)

The following table provides the total O&M expenses approved by the Commission for the FY 2021-22:

Table 59: O&M Expenses approved by the Commission for FY 2021-22 (In INR Cr)

S. No	Particulars	Approved in MYT Order	Petitioner's Submission	Now Approved by Commission
1	Employee Expenses	29.85	27.02	28.09
2	Administrative & General Expenses (A&G)	3.03	3.09	3.09
3	Repair & Maintenance Expenses	8.77	13.78	8.72
	Total Operation & Maintenance Expenses	**41.65**	**43.89**	**39.91**

The Commission approves Operation & Maintenance (O&M) expenses of INR 39.91 Crore in FY 2021-22.

5.9. Gross Fixed Assets (GFA) and Capitalization

Petitioner's submission

The Petitioner has claimed the capitalisation of INR 7.75 crore as approved in MYT order for FY 2021-22. The opening value of GFA has been considered as the closing value of FY 2020-21.

Commission's analysis

The Commission has considered the approved closing value of the GFA for FY 2020-21 as the opening value of GFA for FY 2021-22. The Commission has considered the capitalisation for FY 2021-22 as approved in the MYT order. Accordingly, the Commission has arrived at the closing value of GFA for FY 2021-22. The following table provides the summary of capitalization now approved by the Commission vis-à-vis the capitalisation approved by the Commission in the MYT Order:

Table 60: Capitalisation now approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in MYT Order	Petitioner's Submission	Now Approved by Commission
1	**Capitalisation**	**7.75**	**7.75**	**7.75**

The Commission approves the capitalisation of INR 7.75 crore for FY 2021-22.

5.10. Capital Structure

Petitioner's Submission

The Petitioner has submitted that all the capital assets have been created out of equity contribution from Lakshadweep Administration.

Commission's analysis

Regulation 26 of the MYT Regulations, 2018 specifies the following:

"26. Debt to Equity Ratio

26.1 In case of Existing Projects, debt to equity ratio allowed by the Commission for determination of tariff for the period ending March 31, 2018 shall be considered:

Provided that in case of retirement or replacement or De-capitalization of the assets, the equity capital approved as mentioned above, shall be reduced to the extent of 30% (or actual equity component based on documentary evidence, if it is lower than 30%) of the original cost of such assets:

Provided further that in case of retirement or replacement or De-capitalization of the assets, the debt capital approved as mentioned above, shall be reduced to the extent of outstanding debt component based on documentary evidence, or the normative loan component, as the case may be, of the original cost of such assets.

26.2 For New Projects, the debt-equity ratio as on the Date of Commercial Operation shall be 70:30 of the amount of capital cost approved by the Commission under Regulation 23, after prudence check for determination of tariff:

Provided that where equity actually deployed is less than 30% of the capital cost of the capitalised asset, the actual equity shall be considered for determination of tariff:

Provided also that if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as a normative loan for the Licensee for determination of tariff:

Provided also that the Licensee shall submit documentary evidence for the actual deployment of equity and explain the source of funds for the equity:

Provided also that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:

Provided further that the premium, if any, raised by the Licensee while issuing share capital and investment of internal resources created out of its free reserves, for the funding of the scheme, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilized for meeting the capital expenditure of the transmission system or the distribution system, and are within the ceiling of 30% of capital cost approved by the Commission.

26.3 Any expenditure incurred or projected to be incurred on or after April 1, 2019, as may be admitted by the Commission, as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in this Regulation."

For the purpose of calculating the opening value of GFA in FY 2021-22, the Commission has considered the closing value of GFA for FY 2020-19 as approved in previous chapter.

Therefore, in accordance with the MYT Regulations, 2018, the Commission has determined the Capital Structure for the FY 2021-22 as follows:

Table 61: GFA addition approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	FY 2021-22
1	Opening Gross Fixed Assets	198.91
2	Addition During the FY	7.75
3	Adjustment/Retirement During the FY	0
4	Closing Gross Fixed Assets	206.66

Table 62: Loan addition approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	FY 2021-22
1	Opening Loan	22.76
2	Additions during the year	5.43
3	Less: Normative Repayment equivalent to Depreciation	5.47
4	Closing Loan	22.71

Table 63: Normative Equity addition approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	FY 2021-22
1	Opening Equity	59.67
2	Additions during the year	2.33
3	Closing Equity	62.00

5.11. Depreciation

Petitioner's submission

The Petitioner has submitted the depreciation of INR 7.79 crore as per MYT Regulations 2018 as against the approved depreciation of INR 8.11 crores in MYT Order.

Commission's analysis

Regulation 30 of the MYT Regulations, 2018 stipulates the following:

"30. Depreciation

30.1 The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission:

Provided that the depreciation shall be allowed after reducing the approved original cost of the retired or replaced or decapitalized assets:

Provided also that the no depreciation shall be allowed on the assets financed through consumer contribution, deposit work, capital subsidy or grant.

30.2 The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to a maximum of 90% of the capital cost of the asset.

30.3 Land other than the land held under lease shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the assets.

30.4 In case of existing assets, the balance depreciable value as on April 1, 2019, shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to March 31, 2018, from the gross depreciable value of the assets.

30.5 The depreciation shall be chargeable from the first Year of commercial operations. In case of projected commercial operation of the assets during the Year, depreciation shall be computed based on the average of opening and closing value of assets:

Provided that depreciation shall be re-calculated during truing-up for assets capitalised at the time of truing up of each Year of the Control Period, based on documentary evidence of asset capitalised by the Applicant, subject to the prudence check of the Commission.

30.6 For Transmission Licensee, the depreciation shall be calculated at rates and norms specified in the prevalent CERC Tariff Regulations for transmission system.

30.7 The depreciation for a Distribution Licensee shall be calculated annually, based on the Straight Line Method, over the Useful Life of the asset at rates specified in Appendix I of the Regulations.

30.8 In addition to allowable depreciation, the Distribution Licensee shall be entitled to advance against depreciation (AAD), computed in the manner given hereunder:

AAD = Loan (raised for capital expenditure) repayment amount based on loan repayment tenure, subject to a ceiling of 1/10th of loan amount minus depreciation as calculated on the basis of these Regulations:

Provided that advance against depreciation shall be permitted only if the cumulative repayment upto a particular Year exceeds the cumulative depreciation upto that Year:

Provided further that advance against depreciation in a Year shall be restricted to the extent of difference between cumulative repayment and cumulative depreciation upto that Year.

30.9 The Distribution Licensee shall provide the list of assets added during each Year of Control Period and list of assets completing 90% of depreciation in the Year along with Petition for annual performance review, true-up and tariff determination for ensuing Year.

30.10 The remaining depreciable value for a Distribution Licensee shall be spread over the balance useful life of the asset, on repayment of the entire loan."

The Commission has derived the weighted average rate of depreciation based on the asset wise depreciation rate prescribed in MYT Regulations, 2018, provided in the following table:

Table 64: Depreciation Rate (%)

Description	Rate
Plant & Machinery	3.60%
Buildings	1.80%
Furniture & Fixtures	6.00%
Land	0.00%
Vehicles	18.00%
Computers	6.00%

The overall depreciation rate is considered as the weighted average depreciation rate calculated based on the asset wise depreciation rates and asset classification as per the APR of FY 2020-21. The closing GFA of the FY 2020-21 as approved in the APR has been considered as opening GFA of the FY 2021-22. Further, depreciation has been computed on average Gross Fixed Assets (GFA) after considering the net addition proposed during each year. The following table provides the calculation of depreciation as approved in the MYT order, Petitioner's submission and now approved by the Commission.

Table 65: Depreciation approved by the Commission for FY 2021-22 (In INR Crore)

S. No	Particulars	Approved in MYT Order	Petitioner's Submission	Now Approved by Commission
1	Opening Gross Fixed Assets	205.09	199.41	198.91
2	Less: Assets depreciated upto 90% till FY 2017-18	0.00	0.00	23.20
3	Net Opening Gross Fixed Assets	205.09	199.41	175.71
4	Addition During the FY	7.75	7.75	7.75
5	Closing Gross Fixed Assets	212.84	207.16	183.46
6	Average Gross Fixed Assets	208.97	203.29	179.58
7	Weighted Average Depreciation rate (%)	3.88%	3.83%	3.04%
8	**Depreciation**	**8.11**	**7.79**	**5.47**

The Commission approves a depreciation of INR 5.47 Crore for the FY 2021-22.

5.12. Interest on Loan

Petitioner's submission

The petitioner has estimated the Interest and Finance charges as per the JERC MYT Regulations, 2018 for the year FY 2021-22. The Petitioner has submitted that the majority of capital assets are created out of the equity contribution from Lakshadweep Administration only. The rate of interest considered is SBI MCLR as on 1stApril of the relevant year plus 100 basis points

Commission's analysis

Regulation 28 of the MYT Regulations, 2018 stipulates the following:

"28. Interest on Loan

28.1 The loans arrived at in the manner indicated in Regulation 26 on the assets put to use, shall be considered as gross normative loan for calculation of interest on the loan:

Provided that interest and finance charges on capital works in progress shall be excluded:

Provided further that in case of De-capitalization or retirement or replacement of assets, the loan capital shall be reduced to the extent of outstanding loan component of the original cost of the de-capitalised or retired or replaced assets, based on documentary evidence.

28.2 The normative loan outstanding as on April 1, 2019, shall be worked out by deducting the cumulative repayment as admitted by the Commission up to March 31, 2018, from the gross normative loan.

28.3 Notwithstanding any moratorium period availed by the Transmission Licensee or the Distribution Licensee, as the case may be, the repayment of loan shall be considered from the first Year of commercial operation of the project and shall be equal to the annual depreciation allowed in accordance with Regulation 30.

28.4 The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each Year applicable to the Transmission Licensee or the Distribution Licensee:

Provided that at the time of truing up, the weighted average rate of interest calculated on the basis of the actual loan portfolio during the Year applicable to the Transmission Licensee or the Distribution Licensee shall be considered as the rate of interest:

Provided also that if there is no actual loan for a particular Year but normative loan is still outstanding, the last available weighted average rate of interest for the actual loan shall be considered:

Provided further that if the Transmission Licensee or the Distribution Licensee does not have actual loan, then one (1) Year State Bank of India (SBI) MCLR / any replacement thereof as notified by RBI for the time being in effect applicable for one (1)Year period, as may be applicable as on 1st April of the relevant Year plus 100 basis points shall be considered as the rate of interest for the purpose of allowing the interest on the normative loan.

28.5 The interest on loan shall be calculated on the normative average loan of the Year by applying the weighted average rate of interest:

Provided that at the time of truing up, the normative average loan of the Year shall be considered on the basis of the actual asset capitalization approved by the Commission for the Year.

28.6 For new loans proposed for each Financial Year of the Control Period, interest rate shall be considered as lower of (i) one (1) Year State Bank of India (SBI) MCLR / any replacement thereof as notified by RBI for the time being in effect applicable for one (1)Year period, as may be applicable as on 1st April of the relevant Year plus 100 basis points, and (ii) weighted average rate of interest proposed by the Distribution Licensee.

28.7 The above interest computation shall exclude the interest on loan amount, normative or otherwise, to the extent of capital cost funded by consumer contribution, deposit work, capital subsidy or grant, carried out by Transmission Licensee or Distribution Licensee.

28.8 The finance charges incurred for obtaining loans from financial institutions for any Year shall be allowed by the Commission at the time of Truing-up, subject to prudence check.

28.9 The excess interest during construction on account of time and/or cost overrun as compared to the approved completion schedule and capital cost or on account of excess drawal of the debt funds disproportionate to the actual requirement based on Scheme completion status, shall be allowed or disallowed partly or fully on a case to case basis, after prudence check by the Commission:

Provided that where the excess interest during construction is on account of delay attributable to an agency or contractor or supplier engaged by the Transmission Licensee, any liquidated damages recovered from such agency or contractor or supplier shall be taken into account for computation of capital cost:

Provided further that the extent of liquidated damages to be considered shall depend on the amount of excess interest during construction that has been allowed by the Commission.

28.10 The Transmission Licensee or the Distribution Licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the equally between the beneficiaries and the Transmission Licensee or the Distribution Licensee and the Consumers of Distribution Licensee.

28.11 Interest shall be allowed on the amount held as security deposit held in cash from Retail Consumers at the Bank Rate as on 1st April of the Financial Year in which the Petition is filed:

Provided that at the time of truing-up, the interest on the amount of security deposit for the Year shall be considered on the basis of the actual interest paid by the Licensee during the Year, subject to prudence check by the Commission."

Hence, the rate of interest to be considered while determining the ARR shall be the weighted average interest rate of the actual loan portfolio. However, in absence of detailed data with respect to the actual loan portfolio, the

Commission has considered the SBI 1 Year MCLR rate[1] plus 100 basis points as Rate of Interest, in accordance with the MYT Regulations, 2018

As per the MYT Regulations, 2018, if the equity deployed is more than 30% of the capital cost, then equity in excess of 30% is considered as normative loan. The Interest on Loan has been calculated on the average loan during the year with the opening loan for the first year of the Control Period considered equivalent to the closing loan approved in the APR for the FY 2020-21.

The following table provides the Interest on Loan approved by the Commission.

Table 66: Interest on loan approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	FY 2021-22
1	Opening Normative Loan	22.76
2	Add: Normative Loan During the year	5.43
3	Less: Normative Repayment equal to Depreciation	5.47
4	Closing Normative Loan	22.71
5	Average Normative Loan	22.73
6	Rate of Interest (%)	8.00%
7	**Interest on Loan**	**1.82**

The Commission approves Interest on Loan as INR 1.82 Crore for the FY 2021-22.

5.13. Return on Equity (RoE)

Petitioner's submission

The Return on Equity (RoE) is computed in accordance with the MYT Regulations, 2018, wherein RoE is computed on 30% of the capital base if the actual equity deployed is more than 30% and the actual equity base if the equity deployed is less than 30%. Accordingly, the Petitioner has computed the Return on Equity at 16% on post-tax basis. The following table summarizes Petitioner's submission:

Table 67: Return on equity as submitted by the Petitioner (INR Crore)

S. No.	Particulars	FY 2021-22
1	Opening Equity Amount	59.82
2	Equity Addition during year (30% of Capitalization)	2.33
3	Closing Equity Amount	62.15
4	Average Equity Amount	60.98
5	Return on Equity (%)	16.00%
6	**Total Return on Equity**	**9.76**

Commission's analysis

Regulations 27.2 and 27.3 of the MYT Regulations, 2018 stipulate the following:

"27.2 The return on equity for the Distribution Wires Business shall be allowed on the equity capital determined in accordance with Regulation 26 for the assets put to use at post-tax rate of return on equity specified in the prevalent CERC Tariff Regulations for transmission system.

[1] SBI 1 Year MCLR rate as on 10th Mar 2020

27.3 The return on equity for the Retail Supply Business shall be allowed on the equity capital determined in accordance with Regulation 26 for the assets put to use, at the rate of sixteen (16) per cent per annum."

RoE has been calculated on normative basis on the average of opening and closing of equity during the year at the rate of 16% (on post-tax basis) with an opening equity considered equivalent to the closing equity of FY 2020-21 as approved in the APR. Income Tax payable shall be considered taken on actual basis at the time of True-up. The following table provides the RoE approved in the ARR of FY 2021-22, the Petitioner's submission and RoE now approved by the Commission.

Table 68: RoE approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in MYT Order	Petitioner's Submission	Now Approved by Commission
1	Opening Equity	47.73	59.82	59.67
2	Additions on account of new capitalisation	2.33	2.33	2.33
3	Closing Equity	50.06	62.15	62.00
4	Average Equity	48.89	60.98	60.83
5	Rate of Return	16.00%	16.00%	16.00%
6	**Return on Equity**	**7.82**	**9.76**	**9.73**

The Commission approves Return on Equity of INR 9.73 Crore for the FY 2021-22.

5.14. Interest on Security Deposits

Petitioner's submission

The Petitioner has proposed to consider the same figures as proposed by the Commission in the MYT order and they shall submit the actual figures at the time of true-up. Accordingly, the Petitioner has claimed an interest on Security Deposits of INR 0.08 crore.

Commission's analysis

Regulation 28.11 of the MYT Regulations, 2018 stipulates the following:

" Interest shall be allowed on the amount held as security deposit held in cash from Retail Consumers at the Bank Rate as on 1st April of the Financial Year in which the Petition is filed:

Provided that at the time of truing-up, the interest on the amount of security deposit for the Year shall be considered on the basis of the actual interest paid by the Licensee during the Year, subject to prudence check by the Commission. "

The Interest on security deposits has been calculated in accordance with the MYT Regulations 2018, based on the average of the opening and closing consumer security deposits during the year. The rate of interest has been considered equivalent to the prevailing RBI Bank rate. The Commission proposes to approve the interest on security deposits in line with the approved figures of MYT Order and the same shall be trued up at the time of true up of FY 2021-22.

The following table provides the interest on consumer security deposits approved in MYT Order, Petitioner's Submission and now approved by the Commission for FY 2021-22:

Table 69: Interest on Security Deposits approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in MYT Order	Petitioner's Submission	Now Approved by Commission
1	Opening Security Deposit	1.20	1.20	1.20
2	Net addition during the year	0.26	0.26	0.26
3	Refund during the year	0.00	0.00	0.00
3	Closing Security Deposit	1.46	1.46	1.46
4	Average Security Deposit	1.33	1.33	1.33
5	Rate of Interest (%)	6.25%	6.25%	4.25%
6	**Interest on Security Deposit**	**0.08**	**0.08**	**0.06**

The Commission approves Interest on Security Deposit as INR 0.06 Crore for the FY 2021-22.

5.15. Interest on Working Capital

Petitioner's submission

The interest on working capital has been calculated based on the normative principles outlined in the MYT Regulations, 2018.

The working capital requirement for the Control Period has been computed considering the following

- Receivable of two months of billing
- O&M Expenses of one month
- Maintenance Spares at 40% of repair and maintenance expenses for one month
- Less consumer security deposit but excluding Bank Guarantee/Fixed Deposit Receipt

The SBI 1 year MCLR as on 1st April 2020 plus 200 basis points i.e. 9.75% (7.75% + 2%) has been considered for computation of interest on working capital. The following table provides the Interest on working Capital proposed for each year of the Control Period.

Table 70: Interest on Working Capital submitted by the Petitioner (INR Crore)

S. No.	Particulars	FY 2021-22
1	O&M Expense - 1 month	3.66
2	Maintenance Spare @ 40% of R&M Exp - one month	0.46
3	Two Months Receivables	4.24
4	Less : Amount held as Security Deposit	1.46
5	Total Working Capital	6.90
6	Interest Rate	9.75%
7	**Interest on Working Capital**	**0.67**

Commission's analysis

Regulation 52 of the MYT Regulations, 2018 stipulates the following:

"52. Norms of Working Capital for Distribution Wires Business

52.1 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:

(a) O&M Expenses for one (1) month; plus

(b) Maintenance spares at 40% of repair and maintenance expenses for one (1) month; plus

(c) Receivables equivalent to two (2) months of the expected revenue from charges for use of distribution wires at the prevailing tariff;

Less:

(d) 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:

Provided that at the time of truing up for any Year, the working capital requirement shall be re-calculated on the basis of the values of components of working capital approved by the Commission in the truing up."

Further, Regulation 31.3 of the MYT Regulation, 2018 stipulates the following:

31.3 The interest on working capital shall be a payable on normative basis notwithstanding that the Licensee has not taken working capital loan from any outside agency or has exceeded the working capital loan based on the normative figures. 31.4 The rate of interest on working capital shall be equal one (1)Year State Bank of India (SBI) MCLR / any replacement thereof as notified by RBI for the time being in effect applicable for one (1)Year period, as may be applicable as on 1st April of the Financial Year in which the Petition is filed plus 200 basis points.

The Commission has computed the Interest on Working Capital for FY 2021-22 in accordance with the MYT Regulation, 2018. The interest rate has been considered as 9.75% (1 year MCLR as on 1st April 2020 i.e. 9.75% + 200 basis points). The computation of interest on working capital is shown in the following table:

Table 71: Interest on Working Capital approved by the Commission for FY 2021-22 (INR Cr)

S. No	Particulars	FY 2021-22
1	O&M Expense for 1 month	3.33
2	Maintenance spares at 40% of R&M expenses for one (1) month;	0.29
3	Receivables equivalent to two (2) months of the expected revenue from charges for use of distribution wires at the prevailing tariff	4.26
4	Less: Amount held as security deposits	1.46
5	Net Working Capital	6.42
6	Rate of Interest (%)	9.75%
	Interest on Working Capital	**0.63**

The Commission approves the Interest on Working Capital as INR 0.63 Crore for the FY 2021-22.

5.16. Income Tax

Petitioner's submission

The Petitioner has not made any submission has been made in this regard.

Commission's analysis

Regulation 32 of MYT Regulations, 2018 stipulates the following:

"32. Tax on Income

32.1 The treatment of tax on income for a Transmission Licensee shall be in accordance with the prevalent CERC Tariff Regulations.

32.2 The Commission in its MYT Order shall provisionally approve Income Tax payable for each Year of the Control Period, if any, based on the actual income tax paid, including cess and surcharge on the same, if any, as per latest audited accounts available for the Distribution Licensee, subject to prudence check.

32.3 Variation between Income Tax actually paid, including cess and surcharge on the same, if any, and approved, if any, on the income stream of the Licensed business of the Distribution Licensees shall be reimbursed to/recovered from the Distribution Licensees, based on the documentary evidence submitted at the time of truing up of each Year of the Control Period, subject to prudence check.

32.4 Under-recovery or over-recovery of any amount from the Consumers on account of such tax having been passed on to them shall be adjusted every Year on the basis of income-tax assessment under the Income-Tax Act, 1961, as certified by the statutory auditors. The Distribution Licensee may include this variation in its truing up Petition:

Provided that tax on any income stream other than the core business shall not be a pass-through component in tariff and tax on such other income shall be borne by the Distribution Licensee."

Since the Petitioner has paid no Income tax in the previous years, no income tax liability is computed for the FY 2021-22 and the same shall be Trued-up based on the actual income tax paid by the Petitioner.

Table 72: Income Tax approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	FY 2021-22
1	Income Tax	0.00

5.17. Provision for Bad & Doubtful Debts

Petitioner's submission

The Petitioner has not proposed any provision for bad and doubtful debts during the FY 2021-22.

Commission's analysis

Regulation 62 of the MYT Regulations, 2018 stipulates the following

"62. Provision for bad and doubtful debts

62.1 The Commission may allow bad debts written off as a pass through in the Aggregate Revenue Requirement, based on the trend of write off of bad debts in the previous years, subject to prudence check:

Provided that the Commission shall true up the bad debts written off in the Aggregate Revenue Requirement, based on the actual write off of bad debts excluding delayed payment charges waived off, if any, during the year, subject to prudence check:

Provided also that the provision for bad and doubtful debts shall be limited to 1% of the annual Revenue Requirement of the Distribution Licensee:

Provided further that if subsequent to the write off of a particular bad debt, revenue is realised from such bad debt, the same shall be included as an uncontrollable item under the Non-Tariff Income of the year in which such revenue is realised."

The Commission also has not considered any Provision for Bad & Doubtful Debts for the FY 2021-22. The same shall be accounted for as per actuals during the True-up of respective years.

5.18. Non-Tariff Income

Petitioner's submission

The Petitioner has estimated the non-tariff income of INR 1.31 crore for FY 2021-22 as approved by the Commission in MYT Order.

Commission's analysis

Regulation 64 of the MYT Regulations, 2018 stipulates the following:

"64. Non-Tariff Income

64.1 The amount of Non-Tariff Income relating to the retail supply of electricity as approved by the Commission shall be deducted from the Aggregate Revenue Requirement in calculating the tariff for retail supply of electricity by the Distribution Licensee:

Provided that the Distribution Licensee shall submit full details of its forecast of Non-Tariff Income to the Commission along with its application for determination of tariff.

64.2 The Non-Tariff Income shall inter-alia include:

(a) Income from rent of land or buildings;

(b) Income from sale of scrap;

(c) Income from statutory investments;

(d) Interest on advances to suppliers/contractors;

(e) Rental from staff quarters;

(f) Rental from contractors;

(g) Income from hire charges from contactors and others;

(h) Income from advertisements, etc.;

(i) Meter/metering equipment/service line rentals;

(j) Service charges;

(k) Consumer charges;

(l) Recovery for theft and pilferage of energy;

(m) Rebate availed on account of timely payment of bills;

(n) Miscellaneous receipts;

(o) Deferred Income from grant, subsidy, etc., as per Annual Accounts;

(p) Prior period income, etc.:

Provided that the interest/dividend earned from investments made out of Return on Equity corresponding to the Retail Supply Business of the Distribution Licensee shall not be included in Non-Tariff Income:

Provided further that any income earned by a Distribution Licensee by sale of power to other Distribution Licensees or to Consumers as per Section 49 of the Act using the existing power purchase agreements or bulk supply capacity allocated to the Distribution Licensee's Area of Supply shall be reduced from the Aggregate Revenue Requirement of the Distribution Licensee for the purpose of determination of tariff. Such reduction shall be carried out in accordance with Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Connectivity and Open Access in Intra-State Transmission and Distribution) Regulations, 2017, as amended from time to time."

The Commission approves the NTI in line with the approved figures of MYT Order. The same shall be Trued-up on actual basis at the time of true-up. The NTI approved for FY 2021-22 has been shown in the following table:

Table 73: Non -tariff Income approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in MYT Order	Petitioner's Submission	Now Approved by Commission
1	Non- Tariff Income	1.31	1.31	1.31

The Commission approves Non-Tariff Income of INR 1.31 Crore for the FY 2021-22.

5.19. Aggregate Revenue Requirement (ARR)

Petitioner's submission

Based on the expenses as detailed above, the Petitioner has submitted the net aggregate revenue requirement of INR 162.45 crore as against the approved net aggregate revenue requirement of INR 147.22 crore in MYT Order.

Commission's analysis

On the basis of the detailed analysis of the cost parameters of the ARR the net revenue requirement as approved in MYT order, Petitioner's submission and now approved by the Commission for FY 2021-22 is shown in table below:

Table 74: Aggregate Revenue Requirement approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in MYT Order	Petitioner's Submission	Now Approved by Commission
1	Power Purchase Cost	0.78	0.00	0.00
2	Fuel Cost	83.74	99.92	110.47
3	O&M Expenses	41.65	43.89	39.91
4	Depreciation	8.11	7.79	5.47
5	Interest and Finance charges	5.64	1.65	1.82
6	Interest on Working Capital	0.70	0.67	0.63
7	Return on Equity	7.82	9.76	9.73
8	Interest on Security Deposit	0.08	0.08	0.06
9	Income Tax	0.00	0.00	0.00
10	**Total Revenue Requirement**	**148.53**	**163.76**	**168.08**
11	Less: Non-Tariff Income	1.31	1.31	1.31
12	**Net Revenue Requirement**	**147.22**	**162.45**	**166.77**

The Commission approves net ARR of INR 166.77 Crore for the FY 2021-22.

5.20. Revenue at existing Retail Tariff

Petitioner's submission

The Petitioner has estimated revenue from sale of power at existing tariff as INR 25.46 Crore for the FY 2021-22 based on the projected energy sales, connected load and number of consumers.

Commission's analysis

The category wise revenue at existing retail tariff is calculated as per the applicable tariff rates. The revenue from demand charges and the energy charges have been projected for each category. The Commission has considered number of single phase and three phase consumers in the ratio of 70%-30% and has considered the power factor of 0.9 for computing fixed charges (Specified in kVA) linked with connected load as projected load is in kW terms. The revenue from category tariff as computed by the Commission for the FY 2021-22 has been shown in the following table:

Table 75: Revenue at existing tariff computed by the Commission for the FY 2021-22 (INR Crore)

S. No.	Category	Sales (MUs)	Revenue from Energy Charges (INR Crore)	Revenue from Fixed charges (INR Crore.)	Total (INR Cr.)	ABR (INR/ unit)
1	Domestic	39.75	11.72	0.88	12.59	3.17
2	Commercial	3.52	3.04	0.11	3.15	8.96
3	Government Connections	7.84	7.53	0.11	7.64	9.75
4	Industrial	0.37	0.24	0.26	0.50	13.55
5	HT Industrial	0.98	0.90	0.16	1.06	10.81
6	Public Lighting	0.85	0.51	0.02	0.53	6.23
7	Temporary	0.14	0.10	0.00	0.10	7.18
	TOTAL	**53.44**	**24.04**	**1.54**	**25.58**	**4.79**

The Commission has determined revenue from sale of power at existing tariff as INR 25.58 Crore in FY 2021-22.

5.21. Standalone Revenue Gap/ Surplus

Petitioner's submission

Based on the ARR and the revenue from retail tariff projected by the Petitioner, the Petitioner has submitted a standalone revenue gap of INR 136.99 Crore for the FY 2021-22.

Commission's analysis

The Commission based on the approved ARR and existing retail tariff has derived the following Revenue Gap/Surplus:

Table 76: Standalone Revenue Gap/ Surplus approved at existing tariff for the FY 2021-22 (INR Crore)

S. No	Particulars	Petitioners submission	Now Approved
1	Annual Revenue Requirement	162.45	166.77
2	Revenue from sale of power	25.46	25.58
	Revenue Gap/(Surplus)	**136.99**	**141.19**

The standalone revenue gap at existing retail tariff is INR 141.19 Crore for the FY 2021-22.

6. Chapter 6: Tariff Principles and Design

6.1. Overall Approach

The Commission while designing retail tariffs for the FY 2021-22 has kept in view the principles of determination of tariff set out in the Electricity Act, 2003 (EA 2003), Tariff Policy, 2016 and the MYT Regulations, 2018.

The Commission, with this Tariff Order, has tried to meet the objectives of the EA 2003, as set out in its Preamble, including the protection of the interest of consumers, the supply of electricity to all areas and the rationalisation of tariffs. The EA, 2003 also directs to maintain a healthy balance between the interests of the Utilities and the reasonableness of the cost of power being supplied to consumers. The Commission has also taken into consideration the public responses in these proceedings.

The provision of supply of electricity to all the people is an essential driver for development, and also influences social and economic change. Since the majority of the energy sales within LED's jurisdiction is to tourism related businesses, the Commission has attempted to ensure that, while tourism is promoted, but not at the cost of other segments of society.

6.2. Applicable Regulations

Regulation 19 of MYT Regulations, 2018 states the following:

"19. Annual determination of tariff

19.1 The Commission shall determine the tariff of a Generating Company, Transmission Licensee and Distribution Licensee covered under a Multi-Year Tariff framework for each Year during the Control Period, in accordance with timelines specified in Regulation 17, having regard to the following:

a) The approved forecast of Aggregate Revenue Requirement and Expected Revenue from Tariff and Charges of the Generating Company, Transmission Licensee and Distribution Licensee for such Financial Year, including modifications approved at the time of Mid-term Review, if any; and

b) Approved gains and losses, including the incentive available, to be passed through in tariff, following the truing up of previous Year."

Further, Regulation 67 of the MYT Tariff Regulations, 2018 stipulates as follows:

"67. Determination of Tariff

67.1 The Commission may categorize Consumers on the basis of their load factor, power factor, voltage, total consumption of electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required and any other factor as considered appropriate by the Commission.

67.2 The Commission shall endeavour to determine cost of supply for each category/ sub-category of Consumers.

67.3 The Commission shall endeavour to reduce gradually the cross-subsidy between Consumer categories with respect to the cost of supply in accordance with the provisions of the Act.

67.4 The tariff proposal by Licensee and the tariff determination by the Commission shall be based on the following principles:

(a) The tariff for all categories shall preferably be two part, consisting of fixed and variable charges.

(b) The fixed charges in tariff shall progressively reflect actual fixed cost incurred by Distribution Licensee;

(c) The overall retail supply tariff for different Consumer categories shall progressively reflect the cost of supply for respective categories of Consumers;

(d) The tariff for residential Consumers shall be set considering the affordability of tariff for various class of Consumers;

(e) The tariff shall be set in such a manner that it may not present a tariff shock to any category of Consumers."

It may be noted that the sole source of power is own generation only with no availability of external generating sources. Further, more than 99% sales are at LT level only.

Accordingly, the Commission is of the view that the functional demarcation of costs will not be of substantial impact on the present tariff structure. Further, due to practical constraints open access is not an option for the consumers of Lakshadweep.

In view of the above, the tariff needs to be designed in such a way that cross subsidy between different categories of consumers is progressively brought within ±20% of average cost of supply and that even for BPL category consumers, tariff rates are close to 50% of the average cost of supply. The Commission has taken a considerate view in this regard balancing the interest of the utility and the consumer, thus compensating the department with additional revenue and providing a reasonable hike in consumer's tariff.

Accordingly, the Commission has designed the tariff for different categories of consumers as brought out subsequently.

6.3. Cumulative Revenue Gap/ (Surplus) at Existing Tariff

Petitioner's Submission

The Petitioner has proposed revenue gap of INR 136.99 Crore for FY 2021-22 at existing tariff. The revenue gap submitted by the Petitioner for FY 2021-22 is as follows:

Table 77: Revenue Gap at existing tariff submitted by the Petitioner for FY 2021-22 (INR Crore)

Sr. No.	Particulars	FY 2021-22
1	Net Revenue Requirement	162.45
2	Revenue from Sale of Power at existing Tariff	25.46
3	**Net Gap during the year**	**136.99**
4	Add: Previous Year Gap	0.00
5	**Total Gap**	**136.99**

Commission's View

The Commission based on the ARR and Revenue from sale of power computed above, has derived revenue gap for the FY 2021-22 at existing tariff as shown in table below:

Table 78: Revenue Gap determined by the Commission at existing tariff for FY 2021-22 (INR Crore)

Sr. No.	Particulars	FY 2021-22
1	Net Revenue Requirement	166.77
2	Revenue from Sale of Power at existing Tariff	25.58
3	**Net Gap during the year**	**141.19**
4	Add: Previous Year Gap	0.00
5	**Total Gap**	**141.19**

Accordingly, the Commission determined the revenue gap of INR 141.19 Crore for FY 2021-22 at existing tariff.

6.4. Treatment of Gap /(Surplus) and Tariff Design

From above, it can be seen that at existing tariff, there is revenue gap of INR 141.19 Crore for FY 2021-22. However, the Commission has not approved any hike in tariff for FY 2021-22 as compared to tariff for FY 2020-21 considering the socio-economic conditions of the people in Lakshadweep and in view of the budgetary support by the Government to meet the balance revenue gap.

6.4.1. Tariff Proposal

Petitioner Submission

1. The Petitioner has proposed that at existing tariff, the average cost of supply comes to INR 30.40 per unit, whereas the Average Billing Rate (ABR) is INR 4.76 per unit. Thus, there is a gap of INR 25.63 per unit.

2. The Petitioner has submitted that over 95% of power is generated from Diesel based generating stations and HSD cost forms major component of cost of supply. Further, there has been a reduction in budgetary support from the government. The above factors, apart from general rise in prices have necessitated the increase in tariff. However, the Petitioner has only proposed partial recovery of cost.

3. The Petitioner has proposed to increase energy charges by 4.90% while keeping the fixed charges at the same level.

Accordingly, the tariff proposal submitted by the Petitioner for FY 2021-22 for individual category is as follows:

Table 79: Tariff proposal submitted by the Petitioner for FY 2021-22

Existing			Proposed		
Category	**Fixed Charges**	**Energy Charge (INR/kWh)**	**Category**	**Fixed Charges**	**Energy Charge (INR/kWh)**
Lifeline Connection	INR 10/- per service connection per month or part thereof	1.00	**Lifeline Connection**	INR 10/- per service connection per month or part thereof	1.05
Domestic Connection			**Domestic Connection**		
0 to 100 units	INR 20/- per connection per month or part thereof for single phase INR 70/- per connection per month or part thereof for three phase	1.35	0 to 100 units	INR 20/- per connection per month or part thereof for single phase INR 70/- per connection per month or part thereof for three phase	1.40
101 to 200 units		3.10	101 to 200 units		3.25
201 to 300 units		5.20	201 to 300 units		5.50
301 units & above		6.85	301 units & above		7.25
Commercial			**Commercial**		
0-100 Units		6.30	0-100 Units		6.65

Existing			Proposed		
Category	**Fixed Charges**	**Energy Charge (INR/kWh)**	**Category**	**Fixed Charges**	**Energy Charge (INR/kWh)**
101 to 200 Units	INR 30/- per connection per month or part thereof for single phase INR 125/- per connection per month or part thereof for three phase	7.65	101 to 200 Units	INR 30/- per connection per month or part thereof for single phase INR 125/- per connection per month or part thereof for three phase	8.10
201 units & above		9.50	201 units & above		10.00
Govt. Connection			**Govt. Connection**		
0-200 Units	INR 35/- per connection per month or part thereof for single phase INR 125/- per connection per month or part thereof for three phase	8.00	0-200 Units	INR 35/- per connection per month or part thereof for single phase INR 125/- per connection per month or part thereof for three phase	8.40
201 units & above		9.70	201 units & above		10.20
Industrial	INR 50.00 per kVA connected load or part thereof	6.50	**Industrial**	INR 50.00 per kVA connected load or part thereof	6.85
HT Industrial	INR 150.00 per kVA connected load or part thereof	9.20	**HT Industrial**	INR 150.00 per kVA connected load or part thereof	9.70
Public Lighting	INR 50.00 per kVA connected load or part thereof per month	6.00	**Public Lighting**	INR 50.00 per kVA connected load or part thereof per month	6.30
EV Charging Stations	INR 100.00 per kVA connected load or part thereof per month	4.76	**EV Charging Stations**	INR 100.00 per kVA connected load or part thereof per month	5.00
	-				
Temporary Connections		4.70	**Temporary Connections**		4.95

Accordingly, the computation of impact of proposed tariff on revenue for FY 2021-22 is as follows:

Table 80: Average Tariff Hike for FY 2021-22 as submitted by the Petitioner (INR Crore)

Sr. No.	Particulars	Units	FY 2021-22	
			Existing	Proposed
1	Net ARR for FY 2021-22	INR Crore	162.45	162.45
2	Revenue for FY 2021-22	INR Crore	25.47	26.71
3	**Gap (1-2)**	**INR Crore**	**136.99**	**135.74**
4	Total Sales	MU	53.44	53.44
5	Average Cost of Supply	INR/kWh	30.40	30.40
6	Average Billing Rate	INR/kWh	4.76	5.00
7	Per Unit Gap	INR/kWh	25.63	25.40
8	Average Tariff Hike	INR/kWh		0.23
9	Tariff Hike in %	%		4.90%

Commission View

As discussed above, the Commission has determined the retail tariff for the FY 2021-22 in accordance with the principles stated in the Electricity Act, 2003 Tariff Policy, 2016, and the MYT Regulations, 2018. The Tariff design in general is guided by the following principles:

1. Cost reflective: The tariffs determined should efficiently reflect the cost of supply for each consumer category.

2. Progressive tariffs: Ensuring progressivity among tariffs by having telescopic tariff slabs which encourages efficient consumption and at the same time promotes intra-category cross-subsidy by way of charging higher tariff for higher consumption to subsidise the lower consumption consumers

3. Revenue neutrality: There should be no impact on the utility's yearly revenue due to rationalization of tariffs i.e. the overall status quo should be maintained.

4. Affordability: Assessing affordability of electricity for Domestic & Commercial consumers for defining slab ranges and setting tariffs

5. Revenue stability: Utilities should ensure adequate fixed cost recovery from fixed/demand charges

6. Avoiding tariff shocks: Tariff shocks should be prevented, and consumers should be kept informed about the future trends in tariffs

7. Demand management and grid stability: Demand management and grid stability should be ensured with demand-based tariffs

8. Simplified tariff structure: Tariff structure should be simplified to make it easily administrable by the utility and easy to understand for the consumer.

9. Smart tariff design: Tariff rate design should take into consideration trends in electric power such as small-scale renewable generation by consumers, energy efficiency, electric vehicle charging, etc.

While all the above parameters contribute significantly in developing a sustainable tariff framework, there are certain parameters namely Cost of Supply and Tariff Affordability which are of importance and constitute the building blocks in achieving the overall objective. The context and the approach for these parameters have been discussed as follows:

1. Cost of Supply

a) Context

Due to electricity being a crucial utility item for all consumers, over the period of time, various socio-economic issues have been factored in to determine the end user's tariffs. This has unfortunately led to severe imbalance between the tariffs levied vis-a-vis the cost of supply of the electricity, causing distress to the Discom. For example, in order to ensure that tariffs are kept in check for residential consumers, while still allowing cost recovery for Discoms, cross subsidy is built in between categories. The tariffs so determined, are skewed, with tariff for industrial and commercial consumers being higher and for other categories being lower than their respective costs of supply. The implications of this imbalance in tariffs is twofold – uncompetitive industries owing to higher input costs and inability of Discoms to recover sufficient tariffs from domestic consumers, resulting in financial distress. The issue is more pronounced for rural supply where tariffs are highly subsidized, actual cost of supply is higher and revenue recovery is poor.

It is thus essential that tariffs reflect the true cost to service a category of consumer. As a crucial first step towards cost-reflective tariffs, it is important for distribution utilities to determine the costs of supply (which cascade from generation to transmission and finally to distribution and retail supply of power) that should be prudently recovered from each consumer category. These costs should correspond to the actual costs being imposed by each consumer category on the Discom. By determining consumer category wise costs of supply, the Discom would be in a better position to allocate costs where relevant and determine how tariffs can be levied fairly on each category.

The overall approach that can be followed for accurately determining the Cost of Supply has been discussed as follows

b) Approach:

Presently, the most commonly used approach for determining the cost of supply of electricity for tariff determination is the Average Cost of Supply (ACoS) method. The ACoS is computed by dividing the Annual Revenue Requirement (ARR) determined by the Commission for recovery through tariffs by the total energy sales for the year. However, this methodology doesn't indicate the costs incurred by consumers at different voltage levels using different assets of the network. Therefore, it doesn't help in determining accurate tariffs for particular consumers, eventually resulting in insufficient cost coverage.

As a next logical step, the Voltage wise cost of supply (VCoS) method provides a better reflection of cost to supply to consumers at different voltage levels. A simplified version of the same was suggested by Hon'ble ATE in 2010, to determine VCoS in the absence of all necessary data. In this method, the power purchase costs and other costs (such as network costs, wheeling costs etc.) are allocated to various consumer categories based on energy input or energy sales (as considered appropriate by the State Commission). This approach factors in the voltage level differentiation based on losses, however, it does not factor in asset utilization at different voltage levels.

A more refined version of determination of VCoS uses three parameters for allocating various costs to voltage levels – energy input at each voltage level, energy sales and asset allocation to voltage levels. The losses segregated voltage wise (as percentage of input energy) are to be allocated to different voltage levels based on energy input to each voltage level (as explained in subsequent sections). Subsequently, the cost elements such as power procurement costs, employee expenses, administrative and general expenses and income tax can be allocated to each voltage levels based on total sales at each voltage level. The cost elements, which are dependent on assets such as depreciation, interest costs, return allowed to utility etc. are allocated in ratio of assets allocated to each voltage level. The sum of all the cost components at each voltage level is the cost to supply the particular voltage (EHT/HT/LT).

The Commission is of the opinion that while VCoS differentiates cost allocation based on voltage levels, it does not factor in consumer category level differentiation. For instance, at the same LT level, cost of supplying electricity to a Commercial consumer may be different from that of a Residential consumer. Thus, it believes that the most progressive way forward for LED is to accurately determine the cost of supply is to attempt to determine Cost of Supply at various category level. The Commission notes that States like Andhra Pradesh and Telangana have determined Category wise Cost of Supply albeit with several assumptions and LED must also attempt to determine the same.

On studying the existing methodologies followed internationally, among developing nations with energy access situations like India's, the Commission is of the opinion that the Category wise Cost of Supply methodology is an appropriate starting point. The embedded cost method identifies and appropriately assigns the historical or accounting costs that make up a Discom's revenue requirement to all categories and sub-categories of consumers.

This method involves three steps:

- Cost Functionalization
- Cost Classification
- Cost Allocation

Cost functionalization separates cost data into the functional activities performed in the operation of a utility system - power generation/supply, transmission, distribution and retail supply. Classification determines the portion of the cost that is related to specific cost-causal factors, such as those that are demand-related, energy-related, or customer-related. Finally, the cost allocation step assigns the costs to specific customer categories based on the customer's contribution to the specific classifier selected.

The Commission as part of this Order has determined the tariff according to the Average Cost of Supply (ACoS) due to lack of requisite data. The Commission strongly believes that determination of Category wise Cost of Supply is essential to ensure cost reflectivity in tariffs fixed for different categories. However, the Commission feels that to carry out this exercise a lot of field level information would be required such as Category wise co-incident and non- co-incident demand, Voltage wise value of assets (Voltage wise asset ratio), Voltage wise losses, Category wise break-up of costs related to Metering, Billing and Collection etc. which currently the Petitioner doesn't maintain. Therefore, in absence of the same the Commission is unable to determine the Category wise CoS in this Order but directs the Petitioner to start maintaining this data and submit the same in the tariff proceedings of next year.

2. *Tariff Affordability*

a) Context

The Commission understands that the consumer base of LED is varied and covers a wide spectrum of socio-economic backgrounds, specially the domestic category consumers. It is aware that most low income households spend a substantial share of their income on utility services such as electricity, heating and water. However, any envisaged tariff reforms are often objected to avoid further burdening of these consumers. But to improve the quality of service of electricity, the Discom has to undergo significant capital expenditure which eventually deteriorates the affordability of tariffs. Thus, to tackle this problem and in the spirit of economic wellbeing of all consumer classes, the concept of cross-subsidies has been built into the current tariff structure.

However, the Commission believes that a more scientific and logical approach can be adopted to identify the right categories of consumers and the right cross-subsidy/subsidy requirement that will benefit the end consumers at the same time. Hence, the Commission believes that there is a strong need to develop a scientific methodology to assess the social impact of electricity tariffs.

The overall approach that can be followed for determining the tariff affordability has been discussed as follows.

b) Approach

On reviewing methodologies adopted globally for social impact assessment of electricity tariffs by studying international research reports and studying model practices internationally, the Commission found that Tariff Affordability Ratio (TAR) is a reliable parameter to measure affordability of electricity in households.

TAR is defined by obtaining the burden incurred by a household for electricity as compared to the overall household expenditure. The rationale behind this concept is that the electricity is basic utility and is unavoidable in today's scenario, however, this does not ensure that the expenditure level is in line with the overall household expenditure. Hence, this concept helps to understand the affordability level of electricity on households with different economic levels.

The electricity expenditure can be determined initially for domestic consumers by computing the average consumption levels across each slab and the household expenditure can be estimated from national surveys of household expenditure across economic levels conducted by organizations like NSSO. Thereafter the distribution of consumers of the Discom across tariff slabs can be mapped across the established economic levels to develop the final affordability ratio matrix for the Discom's domestic consumer base.

Following the identification of the current ratio of Tariff Affordability, the Commission in consultation with the stakeholders will develop benchmarks for acceptable affordability levels by studying trends across countries with a demography and energy scenario similar to that of India and propose appropriate tariffs. The final output shall help understand the Commission to modify tariffs in cases where there is more room for tariff increase or a need to correct tariffs. The exercise would also help the Commission in setting tariff slabs as per the paying capacity of the consumers which would be beneficial especially for Domestic category consumers. Additionally, this shall also help the Government to formulate better schemes to effectively channelize its intended benefits.

The Commission in these tariff proceedings is not carrying out this exercise due to unavailability of accurate data. The Petitioner is directed to ensure the sanctity of the data-maintained pertaining to various categories.

The Commission, after analysis of the various components of the ARR for FY 2021-22, has come to the conclusion that the utility has to increase the average tariff from the existing level of INR 4.79 per unit to INR 31.20 per unit to recover the full amount of ARR as projected for FY 2021-22.

Keeping in view the above principles and based on the category wise information submitted by the Petitioner, and in view of the socio-economic constraints of the people residing in the licensee's area, the Commission feels that aligning the tariff with Average Cost of Supply would be unjust to the consumers. Duly considering the difficult terrain where people reside in remote areas spread across the various islands with limited access to basic amenities, the Commission, has not approved any increase in the tariff of FY 2021-22 over the FY 2020-21. The limit on monthly energy consumption for Lifeline Connection has been increased to 100 units/month and beyond it, the entire consumption for such consumers shall be charged at Domestic tariff.

The approved tariff for FY 2021-22 is as follows:

Table 81: Existing vs. Tariff approved by the Commission for FY 2021-22

Existing			**Approved**		
Category	**Fixed Charges**	**Energy Charge (INR/kWh)**	**Category**	**Fixed Charges**	**Energy Charge (INR/kWh)**
Lifeline Connection	INR 10/- per service connection per month or part thereof	1.00	**Lifeline Connection**	INR 10/- per service connection per month or part thereof	1.00
Domestic Connection			**Domestic Connection**		

Existing			Approved		
Category	**Fixed Charges**	**Energy Charge (INR/kWh)**	**Category**	**Fixed Charges**	**Energy Charge (INR/kWh)**
0 to 100 units	INR 20/- per connection per month or part thereof for single phase INR 70/- per connection per month or part thereof for three phase	1.35	0 to 100 units	INR 20/- per connection per month or part thereof for single phase INR 70/- per connection per month or part thereof for three phase	1.35
101 to 200 units		3.10	101 to 200 units		3.10
201 to 300 units		5.20	201 to 300 units		5.20
301 units & above		6.85	301 units & above		6.85
Commercial			**Commercial**		
0-100 Units	INR 30/- per connection per month or part thereof for single phase INR 125/- per connection per month or part thereof for three phase	6.30	0-100 Units	INR 30/- per connection per month or part thereof for single phase INR 125/- per connection per month or part thereof for three phase	6.30
101 to 200 Units		7.65	101 to 200 Units		7.65
201 units & above		9.50	201 units & above		9.50
Govt. Connection			**Govt. Connection**		
0-200 Units	INR 35/- per connection per month or part thereof for single phase INR 125/- per connection per month or part thereof for three phase	8.00	0-200 Units	INR 35/- per connection per month or part thereof for single phase INR 125/- per connection per month or part thereof for three phase	8.00
201 units & above		9.70	201 units & above		9.70
Industrial	INR 50.00 per kVA connected load or part thereof	6.50	**Industrial**	INR 50.00 per kVA connected load or part thereof	6.50
HT Industrial	INR 150.00 per kVA connected load or part thereof	9.20	**HT Industrial**	INR 150.00 per kVA connected load or part thereof	9.20
Public Lighting	INR 50.00 per kVA connected load or part thereof per month	6.00	**Public Lighting**	INR 50.00 per kVA connected load or part thereof per month	6.00

Existing			Approved		
Category	**Fixed Charges**	**Energy Charge (INR/kWh)**	**Category**	**Fixed Charges**	**Energy Charge (INR/kWh)**
EV Charging Stations	INR 100.00 per kVA connected load or part thereof per month	4.76	**EV Charging Stations**		4.79
Temporary Connections	1.5 times the rate applicable to the relevant category of consumers		**Temporary Connections**	1.5 times the rate applicable to the relevant category of consumers	

6.4.2. Revenue from Approved Retail Tariff for FY 2021-22

Based on the retail tariff approved above, the revenue at revised tariff approved by the Commission for FY 2021-22 is given in the following Table:

Table 82: Revenue at tariff approved by the Commission for FY 2021-22

S. No.	Category	Sales (MUs)	Revenue from Energy Charges (INR Crore)	Revenue from Fixed charges (INR Crore.)	Total (INR Cr.)	ABR (INR/ unit)
1	Domestic	39.75	11.72	0.88	12.59	3.17
2	Commercial	3.52	3.04	0.11	3.15	8.96
3	Government Connections	7.84	7.53	0.11	7.64	9.75
4	Industrial	0.37	0.24	0.26	0.50	13.55
5	HT Industrial	0.98	0.90	0.16	1.06	10.81
6	Public Lighting	0.85	0.51	0.02	0.53	6.23
7	Temporary	0.14	0.10	0.00	0.10	7.18
	TOTAL	**53.44**	**24.04**	**1.54**	**25.58**	**4.79**

The revenue gap at the revised tariff approved by the Commission is given in the Table below:

Table 83: Revenue gap at tariff approved by the Commission for FY 2021-22 (in INR crore)

S. No.	Particulars	FY 2021-22	
		Claimed	Approved
1	Net Revenue Requirement	162.45	166.77
2	Revenue from Sale of Power at Revised Tariff	26.71	25.58
3	**Net Gap during the year**	**135.74**	**141.19**
4	Add: Previous Year Gap	0.00	0.00
5	**Total Gap**	**135.74**	**141.19**

The following comparative chart gives the overview of the category-wise levels of percentage recovery of Average Cost of Supply at existing and revised tariffs.

Table 84: Percentage recovery of ACOS at tariff approved by the Commission for FY 2021-22

S. No.	Category	Average Cost of Supply (INR/unit)	Average Billing Rate (INR/unit)	ABR as % of AcoS
1	Life Line Connection (Upto 100 Units)	31.20	0.00	0.00%
2	Domestic	31.20	3.17	10.15%
3	Commercial	31.20	8.96	28.70%
4	Government Connection	31.20	9.75	31.23%
5	Industrial	31.20	13.55	43.42%
6	HT Industrial	31.20	10.81	34.64%
7	Public Lighting	31.20	6.23	19.95%
8	EV Charging Station	31.20	0.00	0.00%
9	Temporary	31.20	7.18	23.01%
10	**Overall**	**31.20**	**4.79**	**15.34%**

Table 85: Approved ACoS and ABR by the Commission at approved tariff for FY 2021-22

Sr. No.	Particulars	FY 2021-22
1	Net Revenue Requirement (INR Crore)	166.77
2	Revenue from Revised Tariff (INR Crore)	25.58
3	Energy Sales (MU's)	53.44
4	Average cost of supply/unit (INR/kWh)	31.20
5	Average Billing Rate (INR/kWh)	4.79
6	**Gap (INR/kWh)**	**26.41**

The highlights of the tariff structure approved by the Commission for FY 2021-22 is as follows:

1. The Commission has not approved any tariff hike for FY 2021-22 over FY 2020-21.
2. The Commission has approved the average revenue for FY 2021-22 as INR 4.79/kWh as against the approved Average Cost of Supply of INR 31.20/kWh.

The Petitioner has confirmed that the Revenue Gap has been borne by the Administration of Lakshadweep, with budgetary support from the Government of India.

7. Chapter 7: Tariff Schedule

7.1. Tariff Schedule

Sr. No.	Category	Fixed Charges	Energy Charge (INR/kWh)
1.	**Life Line Connection**		
	0 to 100 units	INR 10/- per service connection per month or part thereof	1.00
2.	**Domestic Connection**		
	0 to 100 units	INR 20/- per connection per month or part thereof for single phase INR 70/- per connection per month or part thereof for three phase	1.35
	101 to 200 units		3.10
	201 to 300 units		5.20
	301 units & above		6.85
3.	**Commercial**		
	0-100 Units	INR 30/- per connection per month or part thereof for single phase INR 125/- per connection per month or part thereof for three phase	6.30
	101 to 200 Units		7.65
	201 and above		9.50
4.	**Govt. Connection**		
	0-200 Units	INR 35/- per connection per month or part thereof for single phase INR 125/- per connection per month or part thereof for three phase	8.00
	201 Units & above		9.70
5.	**Industrial**		
	All units	INR 50/- per KVA per month or part thereof	6.50
6.	**HT Industrial**		
	All Units	INR 150/- per KVA per month or part thereof	9.20
7.	**Public Lighting**		
	All Units	INR 50/- per KVA per month or part thereof	6.00
8.	**Electric Vehicle Charging Station**		4.79
9.	**Temporary supply**		
	All Units	1.5 times the rate applicable to the relevant category of consumers.	

7.2. Applicability

Sr. No.	Category	Applicability	Point of Supply news
1	Life Line	Applicable to domestic consumers with monthly consumption of upto 100 units and below.	Note: The Domestic Consumer having consumption above 100 units shall be charged according to the slabs defined under Domestic Category.
2	Domestic	Applicable to private houses, bungalows, hostels and hospitals run on non-commercial lines, charitable educational and religious institutions for lights, fans, radios, Government schools along with related facilities, domestic heating and other household appliances	
3	Commercial	This includes all categories which are not covered by other tariff categories i.e. Domestic Category, BPL, Industrial LT, HT Consumers and Public Lighting. Applicable for Shops, Offices, Restaurants, Bus Stations, Photo Studios, Laundries, Cinema Theatres, Industrial Lighting, clubs and other commercial installations.	
4	Government Connection	Applicable to all Government Connections except those connections specifically included in Industrial LT and Public Lighting.	
5	Industrial Supply	Applicable to all LowTension Industrial Connections including water works/pumps.	
6	HT Industrial	Applicable for the consumers connected with 11 KV.	Note: To be read with other Terms and Conditions for HT Supply mentioned separately.
7	Public Lighting	Applicable for lighting on public roads, footpaths, streets and fares in parks & markets.	
8	Electric Vehicle Charging Station	This tariff schedule shall apply to consumers that have set up Public Charging Stations (PCS) in accordance with the technical norms/ standards/specifications laid down by the Ministry of Power, GoI and Central Electricity Authority (CEA) from time to time. The tariff for domestic consumption shall be applicable for domestic charging (LT/HT)	
9	Temporary Supply	The supply may be given for a limited period as per the provisions of JERC Supply Code Regulations, 2018, and amendments thereon.	

Secretary, JERC
(For Goa & UTs)

7.3. General conditions of HT and LT Supply

The above-mentioned LT/HT Tariffs are subjected to the following conditions, applicable to all category of consumers.

1) The tariffs are exclusive of electricity duty, taxes and other charges levied by the Government or other competent authority from time to time which are payable by the consumers in addition to the charges levied as per the tariffs.

2) Unless otherwise agreed to, these tariffs for power supply are applicable for supply at one point only.

3) If energy supplied for a specific purpose under a particular tariff is used for a different purpose, not contemplated in the contract for supply and / or for which higher tariff is applicable, it will be deemed as unauthorized use of electricity and shall be dealt with for assessment under the provisions of section 126 of the Electricity Act, 2003 & Supply Code Regulation notified by JERC.

   Provided that (a) If a portion of the domestic premises limited to only one room is used for running small household business having connection under domestic category, such connection shall be billed under domestic category provided that the total monthly consumption of the consumer (including consumption for above mentioned small household business) does not exceed 150 kWh.

   If either more than one room or only one room having monthly consumption exceeding 150 kWh for consecutive three months is detected in the domestic premises being used for mixed purposes having domestic connection, such connection shall further be billed under commercial category until a separate connection of appropriate tariff is taken for that portion used for non-domestic purpose.

4) If connected load of a domestic category is found to be at variance from the sanctioned/contracted load as a result of replacement of appliances such as lamps, fans, fuses, switches, low voltage domestic appliances, fittings, etc it shall not fall under Section 126 and Section 135 of the EA 2003.

5) The department shall not commence supply or power to any applicant at low or medium voltage for utilizing induction motor of 3HP or above or welding transformers of 1 kVA capacity or above unless they are provided with the capacitors of adequate rating to comply with power factor conditions as specified in the JERC Supply Code Regulations 2018. The consumer has to provide appropriate capacitors for these installations presently running on without capacitors as per the provisions of JERC Supply Code Regulations, 2018.

6) If the consumer fails to pay the energy bill presented to him by the due date, the Department shall have the right to disconnect the supply after giving 15 days' notice as per the provision of the Act & Supply Code Regulations. Notice to this effect shall be printed on the bill of the consumer.

7) Fixed charges, wherever applicable, will be charged on pro-rata basis from the date of release of connection. Fixed charges, wherever applicable, will be double as and when bi-monthly billing is carried out; similarly slabs of energy consumption will also be considered accordingly in case of bi-monthly billing.

8) Supply to consumers connected at 11kV will be charged as per the HT Consumer category rate.

9) The billing in case of HT shall be on the maximum demand recorded during the month or 75% of contracted demand, whichever is higher. If in any month, the recorded maximum demand of the consumer exceeds its contracted demand, that portion of the demand in excess of the contracted demand shall be billed at double the normal rate. Similarly, energy consumption corresponding to excess demand shall also be billed at double the normal rate. The definition of the maximum demand would be in accordance with the provisions of the JERC Supply Code Regulations, 2018. If such overdrawl is more than 20% of the contract demand then the connections shall be disconnected after due notice to the consumers.

   i. Explanation: Assuming the contract demand as 100 KVA, maximum demand at 120 KVA and total energy consumption as 12,000 kWh, then the consumption corresponding to the contract demand will be 10,000 kWh (12,000*100/120) and consumption corresponding to the excess demand will be 2,000 kWh. This excess demand of 20 kVA and excess consumption of 2,000 kWh will be billed at twice the respective normal rate. Such connections drawing more than 120 kVA, shall be disconnected after due notice.

10) Unless specifically stated to the contrary, the figures of energy charges relates to INR per unit (kWh) charge for energy consumed during the month.

11) **Delayed payment surcharge** shall be applicable to all categories of consumers. Delayed payment surcharge of 2% per month shall be levied on all arrears of bills. In case of delay less than a month, the surcharge will be levied at 2% per month on proportionate basis considering a month consists of 30 days. Such surcharge shall be rounded off to the nearest multiple of one rupee. Amount less than 50 paisa shall be ignored and amount of 50 paisa or more shall be rounded off to next rupee. In case of permanent disconnection, delayed payment surcharge shall be charged only upto the month of permanent disconnection.

12) **Advance Payment Rebate**: If payment is made in advance well before commencement of consumption period for which bill is prepared, a rebate @ 1% per month shall be given on the amount (excluding security deposit) which remains with the licensee at the end of the month. Such rebate, after adjusting any amount payable to the licensee, shall be credited to the account of the consumer.

13) **Prompt Payment Rebate**: If payment is made at least 7 days in advance of the due date of payment a rebate for prompt payment @ 0.25 % of the bill amount shall be given. Those consumers having arrears shall not be entitled for such rebate.

14) Schedule of other charges would be as approved in this Tariff Order.

15) In case any dispute arises about the applicability of any tariff for any particular class of service or as to the interpretation of any clause of these tariffs, the decision of the Commission shall be final and binding.

7.4. Other Terms and Conditions for HT Supply

(i) Penalty Charges:

Shall be in accordance with SI. No. 9 of the General Terms and Conditions.

(ii) Power Factor Charges

a. The monthly average power factor of the supply shall be maintained by the consumer not less than 0.95 (lagging). If the monthly average power factor of a consumer falls below 0.95 (lagging), such consumer shall pay a surcharge in addition to his normal tariff @ 1% on billed demand and energy charges for each fall of 0.01 in power factor.

c. In case the monthly average power factor of the consumer is more than 95% (0.95 lagging), a power factor incentive @ 1% on demand and energy charges shall be given for each increase of 0.01 in power factor above 0.95 (lagging).

d. If the average power factor falls below 0.90 for HT/EHT consumers consecutively for 60 days, the licensee shall serve 60 days' notice period. Even after 60 days' notice if the power factor has not improved, the Licensee can serve disconnection notice mentioning that if the Power Factor is not improved within 30 days, the Licensee may disconnect the supply.

e. The power factor shall be rounded off to two decimal places. For example, 0.944 shall be treated as 0.94 and 0.946 shall be treated as 0.95.

(iii) Billing Demand

Billing demand in a billing cycle will be the higher of the following: (a) 75% of the Contract Demand (b) Actual Demand recorded by the meter.

7.5. Schedule of Miscellaneous Charges

S. No.	PARTICULARS	Charges (INR)
METER RENT CHARGES		
1	Single Phase Meter	INR 10 per month or part thereof
2.	Three Phase Meter	INR 25 per month or part thereof
3.	LT Meter with MD indicator	INR 200 per month or part thereof
4.	Tri-vector Meter	INR 500 per month or part thereof
Note: The type of meters to be installed in consumer premises will be decided by the department. Generally, the LT consumers having connected load above 50 HP will be provided with LT (Maximum Demand Indicator) meters. Considering the constraints prevailing in Lakshadweep Islands, the energy meters will be provided by the department only.		
RECONNECTION CHARGES AFTER TEMPORARY DISCONNECTION		
5.	Single Phase LT Connection	INR 50
6.	Three Phase LT Connection	INR 100
7.	HT Connection	INR 500
SERVICE CONNECTION CHARGES		
8.	Single Phase LT Connection	INR 250
9.	Three Phase LT Connection	INR 500
10.	HT Connection	INR 1,000
EXTRA LENGTH CHARGES		
11.	Single Phase	INR 50/meter
12.	Three Phase	INR 100/meter
***Note**: Extra length chargeable will be beyond permissible 30 meters free length from existing network for new connection for all categories*		
TESTING FEE FOR VARIOUS METERING EQUIPMENT		
13.	Single Phase	INR 100 per meter
14.	Three Phase Meter	INR 300 per meter
15.	Three Phase Tri-vector Meter (0.5 Class) Industrial LT Consumer	INR 500 per meter
16.	Three Phase Tri-vector Meter (0.5 Class)11 KV HT Consumer	INR 500 per meter
17.	Combined CT-PT Unit for 11 KV Consumer	INR 500 per unit
18.	Three Phase CT Block	INR 300 per block
19.	CT Coil	INR 100 per coil
FEES (NON-REFUNDABLE) FOR SUBMISSION OF TEST REPORT OF WIRING COMPLETION		
20.	Single Phase Lighting / Domestic Connection	INR 10 per test report

S. No.	PARTICULARS	Charges (INR)
21.	Three Phase Lighting /Domestic Connection	INR 25 per test report
22.	Single Phase Lighting / Commercial Connection	INR 50 per test report
23.	Three Phase Lighting / Commercial Connection	INR 100 per test report
24.	Three Phase LT Industries	INR 250 per test report
25.	Single Phase / Streetlight / Public Lighting & others	INR 50 per test report
OTHER CHARGES		
26.	Meter shifting charges (within the premises on consumer request, if service cable is not required to be changed)	INR 100
27.	Meter shifting charges (within the premises on consumer request, if change in service cable required up to 30 metre)	INR 200
28.	Shifting of poles on consumer request	INR 1,500
29.	Diversion of HT/LT line on consumer request	INR 100/- per meter
30.	Penalty for tampering/damaging of supplier equipment	As per the relevant provisions of the JERC Supply Code Regulations, 2018

8. Chapter 8: Directives

Over the years, the Commission has issued various directives to the Petitioner for necessary action at its end. It has been observed that the Petitioner is not fully complying with many of the directives issued by the Commission. In order to strengthen the effective monitoring and ensure timely implementation of all the directives in true spirit, the Commission hereby directs that the Petitioner shall now compulsorily submit:

- The detailed action plan for compliance of all the directives within 1 month of the issuance of this Order.
- The quarterly progress report as per the detailed action plan for all the directives issued in the subsequent sections within 10 days of the end of each quarter of the calendar year.

8.1. Directives continued in this Order

While examining the compliance note and supporting documents submitted by the Petitioner in the present Petition, it is observed that some of the directives issued in the previous Tariff Orders have not been fully complied with by the Petitioner.

The Commission is of the view that substantial time has already been given to the utility for compliance with these directions. Thus, the Commission hereby directs the utility to comply with the directions mentioned below in the given timeframe, failing which the Commission shall be constrained to initiate necessary action under Section 142 of the Electricity Act 2003 read with other provisions of the Act, and the Regulations made thereunder.

8.1.1. Filing of Review and True up of previous years

Originally issued in Tariff Order dated 31st October 2012
Commission's latest directive in Tariff Order dated 18th May 2020 *The Commission directs the Petitioner to get the audited accounts of FY 2017-18 and FY 2018-19 and file the true up Petitions for FY 2017-18 to FY 2019-20 along with next tariff petition.*
Petitioner's response in the present Tariff Petition *It is submitted that Proforma Accounts for the FY 2017-18 & FY 2018-19 has been completed and submitted for audit. However, the audit has not yet been done. Proforma Accounts for the FY 2019-20 is under preparation. LED shall submit the True-up petitions in respect of the above years on completion of the audit of the respective years. Hon'ble Commission may please allow the same.*
Commission's response The Commission has noted the submission of the Petitioner. The Commission directs the Petitioner to get the accounts audited for FY 2017-18 & FY 2018-19 and file the true up Petitions for these years within two months from the issuance of this Tariff Order. Further, the Commission directs the Petitioner to prepare the accounts for FY 2019-20 and get the same audited to enable the Petitioner to file the true up petitions for the said years with the next tariff filing for FY 2022-23.

8.1.2. Capital Expenditure

Originally issued in Tariff Order dated 31st October 2012
Commission's latest directive in Tariff Order dated 20th May 2018 *The Commission vide letter no. JERC/RA-21/I have directed the Petitioner to submit the progress report of capitalisation on quarterly basis strictly in the format already shared.*

Petitioner's response in the present Tariff Petition
Department is facing some difficulties in submitting quarterly status report of capital expenditure; hence it is requested that, commission may allow the department to submit the capital expenditure on annual basis for the time being. Department shall ensure to submit the quarterly status report from next year onwards.
Commission's response
The Commission has noted the submission of the Petitioner however, the difficulties have not been elaborated. Further, the Commission directs the Petitioner to submit the progress report of capitalisation on quarterly basis strictly in the format already shared.

8.1.3. Improvement of specific fuel consumption

Originally issued in Tariff Order dated 31st October 2012
Commission's latest directive in Tariff Order dated 18th May 2020
The Commission directs the Petitioner to submit the progress report on quarterly basis.
Petitioner's response in the present Tariff Petition
It is submitted that 3 Nos. 1010 KVA DG sets were installed and commissioned at Kalpeni, Minicoy and Amini respectively. 2 Nos. 750 KVA DG sets at Androth, one no at Kadmat were installed and commissioned and one no for Agatti ready for installation. Similarly, one no 1010 KVA DG sets for Kadmat and 2 Nos. 125 KVA DGs for Bitra were in transit and presently held at Beypore Port.
Commission's response
The Commission has noted the submission of the Petitioner. The Commission has observed that the detailed work undertaken for improvement of specific fuel consumption is not being submitted on quarterly basis and accordingly, directs the Petitioner to submit the progress report on quarterly basis.

8.1.4. Manpower Studies

Originally issued in Tariff Order dated 11th April 2014
Commission's latest directive in Tariff Order dated 18th May 2020
The Commission directs the Petitioner to submit the manpower studies report within two months of issuance of this order.
Petitioner's response in the present Tariff Petition
It is submitted that the Manpower studies report has been submitted vide letter No. F.No.75/10/2018-Ele/1784 Dated 30.09.2020
Commission's response
The Commission has noted the Petitioner's submission and accordingly drops this directive.

8.1.5. Interest on security deposit

Originally issued in Tariff Order dated 31th October 2012
Commission's latest directive in Tariff Order dated 18th May 2020
The Commission has noted the Petitioner's submission and directs the Petitioner to pay interest on security deposits in a timely manner as specified in Supply Code 2018.

Petitioner's response in the present Tariff Petition
It is submitted that the Interest on security deposits are paid timely.
Commission's response
The Commission has noted the Petitioner's submission and accordingly drops this directive.

8.1.6. Metering of consumer installations/ replacement of non-functional or defective meters

Originally issued in Tariff Order dated 31st October 2012
Commission's latest directive in Tariff Order dated 18th May 2020
The Commission has noted the Petitioner's submission and directs the Petitioner to submit the quarterly status report on smart meter installation within three months of issuance of this order
Petitioner's response in the present Tariff Petition
The status of installation of smart meters is as follows: Department is waiting for the Proof of Concept report from System Integrator (M/s BOSCH) as per the request of M/s EESL. Due to prevailing situation of Pandemic, the proof of concept study got delayed. Once the Proof of Concept becomes successful, M/s EESL will initiate the work immediately.
Commission's response
The Commission has noted the Petitioner's submission and directs the Petitioner to submit the progress report on the quarterly basis.

8.1.7. Energy Audit Report

Originally issued in Tariff Order dated 31st October 2012
Commission's latest directive in Tariff Order dated 18th May 2020
The Commission directs the Petitioner to submit the energy audit report within two months from the issuance of this order.
Petitioner's response in the present Tariff Petition
It is submitted that the Energy Audit report stand submitted to the Hon'ble Commission.
Commission's response
The Commission has noted the submission of the Petitioner however, the Petitioner has submitted the Energy Audit report for FY 2018-19 only. The Commission directs the Petitioner to submit the energy audit report for FY 2019-20 within two months from the issuance of this order and subsequently, submit the energy audit report for FY 2020-21 along with the tariff petition for FY 2022-23.

8.1.8. State Load Despatch Centre

Originally issued in Tariff Order dated 19th March 2018
Commission's latest directive in Tariff Order dated 18th May 2020
The Commission has noted the Petitioner's submission and directs the Petitioner to expedite the process of SLDC establishment and may seek help POSOCO in this regard.

Petitioner's response in the present Tariff Petition *It is submitted that LED has not been able to establish separate SLDC yet. However, steps shall be taken in this regard.*
Commission's response The Commission directs the Petitioner to take up the matter with POSOCO for the establishment of SLDC.

8.1.9. Slab wise details

Originally issued in Tariff Order dated 19th March 2018
Commission's latest directive in Tariff Order dated 18th May 2020 *The Commission has noted the Petitioner's submission and directs to provide island wise, T&D losses, plant-wise generation/purchase, fuel cost, etc. on quarterly basis within three months of the issuance of this order.*
Petitioner's response in the present Tariff Petition *The island wise details are being submitted shortly.*
Commission's response The Commission again directs the Petitioner to provide the island-wise, month-wise and slab-wise detailed break up of number of consumers, connected load and energy sales under each consumer category for the last five years within three months of the issuance of this order. Further, the Commission also directs the Petitioner to maintain and submit monthly island-wise information for category-wise sales, number of consumers, connected load, T&D losses, plant-wise generation/purchase, fuel cost, etc. on quarterly basis within three months of the issuance of this order.

8.1.10. Details of upcoming power plants

Originally issued in Tariff Order dated 19th March 2018
Commission's latest directive in Tariff Order dated 18th May 2020 The Commission has noted the Petitioner's submission and directs the petitioner to submit the status of *procurement of power from the approved solar plants and details of ongoing and proposed installation of solar power plants.*
Petitioner's response in the present Tariff Petition *The details of ongoing and proposed installation of solar power plants is as below: Lakshadweep Administration has signed MoU with Solar Energy Corporation of India (SECI) regarding to purchase of solar power from the solar power projects to be deployed in different islands of Lakshadweep. SECI will develop the plant as their own built and operate basis for a period of 25 years. Work has already awarded to deploy the solar power plant at Kavaratti (1.4 MW with 1.4 MWh BESS), Agatti (0.3 MW without BESS) , Bangaram (0.15 MW with 0.450 MWh BESS) and Thinnakara (0.1MW with 0.3 MWh BESS) by SECI. A total of 1.9 MW with 2.15 MWh BESS. Dismantling work of existing SPV Power plant has commenced. Further 5.5 MW has also proposed to be deployed in the remaining Islands on land based and site survey is expected to be completed by 15th December 2020. Tender is expected to be finalized by the end of December 2020. EIA report for the deployment of Floating Solar Plant to be deployed at Kavaratti having capacity of 3 MW & Agatti having capacity of 3 MW has submitted by SECI. 2.25 MW Wind power project has also is proposed for the deployment at different four islands Kavaratti (0.75 MW), Kalpeni (0.5MW), Agatti (0.5MW) and Kadamath (0.5MW).* *M/s SECIs first project of 1.95 MW SPV plant shall be commissioned by July 2021 which shall generate 2.9 MU/year(avg).*

Commission's response

The Commission has noted the Petitioner's submission. The Commission directs the petitioner to submit quarterly the status of the upcoming projects.

8.1.11. Explore alternate sources of energy generation

Originally issued in Tariff Order dated 19th March 2018

Commission's latest directive in Tariff Order dated 18th May 2020

The Commission has shared its concern with Hon'ble Administrator regarding dependence of very costly electricity supply as most of the power is sourced from diesel generation. The Hon'ble Administrator has also shared his concern for the high cost of diesel generation and has been personally pursuing the matter with Secretary MNRE. The Petitioner has also informed that they are in discussion with IIT Madras for Solar and Biomass hybrid Project for Androt, Agatti and Kavaratti. Further, non-availability of suitable land for Ground mounted Solar, environmental concerns for installing Floating Solar, commercially unviable wind power are the major challenges for LED in minimizing generation from diesel. The Commission directs the Petitioner to submit the status report on quarterly basis.

Petitioner's response in the present Tariff Petition

The status of Solar & Biomass hybrid projects and other renewable projects is as below: Govt of India, Ministry of New & Renewable Energy (MNRE) is informed that the project proposal of concentrated Solar Thermal Agro-waste Biomass system is not recommended in the present form and hence cannot be supported in view of the comments received from the Experts, constituted by the Ministry for evaluation of the project proposal. However, M/s SECI is also looking for alternative option like Wind energy source(2.25MW).

Commission's response

The Commission is concerned regarding the dependence on costly electricity supply as most of the power is sourced from diesel generation. The Commission directs the petitioner to explore alternate source of energy generation and submit an action plan for utilizing the renewable generation sources for reducing the dependency on diesel based generation.

Annexures

Annexure 1: List of Stakeholders who attended the Public hearing on 10th March 2020 through Video Conference

Table 86: List of Stakeholders

S.No.	Name of Person (Mr/Ms)
1	Muhammed Koya PV (President, Block Congress Committee)
2	Mohsin P (General Secretary, Nationalist Congress Party)