TARIFF ORDER

True-up for the FY 2020-21 and FY 2021-22

Petition No. 102/2023

for

Electricity Department, Government of Goa (EDG)

12th September, 2023

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 & General
ABR	Average Billing Rate
ACoS	Average Cost of Supply
Act	The Electricity Act, 2003
APR	Annual Performance Review
ARR	Aggregate Revenue Requirement
ATE	Appellate Tribunal for Electricity
BPL	Below Poverty Line
CAGR	Compound Annualized Growth rate
Capex	Capital Expenditure
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CGRF	Consumer Grievance Redressal Forum
CGS	Central Generating Stations
Ckt. Km	Circuit Kilometer
COD	Commercial Operation Date
Commission/JERC	Joint Electricity Regulatory Commission for the State of Goa and Union Territories
Cr	Crore
Discom	Distribution Company
DSM	Deviation Settlement Mechanism
EA 2003	The Electricity Act, 2003
EDG	Electricity Department, Govt. of Goa
ED	Electricity Duty
EDF	Electricity Development Fund
EHT	Extra High Tension
ERP	Enterprise Resource Planning
FAR	Fixed Asset Register
FPPCA	Fuel and Power Purchase Cost Adjustment
FY	Financial Year
GFA	Gross Fixed Assets
GGPP	Gandhar Gas based Power Plant
HP	Horse Power
HT	High Tension
IEX	Indian Energy Exchange Limited
INR	Indian Rupee
IPDS	Integrated Power Development Scheme
IPP	Independent Power Producer

Abbreviation	Full Form
ISTS	Inter-State Transmission System
JERC	Joint Electricity Regulatory Commission for the State of Goa and Union Territories
KAPS	Kakrapar Atomic Power Station
KGPP	Kawas Gas based Power Plant
KSTPS	Kota Super Thermal Power Station
KVA	Kilo Volt Ampere
KWh	Kilo Watt Hour
LOI	Letter of Intent
LT	Low Tension
MOD	Merit Order Dispatch
MU	Million Units
MW	Mega Watt
MYT	Multi-Year Tariff
NFA	Net Fixed Assets
NPCIL	Nuclear Power Corporation of India Limited
NTPC	National Thermal Power Corporation
NVVNL	NTPC Vidyut Vyapar Nigam Limited
O&M	Operation and Maintenance
PF	Power Factor
PGCIL	Power Grid Corporation of India Ltd.
PLF	Plant Load Factor
PLR	Prime Lending Rate
POSOCO	Power System Operation Corporation Limited
PPA	Power Purchase Agreement
R&M	Repair and Maintenance
R-APDRP	Restructured Accelerated Power Development and Reforms Programme
REC	Renewable Energy Certificate
RLDC	Regional Load Despatch Centre
RoE	Return on Equity
RPO	Renewable Purchase Obligation
RSTPS	Ramagundam Super Thermal Power Station
RTC	Round the Clock
SBI PLR	SBI Prime Lending Rate
SECI	Solar Energy Corporation of India
SERC	State Electricity Regulatory Commission
SLDC	State Load Dispatch Centre
SOP	Standard of Performance
SRPC	Southern Regional Power Committee
TAPS	Tarapur Atomic Power Station
T&D	Transmission & Distribution

Abbreviation	Full Form
TVS	Technical Validation Session
UI	Unscheduled Interchange
UT	Union Territory
VSTPS	Vindhyachal Super Thermal Power Station
WART	Weighted Average Retail Tariff
WRPC	Western Region Power Committee

Before the

Joint Electricity Regulatory Commission

For the State of Goa and Union Territories, Gurugram

QUORUM

Shri Alok Tandon (Chairperson)

Smt. Jyoti Prasad, Member (Law)

Petition No. 102/2023

In the matter of

Approval for the True-up of FY 2020-21 and FY 2021-22

And in the matter of

Electricity Department, Government of Goa (EDG) .... Petitioner

ORDER

1) This Order is passed in respect of a Petition filed by the Electricity Department, Government of Goa (EDG) (hereinafter referred to as "The Petitioner" or "EDG" or "The Licensee") for the approval of True-up of FY 2020-21 and FY 2021-22 before the Joint Electricity Regulatory Commission (hereinafter referred to as "The Commission" or "JERC").

2) The Commission scrutinized the said Petition and generally found it in order. The Commission admitted the Petition on 18th May 2023. 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. The Public Hearing was held on 13th July 2023 at Institute Menezes Braganza, Panaji, Goa and on 14th July 2023 at Ravindra Bhavan, Margao, Goa and all the Stakeholders/Electricity Consumers present in the Public Hearing were heard.

3) The Commission based on the Petitioner's submission, relevant JERC 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 True-up of FY 2020-21 and FY 2021-22.

4) 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 True-up of FY 2020-21:

Secretary (I/c), JERC
(For Goa and UTs)

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

S. No	Particulars	Petitioner's submission	Now Approved
1	Net Revenue Requirement	1,947.60	1,940.39
2	Revenue from Retail Sales including FPPCA	1,755.54	1,758.44
3	**Net Gap /(Surplus)**	**192.06**	**181.95**

(b) The Petitioner has submitted a letter with Reference No. 1/16/2018/Fin(Bud) dated 11th December 2019 from the Government of Goa wherein the Govt. had assured that it would provide the requisite budgetary support to meet the deficit for the FY 2020-21. Accordingly, no revenue gap is carried forward to the future years.

(c) The following table provides ARR, Revenue and gap as submitted by the Petitioner and approved by the Commission in the True-up of FY 2021-22:

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

S. No	Particulars	Petitioner's submission	Now Approved
1	Net Revenue Requirement	2,309.54	2,285.44
2	Revenue from Retail Sales including FPPCA	1,901.97	1,903.93
3	**Net Gap /(Surplus)**	**407.57**	**381.51**

(d) Further, the Petitioner has submitted a letter with Reference No. 1/14/2019-FIN(Bud)/57 dated 7th January 2021 from the Government of Goa wherein the Govt. had assured that it would provide the requisite budgetary support to meet the deficit for the FY 2021-22. Accordingly, no revenue gap is carried forward in the future years.

5) The attached documents giving detailed reasons, grounds and conditions are the integral part of this Order.

6) Ordered Accordingly.

Sd/-	**Sd/-**
(Jyoti Prasad)	**(Alok Tandon)**
Member (Law)	**Chairperson**

Place: Gurugram
Date: 12th September, 2023

Certified Copy

(S.D. Sharma)
Secretary (I/c), JERC

1. Chapter 1: Introduction

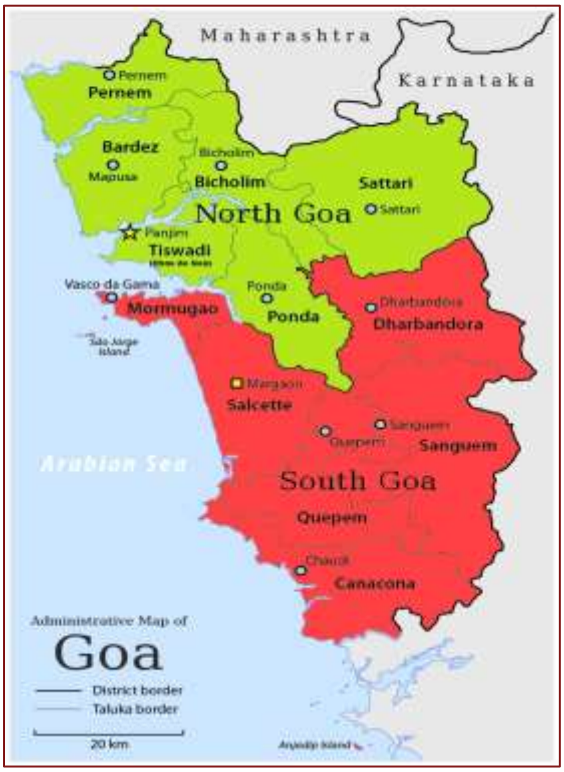
1.1. About Joint Electricity Regulatory Commission for the State of Goa and UT's (JERC)

In exercise of powers conferred by the Electricity Act 2003, the Central Government constituted the Joint Electricity Regulatory Commission for all the Union Territories except Delhi to be known as "Joint Electricity Regulatory Commission for the Union Territories" vide notification no. 23/52/2003-R&R dated 2nd 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 "JERC" or "the Commission") vide notification no. 23/52/2003-R&R (Vol. II) dated 30th May, 2008.

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

1.2. About Goa

Goa is a state on the southwestern coast of India within the region known as the Konkan, and geographically separated from the Deccan highlands by the Western Ghats. It is surrounded by the Indian states of Maharashtra to the north and Karnataka to the east and south, with the Arabian Sea forming its western coast. It is India's smallest state by area and the fourth-smallest by population. The state is divided into two districts: North Goa and South Goa. North Goa is divided into three subdivisions — Panaji, Mapusa, and Bicholim and further into five talukas (subdistricts). South Goa is divided into five subdivisions — Ponda, Mormugao-Vasco, Margao, Quepem, and Dharbandora and further into seven talukas (subdistricts).



Goa has the highest GDP per capita among all Indian states, two and a half times that of the country. The state of Goa is famous for its excellent beaches, churches, and temples. Tourism is Goa's primary industry, it gets 12% of foreign tourist arrivals in India. The state is also rich in minerals and ores, and mining forms the second largest industry. Iron, bauxite, manganese, clays, limestone, and silica are mined extensively in Goa.

Goa is often described as a fusion between Eastern and Western culture with Portuguese culture having a dominant position in the state in its architectural, cultural or social settings.

1.3. About Electricity Department, Government of Goa (EDG)

The Electricity Department, Government of Goa (hereinafter referred to as "ED-Goa" or "EDG" or 'Petitioner') is a deemed Distribution Licensee within the meaning of Section 2 (17) of Electricity Act 2003 and pursuant to the Section 14 of the Electricity Act. Further, Section 42 and 43 of the Electricity Act 2003 prescribes the following duties of the deemed Distribution Licensee:

- To develop and maintain an efficient, coordinated and economical distribution system;
- To supply electricity on an application by any person, in accordance with the provisions specified in the Electricity Act 2003;
- To provide non-discriminatory open access to the consumers;
- To establish a forum for redressal of grievances of the consumers.

The primary objective of EDG is to undertake the transmission, distribution and retail supply of electricity in its license area and for this purpose plan, construct, and manage the power system network in all its aspects. EDG is further responsible for carrying out the business of purchasing and selling of electricity along with activities such as billing and collection in the area.

1.4. Multi-Year Tariff Regulations, 2018

The Petitioner has filed the petition for the true-up of FY 2020-21 and FY 2021-22 which shall be done in accordance with the JERC MYT 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 'JERC MYT Regulations, 2018') on 10th August 2018. These Regulations are applicable for 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

EDG submitted the current Petition for approval of True-up of the FY 2020-21 and FY 2021-22 vide Letter No. 120/03/MYT22-23 to 24-25/CEE/Tech/2022-23/1774 dated 10th February 2023. After initial scrutiny/analysis, the Petition was admitted on 18th May 2023 and was marked as Petition No. 102/2023.

1.6. Interaction with the Petitioner

A preliminary scrutiny/analysis of the Petition was conducted, and certain deficiencies were observed. Accordingly, deficiency notes were issued to the Petitioner. Further, additional informations/clarifications/ justifications were solicited from the Petitioner as and when required. The Commission and the Petitioner also discussed various concerns of the Petition and key data gaps, which included Energy Sales, revenue from retail tariff, capitalisation, tariff proposal etc. The Petitioner submitted its response on the issue through various letters.

The Commission conducted the Technical Validation Session (TVS) with the Petitioner during which the discrepancies in the Petition were discussed and additional informations required by the Commission were sought. Subsequently, the Petitioner submitted replies to the issues raised in these sessions 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 date:

Table 3: Timelines of the interaction with the Petitioner

S. No	Subject	Date
1	Issue of First Deficiency Note	18th May 2023
2	Reply received from Petitioner	30th May 2023
3	Technical Validation Session	30th May 2023
4	Issue of Second Deficiency Note	12th June 2023
5	Reply received from Petitioner	26th June 2023
6	Public Hearing	13th July 2023 at Institute Menezes Braganza, Panaji, Goa
		14th July 2023 at Ravindra Bhavan, Margao, Goa

1.7. Notice for Public Hearing

Public Notices were published by the Commission in the leading newspapers as tabled below, giving due intimation to the stakeholders, consumers and the public at large about the Public Hearing to be conducted by the Commission. These notices were also uploaded on the Commission's website

Table 4: Details of Public Notices published by the Commission

S. No.	Date	Name of Newspaper	Language	Place of Circulation
1.	23rd June 2023	Gomantak	Marathi	Goa
		The Times of India	English	Goa
		The Navhind times	English	Goa
		oHeraldo	English	Goa
2.	11th July 2023	Gomantak	Marathi	Goa
		The Times of India	English	Goa
		The Navhind times	English	Goa
		oHeraldo	English	Goa

The Public Notice was published by the Petitioner in the following newspapers for inviting objections/ suggestions from the stakeholders on the Tariff Petition:

Table 5: Details of Public Notices published by the Petitioner

S. No.	Date	Name of Newspaper	Language	Place of Circulation
1.	26th June 2023	The Times of India	English	Goa
2.		The Navhind times	English	Goa
3.		Gomantak	Marathi	Goa
4.		Bhaangarbhuin	Konkani	Goa

1.8. Public Hearing

The Public Hearing was held on 13th July 2023 at Institute Menezes Braganza, Panaji, Goa and on 14th July 2023 at Ravindra Bhavan, Margao, Goa 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: Summary of Suggestions/Objections received, Response from the Petitioner and the Commission's Views

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 its website and also publish the same in the newspapers in an abridged form in the given format duly inviting comments/objections from the public as per the provisions of the JERC MYT Regulations 2018.

The Public Hearing was held on 13th July 2023 at Institute Menezes Braganza, Panaji, Goa and on 14th July 2023 at Ravindra Bhavan, Margao, Goa 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.

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

The Commission is appreciative of the efforts of various stakeholders in providing their suggestions/comments/ observations to make the process responsive and efficient. The relevant observations of the stakeholders have been suitably considered by the Commission while finalizing this Tariff Order. The submissions of the stakeholders, response of the Petitioner and views of the Commission are summarized below:

2.2.1. Sudden Increase in Distribution Losses

Stakeholder's Comment:

We appreciate that distribution losses are less than 10%. We are concerned that there has been an increase in losses by 9.3% even though there is no considerable demand growth. Technically it should have remained at FY 2020-21 level.

Distribution losses of Daman and Diu as per Table No 12 of True-up petition of Daman and Diu Administration is 4.68% indicating EDG has long way to go in terms of Distribution efficiency.

S. No.	Particulars	Table 2.2 FY 2020-21	Table 3.2 FY 2021-22
1	T&D Losses	7.74%	8.46%

Petitioner's Response:

EDG submits that, the department is working on loss reduction by diligently employing various techniques under the RDSS scheme which will mitigate distribution losses. The work includes underground cabling, enhancing transformer capacity efficiency upgradation etc.

Commission's View:

The Commission appreciates the suggestion of the stakeholders and directs the Petitioner to make efforts to bring down the T&D losses.

2.2.2. Slow Execution of Capital Works

Stakeholder's Comment:

Capital works are executed to meet the anticipated increase in load, and major renovation (capital repairs). Tourist belt of Candolim, Calangute in North Goa and Benaulim in South Goa suffer from peak power shortages. It was reported that voltage at 220 kV level is as low as 196 kV. Urgent execution of capital works is essential.

While there was some improvement in capital works executed between FY 2020-21 and FY 2021-22, a lot more has to be done as shown below:

S. No.	Particulars	Table 2.4 FY 20-21	Table 3.4 FY 21-22
1	Funds allocated under JERC tariff order for Distribution Maintenance under R&M	INR 303.13 Cr	INR 345.00 Cr
2	Actual Expenses as per true up Petition	INR 51.90 Cr	INR 165.19 Cr
3	Percentage of spend over allocation	17.12%	47.9%

Petitioner's Response:

EDG submits that, department agrees to the fact that it has executed capital works comparatively lesser than the approved by Hon'ble Commission during FY 2020-21 and FY 2021-22. This was mainly due to the outbreak of covid pandemic and related issues with it. As pointed out by the stakeholder lot more has been done during last one year. Consequently, during the preceding fiscal year 2022, the Electricity Department spent nearly Rs. 950 crores, with a substantial portion sourced from Electricity Duty, exceeding the initial budget allocation of Rs. 350 crores. This surplus of over Rs. 600 crores were rapidly channeled into transformative development endeavors, including extensive underground cabling and network conversions, substantial upgrades, and augmentation of transformer capacity with the installation of 50 MVA transformer at Verna, Thivim and 63 MVA transformer at Ponda. Further to this lot of projects for underground cabling as well as infra development are in progress.

Commission's View:

The stakeholders may note the Petitioner's submission in this regard. Further, the Petitioner is directed to ensure that the schemes approved by the Commission are executed and completed in time bound manner in order to ensure system reliability and enhanced quality of supply.

2.2.3. Unreliability of power supply and Poor Maintenance

Stakeholder's Comment:

Goa is well known internationally for its poor-reliability of power supply. Reliability issues are arising from EDG not carrying out expected and scheduled maintenance as per Prudent Industry Practice. The unscheduled power outages are increasing, and it is evident in the sale of diesel in Goa. We have repeatedly requested that power outage details, including sectional outages, be posted online. The power quality indices need to be transparent. It is indeed unfortunate that the general perception among industry is that power to Industries and Commerce is not given priority over other consumers, even though they are EDG's prime revenue generator.

Such frequent interruptions in power supply and poor power quality are injurious to public health, cause environment pollution, shorten life of electrical equipment/apparatus and are harmful to the profitability of business and commerce. It affects the image of Goa among the tourists.

Distribution maintenance did not get the attention, it deserves, as evident from table 2.8 and table 3.8 given below.

S. No.	Particulars	Table 2.8 FY 2020-21	Table 3.8 FY 2021-22
1	Funds allocated under JERC tariff order for Distribution Maintenance under R&M	INR 73.65 Cr	INR 86.58 Cr
2	Actual Expenses as per true up Petition	INR 12.48 Cr	INR 60.77 Cr
3	Percentage of spend over allocation	16.94 %	70.19%

The true up numbers indicate expense is as low as 16.94%. This also falsifies the public statement by authorities, that in Goa, tariff is low and hence the power quality will be low. The data shows that in FY 2020-21 funds for maintenance were not a problem but the attitude to solve is a problem. Better expenditure performance in 2021-22 is appreciated but it still is way behind.

It is requested that the Commission, may kindly take note and issue appropriate directives to EDG

Petitioner's Response:

EDG submits that, efforts are on providing reliable and quality power supply to its consumer. For this, EDG has undertaken various projects for improving its network, providing underground cabling upgradation of transformer capacity, the state of art GIS based sub-station wherever required etc. As regards to power outages, all the planned power outages are published widely. However, unplanned outages are beyond the control of EDG which are mainly occurred due to failure of interstate line or natural calamities. EDG agrees to the fact that the load shedding was primarily done to the industrial consumer instead of domestic due to shortage of power till last year during peak summer demand. However, this has been discontinued during 2023 summer since the provision was made well in advance for purchase of additional power during summer months. Hence, load restriction to the industries on account of shortage of power was minimal this year compared to previous year. Load restriction was imposed only on network constraint. Department ensures to provide reliable Power supply hereinafter once all network improvement is in place.

Commission's View:

The stakeholders may note the Petitioner's submission in this regard. The Petitioner is directed to ensure quality supply of power to the consumers.

2.2.4. Representation for Implementation of Electricity (Rights of Consumer) Rules 2020

Stakeholder's Comment:

We would like to bring to your kind notice that Central Government have already issued Notification dated 31st December, 2020 forming rules which are called the Electricity (Rights of Consumer) Rules 2020.

In view of the above notification, there cannot be load shedding regularly as has been done by the Goa Electricity Department and even if they do so, as per the rules, consumer have right to demand compensation from the department. The said rules are not being implemented by the Goa Electricity Department for the reason best known to them.

We are therefore approaching you to kindly issue necessary directions to the Goa Electricity Dept for implementing the above Electricity Rules as notified by the Central Government.

Petitioner's Response:

EDG submits that, at this stage it is noteworthy to mention the consumer rules are recently notified, the entire procedure has been completed except the compensation part. EDG at this stage is not sure of in what situation compensation is to be paid for power outages as many times outages occur due to failure of interstate lines, emergency break down and natural calamities etc. To be more specific the outages are categorized as controlled and non-controlled, accordingly mechanism for payment of compensation will be worked out with the approval of the Government.

Commission's View:

The stakeholders may note the Petitioner's submission in this regard.

2.2.5. Corporatization

Stakeholder's Comment:

There is a need to corporatize the Electricity department of Goa. However, it has still not happened despite repetitive directions from the Commission.

Petitioner's Response:

EDG submits that, the proposal to transform the Electricity Department into a Board or a corporate entity has been prompted by the economic considerations of relying on budgetary support, which is provided by the Government of Goa to ensure consumer welfare. In instances where the allocated budget remains underutilized, the resulting revenue gap must be carried over to the following year, leading to potential increases in consumer tariff rates.

ED-Goa submits that matter has been taken up with the Govt. and is awaited for suitable decision. However, ED Goa submits that suitable decision from the government in regard to corporatization will be informed to the Hon'ble commission.

Commission's View:

The stakeholders may note the Petitioner's submission in this regard.

2.2.6. Illegal stays tapping domestic power

Stakeholder's Comment:

The population of Goa is only around 16 lakhs. However, the annual footfall of tourists is 90 lakhs which is causing a big problem. Quite a few illegal stays have been operating that are tapping into the domestic supply and paying lower charges instead of commercial charges.

Petitioner's Response:

EDG submits that, some consumers engage in commercial activities specially in coastal belt were used domestic connection for subletting or providing home stay to the tourist within domestic connections in an attempt to evade registration under the tourism department. Identifying such connections and obtaining credible evidence of the owners activities is a real challenging task, particularly in Coastal belt however the Department is actively addressing this matter and is seeking support from Tourism department where such premises are registered with tourism department for carrying out such commercial activities. The department is in the process of collectively resolving these issues of such kind of illegal misuse of domestic category. As per information provided by Tourism dept, Electricity department has started bill such consumers on commercial basis instead of domestic.

Commission's View:

The Commission appreciates the suggestion of the stakeholders and directs the Petitioner to identify such consumer and take appropriate action as per the provisions of the JERC Supply Code.

2.2.7. Prioritization of C&I Consumers

Stakeholder's Comment:

There has been a recurring phenomenon of giving preference to Domestic supply instead of Commercial and Industrial loads. Further, when there is a shortage, supply of C&I load is disconnected first even though most of the revenue comes from C&I consumers

Petitioner's Response:

EDG submits that, efforts are on providing reliable and quality power supply to its consumer. For this, EDG has undertaken various projects for improving its network, providing underground cabling upgradation of transformer capacity, the state of art GIS based sub-station where ever required etc. As regards to power outages, all the planned power outages are published widely. However, unplanned outages are beyond the control of EDG which are mainly occurred due to failure of interstate line or natural calamities. EDG agrees to the fact that the load shedding was primarily done to the industrial consumer instead of domestic due to shortage of power till last year during peak summer demand. However, this has been discontinued during 2023 summer since the provision was made well in advance for purchase of additional power during summer months. Hence, load restriction to the industries on account of shortage of power was minimal this year compared to previous year. Load restriction was imposed only on network constraint. Department ensures to provide reliable Power supply hereinafter once all network improvement is in place.

Commission's View:

The stakeholders may note the Petitioner's submission in this regard. Further, the Petitioner is directed to ensure the availability of enough power to cater to the needs of consumers of all categories in the state of Goa.

2.2.8. Bad debt claimed by ED-Goa

Stakeholder's Comment:

The Petitioner has claimed bad debts in FY 2020-21 and FY 2021-22. Whose money is being written off? The Petitioner should submit the details of the same.

Petitioner's Response:

EDG submits that, in instances of bad debt, a specific provision is made in accordance with the regulation, wherein 1% of the Annual Revenue Requirement (ARR) is allocated to account for such situations and subsequently passed on to the consumers. The Electricity Department has diligently adhered to this regulatory provision, ensuring that no amount has been written off from any individual's accounts or pending arrears.

Commission's View:

The Commission has noted the stakeholders' concern and would like to highlight that the Commission only allows the recovery of bad debt in instance of the licensee write off any bad and doubtful debts after the prudence check and as per the extant regulations and not on the provisioning of bad and doubtful debts in the books of accounts.

2.2.9. Employee expenses

Stakeholder's Comment:

ED Goa has not provided the details of actual employee expenses being incurred by the department.

Petitioner's Response:

EDG has provided the employee expenses details as per the relevant regulation of Hon'ble Commission.

Commission's View:

The stakeholders may note the Petitioner's submission in this regard. The same has been dealt in the subsequent chapter of this Order.

2.2.10. Claiming damages due to road accidents

Stakeholder's Comment:

A large number of accidents are occurring in Goa these days as suggested by official data. Some of these accidents are causing damages to poles. However, they are not being reported to the police and no FIR is being filed by the electricity department. A proper process needs to be followed and mandatory FIR should be registered so that the compensation can be claimed from the person responsible for the accident.

Petitioner's Response:

EDG submits that, in the event of accidents leading to the destruction of the Electricity Department's assets, such as electrical poles, formal FIRs are filed to hold the responsible parties accountable for the damages caused. However, it is worth noting that apprehending all culprits involved in such incidents can be challenging, especially when these accidents occur predominantly during night-time hours.

Commission's View:

The stakeholders may note the Petitioner's submission in this regard.

2.2.11. Electricity Duty

Stakeholder's Comment:

The electricity duty is collected duly by the authority and the consumers have to pay it without fail. However, the utilization of this is not known to the consumers. The petitioner must submit the details for the same.

Petitioner's Response:

EDG submits that the Electricity Duty collected from consumers is directly remitted to the Government treasury. The Electricity Department does not possess detailed insight into the allocation process, as it primarily assumes the role of financial stewardship. Consequently, during the preceding fiscal year, 2022, the Electricity Department spent nearly Rs. 950 crore, with a substantial portion sourced from Electricity Duty, exceeding the initial budget allocation of Rs. 350 crore. This surplus of over Rs. 600 crores was rapidly channeled into transformative development endeavors, including extensive underground cabling and network conversions, substantial upgrades, and augmentation of transformation capacity with the installation of 50 MVA transformer at Verna, Thivim and 63 MVA transformer at Ponda. This steadfast growth and development signify the proactive approach embraced by the Electricity Department, with the firm belief that Electricity Duty represents the funds of the people, meticulously employed for the betterment and welfare of society.

Commission's View:

The stakeholders may note the Petitioner's submission in this regard. Further, the Commission directs the Petitioner to provide the reconciliation of Electricity Duty Fund created and utilized year wise with details along with the filing of next tariff petition.

2.2.12. Campaign for Revision of Connected Load

Stakeholder's Comment:

Many consumers in Goa are unaware of what connected load is and how the declared connected load affects their electricity bills. The connected load was declared decades ago and although many new and additional electrical equipment have been installed in people's premises, the same connected load is continued as on date. Hence, there is a dire need of revision of the declared connected load. The department may run a campaign for sensitizing the consumers on the same.

Petitioner's Response:

EDG submits that, over an extended period, there has been a noticeable trend wherein numerous individuals initially opt for small load connections and subsequently progress to increase the number of their electrical gadgets and equipment connected to that load. However, a significant proportion of consumers choose not to pursue a load increase. In response to this, the Electricity Department is planning an extensive campaign to enhance consumer awareness concerning the process of Revision of Connected Load.

Commission's View:

The Commission appreciates the suggestion of the stakeholders and directs the Petitioner to complete the process of Revision of Connected Load at the earliest.

2.2.13. E-Payment and Bill updation

Stakeholder's Comment:

The hard copy of electricity bill is sent by ED-Goa to the consumers. However, using today's technological advancements, it should be sent on email or Whatsapp. Further, use of online payment gateways shall be propagated so that certain cashbacks and offers can be availed by the consumers which can help them in getting reduced bills and better consumer experience.

Further, the updation of bill paid is delayed in ED database. If the bill is paid a day before the due date, next month's bill still includes previous amount.

Petitioner's Response:

EDG submits that, the Electricity Department in order to encourage digital payment platforms provides a rebate of 1% for all LT consumers provided consumer pays the bill on digital platforms one week before due date. EDG is actively promoting awareness among consumers to opt for electronic bills. However, even if 90-95% consumers prefer soft copy bills, there are some consumers who still prefer hard-copy of bills, the Electricity Department is striving to accommodate every individual's preference by ensuring they receive their bills in their preferred format.

Commission's View:

The stakeholders may note the Petitioner's submission in this regard.

2.2.14. Availability of Audit Report

Stakeholder's Comment:

The Petitioner has submitted that the Audited accounts of FY 2020-21 and FY 2021-22 and the CAG certificates are attached as annexures in the petition. But the same is not available on the public portal.

Petitioner's Response:

EDG submits that, the Department furnishes all relevant figures sourced from the CAG data for each Petition. As regards CAG certificates not available on public portal, it may be noted that they were uploaded along with the petition, however during the migration of the system on cloud due to technical issues those annexures were missing. Now all the annexures including CAG certificates are once again uploaded and available in public domain.

Commission's View:

The stakeholders may note the Petitioner's submission in this regard. Further, the Petitioner is directed to ensure the availability of all the annexures at their website along with the petition henceforth.

2.2.15. Cabling Issues

Stakeholder's Comment:

Underground cables are being installed in various locations in Goa but the last point connection is missing. Therefore, overhead cable lines are being used for the same. However, this is not a good solution, and the end points need to be connected. Also, the underground trenches are not filled at many places causing accidents and life loss. There is an urgent need to cover the same for safety purposes.

Petitioner's Response:

EDG submits that, the Government of Goa adheres to a policy whereby underground cabling excavation is carried out first, followed by the estimation process conducted by the Public Works Department (PWD), with the remaining work to be executed accordingly. To expedite the overall process, effective coordination among these entities is crucial. The Electricity Department is committed to facilitating this coordination by providing pertinent information well in advance, thereby expediting the estimation phase and ensuring uninterrupted progress in the project execution.

Commission's View:

The stakeholders may note the Petitioner's submission in this regard.

2.2.16. Issues related to Maintenance

Stakeholder's Comment:

In South Goa, installation of underground cables is not being done. This region has a hilly terrain with a lot of trees. During monsoon season, many electrical wires have been damaged due to falling of trees. Also, poles are running through fields and during rains it is not physically possible to do the maintenance work for the same and it results in poor quality of supply.

The maintenance is done before the monsoon arrives. However, it is not adequate enough for the season. Frequent breakdowns have been occurring due to lack of proper maintenance.

Petitioner's Response:

EDG submits that, 60% of its primary distribution network is still on overhead line and it is not in departments control to avoid the power outages caused due to falling of trees during monsoon season. However, Electricity department is determined to resolve the outages due to falling of trees in timely manner and provide the information to the consumer about resolving the same. As regard to the poles running through the fields, various underground cabling works have been completed and some projects are in pipeline. This will reduce the poor quality of power supply in future. EDG is aware of the fact that one day maintenance of the network before the monsoon is not sufficient but it is difficult to arrange shutdowns for multiple days due to inconvenience caused to the consumers.

Commission's View:

The stakeholders may note the Petitioner's submission in this regard.

2.2.17. R&M Reduction

Stakeholder's Comment:

There is a need to reduce the repair and maintenance expenses incurred by the department. The department should figure out ways to do the same.

Petitioner's Response:

EDG has taken the note of the stakeholder comment and will do the needful.

Commission's View:

The stakeholders may note the Petitioner's submission in this regard. The R&M expenses are allowed as per the norms prescribed by the extant JERC MYT Regulations, any expenditure over and above are borne by the Petitioner and shall not be passed through in the tariffs.

2.2.18. Loss Calculation

Stakeholder's Comment:

The Aggregate Technical & Commercial (AT&C) loss calculation is done by the ED-Goa. However, the method is not specified and is not available in the public domain.

Petitioner's Response:

The AT&C losses are calculated as per formula specified by Ministry of power, Government of India.

Commission's View:

The stakeholders may note the Petitioner's submission in this regard. Further, the Petitioner may provide details of computation of AT&C losses along with the petition for the ensuing year and also upload the same on its website.

2.2.19. Power Advisory Committee and Tribal sub-Plan

Stakeholder's Comment:

ED-Goa received fund through the tribal sub-plan for development of tribal populations in the state. The public has no visibility of how these funds are being used by the department.

Petitioner's Response:

EDG submits that, the implementation of the Tribal Sub-Plan is ongoing and during the previous year the electricity department efficiently utilized approximately 95% of the allocated government funds. Our department strategically selects areas based on population requirements ensuring optimal utilization of the entire allocated budget. We are confident that this year allocation will be utilized within the first half of the fiscal year.

Commission's View:

The Commission appreciates the suggestion of the stakeholders and directs the Petitioner to provide plan wise details of allotted fund and its utilization in details along with the filing of next tariff petition.

2.2.20. Availability of material

Stakeholder's Comment:

All the material/notices published by the department must be made available in vernacular language for the tribal consumers of Goa.

Petitioner's Response:

EDG has taken the note of the comment and will work on it.

Commission's View:

The stakeholders may note the Petitioner's submission in this regard.

2.2.21. Quality of Equipment

Stakeholder's Comment:

The quality of electrical goods/equipment available in the market is not good. This needs to be checked.

Petitioner's Response:

EDG submits that, EDG has certain makes and products which are uploaded on website. As regards to the quality of products available in market, whatever material which are used in department infra like substation, lines, cabling etc. are taken care by the department whereas to check the quality of the equipment/goods used by the consumers comes under State Electrical Inspectorate and is not in purview of the department.

Commission's View:

The stakeholders may note the Petitioner's submission in this regard. Further, the Consumers may approach the State Electrical Inspectorate to ensure the good quality of electrical goods/equipment as per standards before use.

2.2.22. SOP for Gensets

Stakeholder's Comment:

Multiple gensets are operating in Goa without any authorization. These gensets cause reverse power flow in the system that may hamper the equipment for various consumers. The SOP for the same needs to be published.

Petitioner's Response:

EDG submits that, all the Gensets which are in use are taking prior approval of the Electricity department before approval along with required approval from State Electrical Inspectorate. As regards to the SOP, EDG has taken the note of the stakeholder comment and will do the needful.

Commission's View:

The stakeholders may note the Petitioner's submission in this regard.

2.2.23. Awareness Programs

Stakeholder's Comment:

There is lack of awareness regarding the Consumer Grievance Redressal Forum and therefor the consumer problems are not being addressed. Hence, there is a need for a dedicated CGRF awareness campaign for the villages in Goa.

Petitioner's Response:

EDG submits that the department has noted the submission made regarding awareness program and will take suitable measure to create awareness.

Commission's View:

The stakeholders may note the Petitioner's submission in this regard. Further, the Petitioner is directed to ensure the availability of detailed guidelines regarding the grievance redressal mechanism on their website and in their regional offices and may take necessary steps to create awareness around it including printing of address and telephone numbers of CGRF as well as Ombudsman office on the electricity bills.

2.2.24. Covering of Junction Boxes

Stakeholder's Comment:

Multiple junction boxes lay open in various locations of Goa. The junction boxes need to be covered to prevent damages and prevent other unforeseen disastrous situations.

Petitioner's Response:

EDG submits that department is identifying such boxes and needful action is being taken up.

Commission's View:

The stakeholders may note the Petitioner's submission in this regard.

2.2.25. Streetlight maintenance

Stakeholder's Comment:

The Street lights maintenance costs are being charged in the consumer bills however the maintenance is not being done.

Petitioner's Response:

EDG submits that, the amount of streetlight maintenance charges recovered from consumers is significantly lower compared to the department's expenditure on maintenance. However, department is still determined on improving the maintenance work of the street light and provide best possible services to the consumer.

Commission's View:

The stakeholders may note the Petitioner's submission in this regard.

2.2.26. Problems related to HT

Stakeholder's Comment:

There's a need to give power factor rebate for HT category. There are no incentives that have been given as of now.

Petitioner's Response:

EDG submits that, the KVAh metering has the inbuilt mechanism to bill the consumer as per the kWh and KVAh, where the applicable incentive and penalty as per the Consumption of the Consumers are automatically accounted. Due to this mechanism, the separate levy of Incentive or Penalty is not required to be implemented by the Department.

Commission's View:

The stakeholders may note the Petitioner's submission in this regard.

2.2.27. Captive Generation

Stakeholder's Comment:

ED-Goa requires captive generation for more reliable supply and also make use of the open access policy.

Petitioner's Response:

EDG submits that, Solar Open Access policy is currently in effect, and the Electricity Department is dedicated to promoting awareness about this policy. In its initial implementation, approximately 15% of the total capacity (around 100-110 MW) was allocated, and the majority of this capacity has already been reserved. However, due to the high cost of land in Goa, many individuals who have booked capacity are facing challenges in securing suitable land for their projects.

Commission's View:

The stakeholders may note the Petitioner's submission in this regard.

2.2.28. Tariff Hikes

Stakeholder's Comment:

Tariff hikes of EDG are based on audited accounts, but accounts are not being maintained properly. Further, the asset register also needs updating and proper maintenance.

Petitioner's Response:

EDG submits that proper accounting of financial statements are made and accounts are duly certified by CAG. The fixed assets register is maintained as per the directions issued by Hon'ble Commission.

Commission's View:

The stakeholders may note the Petitioner's submission in this regard. Further, it is mentioned that the tariff rates are determined based on the assessment and prudence check of the expenses proposed by the Petitioner for the ensuing year and are trued-up based on the audit financial statements.

2.2.29. Audit of electrical equipment

Stakeholder's Comment:

There's a need of technical audit of all the electrical equipment in the state of Goa.

Petitioner's Response:

EDG submits that the Electricity Department will conduct an audit, and significant decisions will be made based on its findings.

Commission's View:

The Commission appreciates the suggestion of the stakeholders and directs the Petitioner to submit the report along with action plan along with the filing of tariff petition for ensuing year.

2.2.30. Solar Rooftop System

Stakeholder's Comment:

Consumers with roof-top solar generate more power than they consumed. Irrespective of this, they need to pay fixed charges every month to ED-Goa. Why can't EDG deduct the same from the extra power received by them from Solar connection.

Further, there is a need to make install solar farms for better and sustained generation in Goa.

Petitioner's Response:

EDG submits that, as per the net metering regulation settlement is done for solar roof top systems wherein any surplus energy generation is credited by the Electricity Department at the end of the year. As per the current regulation, EDG cannot deduct or adjust the fixed charges amount towards extra power received through Rooftop Solar System.

Commission's View:

The Commission has noted the concerns of the stakeholders' and it is mentioned that the settlement of excess generation from the solar rooftop is to be done in accordance with the provisions of JERC (Solar PV Grid Interactive System based on Net Metering) Regulations, 2019.

2.2.31. Meter Rent Methodology

Stakeholder's Comment:

The Electricity Department of Goa has been levying meter rent on consumers for the past two to three decades. It is essential to ascertain the duration for which this meter rent deduction is mandated since the installation of meters. The methodology employed for this cost recovery should be transparent and readily accessible to consumers. To determine whether their meter's cost has been fully recovered or not, consumers should have access to a clear and easily understandable mechanism. Additionally, consumers may inquire about the possibility of purchasing the meter outright, thereby avoiding future meter rent charges.

Petitioner's Response:

EDG submits that, the Electricity Department is actively addressing the matter concerning the meter rent methodology and is committed to providing comprehensive answers to all consumers in a timely manner. However, it may be noted that as per Tariff Order of FY-2023-2024 meter rent charge is discontinued with effect from 1st April'2023.

Commission's View:

The Commission has noted the concerns of the stakeholders' and it is mentioned that the Commission has already discontinued the meter rent in the tariff order for FY 2023-24 i.e. from 1st April 2023.

2.2.32. Complaints for Power Theft

Stakeholder's Comment:

There is a widespread occurrence of power theft throughout Goa, including the coastal belt. The current method to report power theft involves submitting complaints to a Gmail account hosted on a US server, which raises concerns about the confidentiality of sensitive information. To address this issue, it is recommended that the Electricity Department establish a system where power theft complaints are received on an Indian server, such as nic.in, which ensures a more secure and confidential handling of such information. Implementing this measure is essential to establish an effective mechanism to combat power theft effectively.

Petitioner's Response:

EDG submits that, a significant majority, ranging from 80% to 90%, of the complaints received by the Electricity Department are deemed to be unsubstantiated or baseless. Nonetheless, it is acknowledged that a certain percentage of these complaints are legitimate and require attention. As part of the Department's protocol, each complaint received via mail is diligently attended to and investigated, ensuring a comprehensive approach to handling all customer concerns.

Commission's View:

The Commission appreciates the suggestion of the stakeholders and directs the Petitioner to identify such consumer and take appropriate action against them as per the provisions of the JERC Supply Code.

2.2.33. Government Department Dues

Stakeholder's Comment:

Due to the comprehensive media coverage of electricity-related matters, several departments within the government of Goa have accumulated outstanding electricity bill dues. While swift and strict actions are promptly taken to recover dues or disconnect the connection of individual small consumers who fail to pay, it is noteworthy that significant sums, amounting to cores of rupees, are still pending for recovery from government departments. Given the scale of outstanding payments, it is imperative that this matter be diligently addressed and accorded a high priority.

Petitioner's Response:

The Electricity Department is cognizant of the substantial outstanding dues from various Government departments. Leveraging initiatives such as the Revenue Deficit Support Scheme (RDSS), specific conditions within the schemes have proven effective in mitigating these dues. The Electricity Department is committed to unwavering efforts aimed at ensuring the complete recovery of outstanding dues from government departments. All the dues will be recovered.

Commission's View:

The stakeholders may note the Petitioner's submission in this regard. Further, the Petitioner is directed to follow up with the concerned department for clearing of the outstanding dues on priority and submit department wise details of dues as on 30th September 2023 along with the tariff petition for the ensuing year.

2.2.34. Annexures not uploaded

Stakeholder's Comment:

The Petitioner may be directed to uploaded all the annexures along with the petition on their website.

Petitioner's Response:

EDG submits that all annexures are duly uploaded on the website.

Commission's View:

The stakeholders may note the Petitioner's submission in this regard. Further, the Petitioner is directed to ensure the availability of all the annexures at their website along with the petition henceforth.

2.2.35. Power Outages

Stakeholder's Comment:

There were 32 power outages in 12 hrs. How to apply for compensation of Power outages, how to keep record?

Petitioner's Response:

EDG submits that the said customer is residing at Ashwini Residency under Sub-Division-IV-Curtorim and is fed on 11KV Curtorim feeder emanating from 33/11KV Raia sub-station. The interruptions recorded at Raia SS that affected power supply to Ashwini Residency on 13/07/2023 are stated here below:

1. 33KV Incoming supply from Ponda Manually tripped at 9.28Hrs and restored by availing feed from Cuncolim Sub-station at 9.30Hrs., Outage 2-Minutes (Jumper issue at Borim bridge).

2. 33KV supply Manually tripped at 11.18 hrs. to transfer load to 33KV Ponda and restored at 11.20Hrs., Outage 2-Minutes.

3. 11KV Curtorim feeder tripped on EFR (Transient fault) from 14.54 Hrs. to 14.55 Hrs., Outage1-Minute.

Also, there was no LT line failure nor any fuse-off call was registered on DTC feeding to Ashwini Residency.

It is proved that there were only 3 interruptions on the said date.

Commission's View:

The stakeholders may note the Petitioner's submission in this regard. Further, if the stakeholder is not satisfied with the justification of the Petitioner, then they may approach CGRF for their grievance.

2.2.36. Tree Study

Stakeholder's Comment:

During the monsoon season, power disruptions of 2-3 days, particularly in village areas, are prevalent due to fallen trees impacting the electricity network. To mitigate such occurrences and ensure a prompt and accountable response, implementing a tree study mechanism becomes imperative. This proactive approach will enable us to identify and remove trees that pose a risk to the infrastructure well before the onset of monsoon, thereby averting potential disruptions.

Petitioner's Response:

EDG submits that, specialized disaster management team, in collaboration with the Collectorate and Panchayat, is responsible for determining which trees require removal. However, this task is challenging as it involves navigating differing perspectives on tree-cutting, with some individuals in favor and major people strongly opposing. Such disputes lead to time-consuming processes and delayed outcomes.

Notwithstanding these challenges, the Electricity Department will work to address the Tree Study matter to expedite operations. These right-of-way issues have been a significant factor causing project delays, particularly in South Goa. Therefore, our department is actively working towards finding effective solutions to mitigate these delays and streamline the process for the benefit of the community.

Commission's View:

The stakeholders may note the Petitioner's submission in this regard.

2.2.37. T&D Losses

Stakeholder's Comment:

Are the T&D losses calculated based on the revenue received or on the purchased and consumed power?

Petitioner's Response:

EDG submits that, the T&D losses are calculated based on Power purchased and consumed and not on the revenue received.

Commission's View:

The stakeholders may note the Petitioner's submission in this regard.

2.2.38. Reliance Arbitration award

Stakeholder Comment:

The amount paid by the government towards arbitration award in the matter of reliance power purchase, clarification is required whether the burden will be passed on to the consumer through tariff hike.

Petitioner's Comments:

As regards to Reliance arbitration award to be passed on to consumers through tariff, EDG submits that power purchase amount from Reliance generator was never considered in Tariff petition filed during purchase years so passing of burden of reliance award on tariff hike does not arise.

Commission's View:

The stakeholders may note the Petitioner's submission in this regard.

2.2.39. Advance Payment and Interest

Stakeholder's Comment:

To facilitate consumers who wish to make advance payments, such as paying for 6 months or 1 year in advance, it is advisable to incorporate a provision in the billing system. Additionally, a nominal interest should be offered to the consumers as an incentive for their advanced payments. This approach would enable the government to receive the advanced funds while providing a beneficial option for individuals who anticipate prolonged absences or extended periods of non-usage.

Petitioner's Response:

EDG submits that, the Electricity Department already offers a provision for advance payment facility and are working to provide more information and clarity about this option to the public.

Commission's View:

The stakeholders may note the Petitioner's submission in this regard. Further, the Petitioner may highlight the provisions of Advance Payment on their website for awareness of public at large.

2.2.40. FPPCA Charges

Stakeholder's Comment:

Electricity department of Goa charges FPPCA charges to consumers but there is no proper understanding of methodology of FFPCA charges and FPPCA methodology and how it is calculated?

Petitioner's Response:

EDG submits that, Goa does not generate its own power; instead, the entire power supply is sourced from Central sector generation which are situated in states like Chhattisgarh, Jharkhand, Madhya Pradesh etc. Approximately 80% of Goa's power is procured from NTPC plants, which necessitates the use of blended imported coal from other countries, and its cost lies beyond our direct control. As a result, any expenses exceeding the approved cost set by the commission are borne by consumers through the Fuel and Power Purchase Cost Adjustment (FPPCA) mechanism. The FPPCA charges are calculated based on the methodology provided by Hon'ble Commission as per Tariff Order for respective year.

Commission's View:

The Commission has noted the concerns of the stakeholders and it is mentioned that the detailed methodology for FPPCA has already been provided in the tariff order dated 30th March 2023 under Chapter 8. Further, the Commission directs the Petitioner to upload the FPPCA computation and its recovery as approved by the Commission on its website before charging it in the electricity bills.

3. Chapter 3: True-up of FY 2020-21

3.1. Applicable Provisions and Background

Under the second MYT regime of the JERC, the Tariff Order approving the True-up for the FY 2014-15 and Aggregate Revenue Requirement (ARR) for 2nd MYT Control Period (FY 2019-20 to FY 2021-22) and determination of retail tariff for the FY 2019-20 was issued on 20th May 2019 (hereinafter referred to as the "MYT Order").

The Tariff Order approving the True-up of the FY 2015-16 and the ARR for FY 2020-21 was approved vide order dated 19th May 2020 (hereinafter referred to as the "ARR Order"). In the Tariff Order approving the True-up of the FY 2016-17 dated 30th March 2021, commission didn't take-up the Annual Performance Review (APR) for FY 2020-21 as the data submitted by the Petitioner for the APR of 2020-21 was not reliable.

During the Approval of Aggregate Revenue Requirements (ARR) for 3rd MYT Control Period from FY 2022-23 to FY 2024-25 and Determination of Retail Tariff for FY 2022-23 dated 31st March 2022, the Petitioner did not submit the True-Up Petition for FY 2020-21 as the audited accounts were not finalized and the Commission directed the Petitioner to prepare and submit the audited accounts based on commercial principles along with the True-up Petitions and accordingly, the Commission did not take up the True-up of FY 2020-21.

The True up for the FY 2020-21 is to be carried out in accordance with Regulation 11 of the JERC MYT Regulations, 2018, stated as following:

"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;*

b) ***Annual Performance Review****: a comparison of the revised performance targets of the Applicant for the current Financial Year with the approved forecast in the Tariff Order corresponding to the Control Period for the current Financial Year subject to prudence check;*

c) ***Tariff determination*** *for the ensuing Year of the Control Period based on the revised forecast of the Aggregate Revenue Requirement for the Year;*

d) Review of compliance with directives issued by the Commission from time to time;

e) Other relevant details, if any.

11.4 Upon completion of the exercise, the Commission shall attribute any variations or expected variations in performance for variables specified under Regulation 12below, to factors within the control of the Applicant (controllable factors) or to factors beyond the control of the Applicant (uncontrollable factors):

Provided that any variations or expected variations in performance, for variables other than those specified under Regulation 12below shall be attributed entirely to controllable factors.

11.5 Upon completion of the exercise, the Commission shall pass an order recording:

a) Components of approved cost pertaining to the uncontrollable factors, which were not recovered during the previous Year, to be passed through in tariff as per Regulation 13 of these Regulations:

Provided that, for a Generating Company, the above exercise shall be in accordance with prevalent CERC Tariff Regulations.

b) Approved aggregate gain or loss to the Transmission Licensee or Distribution Licensee on account of controllable factors, and the amount of such gains or such losses that may be shared in accordance with Regulation 14 of these Regulations:

Provided that, for a Generating Company, the above exercise shall be in accordance with prevalent CERC Tariff Regulations.

c) Carrying cost shall be allowed for a Generating Company, Transmission Licensee or Distribution Licensee on the amount of revenue gap for the period from the date on which such gap has become due, i.e., from the end of the Year for which true-up has been done, till the end of the Year in which it is addressed, on the basis of actual rate of loan taken by the Licensee to fund the deficit in revenue:

Provided that carrying cost on the amount of revenue gap shall be allowed subject to prudence check and submission of documentary evidence for having incurred the carrying cost in the years prior to the year in which the revenue gap is addressed:

Provided also that if no loan has been taken to fund revenue deficit, the Commission shall allow Carrying Cost on simple interest basis at one (1) Year State Bank of India (SBI) MCLR /any replacement thereof as notified by RBI for the time being in effect applicable for 1 Year period, as may be, applicable as on 1st April of the relevant Year plus 100 basis points;

Provided further that in case of revenue surplus, the Commission shall charge the Licensee a Carrying Cost from the date on which such surplus has become due, i.e., from the end of the Year for which true up has been done, till the end of the Year in which it is addressed on simple interest basis at one(1) Year State Bank of India (SBI) MCLR / any replacement thereof as notified by RBI for the time being in effect applicable for 1 Year period, as may be, applicable as on 1st April of the relevant Year plus 100 basis points.

d) Revision of estimates and tariff for the ensuing Financial Year."

3.2. Approach for True-up for FY 2020-21

The Petitioner has requested for True-up of FY 2020-21 and submitted details of the expenditure and the revenue for the year based on its audited accounts along with a comparison of the actual revenue and expenditure against the corresponding figures previously approved by the Commission in the ARR Order.

The Commission has analysed various elements of the actual revenue and expenses for the FY 2020-21 based on the audited accounts submitted by the Petitioner and has carried out the True-up exercise in accordance with the principles laid down in the JERC MYT Regulations, 2018 after due prudence check. The Commission has allowed necessary adjustments in cases where variations are for reasonable and justifiable reasons.

3.3. Energy Sales

Petitioner's Submission

The Petitioner has submitted the total quantum of energy sales for FY 2020-21 as 3767.16 MUs as against approved energy sales quantum of 4179.35 MUs in the ARR Order as shown in the following table:

Table 6: Energy Sales (MU) submitted by the Petitioner

S. No	Category	Approved in ARR Order	Petitioner's Submission
	A. LOW TENSION SUPPLY		
1	LTD/Domestic	1256.86	1338.48
2	LTD/L.I.G.	1.76	1.42
3	LTC/Commercial	536.20	361.13
4	LTP Mixed (Hotel Industries)	104.63	78.25
5	LT-I Industrial	5.78	2.89
6	LTAG/Agriculture (Pump sets/Irrigation)	17.37	18.31
7	LTAG/Agriculture (Allied Activities)	0.91	0.95
8	Streetlight	2.66	46.61
9	Hoardings/Signboards	0.24	0.14
	Sub-Total	***1926.41***	***1848.18***
	B. HIGH TENSION SUPPLY		
10	HT-D Domestic	0.29	0.57
11	HT- C Commercial	127.11	102.42
12	HTI/ Industrial- Connected at 11/33 kV	1620.19	1300.31
13	HTI / Indutrial – Connected at 110 kV		
14	HT-Industrial (f/M, Steel Melt, Power Intensive)	442.64	450.76
15	HTAG/Agriculture (Pump Sets/Irrigation)	4.85	4.66
16	HTAG/Agriculture (Allied Activities)	4.52	8.60
17	HT. MES/ Defence Establishment	27.07	27.08
	Sub-Total	**2226.67**	**1894.40**
	C. TEMPORARY SUPPLY		
18	L.T. Temporary	20.51	18.34
19	H.T. Temporary	0.30	2.82
	Sub-Total	***20.81***	***21.16***
	D. SINGLE POINT SUPPLY		
20	Residential Complexes	0.00	0.00
21	Commercial Complexes	5.46	3.41
22	Industrial Complexes	0.00	0.00
	Sub-Total	***5.46***	***3.41***
	E. OTHERS		

S. No	Category	Approved in ARR Order	Petitioner's Submission
23	Unmeterd LTPL		
24	Single Point Supply	0.00	0.00
25	RRC referred	0.00	0.00
	Sub Total	**0.00**	**0.00**
	Total	**4179.35**	**3767.16**

Commission's Analysis

The Commission, after going through the submissions of the Petitioner including the audited accounts, has considered the energy sales as 3767.16 MUs as submitted by the Petitioner for the purpose of True-up of the FY 2020-21.

The Commission approves the energy sales as 3767.16 MUs in the True-up of FY 2020-21.

3.4. Open Access Sales and Purchase

The Petitioner has not submitted any energy sales under Open Access sales and purchase.

The Commission approves NIL energy sales and purchase under Open Access in the True-up of the FY 2020-21.

3.5. Inter-State Transmission loss

Petitioner's submission

The Petitioner has submitted the Inter-State transmission loss of 3.62% against a loss of 4.39% approved in the ARR Order.

Commission's analysis

The Commission in this regard directed the Petitioner to submit the supporting documentary evidence to verify the loss levels. The Petitioner has submitted that they have computed the inter-state transmission loss considering the total scheduled energy at Ex-bus and the state periphery. Therefore, the Commission has considered the difference between the total energy scheduled at Ex-Bus periphery and the total energy scheduled at state periphery for computing the inter-state transmission losses. The computation for the inter-state transmission losses is shown in the following table:

Table 7: Computation for Inter-state transmission loss

S. No	Particulars	Trued-up by Commission
1	Total Schedule Billed Drawal - CGS	3855.14
2	Add: Power purchase from Traders/ Open Market	105.95
3	Less: Power diverted to Exchange	401.79
4	Add: Renewable Power	493.06
5	Add: Banking Power	18.17
	Total Power Scheduled/ Purchased at Ex-Bus Periphery (A)	**4070.53**
1	Energy input at state periphery (a)	3919.50
2	Less: Over-drawal	28.66
3	Add: Under-drawal	33.30
	Total Power Scheduled/ Purchased at Goa Periphery (B)	**3924.14**
	PGCIL Losses – MU (A-B)	146.39
	PGCIL Losses - % (A-B)/A	3.60%

The Commission accordingly trues-up the Inter-State transmission losses as shown in the following table.

Table 8: Inter-State transmission loss (%)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Trued-up by Commission
1	Inter-State Transmission Loss	4.39%	3.62%	3.60%

The Commission trues-up weighted average Inter-State Transmission Loss as 3.60% in the True-up of the FY 2020-21.

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

Petitioner's submission

The Petitioner has submitted that it has achieved an Intra-State T&D loss of 7.74% in the FY 2020-21 against an approved loss of 10.50%.

Commission's analysis

The Petitioner in its submission has only submitted the draft Energy Audit Report of the State for FY 2020-21. In the absence of the Energy Audit Report, for verification of the Intra-State T&D loss levels, the Commission has relied on the information of energy drawl at State periphery as registered in the energy meters at the state periphery and the energy sales as approved above. However, on verification of the UI weekly data from the DSM account maintained by Western Region Power Committee (WRPC) and Southern Region Power Committee (SRPC), the Commission found certain discrepancies. The Commission has considered the net UI sale and receivable pertaining to FY 2020-21 while allowing the power purchase cost and MUs. Therefore, the Commission has determined the Intra-State T&D loss of 7.49% for the FY 2020-21 against an approved loss of 10.50% in the ARR Order. The detailed computation for T&D loss has been shown in the following table:

Table 9: Computation for Intra-state T&D Losses

S. No	Particulars	Trued-up by Commission
1	Sales within the State (i)	3767.16
2	Intra-State T&D Loss (%) (ii/iii)	7.49%
3	Intra-State T&D Loss (ii = iii-i)	304.91
4	Energy Requirement at Periphery (iii)	4072.06

The table below provides the Intra-State T&D loss approved in the ARR of FY 2020-21, Petitioner's submission and as trued-up by the Commission now.

Table 10: Intra-State transmission and distribution loss (%)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Trued-up by Commission
1	T&D Losses (%)	10.50%	7.74%	7.49%

The Commission, while Truing up for FY 2020-21, has considered the actual Intra-State T&D loss of 7.49% for the FY 2020-21. However, the incentive for lower purchase of power on account of over-achievement of T&D loss target as detailed in Section 3.19.1 and has been added in the trued-up ARR.

3.7. Power Purchase Quantum & Cost

Petitioner's submission

The Petitioner submitted that it meets its total energy requirement from its allocation from the Central Generating Stations (CGS) and Co-generating Companies like Vedanta Plant 1, Vedanta Plant 2 and Goa Sponge & Power Ltd. EDG also meets a part of its energy requirement through purchase of short-term power from traders and power exchanges.

The transmission charges comprise of transmission charges to Western Region, Southern Region and POSOCO fee and charges. The Power Purchase cost also includes ED, Cess, Incentive etc. and supplementary charges considered on actual basis.

During FY 2020-21, EDG has procured actual renewable power of 506.84 MU for RPO obligation. The renewable purchase includes procurement of 148.16 MU of Solar power from NVVN, SECI & Short term traders and 358.67 MU of Non-Solar power from SECI Wind, Short term traders & Hindustan Waste Treatment Plant. The Petitioner has also submitted the cost towards compliance of RPO along with the Power Purchase cost.

Due to Covid-19 Lockdown, the Industrial and other commercial activities became standstill and the energy consumption for these categories were reduced in comparison with previous years. Accordingly, the Power requirement for the State of Goa for FY 2020-21 (April to August) reduced to considerable extent and the consumption of Power shifted majorly to Domestic consumers.

The power purchase quantum and cost for FY 2020-21, as submitted by the Petitioner has been shown in the following table:

Table 11: Power Purchase cost submitted by the Petitioner (in INR Cr)

S. No.	Source	FY 2020-21 (Approved)		FY 2020-21 (Audited)	
		Quantum (MUs)	Cost (Rs. Crore)	Quantum (MUs)	Cost (Rs. Crore)
1	NTPC	3393.71	1032.05		
2	Lara STPP-I & II	49.89	24.95	3632.51	1034.64
3	Khargone STPP	80.19	40.10		
4	NPCIL	186.11	56.36	222.63	64.42
5	Co-Generation	168.19	40.37	149.77	35.33
6	Renewable Energy	497.93	189.73	506.84	230.74
7	Kameng HEP	10.88	5.44	-	-
8	Open Market	282.75	87.65	-	-
9	IEX Purchase	-	-	105.95	37.86
10	IEX Sale	-	-	(401.79)	(102.51)
11	Net Over & Under-Drawal	-	-	(3.82)	3.07
12	Banking	-	-	18.17	0.17
13	Transmission and Other Charges		151.26	-	159.76
14	**Total**	**4669.66**	**1627.91**	**4,230.26**	**1,463.48**
	Power purchase cost per unit	**3.49**		**3.46**	

Commission's analysis

The Petitioner procures power mainly from NTPC Stations, NPCIL stations, Co-Generating Plants, IPP's, Exchange etc. The Petitioner has submitted the overall Power Purchase cost as INR 1,463.48 Cr inclusive of transmission charges. This includes other charges and supplementary charges which include expenses such as past arrears, water charges, taxes etc. The Petitioner has also included an adjustment of 18.17 MUs on account of banking adjustment.

The Commission has verified the power purchase details as submitted by the Petitioner in its Petition with the publicly available information from the Regional Energy Accounts (REA) maintained by Western Region Power Committee (WRPC) for the Central Generating Stations (CGS). Apart from Western Region, the Petitioner also gets supply from the Southern Region from the NTPC's Ramagundam Thermal Power Station. The Commission has validated the power purchase details pertaining to this station from the publicly available information from the Regional Energy Accounts (REA) maintained by Southern Region Power Committee (SRPC). The Commission has verified the power purchase quantum and cost as per the station-wise monthly bills submitted by the Petitioner.

Further, the Commission has verified the UI weekly data from the DSM account maintained by Western Region Power Committee (WRPC) and Southern Region Power Committee (SRPC) and found certain discrepancies. The Commission has considered the net of UI sale and receivable pertaining to FY 2020-21 while allowing the power purchase cost and MUs.

The Commission also sought the details and nature of banking power. The Petitioner submitted that the Banking transaction shown in the Petition is a Power Swap arrangement carried out by EDG. EDG in such arrangements swaps power to needy Utility through CERC licensed trader during the off-season period or during its surplus regime (Normally during July to September when Goa has low demand) and accepts the power during peak hours (18.00 to 24.00 Hrs). The power is swapped to EDG during the Peak Season of Goa as per the LOIs issued depending on the requirement of EDG. In this arrangement there are no financial transactions towards cost of power except trading margin and Open Access charges. Sometime the return power to EDG is on premium of 102% to 103% which means if 100 MUs are supplied by EDG then 102 MUs to 103 MUs are accepted by EDG under this arrangement.

Further, the Commission has sought the details of the Solar net metering from the Petitioner. In response, the Petitioner has submitted that the Solar net metering details submitted as part of the power purchase actually reflects the gross metering. Further, the Power Purchase through Net Metering is 1.66 MUs & 2.62 MUs with settlement amount of INR 0.10 Crore and INR 0.23 Crores for FY 2020-21 and FY 2021-22 respectively.

Transmission Charges and the Other Charges submitted have been considered as Other Expenses as per actuals incurred by the Petitioner.

The Commission has considered the cost incurred towards the compliance of Renewable Purchase Obligation (RPO) in FY 2020-21 along with the Power Purchase cost. The compliance status of RPO has been discussed in detail in the subsequent section. The table below provides the summary of the power purchase quantum and the cost approved by the Commission for FY 2020-21.

Table 12: Power Purchase Quantum (MU) and cost (INR Cr) approved by the Commission

S. No	Source	Power Purchase (MU)	Variable Charges (Ps/Unit)	Fixed Charges (INR Cr)	Variable Charges (INR Cr)	Other Charges (INR Cr)	Supplementary Charges (INR Cr)	Total Charges (INR Cr)
A	**Central Sector Power Stations**							
I	**NTPC**	**3,632.51**	**-**	**402.88**	**618.60**	**35.93**	**(22.77)**	**1,034.64**
	KSTPS	1,627.27	139.35	102.18	226.76	23.68	0.55	353.16
	VSTPS - I	261.60	166.79	22.44	43.63	2.58	(1.02)	67.63
	VSTPS - II	110.31	160.12	7.49	17.66	0.98	(0.32)	25.81
	VSTPS -III	104.32	159.02	9.85	16.59	1.19	(0.43)	27.20

S. No	Source	Power Purchase (MU)	Variable Charges (Ps/Unit)	Fixed Charges (INR Cr)	Variable Charges (INR Cr)	Other Charges (INR Cr)	Supplementary Charges (INR Cr)	Total Charges (INR Cr)
	VSTPS-IV	112.18	156.90	17.70	17.60	0.78	(0.19)	35.89
	VSTPS-V	56.39	161.67	8.88	9.12	0.60	(0.12)	18.47
	KGPP	17.74	201.26	7.59	3.57	-	0.47	11.63
	GGPP	13.45	203.93	9.77	2.74	-	0.61	13.12
	SIPAT- I	223.04	141.90	27.07	31.65	2.96	(0.20)	61.48
	FSTPS	-	-	-	-	-	-	-
	KSTPS-III	57.24	137.03	6.75	7.84	0.98	0.04	15.62
	TSTPS	-	-	-	-	-	-	-
	KHSTPS-I	-	-	-	-	-	-	-
	RSTPS	612.22	246.67	49.11	151.02	0.00	(4.84)	195.28
	SIPAT- II	94.59	146.92	11.52	13.90	1.03	(0.46)	25.99
	Solaphur	59.60	298.75	26.06	17.81	-	0.58	44.44
	Gadarwara	61.30	250.06	17.42	15.33	0.34	(0.02)	33.07
	Lara	53.61	204.06	12.85	10.94	0.46	(0.02)	24.22
	Khargone	65.92	269.02	23.21	17.73	0.36	0.16	41.47
	Mouda I	54.85	270.72	21.31	14.85	-	0.63	36.79
	Mouda II	46.86	290.10	21.68	13.60	-	0.94	36.22
	Add/ Less: Other Adjustments(URS Power)	-		-	-	-	(1.14)	(1.14)
	Rebate						(17.99)	(17.99)
	COVID-19 Rebate for May				(0.41)			(0.41)
	COVID-19 Rebate for June				(13.32)			(13.32)
II	**RGPPL**	-		-	-	-		-
						-		
III	**NPCIL**	***222.63***			***66.31***	-	***(1.89)***	***64.42***
	KAPS	***123.48***	***141.35***	-	*17.45*	-	*(0.69)*	*16.77*
	TAPS	***99.15***	***492.73***	-	*48.85*	-	*(1.20)*	*47.65*
						-		-
IV	**Traders**	***(295.84)***	-	-	***(64.65)***	-	-	***(64.65)***
	IEX Purchase	*105.95*	*357.30*		*37.86*			*37.86*
	IEX Sale	*401.79*	*255.12*		*102.51*			*102.51*
	Traders							
						-		-
V	**NET UI (OVER-DRAWAL)**	***(4.64)***	***(627.41)***	-	***2.91***	-	-	***2.91***
	Over Drawal	*28.66*	*335.57*	-	*9.62*	-	-	*9.62*
	Under Drawal	*33.30*	*201.46*	-	*6.71*	-	-	*6.71*
	Banking	***18.17***	-	-	***0.17***	-	-	***0.17***
	Drawal	*36.80*	-	-	*0.17*	-	-	*0.17*
	Injection	*18.63*	-	-	-	-	-	-
B	**Within State Generations**					-		
I	**CO- GENERATION**	***149.77***	-	-	***35.61***	-	***(0.28)***	***35.33***
	Vedanta Plant-1	91.12	240.44	-	21.91	-	(0.04)	21.87

S. No	Source	Power Purchase (MU)	Variable Charges (Ps/Unit)	Fixed Charges (INR Cr)	Variable Charges (INR Cr)	Other Charges (INR Cr)	Supplementary Charges (INR Cr)	Total Charges (INR Cr)
	Goa Sponge and private limited	5.55	240.00	-	1.33	-	-	1.33
	Vedanta Plant -2	53.10	232.98	-	12.37	-	(0.25)	12.12
C	**RPO Obligations**	***495.85***		-	***228.24***	-	***(1.30)***	***226.94***
	Non-Solar (SECI-WIND-LTA)	112.42	271.00	-	30.47	-	(0.61)	29.86
	Non-Solar (STOA)	245.12	517.48		126.84		(0.35)	126.50
	NVVNL Solar	12.97	591.28	-	7.67		(0.14)	7.53
	SECI Solar	49.50	583.76	-	28.90		(0.03)	28.86
	Solar STOA	73.04	460.99	-	33.67		(0.16)	33.51
	Hindustan Waste Treatment Plant	1.13	524.96	-	0.59			0.59
	Solar Net Metering	1.66	60.24		0.10			0.10
D	**REC Certificates**							
	Solar							
	Non Solar							
E	**OTHER CHARGES**	-	-	-	***162.73***	-	***(2.96)***	***159.76***
	PGCIL Transmission Charges, Wheeling & Other Charges			-	162.73		(2.96)	159.76
F	**Total**	***4,218.45***		***402.88***	***1,049.91***	***35.93***	***(29.20)***	***1,459.52***

The Commission approves power purchase quantum of 4,218.45 MU and cost of INR 1,459.52 Cr in the True-up of the FY 2020-21.

3.8. Renewable Purchase Obligation (RPO)

Petitioner's submission

The Petitioner has submitted that they procured actual renewable power of 506.84 MU for RPO obligation.

Commission's analysis

As per Clause 1, Sub-clause (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. Accordingly, the cumulative obligation and fulfillment till FY 2020-21 has been determined in the following table:

Table 13: Summary of Renewable Purchase Obligation (RPO) (MU)

Description	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Sales within State (MU) (A)	3439.99	3420.90	3091.98	3654.89	3704.68	3722.98	3767.15
Hydro Power available at State Periphery (MU) (B)	0.00	12.62	72.88	0	0	0.00	0.00
T&D Loss (%) (C)	8.23%	15.36%	20.38%	10.36%	13.46%	15.03%	7.49%
T&D Loss (MU) (D = B * C)	0.00	1.94	14.85	0.00	0.00	0.00	0.00
Hydro Power Consumed (E = B - D)	0.00	10.68	58.03	0.00	0.00	0.00	0.00
Conventional Power Consumed (F = A - E)	**3439.99**	**3410.21**	**3033.95**	**3654.89**	**3704.68**	**3722.98**	**3767.15**
RPO obligation (%)	**3.30%**	**3.55%**	**4.85%**	**6.70%**	**9.00%**	**11.50%**	**14.10%**
Solar (G)	0.60%	0.85%	1.65%	2.50%	3.60%	4.70%	6.10%
Non-Solar (H)	2.70%	2.70%	3.20%	4.20%	5.40%	6.80%	8.00%
RPO obligation for the year (MU)	**113.52**	**121.06**	**147.15**	**244.88**	**333.42**	**428.14**	**531.17**
Solar (F * G)	20.64	28.99	50.06	91.37	133.37	174.98	229.80
Non-Solar (F * H)	92.88	92.08	97.09	153.51	200.05	253.16	301.37
RPO Compliance (Physical Power + Certificates) (MU)	**152.56**	**167.52**	**65.54**	**243.26**	**340.19**	**415.14**	**506.84**
Solar	6.58	79.90	65.54	84.14	138.74	186.73	148.16
Non-Solar	145.98	87.62	0.00	159.12	201.44	228.40	358.67
Cumulative RPO Shortfall (MU)	**53.93**	**7.47**	**103.32**	**104.94**	**98.18**	**121.08**	**145.41**
Solar	52.14	1.23	-	7.23	1.86	-	81.63
Non-Solar	1.78	6.24	103.32	97.71	96.32	121.08	63.78
Cumulative RPO Compliance (MU)	**381.70**	**549.23**	**614.76**	**858.03**	**1,198.21**	**1,613.35**	**2,120.19**
Solar	6.58	86.48	152.02	236.16	374.90	561.63	709.80
Non-Solar	375.13	462.75	462.75	621.87	823.31	1051.72	1410.39

As can be seen from the table as earlier, a cumulative gap of 145.41 MU is pending till the end of FY 2020-21. The same has to be carried forward to subsequent years and shall be taken up in the True ups of respective years.

3.9. Energy Balance

Petitioner's submission

The Petitioner has submitted the energy balance for FY 2020-21 as shown in the following table.

Table 14: Energy Balance (MU) submitted by Petitioner

S. No	Particulars	Petitioner's Submission
1	**Energy Input at Goa Periphery**	**3919.50**
2	**Total Power Scheduled/ Purchased at Goa Periphery**	
	Total Schedule Billed Drawal – CGS	3855.14
	Add: Overdrawal	28.70
	Add: Power purchase from Traders	105.95

S. No	Particulars	Petitioner's Submission
	Add: Power purchase from NVVN / Banking	18.17
	Less: Underdrawal	32.53
	Less: banking Power	
	Add: Renewable Power	493.06
	Less: Power diverted to Exchange	401.79
	Total	**4,066.71**
3	**PGCIL Losses – MUs**	**147.21**
	PGCIL Losses - %	3.62%
4	**Total Power Purchased within Goa State**	
	Add: Co-generation	149.77
	Add: Independent Power Producers (IPP)	1.13
	Add: Solar Generation	12.65
	Total	**163.55**
5	**Total Power Purchase availability after PGCIL Losses**	**4083.05**
	Less: Retail Sales to Consumers	3767.16
	Distribution Losses – MUs	315.89
6	**Distribution Losses - %**	**7.74%**

Commission's analysis

The information submitted by the Petitioner on power purchase quantum, UI over/ under drawl, IEX/ Bilateral purchase etc. has been examined and accordingly the energy balance for FY 2020-21 has been derived. In accordance with the publicly available information from the Regional Energy Accounts (REA) maintained by WRPC and SRPC and documentary evidence submitted by the Petitioner against the Inter-State Transmission Loss, the Commission has determined the energy balance at the Periphery of the State of Goa. The following table provides the energy balance as submitted by the Petitioner and now trued-up by the Commission.

Table 15: Energy Balance (MU) approved by Commission

S. No	Particulars	Trued-up by Commission
	Sales within the State (i)	**3767.16**
	Intra-State T&D Loss (%) (ii/iii)	7.49%
	Intra-State T&D Loss (ii = iii-i)	304.91
1	**Energy Requirement at Periphery (iii = a+b)**	**4072.06**
	Total Schedule Billed Drawal - CGS	3855.14
	Add: Power purchase from Traders/ Open Market	105.95
	Less: Power diverted to Exchange	401.79
	Add: Renewable Power	493.06
	Add: Banking Power	18.17
2	**Total Power Scheduled/ Purchased at Ex-Bus Periphery (A)**	**4070.53**
	Energy input at state periphery (a)	3919.50
	Less: Over-drawal	28.66

S. No	Particulars	Trued-up by Commission
	Add: Under-drawal	33.30
3	**Total Power Scheduled/ Purchased at Goa Periphery (B)**	**3924.14**
	PGCIL Losses – MU (A-B)	146.39
	PGCIL Losses - % (A-B)/A	3.60%
	Add: Within state generation (b)	152.56
4	**Energy Available at Periphery (a+b)**	**4072.06**

3.10. Operation & Maintenance (O&M) Expenses

The Operation & Maintenance Expenses comprise of the Employee Expenses, Administrative and General Expenses (A&G) and the Repair & Maintenance Expenses (R&M). The JERC MYT Regulations, 2018 considers the variation of O&M Expenses except to the extent of inflation to be controllable. Regulation 12.2 of the JERC MYT Regulation, 2018 states the following:

"For the purpose of these Regulations, the term "controllable factors" for a Transmission or Distribution Licensee shall comprise of the factors which were within the control of the Licensee, shall inter-alia include:

a) Variations in capitalisation on account of time and/or cost overruns/ efficiencies in the implementation of a capital expenditure project not attributable to an approved change in scope of such project, change in statutory levies or force majeure events;

b) Variation in Interest and Finance Charges, Return on Equity, and Depreciation on account of variation in capitalisation, as specified in clause (a) above;

c) Variations in technical and commercial losses of Distribution Licensee;

d) Availability of transmission system;

e) Variations in performance parameters;

f) Failure to meet the standards specified in the Joint Electricity Regulatory Commission for the State of Goa & UTs (Standard of Performance for Distribution Licensees) Regulation, 2015, as amended from time to time;

g) Variations in labour productivity;

h) Variation in O&M Expenses, except to the extent of inflation;

i) Bad debts written off, in accordance with the provisions of Regulation 62:

Provided further that the controllable factors for a Generating Company shall be as specified in the prevalent CERC Tariff Regulations."

Therefore, any variation in O&M Expenses is attributable to the Petitioner and is not passed on in the ARR, other than any cost which is beyond the control of the Petitioner.

3.10.1. Employee Expenses

Petitioner's submission

The Petitioner has incurred actual employee expenses of INR 332.21 Cr against the approved expenses of INR 300.81 Cr in the ARR of FY 2020-21.

The following table provides the employee expenses as submitted by the Petitioner:

Table 16: Employee Expenses submitted by the Petitioner (In INR Cr)

S. No	Particulars	Petitioner's Submission
1	Salaries &Allowances	**332.21**
2	Terminal Benefits	
3	Other Salary Payments	
4	Total	**332.21**
5	Less: Add/Deduct share of others	-
6	Total	**332.21**
7	Less: Amount capitalized	-
8	Net Amount	**332.21**
9	Add: Pension/DA and other Provision	-
	Total Employee Expenses	**332.21**

Commission's analysis

As per the audited accounts submitted by the Petitioner, the employee expenses during the FY 2020-21 are reflected as INR 332.21 Cr. In accordance with the JERC MYT Regulations, 2018, the Commission had determined the Employee expenses for each year of the MYT Control Period. The Regulation 6 of the JERC 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."

The Commission vide deficiency note sought clarification from the Petitioner for such exorbitant hike in the employee expenses vis-à-vis the employee expenses approved by the Commission. The Petitioner clarified that that at the time of Tariff Order, the Annual accounts of the Department was pending for several previous years. Hence, the Commission considered the employee cost based on the past trends of the expenditure. However, the employee cost considered in the True-up Petition is based on actual figures as per Audited Accounts of the respective years. In view of the above, the employee cost in the True-up petition is at variance with the approved figure for the year.

In accordance with JERC MYT Regulations, the Employee expenses has been 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 2019-20 for computation of revised employee expenses of FY 2020-21. Thus, the approved employee expenses for base year have been escalated with the actual CPI growth and employee growth rate to arrive at the employee expenses for FY 2020-21.

The CPI Inflation has been computed as follows:

Table 17: Computation of CPI Inflation (%)

FY	CPI Index	% Increase in CPI Index
2018-19	299.92	
2019-20	322.50	7.53%
2020-21	338.69	5.02%

The Commission in the true-up had approved the opening number of employees as 6705 due to erroneous data, which also includes the number of employees who are on deputation/contract/foreign services. Further, the Commission has taken the note of above discrepancy and have found that the Petitioner in the current true-up petition has submitted the opening number of employees as 6704. In order to remove any discrepancies, the Commission has corrected the same in the current true-up order. The growth rate has been computed as follows:

Table 18: Employee Growth Rate for FY 2020-21 (INR Crore)

S. No	Particulars	FY 2019-20	FY 2020-21
1	Gross Opening Employees	6704	6519
2	Employees on contract/deputation/ foreign service as on 1st April	593	509
3	Opening Employees	6,111	6,010
4	Recruitment during the year	52	-
5	Retirement during the year	153	127
6	Closing Employee	6,010	5,883
7	**Growth rate**	-1.65%	-2.11%

Based on the growth rate for FY 2019-20 and FY 2020-21, the Commission has computed the employee expenses for the FY 2020-21 post adjustment in the approved employee expenses of FY 2019-20 to the extent of change in growth rate. The employee expenses for FY 2019-20 has been re-computed as INR 303.99 crore vis-à-vis the earlier approved figure of INR 304.44 crore. Accordingly, the employee expenses approved by the Commission for FY 2020-21 have been provided in the following table:

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

S. No	Particulars	FY 2020-21
1	Employee Expenses for FY 2019-20 as per true-up order dated March 28, 2023	304.44
2	Adjustment on account of change in growth rate	(0.45)
3	Revised Employee Expenses for previous year	303.99
4	Growth in number of employees (Gn)	-2.11%
5	CPI Inflation for preceding 3 years (CPI)	5.02%
6	**Normative Employee Expenses**	**312.50**

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

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Normative Expenses approved by Commission
1	Employee Expenses for FY 2020-21	300.81	332.21	312.50

The Commission approves the normative Employee Expenses of INR 312.50 Crore in the true-up for the FY 2020-21.

3.10.2. Administrative and General (A&G) Expenses

Petitioner's submission

The Petitioner has incurred A&G expenses of INR 26.20 Cr in FY 2020-21. The following table provides the A&G expenses as submitted by the Petitioner:

Table 21: A&G Expenses submitted by Petitioner (In INR Cr)

S. No.	Particulars	Petitioner's Submission
1	Travelling Expenses	0.20

S. No.	Particulars	Petitioner's Submission
2	Office Expenses	15.25
4	Petrol, Oil, Lubricant (P.O.L)	
5	Rent, Rates & Taxes	0.61
6	Advertisement & Publicity	0.25
7	Professional & Special Services	0.57
8	Other A&G Charges	8.68
9	Overtime Allowance	0.00
10	Minor Works	0.54
11	Audit of Accounts and Professional Fees	0.10
13	**Total**	**26.20**
14	Less: share of others	
15	**Total expenses**	26.20
16	Less: Capitalized	
17	**Net expenses**	26.20
18	Add: Prior period	
19	**Total A&G Expenses**	**26.20**

Commission's analysis

A&G expenses mainly comprise of rents, telephone and other communication expenses, professional charges, conveyance and travelling allowances, etc. As per the audited accounts submitted by the Petitioner, the A&G expenses are reflected as INR 26.20 Crore for FY 2020-21. The Regulation 6 of the JERC 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."

Similar to the methodology followed while estimating the employee expenses, the Commission has determined the A&G expenses using the CPI Inflation for FY 2019-20 and FY 2020-21 to determine the A&G expenses for FY 2020-21.

The A&G expenses approved by the Commission in FY 2020-21 have been provided in the following table:

Table 22: A&G Expenses computation for FY 2020-21 (INR Crore)

S. No	Particulars	FY 2018-19 Base Year (Approved in MYT Order)	FY 2019-20	FY 2020-21
1	A&G Expenses base year		25.99	27.95
2	CPI Inflation for FY 2020-21 (CPI)		7.53%	5.02%
3	**Normative A&G Expenses**	**25.99**	**27.95**	**29.35**

Table 23: A&G Expenses Trued-up by Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Normative Expenses approved by Commission
1	A&G Expenses for FY 2020-21	28.24	26.20	29.35

The Commission approves the normative Administrative & General (A&G) expenses of INR 29.35 Crore in the True-up of FY 2020-21.

3.10.3. Repair & Maintenance (R&M) Expenses

Petitioner's submission

The Petitioner has incurred R&M expenses of INR 12.48 Cr against the approved expenses of INR 73.65 Cr in the ARR Order. The following table provides the R&M expenses as submitted by the Petitioner:

Table 24: R&M Expenses submitted by Petitioner (In INR Cr)

S. No.	Particulars	Petitioner's Submission
1	Plant & machinery	37.96
2	Building (Electricity Residential & Non-Residential)	
3	Hydraulic works & civil works	
4	Line cable & network	
5	Vehicles	
6	Furnitures & Fixtures	
7	Office Equipment	
9	Minor R&M works	
10	**Total**	**37.96**
11	Add/Deduct share of others	
12	**Total expenses**	
13	Less : Capitalized	
14	**Net expenses**	**37.96**
15	Add: prior period	(25.48)
16	**Total R&M expenses**	**12.48**

Commission's analysis

The Regulation 6 of the JERC 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."

Therefore, the Commission has determined the revised normative R&M Expenses which is based on the Opening GFA of FY 2020-21, actual WPI Inflation (1.29%) for FY 2020-21 with respect to FY 2019-20 & k factor as approved in MYT order for FY 2019-20, i.e., 2.91%.

The WPI Inflation has been computed as follows:

Table 25: Computation of WPI Inflation (%)

FY	WPI Index	% Increase in WPI Index
2019-20	121.80	
2020-21	123.38	1.29%

The R&M expenses approved for FY 2020-21 is provided in the following table:

Table 26: R&M Expenses Trued-up by Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Normative Expenses approved by Commission
1	Opening GFA (GFAn-1) of previous year	2457.45	12.48	1398.63
2	K factor approved (K)	2.91%		2.91%
3	WPI Inflation	2.99%		1.29%
4	**Repair & Maintenance Expenses (R&M) for FY 2020-21**	**73.65**	**12.48**	**41.23**

The Commission approves the normative Repair & Maintenance (R&M) expenses of INR 41.23 Crore in the True-up of FY 2020-21.

3.10.4. 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 O&M now trued-up by the Commission.

Table 27: O&M Expenses approved by Commission (In INR Cr)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Trued-up by Commission
1	Employee Expenses	300.81	332.21	312.50
2	Administrative & General Expenses (A&G)	28.24	26.20	29.35
3	Repair & Maintenance Expenses	73.65	12.48	41.23
4	**Total Operation & Maintenance Expenses**	**402.70**	**370.89**	**383.08**

The Commission approves the Operation & Maintenance (O&M) expenses of INR 383.08 Cr in the True-up of FY 2020-21. Further, the incentive/dis-incentive on account of over/under-achievement of O&M Norms has been detailed in Section 3.19.2

3.11. Capitalisation

Petitioner's submission

The Petitioner submitted the actual capitalisation for the FY 2020-21 as INR 51.90 Cr.

Commission's analysis:

The Commission with regards to capitalisation submitted by the Petitioner, sought details of the assets created out of Loan/ Equity/ Govt. Grant/ Consumer Contribution etc. In reply, the Petitioner submitted that majority of capital assets are created out of the equity contribution from Govt. of Goa. The capitalization is inclusive of assets created out of the Electricity Development Fund which is treated as Government Grant. The Petitioner has further submitted that there are no assets created out of Consumer Contribution.

The Commission has examined the Fixed Asset Register (FAR) for FY 2020-21 as submitted by the Petitioner in detail and accordingly approves the capitalisation as shown in the following table.

Table 28: Capitalisation approved by Commission (In INR Cr)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Trued-up by Commission
1	**Total Capitalisation**	**303.13**	**51.90**	**51.90**

The Commission approves Capitalisation of INR 51.90 Cr in the True-up of FY 2020-21.

3.12. Depreciation

Petitioner's submission

The Petitioner has submitted the actual depreciation of assets as per the audited annual accounts of FY 2020-21 excluding depreciation on assets created out of grants. The depreciation is arrived in annual accounts for FY 2020-21 based on the rates specified in the Tariff Regulations.

The depreciation as claimed by the Petitioner has been tabulated in the table below:

Table 29: Depreciation submitted by Petitioner (In INR Cr)

S. No	Particulars	Petitioner's Submission
1	Opening Gross Fixed Assets	1,091.08
2	Addition During the FY	51.90
3	Less: Capitalisation through Grants and Electricity Duty	17.42
4	Less: Value of Assets sold/disposed off	5.63
5	Closing Gross Fixed Assets	1,119.93
6	Average Gross Fixed Assets	1,105.50
7	Rate of Depreciation	4.99%
8	**Depreciation**	**55.12**

Commission's analysis

Regulation 30 of the JERC 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 JERC MYT Regulations, 2018, provided in the table below:

Table 30: Depreciation Rate (%)

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

As per the norms specified in the JERC MYT Regulations, 2018 the Commission has derived the weighted average rate of depreciation based on the asset wise depreciation rate in the table below:

Table 31: Computation of revised GFA and depreciation for FY 2020-21 (In INR Cr)

Description	Opening Depreciable GFA	Less: Assets funded through Grants till 2016-17	Net GFA	Addition during the year	Deletion During the Year	Capitalisation through EDF	Closing Depreciable GFA	Average Depreciable GFA	Rate	Depreciation
Plant & Machinery	1247.31	315.76	931.55	51.81	5.50	17.39	960.46	946.01	3.60%	34.06
Building & Civil Engineering Works	13.23	2.55	10.68	0.10	0.03	0.03	10.72	10.70	1.80%	0.19
Furniture & Fixtures & Office Equipments	57.09	13.54	43.54	0.00	0.01	0.00	43.54	43.54	6.00%	2.61
Land	6.30	1.19	5.11	0.00	0.00	0.00	5.11	5.11	0.00%	0.00
Vehicles	3.57	0.71	2.85	0.00	0.10	0.00	2.75	2.80	18.00%	0.50
Computer & Others	71.14	13.58	57.56	0.00	0.00	0.00	57.56	57.56	6.00%	3.45
Total	**1398.63**	**347.34**	**1051.29**	**51.90**	**5.63**	**17.42**	**1080.14**	**1065.72**	**3.83%**	**40.82**

The weighted average depreciation rate has been computed as 3.83% against a rate of 3.63% approved in the ARR Order.

The Commission has considered the opening GFA as INR 1051.29 Cr for calculation of depreciation for FY 2020-21, determine as follows:

Table 32: Opening GFA (net of capitalisation through EDF/Govt. Grants) approved by the Commission for FY 2020-21 (In INR Cr)

S. No	Particulars	Trued-up by Commission
1	Opening GFA (closing GFA as per true up of FY 2019-20)	1,398.63
2	Less: Assets capitalized through EDF till 2019-20	347.34
3	Opening GFA excluding grants	1,051.29

In respect of addition of GFA during the FY, the Commission has not considered depreciation on assets created from the Electricity Duty Fund, as the same has been treated as a Grant from the Government of Goa, in line with the approach adopted in the True-up of FY 2019-20. Further, the assets retired during the year were also not considered for computing the depreciation. The following table provides the calculation of depreciation during the FY 2020-21:

Table 33: Depreciation approved by Commission (In INR Cr)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Trued-up by Commission
1	Opening Gross Fixed Assets	2,217.00	1,091.08	1,051.29
2	Addition During the FY	303.13	51.90	51.90
3	Less: Capitalisation through Grants and Electricity Duty	249.77	17.42	17.42
4	Less: Value of Assets sold/disposed off	-	5.63	5.63
5	Closing Gross Fixed Assets	2,270.36	1,119.93	1,080.14

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Trued-up by Commission
6	Weighted average Rate of Depreciation (%)	3.63%	4.99%	3.83%
7	Depreciation	**81.53**	**55.12**	**40.82**

The Commission approves depreciation of INR 40.82 Cr in the True-up of FY 2020-21.

3.13. Interest and Finance Charges

Petitioner's submission

Interest on Loan has been estimated based on the normative loan calculation whereby 70% of the capitalization (net of capitalisation from grants) during the year have been considered as normative debt addition during the year. Opening balance of normative loan for FY 2020-21 is considered as per the approved closing normative loan in truing up of FY 2019-20. Further, the rate of interest has been considered as State Bank of India MCLR (SBI MCLR) as on 1st April 2020 plus 100 basis points i.e. 8.75%. Further, the Petitioner has considered finance charges of INR 2.72 Cr. as per audited annual accounts.

Commission's analysis:

The Regulation 28 of the JERC MYT Regulations, 2018 specifies 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-capitalisation 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 capitalisation 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, the Petitioner has submitted that capitalisation during each year has been funded by the Petitioner's equity and no loan has been taken against any of the capitalised assets. In absence of any actual loans, the Commission has considered the SBI MCLR rate, as on 1st April of the relevant year, plus 100 basis points as Rate of Interest i.e. 8.75% (7.75%+1.00%), in accordance with the JERC MYT Regulations, 2018.

As per the JERC MYT Regulations 2018, if the equity actually deployed is more than 30% of the capital cost, then equity in excess of 30% would be considered as normative loan. Further, the Commission has considered the capitalisation of assets as approved in the foregoing paragraphs. The Commission for the purpose of funding of the capitalisation (net of capitalisation from grants) has considered the normative debt equity ratio of 70:30.

The Interest on Loan has been calculated on the average loan during the year with the opening loan considered equivalent to the closing loan approved for FY 2019-20 in the True-Up. The total normative loan has been considered to be repaid through depreciation during the year. Further, the Petitioner has claimed other Interest & Finance charges and submitted that certain financial charges are incurred by the department which are related to bank charges, LC charges, etc. and the same also is in line with audited accounts. The Commission has considered the same and have allowed it over and above the normative interest on loan as a one-time expense.

The following table provides the Interest on Loan approved in ARR, Petitioner's submission and now approved by the Commission:

Table 34: Interest and Finance charges approved by Commission (In INR Cr)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Trued-up by Commission
1	Opening Normative Loan	1138.90	135.58	141.64
2	Add: Normative Loan During the year	37.35	24.14	24.14
3	Less: Normative Repayment	81.53	55.12	40.82
4	Closing Normative Loan	1094.72	104.60	124.96
5	Average Normative Loan	1116.81	120.09	133.30
6	Rate of Interest (%)	8.85%	8.75%	8.75%
7	**Interest on Loan**	**98.84**	**10.51**	**11.66**
8	Financing Charges		2.72	2.72
9	**Interest and Finance Charges**	**98.84**	**13.23**	**14.38**

The Commission approves Interest and Finance Charges of INR 14.38 Cr in the True-up of the FY 2020-21.

3.14. Return on Equity (RoE)

Petitioner's submission

The RoE is calculated in accordance with the JERC MYT Regulations, 2018. Opening equity has been considered as 30% of GFA computed by the Petitioner for FY 2020-21 (Net of assets funded by consumer contribution, capital subsidies and grants). The equity addition has been considered to the tune of 30% of assets capitalized (net of capitalisation from grants) during the year. The rate of RoE has been considered as 16% on post tax basis as per JERC MYT Regulations, 2018.

Commission's analysis:

The Regulations 27.2 and 27.3 of the JERC 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.

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."

As mentioned above, the total asset capitalisation other than the Central Government schemes during the year has been funded by equity. The Commission for the purpose of equity addition during the year, has limited it to

30% of total capitalisation (net of capitalisation through ED and Government Grants) as prescribed in the JERC MYT Regulations, 2018.

The Commission noted that the Petitioner has not made any adjustment in respect of the assets retired during the year in equity. The assets retired during the FY 2020-21 as per the audited books of accounts is INR 5.63 crore. The 30% of such retired assets also has been deducted from the equity during the year assuming, they have completed the useful life and the debt was repaid.

The RoE has been calculated on the average of opening and closing of equity during the year at the rate of 16% on post-tax basis for Retail Supply Business and 15.50% on post-tax basis for wires business, with the opening equity considered equivalent to the closing equity of FY 2019-20 approved in the True-up of the same. The following table provides the total return on equity approved in the ARR order, Petitioner's submission and now approved by the Commission:

Table 35: Return on Capital Base approved by Commission (In INR Cr)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Trued-up by Commission
1	Opening Equity	665.10	319.75	305.93
2	Additions on account of new capitalisation	16.01	10.34	8.66
3	Closing Equity	681.11	330.09	314.58
4	Average Equity	673.11	324.92	310.26
5	Average Equity-Wires Business (90%)	605.80	292.43	279.23
6	Average Equity-Retail Supply Business (10%)	67.31	32.49	31.03
7	ROE on Wires Business (%)	15.5%	15.5%	15.5%
8	ROE for Retail Supply Business (%)	16.0%	16.0%	16.0%
9	ROE for wires in Rs Cr	93.90	45.33	43.28
10	ROE on Retail Supply in Rs Cr	10.77	5.20	4.96
11	**Return on Equity**	**104.67**	**50.53**	**48.24**

The Commission approves a Return on Equity as INR 48.24 Cr in the True-up of FY 2020-21.

3.15. Interest on Consumer Security Deposits

Petitioner's submission

Interest on Security Deposits has been calculated in accordance with the JERC MYT Regulations, 2018 based on the average of opening and closing consumer security deposits during the year. The opening security deposit has been derived based on the closing security deposit of FY 2019-20. The addition during the year has been considered as per the actuals as reflected in the audited accounts for FY 2020-21.

In accordance with the JERC (Electricity Supply Code) (First Amendment) Regulations, 2019, the rate of interest to the consumer has been considered at the Bank Rate declared by the Reserve Bank of India prevailing on the 1st of April 2020 i.e., 4.65 % and the same has been considered for computation of Interest on Security deposit which comes out to be Rs.2.26 Cr. However, as per the audited annual accounts, the actual Interest on Security Deposit paid by EDG during FY 2019-20 was INR 5.41 Crore and the same has been considered as Interest on Security Deposit for the purpose of true-up.

Table 36: Interest on Consumer Security Deposits submitted by Petitioner (In INR Cr)

S. No	Particulars	Petitioner's Submission
1	Opening Security Deposit	45.87
2	Add: Deposits During the year	13.04
3	Less: Deposits refunded	7.70

S. No	Particulars	Petitioner's Submission
4	Closing Security Deposit	51.21
5	Average Security Deposit	48.54
6	Rate of Interest (%)	4.65%
7	**Interest on Security Deposit**	**2.26**
8	**Interest paid to consumers**	**5.41**

Commission's analysis:

The Petitioner has determined the Interest on Security Deposits on normative basis as per JERC MYT Regulations, 2018.

Regulation 28.11 of the JERC 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. "

Accordingly, the Commission has computed the interest on consumer security deposits as follows:

Table 37: Interest on Consumer Security Deposits as approved by the Commission (In INR Cr)

S. No	Particulars	As per Annual Audited Accounts
1	Opening Security Deposit	45.86
2	Add: Deposits During the year	13.04
3	Less: Deposits refunded	7.70
4	Closing Security Deposit	51.20
5	Average Security Deposit	48.53
6	Rate of Interest	4.65%
7	**Interest on Security Deposit**	**2.26**
8	**Interest on Security Deposit Paid During the year**	**5.41**

The Commission noted that the actual interest on security deposit paid during the year is higher than the normative interest on security deposit and sought the details from the Petitioner. The Petitioner has submitted that it is on account of past period discharge as in previous years, a lower interest on security deposit was paid.

The following table provides the interest on security deposit as approved in the ARR Order, the Petitioner's submission and the interest now approved by the Commission:

Table 38: Interest on Consumer Security Deposits approved by Commission (In INR Cr)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Trued-up by Commission
1	**Interest on Security Deposit**	**7.75**	**5.41**	**5.41**

The Commission approves Interest on Security Deposit as 5.41 INR Cr. in the True-up of FY 2020-21.

3.16. Interest on Working Capital

Petitioner's submission

As per clause 31 & 52 of JERC MYT Regulations, 2018 the working capital of a licensee shall consist of:

(a) Receivable of two months of billing

(b) O&M Expenses of one month

(c) 40% of Repair & maintenance expenses for one month

(d) Less consumer security deposit but excluding Bank Guarantee

The interest on working capital is computed at 9.75 % (one year SBI MCLR as on 1st April 2020 plus 200 basis points) has been shown in the table below:

Table 39: Interest on Working Capital submitted by Petitioner (In INR Cr)

S. No.	Particulars	Petitioner's Submission
1	Receivables of 2 months of billing	292.59
2	O&M expense for 1 month	30.91
3	Maintenance spares at 40% of R&M expenses for 1 month	0.42
4	Less: Security Deposit excluding BG/FDR	42.87
5	Net Working Capital Requirement	275.38
6	Rate of Interest (%)	9.75%
7	**Interest on Working Capital**	**26.85**

Commission's analysis:

The Regulation 52 of the JERC 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 JERC 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."

In accordance with the JERC MYT Regulation, 2018, the Commission has computed the Interest on Working Capital for FY 2020-21. The interest on working capital is computed at one year SBI MCLR as on 1st April for the relevant year plus 200 basis points i.e. 9.75% (7.75%+2.00%).

Accordingly, the Interest on Working Capital as approved in the ARR Order, as submitted by the Petitioner and now approved by the Commission is shown in the table below:

Table 40: Interest on Working Capital approved by Commission (In INR Cr)

S. No.	Particulars	Approved in ARR Order	Petitioner's Submission	Trued-up by Commission
1	Receivables of 2 months of billing	387.94	292.59	293.07
2	O&M expense for 1 month	33.56	30.91	30.59
3	Maintenance spares at 40% of repair and maintenance expenses for 1 month	2.46	0.42	0.90
4	Less: Average Security Deposit excluding BG/FDR	143.53	48.54	48.53
5	Net Working Capital Requirement	280.43	275.38	276.03
6	Rate of Interest (%)	10.55%	9.75%	9.75%
7	**Interest on Working Capital**	**29.59**	**26.85**	**26.91**

The Commission approves the Interest on Working Capital as INR 26.91 Cr. in the True- up of FY 2020-21.

3.17. Provision for Bad & Doubtful Debts

Petitioner's submission

The Petitioner has submitted that the bad and doubtful debts actually written off during FY 2020-21 is INR 3.88 Cr., therefore Petitioner has considered provision for bad and doubtful debt for FY 2020-21 as INR 3.88 Cr.

Commission's analysis:

As per Regulation 62 of the JERC MYT Regulations, 2018:

"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."

It is observed that as per the audited accounts, the licensee has not written off any bad and doubtful debts for the FY 2020-21 and only has provisioned the same in the book of accounts.

The Commission therefore has not approved any bad and doubtful debts in the True-up of FY 2020-21.

3.18. Non-Tariff Income (NTI)

Petitioner's submission

The Petitioner has submitted NTI of INR 41.78 Cr. in the True-Up of FY 2020-21 against INR 25.34 Cr approved by the Commission in the ARR for FY 2020-21. The Non–Tariff Income as submitted by the Petitioner has been shown in the following table:

Table 41: Non- Tariff Income submitted by Petitioner (In INR Cr)

S. No	Particulars	Petitioner's Submission
1	Meter/service rent	11.95
2	UI Sales/Sales to Exchange	2.43
3	Wheeling charges under open access	0.06
4	Miscellaneous Receipts/Income	27.170
5	Deferred Income (Electricity Development fund)	
6	Income from trading	**0.17**
7	Total Income	**41.78**
8	Add: prior period income	0.00
9	**Total**	**41.78**

Commission's analysis:

Regulation 34.2 of JERC MYT Regulation, 2018 states the following:

"The delayed payment charge earned by the Transmission Licensee or the Distribution Licensee shall not be considered under its Non-Tariff Income."

The Commission has verified the submission of the Petitioner from the audited accounts and found the same to be correct. The NTI approved in the ARR Order, the Petitioner's submission and now trued-up by the Commission is shown in the following table:

Table 42: Non- Tariff Income approved by Commission (In INR Cr)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Trued-up by Commission
1	Meter/service rent	25.34	11.95	11.95

2	UI Sales/Sales to Exchange		2.43	2.43
3	Wheeling charges under open access		0.06	0.06
4	Miscellaneous Receipts/Income		27.170	27.17
5	Deferred Income (Electricity Development fund)			0.00
6	Income from trading		0.17	0.17
7	Total Income	25.34	41.78	41.78
8	Add: prior period income	0.00	0.00	0.00
9	**Total**	**25.34**	**41.78**	**41.78**

The Commission approves Non-Tariff Income of INR 41.78 Cr in the True-up of FY 2020-21.

3.19. Incentive/Disincentive towards over/under achievement of norms

3.19.1. Incentive on account of over-achievement of Intra- State Transmission & Distribution (T&D) loss

In the MYT Order, the Commission had approved the T&D loss level of 10.50% for FY 2020-21 against which the Petitioner has achieved T&D loss of 7.49%. The Commission, in accordance with Regulation 14.2 of the JERC MYT Regulations, 2018 (reproduced below) has determined the incentive towards the over-achievement of the target of T&D loss for the FY 2020-21 as follows:

As per Regulation 14.2 of the JERC MYT Regulations 2018,
"14.2 Approved aggregate loss, if any to the Transmission Licensee or Distribution Licensee on account of controllable factors shall be on account of the Licensee, and shall not be passed to the Consumers"

The incentive has been derived by calculating the savings in cost of power procured due to over achievement of the stipulated Intra-State T&D loss target by the Petitioner, at the Average Power Purchase cost (APPC). The APPC has been derived at State/UT Periphery based on the Power Purchase cost approved in the True-up above and the Energy at State/UT Periphery computed after grossing up the retail energy sales with the approved Intra-State T&D Loss. The following table provides the details of computation of Average Power Purchase Cost for FY 2020-21:

Table 43: Average Power Purchase Cost approved by Commission for FY 2020-21

S. No.	Particulars	Value
1	Total Power Purchase Cost (Rs Cr)	1,459.52
2	Less: Transmission charges and Power Purchase cost from renewable energy sources (Rs Cr)	386.70
3	Net Power Purchase Cost (Rs Cr)	1,072.82
4	Total Power Purchase quantum (MU)	4,218.45
5	Less: Quantum from renewable energy sources (MU)	495.85
6	Quantum of energy at State Periphery excluding quantum from renewable energy sources (MU) (B)	3,722.61
7	APPC (Rs/kWh)	2.88

The assessment of incentive for lower T&D losses is shown in the following table:

Table 44: Incentive due to over-achievement of T&D Loss target for FY 2020-21 (INR Crore)

S. No	Particulars	As per Approved Intra-State T&D Loss	Trued-up by Commission
1	Retail Sales	3767.16	3767.16
2	T&D Loss (%)	10.50%	7.49%
3	Power Purchase at State/UT Periphery	4209.11	4072.06
4	Gain/(Loss) (MU)		137.05
5	Average Power Purchase Cost (APPC)		2.88
6	Gain/ (Loss) (INR Cr)		39.50
7	**Sharing of 50% of Gain with the Petitioner**		**19.75**

The Commission determines and approves INR 19.75 Cr. as incentive on account of over-achievement of T&D loss target for the FY 2020-21.

3.19.2. Incentive/Disincentive on account of under/over-achievement of norms for Operations & Maintenance (O&M) Expenses

The Regulation 14 of the JERC MYT Regulations, 2018 stipulates the following:

"14. Mechanism for sharing of gains or losses on account of controllable factors

14.1 Approved aggregate gain to the Transmission Licensee or Distribution Licensee on account of controllable factors shall be shared equally between Licensee and Consumers:

Provided that the mechanism for sharing of gains or losses on account of controllable factors for a Generating Company shall be as specified in the prevalent CERC Tariff Regulations.

14.2 Approved aggregate loss, if any to the Transmission Licensee or Distribution Licensee on account of controllable factors shall be on account of the Licensee, and shall not be passed to the Consumers."

The following table provides the O&M expenses, approved by the Commission in the ARR Order, Petitioner's submission and O&M expenses now trued-up by the Commission after sharing of gains or losses.

Table 45: O&M Expenses approved by Commission (In INR Cr)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Normative Expenses	Gain/Loss Sharing	Trued-up by Commission
1	Employee Expenses	300.81	332.21	312.50	-19.71	312.50
2	Administrative & General Expenses (A&G)	28.24	26.20	29.35	3.15	27.78
3	Repair & Maintenance Expenses	73.65	12.48	41.23	28.75	26.85
	Total Operation & Maintenance Expenses	**402.70**	**370.89**	**383.08**	**12.19**	**367.13**

The Commission approves the Operation & Maintenance (O&M) expenses of INR 367.13 Cr in the True-up of FY 2020-21 after adjusting incentive/dis-incentive on account of over/under-achievement of O&M Expenses.

3.20. Aggregate Revenue Requirement (ARR)

Petitioner's submission

Based on the expenses as detailed above, the net aggregate revenue requirement of INR 1,947.60 Cr is submitted for approval in the True-up of FY 2020-21.

Commission's analysis

The Commission on the basis of the detailed analysis of the cost parameters of the ARR has considered and approved the revenue requirement in the True-up of FY 2020-21 as given in the following table:

Table 46: Aggregate Revenue Requirement approved by Commission for FY 2020-21 (In INR Cr)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Trued-up by Commission
1	Power Purchase Cost inclusive of cost towards compliance of RPO	1,627.91	1,463.48	1,459.52
2	Operation & Maintenance Expenses	402.70	370.89	367.13
3	Depreciation	81.53	55.12	40.82
4	Interest and Finance charges	98.84	13.23	14.38
5	Interest on Working Capital	29.59	26.85	26.91
6	Interest on Security Deposit	7.75	5.41	5.41
7	Return on Equity	104.67	50.53	48.24
8	Provision for Bad Debt	0.00	3.88	0.00
9	Provision for DSM Expenses	0.00	0.00	0.00
10	Incentive/Disincentive on achievement of norms	0.00	0.00	19.75
11	**Total Revenue Requirement**	**2,352.98**	**1,989.38**	**1,982.17**
12	Less: Non-Tariff Income	25.34	41.78	41.78
13	**Net Revenue Requirement**	**2,327.64**	**1,947.60**	**1,940.39**

The Commission approves net Aggregate Revenue Requirement of INR 1940.39 Cr. in the True-up of FY 2020-21.

3.21. Revenue from Sale of Power at Approved tariff

Petitioner's submission

The Petitioner has submitted the net actual revenue for the FY 2020-21 as INR 1755.56 Cr against revenue of INR 1,985.39 Cr approved by the Commission in the ARR Order. The following table provides the revenue at existing tariff as submitted by the Petitioner:

Table 47: Revenue at approved tariff submitted by the Petitioner for FY 2020-21

Particulars	Revenue from Demand and Energy Charges (Rs. Cr)	Revenue from FPPCA (Rs. Cr)	Total Revenue (Rs Cr)
A. LOW TENSION SUPPLY	**590.52**	**53.57**	**644.07**
LTD/Domestic	331.95	33.15	365.1
LTD/Low Income Group	0.26	0.02	0.28
LTC/Commercial	173.92	15.95	189.86
LT Mixed Hotel Industries	1.41	0.13	1.53
LT-I Industrial	34.35	3.08	37.42
LTAG/Agriculture (Pump sets/Irrigation)	3.21	0	3.21
LTAG/Agriculture (Allied Activities)	0.26	-	0.26

Particulars	Revenue from Demand and Energy Charges (Rs. Cr)	Revenue from FPPCA (Rs. Cr)	Total Revenue (Rs Cr)
Metered Street Light	45	1.23	46.23
Hoardings/Signboards	0.16	0.01	0.18
B. HIGH TENSION SUPPLY	**1004.73**	**89.83**	**1094.59**
HT- D Domestic	0.31	0.02	0.34
HT- C Commercial	77.1	5.54	82.64
HTI / Industrial - Connected at 11/33kV	586.6	52.46	639.07
HTI / Industrial - Connected at 110 kV	100.83	9.67	110.51
HT-Indust. (F/M, Steel Melt, Power Intensive)	221.73	20.8	242.53
HTAG/Agriculture (Pump sets/Irrigation)	1.13	0	1.13
HTAG/Agriculture (Allied Activities)	1.73	-	1.73
HT. MES / Defence Establishment	15.3	1.34	16.64
C. TEMPORARY SUPPLY	**16.14**	**1.26**	**17.42**
L.T. Temporary Domestic	0.72	0.06	0.79
L.T. Temporary Commercial	12.15	0.97	13.13
H.T. Temporary	3.27	0.23	3.5
D. SINGLE POINT SUPPLY	**2.17**	**0.18**	**2.36**
Residential Complexes	0	0.00	0.00
Commercial Complexes	2.17	0.18	2.36
Industrial Complexes	0	0.00	0.00
E. OTHERS	**-2.85**	**-0.03**	**-2.88**
Unmetered LTPL	-0.45	-0.03	-0.48
RRC referred	-2.4	0	-2.4
Total	**1610.71**	**144.81**	**1755.56**

Commission's analysis

The Commission has verified revenue from sale of power within the State in the FY 2020-21 from the audited accounts and found certain discrepancies under the head "Unmetered LTPL" and "RRC Referred" and sought the clarifications from the Petitioner on the same.

In regard to Unmetered LTPL, the Petitioner has submitted that in the Demand Collection Balance (DCB) for the month of July 2020, the entry of INR -5446848, INR -305459 and INR -3612767 of Fixed charges, FPPCA charges & Energy charges respectively and for the month of May 2021, the entry of INR -27795870.04 (On accrual basis INR -21621938.04 needs to be rectified) of Energy charges was wrongly classified in the category Unmetered LTPL instead of metered LTPL. Actually, there was a double entry of the said amount for the respective power recorded for Govt LTPL category of Consumers which was corrected with a credit entry which was classified wrongly into Unmetered LTPL which resulted in reflection of the negative figures. The department will ensure that suitable Treatment will be taken in the Financial Statements of FY 2022-23.

In regard to RRC Referred, the Petitioner has submitted that in the Demand Collection Balance (DCB), for FY 2020-21, the entry of INR -24045467.48 was due to an error apparent in SAP. The department will ensure that the error will be rectified in the Accounts of FY 2022-23.

The Commission has considered the Petitioner's submission and has removed the above adjustment entries from the revenue approved for the FY 2020-21. The category-wise revenue now Trued-up by the Commission is shown in the following table:

Table 48: Revenue at approved tariff approved by Commission for FY 2020-21

Particulars	Revenue from Demand and Energy Charges (Rs. Cr)	Revenue from FPPCA (Rs. Cr)	Total Revenue (Rs Cr)
A. LOW TENSION SUPPLY	**590.52**	**53.57**	**644.07**
LTD/Domestic	331.95	33.15	365.1
LTD/Low Income Group	0.26	0.02	0.28
LTC/Commercial	173.92	15.95	189.86
LT Mixed Hotel Industries	1.41	0.13	1.53
LT-I Industrial	34.35	3.08	37.42
LTAG/Agriculture (Pump sets/Irrigation)	3.21	0	3.21
LTAG/Agriculture (Allied Activities)	0.26	-	0.26
Metered Street Light	45	1.23	46.23
Hoardings/Signboards	0.16	0.01	0.18
B. HIGH TENSION SUPPLY	**1004.73**	**89.83**	**1094.59**
HT- D Domestic	0.31	0.02	0.34
HT- C Commercial	77.1	5.54	82.64
HTI / Industrial - Connected at 11/33kV	586.6	52.46	639.07
HTI / Industrial - Connected at 110 kV	100.83	9.67	110.51
HT-Indust. (F/M, Steel Melt, Power Intensive)	221.73	20.8	242.53
HTAG/Agriculture (Pump sets/Irrigation)	1.13	0	1.13
HTAG/Agriculture (Allied Activities)	1.73	-	1.73
HT. MES / Defence Establishment	15.3	1.34	16.64
C. TEMPORARY SUPPLY	**16.14**	**1.26**	**17.42**
L.T. Temporary Domestic	0.72	0.06	0.79
L.T. Temporary Commercial	12.15	0.97	13.13
H.T. Temporary	3.27	0.23	3.5
D. SINGLE POINT SUPPLY	**2.17**	**0.18**	**2.36**
Residential Complexes	0	0.00	0.00
Commercial Complexes	2.17	0.18	2.36
Industrial Complexes	0	0.00	0.00
Total	**1613.56**	**144.84**	**1758.44**

The Commission approves the revenue from the sale of power as INR 1758.44 Cr. in the True-up of the FY 2020-21.

3.22. Standalone Revenue Gap/ (Surplus)

Petitioner's submission

Based on the ARR submitted and the revenue from retail tariff, the standalone revenue gap of INR 192.06 Cr is arrived at in the True-up of FY 2020-21.

Commission's analysis

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

Table 49: Standalone Revenue Gap/ (Surplus) determined by Commission for FY 2020-21 (In INR Cr)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Trued-up by Commission
1	Net Revenue Requirement	2,327.64	1,947.60	1,940.39
2	Revenue from Tariff including FPPCA	1,885.30	1,755.54	1,758.44
3	**Net Gap / (Surplus)**	**442.34**	**192.06**	**181.95**
4	Less: Budgetary Support from Govt	**442.34**	**192.06**	**181.95**
5	**Net Final Revenue Gap to be carry forward**	**NIL**	**NIL**	**NIL**

The Commission, in the True-up of FY 2020-21 approves a standalone revenue gap of INR 181.95 Cr. The Petitioner has submitted that the entire gap for the FY 2020-21 is committed to be funded by the Government of Goa by way of budgetary support. The Petitioner in this regard has submitted the letter with Reference No. 1/16/2018/Fin(Bud) dated 11th December 2019 from the Government of Goa wherein the Govt. had assured that it would provide the requisite budgetary support to meet the deficit for the FY 2020-21. Accordingly, no revenue gap has been carried forward in the subsequent years.

4. Chapter 4: True up of the FY 2021-22

4.1. Applicable Provisions and Background

Under the second MYT regime of the JERC, the Tariff Order approving the True-up for the FY 2014-15 and Aggregate Revenue Requirement (ARR) for 2nd MYT Control Period (FY 2019-20 to FY 2021-22) and determination of retail tariff for the FY 2019-20 was issued on 20th May 2019 (hereinafter referred to as the "MYT Order").

The Tariff Order approving the True-up of the FY 2016-17 and the ARR for FY 2021-22 was approved vide order dated 30th March 2021. (hereinafter referred to as the "ARR Order").

During the Approval of Aggregate Revenue Requirements (ARR) for 3rd MYT Control Period from FY 2022-23 to FY 2024-25 and Determination of Retail Tariff for FY 2022-23 dated 31st March 2022, the Commission didn't take-up the Annual Performance Review (APR) for FY 2021-22 as the data submitted by the Petitioner for the APR of 2021-22 was not reliable.

The True up for the FY 2021-22 is to be carried out in accordance with Regulation 11 of the JERC MYT Regulations, 2018, stated as following:

"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;*

*b) **Annual Performance Review**: a comparison of the revised performance targets of the Applicant for the current Financial Year with the approved forecast in the Tariff Order corresponding to the Control Period for the current Financial Year subject to prudence check;*

*c) **Tariff determination** for the ensuing Year of the Control Period based on the revised forecast of the Aggregate Revenue Requirement for the Year;*

d) Review of compliance with directives issued by the Commission from time to time;

e) Other relevant details, if any.

11.4 Upon completion of the exercise, the Commission shall attribute any variations or expected variations in performance for variables specified under Regulation 12below, to factors within the control of the Applicant (controllable factors) or to factors beyond the control of the Applicant (uncontrollable factors):

Provided that any variations or expected variations in performance, for variables other than those specified under Regulation 12below shall be attributed entirely to controllable factors.

11.5 Upon completion of the exercise, the Commission shall pass an order recording:

a) Components of approved cost pertaining to the uncontrollable factors, which were not recovered during the previous Year, to be passed through in tariff as per Regulation 13 of these Regulations:

Provided that, for a Generating Company, the above exercise shall be in accordance with prevalent CERC Tariff Regulations.

b) Approved aggregate gain or loss to the Transmission Licensee or Distribution Licensee on account of controllable factors, and the amount of such gains or such losses that may be shared in accordance with Regulation 14 of these Regulations:

Provided that, for a Generating Company, the above exercise shall be in accordance with prevalent CERC Tariff Regulations.

c) Carrying cost shall be allowed for a Generating Company, Transmission Licensee or Distribution Licensee on the amount of revenue gap for the period from the date on which such gap has become due, i.e., from the end of the Year for which true-up has been done, till the end of the Year in which it is addressed, on the basis of actual rate of loan taken by the Licensee to fund the deficit in revenue:

Provided that carrying cost on the amount of revenue gap shall be allowed subject to prudence check and submission of documentary evidence for having incurred the carrying cost in the years prior to the year in which the revenue gap is addressed:

Provided also that if no loan has been taken to fund revenue deficit, the Commission shall allow Carrying Cost on simple interest basis at one (1) Year State Bank of India (SBI) MCLR /any replacement thereof as notified by RBI for the time being in effect applicable for 1 Year period, as may be, applicable as on 1st April of the relevant Year plus 100 basis points;

Provided further that in case of revenue surplus, the Commission shall charge the Licensee a Carrying Cost from the date on which such surplus has become due, i.e., from the end of the Year for which true up has been done, till the end of the Year in which it is addressed on simple interest basis at one(1) Year State Bank of India (SBI) MCLR / any replacement thereof as notified by RBI for the time being in effect applicable for 1 Year period, as may be, applicable as on 1st April of the relevant Year plus 100 basis points.

d) Revision of estimates and tariff for the ensuing Financial Year.”

4.2. Approach for True-up for FY 2021-22

The Petitioner has requested for True-up of FY 2021-22 and submitted details of the expenditure and the revenue for the year based on its audited accounts along with a comparison of the actual revenue and expenditure against the corresponding figures previously approved by the Commission in the ARR Order.

The Commission has analysed various elements of the actual revenue and expenses for the FY 2021-22 based on the audited accounts submitted by the Petitioner and has carried out the True-up exercise in accordance with the principles laid down in the JERC MYT Regulations, 2018 after due prudence check. The Commission has allowed necessary adjustments in cases where variations are for reasonable and justifiable reasons.

4.3. Energy Sales

Petitioner's Submission

The Petitioner has submitted the total quantum of energy sales for the FY 2021-22 as 4019.40 MU as against the approved energy sales quantum of 4085.77 MU for FY 2021-22 in the ARR Order as shown in the following table:

Table 50: Energy Sales (MU) submitted by the Petitioner for FY 2021-22

S. No	Category	Approved in ARR Order	Petitioner's Submission
	A. LOW TENSION SUPPLY		
1	LTD/Domestic	1301.53	1289.26
2	LTD/L.I.G.	1.37	1.16
3	LTC/Commercial	460.24	390.16
4	LTP Mixed (Hotel Industries)	80.91	81.35
5	LT-I Industrial	4.48	3.24
6	LTAG/Agriculture (Pump sets/Irrigation)	18.18	14.28
7	LTAG/Agriculture (Allied Activities)	0.83	1.11
8	Street Light	29.61	39.18
9	Hoardings/Signboards	0.16	0.18
	Sub-Total	**1897.31**	**1819.92**
	B. HIGH TENSION SUPPLY		
10	HT-D Domestic	0.49	0.36
11	HT- C Commercial	128.26	117.67
12	HTI/ Industrial- Connected at 11/33 kV	1469.88	1547.62
13	HTI / Industrial – Connected at 110 kV		
14	HT-Industrial (f/M, Steel Melt, Power Intensive)	530.73	458.34
15	HTAG/Agriculture (Pump Sets/Irrigation)	4.81	5.31
16	HTAG/Agriculture (Allied Activities)	10.48	10.58
17	HT. MES/ Defence Establishment	26.06	29.44
	Sub-Total	**2170.71**	**2169.32**
	C. TEMPORARY SUPPLY		
18	L.T. Temporary Domestic	9.77	20.34
19	L.T. Temporary Commercial		
20	H.T. Temporary	2.33	4.56
	Sub-Total	**12.10**	**24.90**
	D. Single Point Supply		
21	Residential Complexes	0.00	0.00
22	Commercial Complexes	5.65	4.08
23	Industrial Complexes	0.00	0.00
	Sub Total	**5.65**	**4.08**
	D. Others		

S. No	Category	Approved in ARR Order	Petitioner's Submission
24	Electric Vehicle Charging Station	0.00	1.20
	Sub-Total	**0.00**	**1.20**
	Total	**4085.77**	**4019.40**

Commission's Analysis

The Commission had approved the energy sales of 4085.77 MU in the ARR Order for FY 2021-22, against which the Petitioner has now submitted the actual energy sales of 4019.40 MU. The Commission having verified the same from the audited accounts has considered the same for the purpose of true-up for FY 2021-22.

The Commission approves 4019.40 MU as energy sales in the True-Up of FY 2021-22.

4.4. Open Access Sales and Purchase

Petitioner's submission

The Petitioner has not submitted any energy sales under Open Access sales and purchase.

Commission's analysis

The Commission approves NIL energy sales and purchase under Open Access in the True-up of the FY 2021-22.

4.5. Inter-State Transmission loss

Petitioner's submission

Petitioner has submitted the Inter-State transmission loss of 3.65% in FY 2021-22.

Commission's analysis

The Commission in this regard directed the Petitioner to submit the supporting documentary evidence to verify the loss levels. The Petitioner has submitted that they have computed the inter-state transmission loss considering the total scheduled energy at Ex-bus and the state periphery. Therefore, the Commission has considered the difference between the total energy scheduled at Ex-Bus periphery and the total energy scheduled at state periphery for computing the inter-state transmission losses. The computation for the inter-state transmission losses is shown in the following table:

Table 51: Computation for Inter-state transmission loss

S. No	Particulars	Trued-up by Commission
1	Total Schedule Billed Drawal - CGS	3980.30
2	Add: Power purchase from Traders/ Open Market	140.98
3	Less: Power diverted to Exchange	291.56
4	Add: Renewable Power	514.04
5	Add: Banking Power	16.83
	Total Power Scheduled/ Purchased at Ex-Bus Periphery (A)	**4326.94**
1	Energy input at state periphery (a)	4192.88
2	Less: Over-drawal	53.39
3	Add: Under-drawal	26.00
	Total Power Scheduled/ Purchased at Goa Periphery (B)	**4165.48**

S. No	Particulars	Trued-up by Commission
	PGCIL Losses – MU (A-B)	161.46
	PGCIL Losses - % (A-B)/A	3.73%

The Commission accordingly trues-up the Inter-State transmission losses as shown in the following table.

Table 52: Inter-State transmission loss (%)

S. No	Particulars	Petitioner's Submission	Trued-up by Commission
1	Inter-State Transmission Loss	3.65%	3.73%

The Commission trues-up weighted average Inter-State Transmission Loss as 3.73% in the True-up of the FY 2021-22.

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

Petitioner's submission

The Petitioner has submitted that it has achieved an Intra-State T&D loss of 8.46% in the FY 2021-22 against an approved loss of 10.25%.

Commission's analysis

The Petitioner in its submission has only submitted the draft Energy Audit Report of the State for FY 2021-22. In the absence of the Energy Audit Report, for verification of the Intra-State T&D loss levels, the Commission has relied on the information of energy drawl at State periphery as registered in the energy meters at the state periphery and the energy sales as approved above. However, on verification of the UI weekly data from the DSM account maintained by Western Region Power Committee (WRPC) and Southern Region Power Committee (SRPC), the Commission found certain discrepancies. The Commission has only considered the UI sale and receivable pertaining to FY 2021-22 while allowing the power purchase cost and MUs. Therefore, the Commission has determined the Intra-State T&D loss of 8.18% for the FY 2021-22 against an approved loss of 10.25% in the ARR Order. The detailed computation for T&D loss has been shown in the following table:

Table 53: Computation for Intra-state T&D Losses

S. No	Particulars	Trued-up by Commission
1	Sales within the State (i)	4019.40
2	Intra-State T&D Loss (%) (ii/iii)	8.18%
3	Intra-State T&D Loss (ii = iii-i)	358.21
4	Energy Requirement at Periphery (iii)	**4377.61**

The table below provides the Intra-State T&D loss approved in the ARR Order for FY 2021-22, Petitioner's submission and as trued-up by the Commission now.

Table 54: Intra-State transmission and distribution loss (%)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Trued-up by Commission
1	T&D Losses (%)	10.25%	8.46%	8.18%

The Commission, while Truing up for FY 2021-22, has considered the actual Intra-State T&D loss of 8.18% for the FY 2021-22. However, the incentive for lower purchase of power on account of over-achievement of T&D loss target as detailed in Section 4.19 and has been allowed in the trued-up ARR.

4.7. Power Purchase Quantum & Cost

Petitioner's submission

The Petitioner submitted that it meets its total energy requirement from its allocation from the Central Generating Stations (CGS) and Co-generating Companies like Vedanta Plant 1, Vedanta Plant 2 and Goa Sponge & Power Ltd. Energy requirement is also met through NVVNL, traders and power exchanges. The Power Purchase Cost has been submitted as incurred by the Petitioner in FY 2021-22. The Power Purchase cost also includes ED, Cess, Incentive etc. and supplementary charges considered on actual basis.

The transmission charges comprise of transmission charges of Western Region, Southern Region, KPTCL and other Licensees. During FY 2021-22, EDG has procured actual renewable power of 531.81 MU for RPO obligation. The renewable purchase includes procurement of 212.90 MU of Solar power from NVVN, SECI Solar & Net Metering in short term and 318.91 MU of Non-Solar power from SECI Wind, Hindustan Waste Treatment Plant, short term traders.

The Petitioner has also submitted the cost towards compliance of RPO along with the Power Purchase cost.

The power purchase quantum and cost for FY 2021-22, as submitted by the Petitioner has been shown in the following table:

Table 55: Power Purchase cost submitted by the Petitioner (in INR Cr)

Sr. No.	Source	FY 2021-22 (Approved)		FY 2021-22 (Audited)	
		Quantum (MUs)	Cost (Rs. Crore)	Quantum (MUs)	Cost (Rs. Crore)
1	NTPC	3476.07	967.64	3,754.74	1,166.63
2	NPCIL	190.00	80.24	225.55	63.13
3	Co-Generation	168.19	40.37	180.37	42.83
4	Renewable Energy	372.10	147.29	531.81	220.70
5	Open Market	305.61	83.03		
6	Gadarwara	102.65	43.24		
7	Lara STPP-1 & 2	51.57	16.85		
8	Khargone STPP	82.90	26.15		
9	Traders (Purchase)			16.16	7.02
10	Traders (Sales)			(14.63)	(4.25)
11	IEX Purchase			124.82	58.81
12	IEX Sale			(276.93)	(92.82)
13	Net Over & Under Drawal			24.71	30.99
14	Banking			(16.83)	0.32
15	Transmission and Other Charges		185.60		237.33
16	**Total**	**4749.09**	**1590.40**	**4,549.79**	**1,730.69**
	Power purchase cost per unit	**3.35**		**3.80**	

Commission's analysis

The Petitioner procures power mainly from NTPC Stations, NPCIL stations, Co-Generating Plants, IPP's, Exchange etc. The Petitioner has submitted the overall Power Purchase cost as INR 1,730.69 Cr inclusive of transmission charges. This includes other charges and supplementary charges which include expenses such as past arrears, water charges, taxes etc. The Petitioner has also included an adjustment of 16.83 MUs on account of banking adjustment.

The Commission has verified the power purchase details as submitted by the Petitioner in its Petition with the publicly available information from the Regional Energy Accounts (REA) maintained by Western Region Power Committee (WRPC) for the Central Generating Stations (CGS). Apart from Western Region, the Petitioner also gets supply from the Southern Region from the NTPC's Ramagundam Thermal Power Station. The Commission has validated the power purchase details pertaining to this station from the publicly available information from the Regional Energy Accounts (REA) maintained by Southern Region Power Committee (SRPC). The Commission has verified the power purchase quantum and cost as per the station-wise monthly bills submitted by the Petitioner.

Further, the Commission has verified the UI weekly data from the DSM account maintained by Western Region Power Committee (WRPC) and Southern Region Power Committee (SRPC) and found certain discrepancies. The Petitioner while claiming the cost and quantum of UI, has not considered the few days of March 2022. However, the Commission has considered the net of UI sale and receivable pertaining to FY 2021-22 while allowing the power purchase cost and MUs.

The Commission also sought the details and nature of banking power. The Petitioner submitted that the Banking transaction shown in the Petition is a Power Swap arrangement carried out by EDG. EDG in such arrangements swaps power to needy Utility through CERC licensed trader during the off-season period or during its surplus regime (Normally during July to September when Goa has low demand) and accepts the power during peak hours (18.00 to 24.00 Hrs). The power is swapped to EDG during the Peak Season of Goa as per the LOIs issued depending on the requirement of EDG. In this arrangement there are no financial transactions towards cost of power except trading margin and Open Access charges. Sometime the return power to EDG is on premium of 102% to 103% which means if 100 MUs are supplied by EDG then 102 MUs to 103 MUs are accepted by EDG under this arrangement.

Further, the Commission has sought the details of the Solar net metering from the Petitioner. In response, the Petitioner has submitted that the Solar net metering details submitted as part of the power purchase actually reflects the gross metering. Further, the Power Purchase through Net Metering is 1.66 MUs & 2.62 MUs with settlement amount of INR 0.10 Crore and INR 0.23 Crores for FY 2020-21 and FY 2021-22 respectively.

Further, the Petitioner has submitted that they have purchased the Renewable Energy Certificates equivalent to 95 MUs for the compliance of the RPO during the FY 2021-22. The cost for purchase of REC for FY 2021-22 is claimed as INR 26.52 crore.

Transmission Charges and the Other Charges submitted have been considered as Other Expenses as per actuals incurred by the Petitioner.

The Commission has considered the cost incurred towards the compliance of Renewable Purchase Obligation (RPO) in FY 2021-22 along with the Power Purchase cost. The compliance status of RPO has been discussed in detail in the subsequent section. The table below provides the summary of the power purchase quantum and the cost approved by the Commission for FY 2021-22.

Table 56: Power Purchase Quantum (MU) and cost (INR Cr) approved by the Commission

Sr. No.	Source	Purchase (MU)	VC (Ps/ Unit)	FC (Rs. Crore)	VC (Rs.Crore)	Others (Rs.Crore)	Supplementary (Rs. Crore)	Total (Rs.Crore)
A	**Central Sector Power Stations**							
I	**NTPC**	**3,754.74**	**188.46**	**417.62**	**707.63**	**36.46**	**4.93**	**1,166.63**
1	*KSTPS*	1628.48	137.38	102.19	223.72	23.98	6.94	356.83
2	*VSTPS - I*	272.46	161.86	22.98	44.10	2.91	7.25	77.23

Sr. No.	Source	Purchase (MU)	VC (Ps/ Unit)	FC (Rs. Crore)	VC (Rs.Crore)	Others (Rs.Crore)	Supplementary (Rs. Crore)	Total (Rs.Crore)
3	*VSTPS - II*	105.44	155.34	7.50	16.38	0.79	0.15	24.82
4	*VSTPS -III*	95.85	154.29	9.84	14.79	0.78	-0.16	25.25
5	*VSTPS-IV*	117.22	152.75	17.52	17.91	1.02	0.13	36.58
6	*VSTPS-V*	53.07	157.92	8.77	8.38	0.54	-0.08	17.61
7	*KGPP*	1.85	941.74	7.52	1.74	0.00	0.10	9.36
8	*GGPP*	4.46	616.21	9.73	2.75	0.00	0.08	12.56
9	*SIPAT- I*	185.06	146.62	25.07	27.13	1.80	-0.36	53.65
10	*FSTPS*	0.00	0.00	-	-	0.00	0.00	-
11	*KSTPS-III*	55.01	134.88	6.68	7.42	0.85	1.25	16.19
12	*TSTPS*	0.00	0.00	-	-	0.00	0.00	-
13	*KHSTPS-I*	0.00	0.00	-	-	0.00	0.00	-
14	*RSTPS*	592.94	275.23	48.16	163.19	0.01	7.12	218.48
15	*SIPAT- II*	104.53	151.84	11.51	15.87	1.58	-0.06	28.90
16	*Solapur*	71.50	366.69	25.39	26.22	0.00	0.61	52.22
17	*Gadarwara*	113.07	309.71	32.27	35.02	0.78	-0.29	67.78
18	*Lara*	100.49	208.29	17.56	20.93	0.89	-0.13	39.24
19	*Khargone*	90.98	293.03	23.02	26.66	0.54	-0.20	50.02
20	*Mouda I*	87.25	336.91	20.87	29.40	0.00	1.17	51.43
21	*Mouda II*	75.08	346.52	21.04	26.02	0.00	1.70	48.76
22	*Add/ Less: Other Adjustments*		0.00	-	-	0.00	0.00	0.01
23	*Rebate*						*-20.29*	*-20.29*
II	**RGPPL**	**-**	-	**-**	**-**	**-**	**-**	**-**
			-					
III	**NPCIL**	**225.55**		**-**	**64.71**	**-**	**(1.58)**	**63.13**
	KAPS	115.94	227.41	-	26.37	0.00	-0.65	25.71
	TAPS	109.62	340.26	-	38.35	0.00	-0.93	37.42
								-
IV	**Traders**	**(150.58)**		**-**	**(31.24)**	**-**	**-**	**(31.24)**
	a)IEX Sale / PURCHASE	(152.10)	223.58	-	(34.01)	-	-	(34.01)
	IEX Purchase	124.82	471.15	-	58.81	-	-	58.81
	IEX Sale	276.93	335.17	-	92.82	-	-	92.82
	Traders Drawal	16.16	429.14	-	7.02	-	-	7.02
	Traders Injection	14.63	290.49	-	4.25	-	-	4.25
V	***NET UI (Under DRAWAL)***	**27.40**		**-**	**33.27**	**-**	**-**	**33.27**
	Over Drawal	*53.39*			*38.91*	-	-	*38.91*

Sr. No.	Source	Purchase (MU)	VC (Ps/ Unit)	FC (Rs. Crore)	VC (Rs.Crore)	Others (Rs.Crore)	Supplementary (Rs. Crore)	Total (Rs.Crore)
	Under Drawal	*26.00*			*5.64*	-	-	*5.64*
VI	***Banking of Power***	**(16.83)**		**-**	**0.32**	**-**	**-**	**0.32**
B	**Within State Generations**							
I	**CO-GENERATION**	**180.37**		**-**	**43.24**	**-**	**(0.41)**	**42.83**
	Vedanta Plant-1	97.39	240.49	-	23.42	0.00	-0.04	23.38
	Goa Sponge and private limited	4.66	240.00	-	1.12	0.00	0.00	1.12
	Vedanta Plant-2	78.32	238.76	-	18.70	0.00	-0.37	18.33
C	**RPO Obligation**	**518.40**		**-**	**218.83**	**-**	**(2.49)**	**216.33**
	Non Solar (SECI)	139.09	271.00	-	37.77	0.00	-0.75	37.02
	Non Solar (STOA)	178.09	470.24	-	83.70	0.00	-1.26	82.44
	NVVNL Solar	13.03	550.02	-	7.71	0.00	-0.14	7.56
	SECI Solar	48.10	550.00	-	28.50	0.00	-0.04	28.46
	Solar STOA	135.74	442.62	-	60.08	0.00	-0.30	59.78
	Hindustan Waste Treatment Plant	1.74	500.00	-	0.84	0.00	0.00	0.84
	Solar Net Metering	2.62	87.79	-	0.23	0.00	0.00	0.23
D	**REC Certificates**				**26.52**			**26.52**
	Solar		-	-	26.52	-	-	26.52
	Non Solar		-	-	-	-	-	-
E	**OTHER CHARGES**	**-**	-	-	**241.28**	**-**	**(3.96)**	**237.33**
	PGCIL Transmission Charges, Wheeling, Oen Access & Trading Margin & Other Charges				241.28		(3.96)	237.33
F	**Total**	**4,539.07**		**417.62**	**1,304.56**	**36.46**	**(3.52)**	**1,755.12**

The Commission approves power purchase quantum of 4,539.07 MU and cost of INR 1,755.12 Cr in the True-up of the FY 2021-22.

4.8. Renewable Purchase Obligation (RPO)

Petitioner's submission

The Petitioner has submitted that they procured actual renewable power of 531.81 MU for RPO obligation

Commission's analysis

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 11.50% of its total consumption (including 4.70% from Solar) from renewable sources for the FY 2021-22. Based on the above, the Commission has computed the standalone RPO compliance for FY 2021-22 as shown in the following table:

Table 57: Summary of Renewable Purchase Obligation (RPO) (MU)

Description	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
Sales within State (MU) (A)	3420.90	3091.98	3654.89	3704.68	3722.98	3767.15	4,019.42
Hydro Power available at State Periphery (MU) (B)	12.62	72.88	0	0	0.00	0.0	-
T&D Loss (%) (C)	15.36%	20.38%	10.36%	13.46%	15.03%	7.49%	8.18%
T&D Loss (MU) (D = B * C)	1.94	14.85	0.00	0.00	0.00	0.00	0.00
Hydro Power Consumed (E = B - D)	10.68	58.03	0.00	0.00	0.00	0.00	0.00
Conventional Power Consumed (F = A - E)	**3410.21**	**3033.95**	**3654.89**	**3704.68**	**3722.98**	**3767.15**	**4,019.42**
RPO obligation (%)	3.55%	4.85%	6.70%	9.00%	11.50%	14.10%	17.00%
Solar (G)	0.85%	1.65%	2.50%	3.60%	4.70%	6.10%	8.00%
Non-Solar (H)	2.70%	3.20%	4.20%	5.40%	6.80%	8.00%	9.00%
RPO obligation for the year (MU)	**121.06**	**147.15**	**244.88**	**333.42**	**428.14**	**531.17**	**683.30**
Solar (F * G)	28.99	50.06	91.37	133.37	174.98	229.80	321.55
Non-Solar (F * H)	92.08	97.09	153.51	200.05	253.16	301.37	361.75
RPO Compliance (Physical Power + Certificates) (MU)	**167.52**	**65.54**	**243.26**	**340.19**	**415.14**	**506.84**	**626.81**
Solar	79.90	65.54	84.14	138.74	186.73	148.16	307.90
Non-Solar	87.62	0.00	159.12	201.44	228.40	358.67	318.91
Cumulative RPO Shortfall (MU)	**7.47**	**103.32**	**104.94**	**98.18**	**121.08**	**145.41**	**201.89**
Solar	1.23	-	7.23	1.86	-	81.63	95.29
Non-Solar	6.24	103.32	97.71	96.32	121.08	63.78	106.61
Cumulative RPO Compliance(MU)	**549.23**	**614.76**	**858.03**	**1,198.21**	**1,613.35**	**2,120.19**	**2,747.00**
Solar	86.48	152.02	236.16	374.90	561.63	709.80	1017.70
Non-Solar	462.75	462.75	621.87	823.31	1051.72	1410.39	1729.30

As can be seen from the table as earlier, a cumulative gap of 201.89 MU till the end of FY 2021-22. The same has to be carried forward to subsequent years and shall be taken up in the True ups of respective years.

4.9. Energy Balance

Petitioner's submission

The Petitioner has submitted the energy balance for FY 2021-22 as shown in the following table.

Table 58: Energy Balance (MU) submitted by Petitioner

S. No	Particulars	Petitioner's Submission
1	**Energy Input at Goa Periphery**	**4192.88**
2	**Total Power Scheduled/ Purchased at Goa Periphery**	
	Total Schedule Billed Drawal – CGS	3980.30
	Add: Overdrawal	51.47
	Add: Power purchase from Traders	140.98
	Add: Power purchase from NVVN / Banking	(16.83)
	Less: Underdrawal	26.77
	Less: banking Power	
	Add: Renewable Power	514.04
	Less: Power diverted to Exchange	291.56
	Total	**4351.64**
3	**PGCIL Losses – MUs**	**158.76**
	PGCIL Losses - %	**3.65%**
4	**Total Power Purchased within Goa State**	
	Add: Co-generation	180.37
	Add: Independent Power Producers (IPP)	1.74
	Add: Solar Generation	16.03
	Total	**198.14**
5	**Total Power Purchase availability after PGCIL Losses**	**4391.02**
	Less: Retail Sales to Consumers	4019.40
	Distribution Losses – MUs	371.62
6	**Distribution Losses - %**	**8.46%**

Commission's analysis

The information submitted by the Petitioner on power purchase quantum, UI over/ under drawl, IEX/ Bilateral purchase etc. has been examined and accordingly the energy balance for FY 2021-22 has been derived. In accordance with the publicly available information from the Regional Energy Accounts (REA) maintained by WRPC and SRPC and documentary evidence submitted by the Petitioner against the Inter-State Transmission Loss, the Commission has determined the energy balance at the Periphery of the State of Goa. The following table provides the energy balance as submitted by the Petitioner and now trued-up by the Commission.

Table 59: Energy Balance (MU) approved by Commission

S. No	Particulars	Trued-up by Commission
	Sales within the State (i)	4019.40
	Intra-State T&D Loss (%) (ii/iii)	8.18%
	Intra-State T&D Loss (ii = iii-i)	358.21

S. No	Particulars	Trued-up by Commission
1	**Energy Requirement at Periphery (iii = a+b)**	**4377.61**
	Total Schedule Billed Drawal - CGS	3980.30
	Add: Power purchase from Traders/ Open Market	140.98
	Less: Power diverted to Exchange	291.56
	Add: Renewable Power	514.04
	Less: Banking Power	16.83
2	**Total Power Scheduled/ Purchased at Ex-Bus Periphery (A)**	**4326.94**
	Energy input at state periphery (a)	4192.88
	Less: Over-drawal	53.39
	Add: Under-drawal	26.00
3	**Total Power Scheduled/ Purchased at Goa Periphery (B)**	**4165.48**
	PGCIL Losses – MU (A-B)	161.46
	PGCIL Losses - % (A-B)/A	3.73%
	Add: Within state generation (b)	184.73
4	**Energy Available at Periphery (a+b)**	**4377.61**

4.10. Operation & Maintenance (O&M) Expenses

The Operation & Maintenance Expenses comprise of the Employee Expenses, Administrative and General Expenses (A&G) and the Repair & Maintenance Expenses (R&M). The JERC MYT Regulations, 2018 considers the variation of O&M Expenses except to the extent of inflation to be controllable. Regulation 12.2 of the JERC MYT Regulation, 2018 states the following:

"For the purpose of these Regulations, the term "controllable factors" for a Transmission or Distribution Licensee shall comprise of the factors which were within the control of the Licensee, shall inter-alia include:

a) Variations in capitalisation on account of time and/or cost overruns/ efficiencies in the implementation of a capital expenditure project not attributable to an approved change in scope of such project, change in statutory levies or force majeure events;

b) Variation in Interest and Finance Charges, Return on Equity, and Depreciation on account of variation in capitalisation, as specified in clause (a) above;

c) Variations in technical and commercial losses of Distribution Licensee;

d) Availability of transmission system;

e) Variations in performance parameters;

f) Failure to meet the standards specified in the Joint Electricity Regulatory Commission for the State of Goa & UTs (Standard of Performance for Distribution Licensees) Regulation, 2015, as amended from time to time;

g) Variations in labour productivity;

h) Variation in O&M Expenses, except to the extent of inflation;

i) Bad debts written off, in accordance with the provisions of Regulation 62:

Provided further that the controllable factors for a Generating Company shall be as specified in the prevalent CERC Tariff Regulations."

Therefore, any variation in O&M Expenses is attributable to the Petitioner and is not passed on in the ARR, other than any cost which is beyond the control of the Petitioner.

4.10.1. Employee Expenses

Petitioner's submission

The Petitioner has incurred actual employee expenses of INR 340.39 Cr against the approved expenses of INR 294.08 Cr in the ARR of FY 2021-22.

The following table provides the employee expenses as submitted by the Petitioner:

Table 60: Employee Expenses submitted by the Petitioner (In INR Cr)

S. No	Particulars	Petitioner's Submission
1	Salaries &Allowances	353.55
2	Terminal Benefits	
3	Other Salary Payments	
4	Total	**353.55**
5	Less: Add/Deduct share of others	
6	Total	353.55
7	Less: Amount capitalized	
8	Net Amount	353.55
9	Add: Pension/DA and other Provision	
	Total Employee Expenses	**353.55**

Commission's analysis

As per the audited accounts submitted by the Petitioner, the employee expenses during the FY 2021-22 are reflected as INR 353.55 Crore. In accordance with the JERC MYT Regulations, 2018, the Commission had determined the Employee expenses for each year of the MYT Control Period. The Regulation 6 of the JERC 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."

The Commission vide deficiency note sought clarification from the Petitioner for such exorbitant hike in the employee expenses vis-à-vis the employee expenses approved by the Commission. The Petitioner clarified that at the time of Tariff Order, the Annual accounts of the Department was pending for several previous years. Hence, the Commission considered the employee cost based on the past trends of the expenditure. However, the employee cost considered in the True-up Petition is based on actual figures as per Audited Accounts of the respective years. In view of the above, the employee cost in the True-up petition is at variance with the approved figure for the year.

In accordance with JERC MYT Regulations, the Employee expenses has been 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 base year (FY 2021-22) for computation of revised employee expenses of FY 2021-22. Thus, the approved employee expenses for base year has been escalated with the actual CPI growth and employee growth rate to arrive at the employee expenses for FY 2021-22.

The CPI Inflation has been computed as follows:

Table 61: Computation of CPI Inflation (%)

FY	CPI Index	% Increase in CPI Index
2020-21	338.69	
2021-22	356.06	5.13%

The growth rate has been computed as follows:

Table 62: Employee Growth Rate for FY 2021-22 (INR Crore)

S. No	Particulars	FY 2021-22
1	Opening Employee	5,883
2	Recruitment during the year	219
3	Retirement during the year	182
4	Closing Employee	**5,920**
5	**Growth rate**	0.63%

Accordingly, the employee expenses approved by the Commission for FY 2021-22 have been provided in the following table:

Table 63: Employee Expenses computation for FY 2021-22 (INR Crore)

S. No	Particulars	FY 2021-22
1	Employee Expenses base year	312.50
2	Growth in number of employees (Gn)	0.63%
3	CPI Inflation for preceding 3 years (CPI)	5.13%
4	**Normative Employee Expenses**	**330.60**

Table 64: Employee Expenses Trued-up by Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Normative Expenses approved by Commission
1	Employee Expenses for FY 2021-22	311.98	353.55	330.60

The Commission approves the normative Employee Expenses of INR 330.60 Crore in the true-up for the FY 2021-22.

4.10.2. Administrative and General (A&G) Expenses

Petitioner's submission

The Petitioner has incurred A&G expenses of INR 26.91 Cr in FY 2021-22. The following table provides the A&G expenses as submitted by the Petitioner:

Table 65: A&G Expenses submitted by Petitioner (In INR Cr)

S. No.	Particulars	Petitioner's Submission
1	Travelling Expenses	0.51
2	Office Expenses	25.73
4	Petrol, Oil, Lubricant (P.O.L)	
5	Rent, Rates & Taxes	0.66
6	Advertisement & Publicity	0.65
7	Professional & Special Services	0.42

S. No.	Particulars	Petitioner's Submission
8	Other A&G Charges	11.18
9	Overtime Allowance	0.00
10	Minor Works	0.54
11	Audit of Accounts and Professional Fees	0.10
13	**Total**	**39.79**
14	Less: share of others	
15	**Total expenses**	**39.79**
16	Less: Capitalized	
17	**Net expenses**	**39.79**
18	Add: Prior period	
19	**Total A&G Expenses**	**39.79**

Commission's analysis

A&G expenses mainly comprise of rents, telephone and other communication expenses, professional charges, conveyance and travelling allowances, etc. As per the audited accounts submitted by the Petitioner, the A&G expenses are reflected as INR 39.79 Crore for FY 2021-22. The Regulation 6 of the JERC 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."

Similar to the methodology followed while estimating the employee expenses, the Commission has determined the A&G expenses for the FY 2021-22 using the CPI Inflation for FY 2021-22 to determine the A&G expenses for FY 2021-22.

The A&G expenses approved by the Commission in FY 2021-22 have been provided in the following table:

Table 66: A&G Expenses computation for FY 2021-22 (INR Crore)

S. No	Particulars	FY 2020-21	FY 2021-22
1	A&G Expenses base year	27.95	29.35
2	CPI Inflation for FY 2021-22 (CPI)	5.02%	5.13%
3	**Normative A&G Expenses**	**29.35**	**30.86**

Table 67: A&G Expenses Trued-up by Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Normative Expenses approved by Commission
1	A&G Expenses for FY 2021-22	31.02	39.79	30.86

The Commission approves the normative Administrative & General (A&G) expenses of INR 30.86 Crore in the True-up of FY 2021-22.

4.10.3. Repair & Maintenance (R&M) Expenses

Petitioner's submission

The Petitioner has incurred R&M expenses of INR 60.77 Cr against the approved expenses of INR 86.58 Cr in the ARR Order. The following table provides the R&M expenses as submitted by the Petitioner:

Table 68: R&M Expenses submitted by Petitioner (In INR Cr)

S. No.	Particulars	Petitioner's Submission
1	Plant & machinery	60.77
2	Building (Electricity Residential & Non-Residential)	
3	Hydraulic works & civil works	
4	Line cable & network	
5	Vehicles	
6	Furnitures & Fixtures	
7	Office Equipment	
9	Minor R&M works	
10	**Total**	60.77
11	Add/Deduct share of others	
12	**Total expenses**	60.77
13	Less : Capitalized	
14	**Net expenses**	60.77
15	Add: prior period	
16	**Total R&M expenses**	**60.77**

Commission's analysis

The Regulation 6 of the JERC 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."

Therefore, the Commission has determined the revised normative R&M Expenses which is based on the Opening GFA of FY 2021-22, actual WPI Inflation (1.68%) for FY 2021-22 with respect to FY 2021-22 & k factor as approved in MYT order dated 20th May, 2019 for FY 2021-22, i.e., 2.91%.

The WPI Inflation has been computed as follows:

Table 69: Computation of WPI Inflation (%)

FY	WPI Index	% Increase in WPI Index
2020-21	123.38	
2021-22	139.41	13.00%

The R&M expenses approved for FY 2021-22 is provided in the following table:

Table 70: R&M Expenses Trued-up by Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Normative Expenses approved by Commission
1	Opening GFA (GFAn-1) of previous year	2760.58	60.77	1444.90
2	K factor approved (K)	2.91%		2.91%
3	WPI Inflation	2.96%		13.00%
4	**Repair & Maintenance Expenses (R&M) for FY 2021-22**	**86.58**	**60.77**	**47.51**

The Commission approves the normative Repair & Maintenance (R&M) expenses of INR 47.51 Crore in the True-up of FY 2021-22.

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

Table 71: O&M Expenses approved by Commission (In INR Cr)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Normative Expenses approved by Commission
1	Employee Expenses	311.98	353.55	330.60
2	Administrative & General Expenses (A&G)	31.02	39.79	30.86
3	Repair & Maintenance Expenses	86.58	60.77	47.51
4	**Total Operation & Maintenance Expenses**	**429.58**	**454.11**	**408.96**

The Commission approves the normative Operation & Maintenance (O&M) expenses of INR 408.96 Cr in the True-up of FY 2021-22.

4.11. Capitalisation

Petitioner's submission

The Petitioner submitted the actual capitalisation for the FY 2021-22 as INR 165.19 Cr.

Commission's analysis:

The Commission with regards to capitalisation submitted by the Petitioner, sought details of the assets created out of Loan/ Equity/ Govt. Grant/ Consumer Contribution etc. In reply, the Petitioner submitted that majority of capital assets are created out of the equity contribution from Govt. of Goa. The capitalization is inclusive of assets created out of the Electricity Development Fund which is treated as Government Grant. The Petitioner has further submitted that there are no assets created out of Consumer Contribution.

Post thorough scrutiny and review of the submissions made by the Petitioner with regards to the capitalization of schemes undertaken and the Fixed Asset Register (FAR) as submitted by the Petitioner, the Commission approves the capitalisation for the year as shown in the following table:

Table 72: Capitalisation approved by Commission (In INR Cr)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Trued-up by Commission
1	Capitalisation	345.00	165.19	165.19

The Commission approves Capitalisation of INR 165.19 Cr in the True-up of FY 2021-22.

4.12. Depreciation

Petitioner's submission

The Petitioner has submitted the actual depreciation of assets as per the audited annual accounts of FY 2021-22 excluding depreciation on assets created out of grants. The depreciation is arrived in annual accounts for FY 2021-22 based on the rates specified in the relevant CERC Tariff Regulations, 2018.

The depreciation as claimed by the Petitioner has been tabulated in the table below:

Table 73: Depreciation submitted by Petitioner (In INR Cr)

S. No	Particulars	Petitioner's Submission
1	Opening Gross Fixed Assets	1119.93
2	Addition During the FY	165.19
3	Less: Capitalisation through Grants and Electricity Duty	89.90
4	Less: Value- of assets sold/disposed off	3.17
5	Closing Gross Fixed Assets	1192.04
6	Rate of Depreciation	4.90%
	Depreciation	**56.66**

Commission's analysis

Regulation 30 of the JERC 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 JERC MYT Regulations, 2018, provided in the table below:

Table 74: Depreciation Rate (%)

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

Table 75: Calculation of revised GFA and depreciation for FY 2021-22 (INR Crore)

Description	Opening GFA	Less: grants through EDF till 2021-22	Net GFA	Addition during the year	Capitalisation through EDF	Deletion during the year	Closing GFA	Depreciation Rate	Depreciation
Plant & Machinery	1293.62	333.15	960.46	117.57	63.99	2.74	1011.32	3.60%	35.49
Building & Civil Engineering Works	13.30	2.58	10.72	5.95	3.24	0.05	13.38	1.80%	0.22

Description	Opening GFA	Less: grants through EDF till 2021-22	Net GFA	Addition during the year	Capitalisation through EDF	Deletion during the year	Closing GFA	Depreciation Rate	Depreciation
Furniture & Fixtures & Office Equipments	57.08	13.54	43.54	0.24	0.13	0.11	43.53	6.00%	2.61
Land	6.30	1.19	5.11	0.00	0.00	0.00	5.11	0.00%	0.00
Vehicles	3.47	0.71	2.75	0.00	0.00	0.27	2.48	18.00%	0.47
Computers & Others	71.14	13.58	57.56	41.42	22.54	0.00	76.44	6.00%	4.02
Total	**1444.90**	**364.76**	**1080.14**	**165.19**	**89.90**	**3.17**	**1152.26**	**3.84%**	**42.81**

The weighted average depreciation rate has been computed as 3.84% against a rate of 3.82% approved in the ARR Order.

The Commission has considered the opening GFA as INR 1080.14 Cr for calculation of depreciation for FY 2021-22, determine as follows:

Table 76: Opening GFA (net of capitalisation through EDF/Govt. Grants) approved by the Commission for FY 2021-22 (In INR Cr)

S. No	Particulars	Trued-up by Commission
1	Opening GFA as per Audited Annual Accounts	1444.90
2	Less: Assets capitalized through EDF from FY 2008-09 to FY 2020-21	364.76
3	**Opening GFA (net of capitalisation through EDF/Govt. Grants)**	**1080.14**

In respect of addition of GFA during the FY, the Commission has not considered depreciation on assets created from the Electricity Duty Fund, as the same has been treated as a Grant from the Government of Goa, in line with the approach adopted in the True-up of FY 2021-22. Further, the assets retired during the year were also not considered for computing the depreciation. The following table provides the calculation of depreciation during the FY 2021-22:

The depreciation approved by the Commission in the true-up for the FY 2021-22 is calculated as follows:

Table 77: Depreciation approved by Commission (In INR Cr)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Trued-up by Commission
1	Opening GFA (Closing GFA of FY 2020-21)	2,270.36	1,119.93	1080.14
2	Addition During the FY	345.00	165.19	165.19
3	Less: Capitalisation through Grants and Electricity Duty	270.00	89.90	89.90
4	Less: Value of Assets sold/disposed off	-	3.17	3.17
5	Closing Gross Fixed Assets	2,345.36	1,192.05	1,152.26
6	Weighted average Rate of Depreciation (%)	3.82%	4.90%	3.84%
7	Depreciation	**88.18**	**56.66**	**42.81**

The Commission approves depreciation of INR 42.81 Cr in the True-up of FY 2021-22.

4.13. Interest and Finance Charges

Petitioner's submission

Interest on Loan has been estimated based on the normative loan calculation whereby 70% of the capitalization (net of capitalisation from grants) during the year have been considered as normative debt addition during the year. Opening balance of normative loan for FY 2021-22 is considered as per the approved closing normative loan in truing up of FY 2021-22. Further, the rate of interest has been considered as State Bank of India MCLR (SBI MCLR) as on 1st April 2021 plus 100 basis points i.e. 8.00%. Further, the Petitioner has considered finance charges of INR 3.29 Cr. as per audited annual accounts.

Commission's analysis:

The Regulation 28 of the JERC MYT Regulations, 2018 specifies 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-capitalisation 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 capitalisation 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, the Petitioner has submitted that capitalisation during each year has been funded by the Petitioner's equity and no loan has been taken against any of the capitalised assets. In absence of any actual loans, the Commission has considered the SBI MCLR rate, as on 1st April of the relevant year, plus 100 basis points as Rate of Interest i.e. 8.00% (7.00%+1.00%), in accordance with the JERC MYT Regulations, 2018.

As per the JERC MYT Regulations 2018, if the equity actually deployed is more than 30% of the capital cost, then equity in excess of 30% would be considered as normative loan. Further, the Commission has considered the capitalisation of assets as approved in the foregoing paragraphs. The Commission for the purpose of funding of the capitalisation (net of capitalisation from grants) has considered the normative debt equity ratio of 70:30.

The Interest on Loan has been calculated on the average loan during the year with the opening loan considered equivalent to the closing loan approved for FY 2021-22 in the True-Up. The total normative loan has been considered to be repaid through depreciation during the year. Further, the Petitioner has claimed other Interest & Finance charges and submitted that certain financial charges are incurred by the department which are related to bank charges, LC charges, etc. and the same also is in line with audited accounts. The Commission has considered the same and have allowed it over and above the normative interest on loan as a one-time expense.

The following table provides the Interest on Loan approved in ARR, Petitioner's submission and now approved by the Commission:

Table 78: Interest and Finance charges approved by Commission (In INR Cr)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Trued-up by Commission
1	Opening Normative Loan	1094.72	104.60	124.96
2	Add: Normative Loan During the year	52.50	52.70	52.70
3	Less: Normative Repayment	88.18	56.66	42.81
4	Closing Normative Loan	1059.04	100.63	134.85
5	Average Normative Loan	1076.88	102.61	129.91
6	Rate of Interest (%)	8.00%	8.00%	8.00%
7	**Interest on Loan**	**86.15**	**8.21**	**10.39**
8	Financing Charges		3.29	3.29
9	**Interest and Finance Charges**	**86.15**	**11.50**	**13.68**

The Commission approves Interest and Finance Charges of INR 13.68 Cr in the True-up of the FY 2021-22.

4.14. Return on Equity (RoE)

Petitioner's submission

The RoE is calculated in accordance with the JERC MYT Regulations, 2018. Opening equity has been considered as 30% of GFA computed by the Petitioner for FY 2021-22 (Net of assets funded by consumer contribution, capital subsidies and grants). The equity addition has been considered to the tune of 30% of assets capitalized (net of capitalisation from grants) during the year. The rate of RoE has been considered as 16% on post tax basis as per JERC MYT Regulations, 2018.

Commission's analysis:

The Regulations 27.2 and 27.3 of the JERC 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.

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."

As mentioned above, the total asset capitalisation other than the Central Government schemes during the year has been funded by equity. The Commission for the purpose of equity addition during the year, has limited it to 30% of total capitalisation (net of capitalisation through ED and Government Grants) as prescribed in the JERC MYT Regulations, 2018.

The Commission noted that the Petitioner has not made any adjustment in respect of the assets retired during the year in equity. The assets retired during the FY 2021-22 as per the audited books of accounts is INR 3.17 crore. The 30% of such retired assets has been deducted from the equity during the year assuming, they have completed the useful life and the debt was repaid.

The RoE has been calculated on the average of opening and closing of equity during the year at the rate of 16% on post-tax basis for Retail Supply Business and 15.50% on post-tax basis for wires business, with the opening equity considered equivalent to the closing equity of FY 2021-22 approved in the True-up of the same. The following table provides the total return on equity approved in the ARR order, Petitioner's submission and now approved by the Commission:

Table 79: Return on Capital Base approved by Commission (In INR Cr)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Trued-up by Commission
1	Opening Equity	681.11	330.09	314.58
2	Additions on account of new capitalisation	22.50	22.59	21.63
3	Closing Equity	703.61	352.68	336.22
4	Average Equity	692.36	341.38	325.40
5	Average Equity-Wires Business (90%)	623.12	307.25	292.86
6	Average Equity- Retail Supply Business (10%)	69.24	34.14	32.54
7	Return on Equity for Wires Business (%)	15.5%	15.5%	15.5%
8	Return on Equity for Retail Supply Business (%)	16.0%	16.0%	16.0%
9	Return on Equity for Wires Business (INR Cr)	96.58	47.62	45.39
10	Return on Equity for Retail Supply Business (INR Cr)	11.08	5.46	5.21
11	**Return on Equity**	**107.66**	**53.09**	**50.60**

The Commission approves a Return on Equity as INR 50.60 Cr in the True-up of FY 2021-22.

4.15. Interest on Consumer Security Deposits

Petitioner's submission

Interest on Security Deposits has been calculated in accordance with the JERC MYT Regulations, 2018 based on the average of opening and closing consumer security deposits during the year. The opening security deposit has been derived based on the closing security deposit of FY 2021-22. The addition during the year has been considered as per the actuals as reflected in the audited accounts for FY 2021-22.

In accordance with the JERC (Electricity Supply Code) (First Amendment) Regulations, 2019, the rate of interest to the consumer has been considered at the Bank Rate declared by the Reserve Bank of India prevailing on the 1st of April 2021 i.e., 4.25% and the same has been considered for computation of Interest on Security deposit which comes out to be Rs.2.93 Cr. However, as per the audited annual accounts, the actual Interest on Security Deposit paid by EDG during FY 2021-22 was Rs.5.43 Crore and the same has been considered as Interest on Security Deposit for the purpose of true-up.

Table 80: Interest on Consumer Security Deposits submitted by Petitioner (In INR Cr)

S. No	Particulars	Petitioner's Submission
1	Opening Security Deposit	51.21
2	Add: Deposits During the year	43.31
3	Less: Deposits refunded	7.92
4	Closing Security Deposit	86.60

S. No	Particulars	Petitioner's Submission
5	Average Security Deposit	68.91
6	Rate of Interest (%)	4.25%
7	**Interest on Security Deposit**	**2.93**
8	**Interest paid to consumers**	**5.43**

Commission's analysis:

The Petitioner has determined the Interest on Security Deposits on normative basis as per JERC MYT Regulations, 2018.

Regulation 28.11 of the JERC 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. "

Accordingly, the Commission has considered the interest on consumer security deposits as per audited annual accounts as follows:

Table 81: Interest on Consumer Security Deposits as per Audited Annual Accounts (In INR Cr)

S. No	Particulars	As per Annual Audited Accounts
1	Opening Security Deposit	51.20
2	Add: Deposits During the year	43.31
3	Less: Deposits refunded	7.92
4	Closing Security Deposit	86.59
5	Average Security Deposit	68.90
6	Rate of Interest	4.25%
7	**Interest on Security Deposit**	**2.93**
8	**Interest paid to consumers**	**5.43**

The Commission noted that the actual interest on security deposit paid during the year is higher than the normative interest on security deposit and sought the details from the Petitioner. The Petitioner has submitted that it is on account of past period discharge as in previous years, a lower interest on security deposit was paid.

The following table provides the interest on security deposit as approved in the ARR Order, the Petitioner's submission and the interest now approved by the Commission:

Table 82: Interest on Consumer Security Deposits approved by Commission (In INR Cr)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Trued-up by Commission
1	**Interest on Security Deposit**	**8.78**	**5.43**	**5.43**

The Commission approves Interest on Security Deposit as INR 5.43 Cr. in the True-up of FY 2021-22.

4.16. Interest on Working Capital

Petitioner's submission

As per clause 31 & 52 of JERC MYT Regulations, 2018 the working capital of a licensee shall consist of:

(e) Receivable of two months of billing

(f) O&M Expenses of one month

(g) 40% of Repair & maintenance expenses for one month

(h) Less consumer security deposit but excluding Bank Guarantee

The interest on working capital is computed at 9 % (SBI base rate as on 1st April 2021) as has been shown in the table below:

Table 83: Interest on Working Capital submitted by Petitioner (In INR Cr)

S. No.	Particulars	Petitioner's Submission
1	Receivables of 2 months of billing	317.00
2	O&M expense for 1 month	37.84
3	Maintenance spares at 40% of R&M expenses for 1 month	2.03
5	Less: Security Deposit excluding BG/FDR	68.91
6	Net Working Capital Requirement	287.96
7	Rate of Interest (%)	9.00%
8	**Interest on Working Capital**	**25.92**

Commission's analysis:

The Regulation 52 of the JERC 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 JERC 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."

In accordance with the JERC MYT Regulation, 2018, the Commission has computed the Interest on Working Capital for FY 2021-22. The interest on working capital is computed at SBI base rate as on 1st April for the relevant year plus 200 basis points i.e. 9.00% (7.00%+2.00%).

Accordingly, the Interest on Working Capital as approved in the ARR Order, as submitted by the Petitioner and now approved by the Commission is shown in the table below:

Table 84: Interest on Working Capital approved by Commission (In INR Cr)

S. No.	Particulars	Approved in ARR Order	Petitioner's Submission	Trued-up by Commission
1	Receivables of 2 months of billing	320.37	317.00	317.32
2	O&M expense for 1 month	35.80	37.84	34.08
3	Maintenance spares at 40% of R&M Expenses for 1 month	2.89	2.03	1.58
5	Less: Security Deposit excluding BG/FDR	188.74	68.91	68.90
6	Net Working Capital Requirement	170.32	287.96	284.09
7	Rate of Interest (%)	9.75%	9.00%	9.00%
8	**Interest on Working Capital**	**16.61**	**25.92**	**25.57**

The Commission approves the Interest on Working Capital as INR 25.57 Cr. in the True- up of FY 2021-22.

4.17. Provision for Bad & Doubtful Debts

Petitioner's submission

The Petitioner has submitted that the bad and doubtful debts actually written off during FY 2021-22 is INR 4.88 Cr.

Commission's analysis:

As per Regulation 62 of the JERC MYT Regulations, 2018:

"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."

It is observed that as per the audited accounts, the licensee has not written off any bad and doubtful debts for the FY 2021-22 and only has provisioned the same in the book of accounts.

The Commission therefore has not allowed any bad and doubtful debts in the True-up of FY 2021-22.

4.18. Non-Tariff Income (NTI)

Petitioner's submission

The Petitioner has submitted NTI of INR 32.73 Cr. in the True-Up of FY 2021-22 against INR 26.32 Cr approved by the Commission in the ARR for FY 2021-22. The Non–Tariff Income as submitted by the Petitioner has been shown in the following table:

Table 85: Non- Tariff Income submitted by Petitioner (In INR Cr)

S. No	Particulars	Petitioner's Submission
1	Meter/service rent	15.76
2	Sale Proceeds of dead stock, wastepaper etc	1.27
3	Wheeling charges under open access	0.55
4	Miscellaneous Receipts/Income	15.150
5	Deferred Income (Electricity Development fund)	
6	Income from trading	
7	Total Income	32.73
8	Add: prior period income	0.00
9	**Total**	**32.73**

Commission's analysis:

Regulation 34.2 of JERC MYT Regulation, 2018 states the following:

"The delayed payment charge earned by the Transmission Licensee or the Distribution Licensee shall not be considered under its Non-Tariff Income."

The Commission has verified the submission of the Petitioner from the audited accounts and found the same to be correct. The NTI approved in the ARR Order, the Petitioner's submission and now trued-up by the Commission is shown in the following table:

Table 86: Non- Tariff Income approved by Commission (In INR Cr)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Trued-up by Commission
1	Meter/service rent	26.32	15.76	15.76
2	Sale Proceeds of dead stock, wastepaper etc		1.27	1.27
3	Wheeling charges under open access		0.55	0.55
4	Miscellaneous Receipts/Income		15.150	15.15
5	Deferred Income (Electricity Development fund)			0.00
6	Income from trading			0.00

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Trued-up by Commission
7	Total Income	26.32	32.73	32.73
8	Add: prior period income		0.00	0.00
9	**Total**	**26.32**	**32.73**	**32.73**

The Commission approves Non-Tariff Income of INR 32.73 Cr in the True-up of FY 2021-22.

4.19. Incentive/Disincentive towards over/under achievement of norms

4.19.1. Incentive on account of over-achievement of Intra- State Transmission & Distribution (T&D) loss

In the MYT Order, the Commission had approved the T&D loss level of 10.75% for FY 2021-22 against which the Petitioner has achieved T&D loss of 8.18%. The Commission, in accordance with Regulation 14.2 of the JERC MYT Regulations, 2018 (reproduced below) has determined the incentive towards the over-achievement of the target of T&D loss for the FY 2021-22 as follows:

As per Regulation 14.2 of the JERC MYT Regulations 2018,
"14.2 Approved aggregate loss, if any to the Transmission Licensee or Distribution Licensee on account of controllable factors shall be on account of the Licensee, and shall not be passed to the Consumers"

The incentive has been derived by calculating the savings in cost of power procured due to over achievement of the stipulated Intra-State T&D loss target by the Petitioner, at the Average Power Purchase cost (APPC). The APPC has been derived at State/UT Periphery based on the Power Purchase cost approved in the True-up above and the Energy at State/UT Periphery computed after grossing up the retail energy sales with the approved Intra-State T&D Loss. The following table provides the details of computation of Average Power Purchase Cost for FY 2021-22:

Table 87: Average Power Purchase Cost approved by Commission for FY 2021-22

S. No.	Particulars	Value
1	Total Power Purchase Cost (Rs Cr)	1,755.12
2	Less: Transmission charges and Power Purchase cost from renewable energy sources (Rs Cr)	480.18
3	Net Power Purchase Cost (Rs Cr)	1,274.95
4	Total Power Purchase quantum (MU)	4,539.07
5	Less: Quantum from renewable energy sources (MU)	518.40
6	Quantum of energy at State Periphery excluding quantum from renewable energy sources (MU) (B)	4,020.66
7	**APPC (Rs/kWh)**	**3.17**

The assessment of incentive for lower T&D losses is shown in the following table:

Table 88: Incentive due to over-achievement of T&D Loss target for FY 2021-22 (INR Crore)

S. No	Particulars	As per Approved Intra-State T&D Loss	Trued-up by Commission
1	Retail Sales	4019.40	4019.40
2	T&D Loss (%)	10.25%	8.18%
3	Power Purchase at State/UT Periphery	4478.44	4377.61
4	Gain/(Loss) (MU)		100.83

S. No	Particulars	As per Approved Intra-State T&D Loss	Trued-up by Commission
5	Average Power Purchase Cost (APPC)		3.17
6	Gain/ (Loss) (INR Cr)		31.97
7	**Sharing of 50% of Gain with the Petitioner**		**15.99**

The Commission determines and approves INR 15.99 Cr. as incentive on account of over-achievement of T&D loss target for the FY 2021-22.

4.20. Aggregate Revenue Requirement (ARR)

Petitioner's submission

Based on the expenses as detailed above, the net aggregate revenue requirement of INR 2309.54 Cr is submitted for approval in the True-up of FY 2021-22.

Commission's analysis

The Commission on the basis of the detailed analysis of the cost parameters of the ARR has considered and approved the revenue requirement in the True-up of FY 2021-22 as given in the following table:

Table 89: Aggregate Revenue Requirement approved by Commission for FY 2021-22 (In INR Cr)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Trued-up by Commission
1	Power Purchase Cost inclusive of cost towards compliance of RPO	1,590.40	1,730.69	1,755.12
2	Operation & Maintenance Expenses	429.58	454.11	408.96
3	Depreciation	88.18	56.66	42.81
4	Interest and Finance charges	86.15	11.50	13.68
5	Interest on Working Capital	16.61	25.92	25.57
6	Interest on Security Deposit	8.78	5.43	5.43
7	Return on Equity	107.66	53.09	50.60
8	Provision for Bad Debt	0.00	4.88	0.00
9	Provision for DSM Expenses	0.00	0.00	0.00
10	Incentive/Disincentive in under/over achievement of norms	0.00	0.00	15.99
11	**Total Revenue Requirement**	**2,327.36**	**2,342.27**	**2,318.17**
12	Less: Non-Tariff Income	26.32	32.73	32.73
13	**Net Revenue Requirement**	**2,301.04**	**2,309.54**	**2,285.44**

The Commission approves net Aggregate Revenue Requirement of INR 2285.44 Cr. in the True-up of FY 2021-22.

4.21. Revenue from Sale of Power

Petitioner's submission

The Petitioner has submitted the net actual revenue for the FY 2021-22 as INR 1,901.97 Cr against revenue of 1922.23 Cr approved by the Commission in the ARR Order. The following table provides the revenue at existing tariff as submitted by the Petitioner:

Table 90: Revenue at approved tariff submitted by the Petitioner for FY 2021-22

S. No	Category	Revenue from Demand and Energy Charges (Rs.Cr)	Revenue from FPPCA (Rs.Cr)	Total Revenue (Rs. Cr)
	A. LOW TENSION SUPPLY			
1	LTD/Domestic	318.44	24.7	343.15
2	LTD/Low Income Group	0.47	0.04	0.51
4	LTC/Commercial	187.81	15.13	202.94
5	LTP Mixed (Hotel Industries)	0.73	0.14	0.87
6	LTP Industry	37.3	3.15	40.44
7	LTAG/Agriculture (Pump sets/Irrigation)	2.64	0	2.64
8	LTAG/Agriculture (Allied Activities)	0.28	0	0.28
9	Street Light	22.66	1.15	23.81
10	Hoardings/Signboards	0.22	0.02	0.24
	Sub-Total	**570.55**	**44.33**	**614.88**
	B. HIGH TENSION SUPPLY			
11	HT-D Domestic	0.1	0.01	0.12
12	HT-C Commercial	88.07	6.66	94.74
13	HTI/ Industrial - Connected at 11/33kV	696.56	57.62	754.18
14	HTI / Industrial- Connected at 110kV	124.54	11.05	135.59
15	HT-Industrial (F/M, Steel Melt, Power Intensive)	242.53	19.38	261.92
16	HTAG/ Agriculture (Pump stets/Irrigation)	1	-	0.99
17	HTAG/Agriculture (Allied Activities)	2.22	-	2.23
18	HT.MES / Defence Establishment	15.44	1.16	16.6
	Sub Total	**1170.46**	**95.88**	**1266.37**
	C. Temporary Supply			
19	L.T Temporary Domestic	0.9	0.07	0.97
20	L.T Temporary Commercial	11.45	1.28	12.73
21	H.T. Temporary	5.21	0.31	5.51
	Sub Total	**17.56**	**1.66**	**19.21**
	D. Single Point Supply			
22	Residential Complexes			
23	Commercial Complexes	2.66	0.21	2.88
24	Industrial Complexes			
	Sub Total	**2.66**	**0.21**	**2.88**
	D. Others			

S. No	Category	Revenue from Demand and Energy Charges (Rs.Cr)	Revenue from FPPCA (Rs.Cr)	Total Revenue (Rs. Cr)
25	Unmeterd LTPL	-2.16	0	-2.16
26	RRC referred	0.21	0	0.21
27	Electric Vehicle Charging Station	0.53	0.06	0.59
	Sub Total	**-1.42**	**0.06**	**-1.36**
	Total	**1759.81**	**142.14**	**1901.97**

Commission's analysis

The Petitioner has submitted the Cabinet Letter with Reference No. 1/18/2021-GAD-II dated August 30, 2021 keeping the tariff order for FY 2021-22 in abeyance for the period from 1st April 2021 to 31st March 2022 and continuing the tariffs as approved by the Commission for FY 2019-20 except for the levy of tariffs for EV Charging station and implementation of kVAh based tariff for HT/EHT categories, thus granting the subsidy to nullify the effect of tariff hikes. It is pertinent to note that the Petitioner neither informed nor approached the Commission for the approval of abeyance of the tariff order for FY 2021-22.

The Commission would like to highlight that the Petitioner has acted beyond their jurisdiction to defy the Order of the Commission on their own accords. In such a scenario the Commission is inclined to determine the revenue at the approved tariffs to determine the amount of tariff subsidy provided by the Government of Goa. Accordingly, the Commission sought the details of category wise, slab wise and phase wise sales, connected load and number of consumers for all the categories for FY 2021-22. However, the Petitioner has submitted that they are currently not maintaining such details separately.

In absence of the details, the Commission has considered the revenue for the FY 2021-22 as per the audited books of accounts and the revenue gap as determined in the ensuing section to be met through Budgetary Support only. **Further, the Commission directs the Petitioner to comply with the Order of the Commission in the future, failing which the Commission will be forced to take the penal action.**

The Commission has verified revenue from sale of power within the State in the FY 2021-22 from the audited accounts and found certain discrepancies under the head "Unmetered LTPL" and "RRC Referred" and sought the clarifications from the Petitioner on the same.

In regard to Unmetered LTPL, the Petitioner has submitted that in the Demand Collection Balance (DCB) for the month of July 2020, the entry of INR -5446848, INR -305459 and INR -3612767 of Fixed charges, FPPCA charges & Energy charges respectively and for the month of May 2021, the entry of INR -27795870.04 (On accrual basis INR -21621938.04 needs to be rectified) of Energy charges was wrongly classified in the category Unmetered LTPL instead of metered LTPL. Actually, there was a double entry of the said amount for the respective power recorded for Govt LTPL category of Consumers which was corrected with a credit entry which was classified wrongly into Unmetered LTPL which resulted in reflection of the negative figures. The department will ensure that suitable Treatment will be taken in the Financial Statements of FY 2022-23.

In regard to RRC Referred, the Petitioner has submitted that in the Demand Collection Balance (DCB), for FY 2020-21, the entry of INR -24045467.48 was due to an error apparent in SAP. The department will ensure that the error will be rectified in the Accounts of FY 2022-23.

The category-wise revenue now Trued-up by the Commission is shown in the following table:

Table 91: Revenue at approved tariff approved by Commission for FY 2021-22 (INR Crore)

S. No	Category	Revenue from Demand and Energy Charges (Rs.Cr)	Revenue from FPPCA (Rs.Cr)	Total Revenue (Rs. Cr)
	A. LOW TENSION SUPPLY			
1	LTD/Domestic	318.44	24.7	343.15
2	LTD/Low Income Group	0.47	0.04	0.51
4	LTC/Commercial	187.81	15.13	202.94
5	LTP Mixed (Hotel Industries)	0.73	0.14	0.87
6	LTP Industry	37.3	3.15	40.44
7	LTAG/Agriculture (Pump sets/Irrigation)	2.64	0	2.64
8	LTAG/Agriculture (Allied Activities)	0.28	0	0.28
9	Street Light	22.66	1.15	23.81
10	Hoardings/Signboards	0.22	0.02	0.24
	Sub-Total	**570.55**	**44.33**	**614.88**
	B. HIGH TENSION SUPPLY			
11	HT-D Domestic	0.1	0.01	0.12
12	HT-C Commercial	88.07	6.66	94.74
13	HTI/ Industrial - Connected at 11/33kV	696.56	57.62	754.18
14	HTI / Industrial- Connected at 110kV	124.54	11.05	135.59
15	HT-Industrial (F/M, Steel Melt, Power Intensive)	242.53	19.38	261.92
16	HTAG/ Agriculture (Pump stets/Irrigation)	1.00	-	0.99
17	HTAG/Agriculture (Allied Activities)	2.22	-	2.23
18	HT.MES / Defence Establishment	15.44	1.16	16.6
	Sub Total	**1170.46**	**95.88**	**1266.37**
	C. Temporary Supply			
19	L.T Temporary Domestic	0.9	0.07	0.97
20	L.T Temporary Commercial	11.45	1.28	12.73
21	H.T. Temporary	5.21	0.31	5.51
	Sub Total	**17.56**	**1.66**	**19.21**
	D. Single Point Supply			
22	Residential Complexes			
23	Commercial Complexes	2.66	0.21	2.88
24	Industrial Complexes			
	Sub Total	**2.66**	**0.21**	**2.88**
	D. Others			
25	Electric Vehicle Charging Station	0.53	0.06	0.59
	Sub Total	**0.53**	**0.06**	**0.59**
	Total	**1761.76**	**142.14**	**1903.93**

The Commission approves the revenue from the sale of power as INR 1903.93 Cr. in the True-up of the FY 2021-22.

4.22. Standalone Revenue Gap/ (Surplus)

Petitioner's submission

Based on the ARR submitted and the revenue from retail tariff, the standalone revenue gap of INR 407.57 Cr is arrived at in the True-up of FY 2021-22.

Commission's analysis

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

Table 92: Standalone Revenue Gap/ (Surplus) determined by Commission for FY 2021-22 (In INR Cr)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Trued-up by Commission
1	Net Revenue Requirement	2,301.04	2,309.54	2,285.44
2	Revenue from Tariff including FPPCA	1,922.23	1,901.97	1,903.93
3	**Net Gap / (Surplus)**	**378.81**	**407.57**	**381.51**
4	Less: Budgetary Support from Govt	378.81	407.57	381.51
5	**Net Final Revenue Gap to be carry forward**	**NIL**	**NIL**	**NIL**

The Commission, in the True-up of FY 2021-22 approves a standalone gap of INR 381.51 Cr. The Petitioner has submitted that the entire gap for the FY 2021-22 is committed to be funded by the Government of Goa by way of budgetary support. The Petitioner in this regard has submitted the letter with Reference No. 1/14/2019-FIN(Bud)/57 dated 7th January 2021 from the Government of Goa wherein the Govt. had assured that it would provide the requisite budgetary support to meet the deficit for the FY 2021-22. Accordingly, no revenue gap is carried forward in the future years.

Annexures

1.1. List of stakeholders who attended the public hearing

Annexure 1: List of Stakeholders who attended the Public hearing on 13th July 2023 at Institute Menezes Braganza, Panaji, Goa

Table 93: List of Stakeholders

S. No.	Name of Person (Mr/Ms)
1	Roland Martins
2	Dilip Sahakari
3	Gerard D'mello
4	Joseph D'souza
5	J.B.Pinto
6	Sanjay Amonkar
7	Kiran Ballikar
8	Newton Sequeira
9	Ashley do Rosario
10	Charles Dias
11	William Rodrigues
12	Shoma Patnaik

Annexure 2: List of Stakeholders who attended the Public hearing on 14th July 2023 at Ravindra Bhavan, Margao, Goa

Table 94: List of Stakeholders

S. No.	Name of Person (Mr/Ms)
1	Roland Martins
2	Martin Rodrigues
3	Joaquim Mascarenhas
4	Venkatesh Desai
5	Basilio Fernandes
6	Govind Pingle
7	Manoj Sail
8	Rajan Naik
9	Dilip Prabhudessai
10	Ramona Almeida
11	Mangesh Borkar
12	Orlando Mesquita
13	Savio Dias
14	Sandeep Tuenkar
15	Priya Shanbhag
16	Gaurang Prabhu
17	Sherwyn Correia
18	Santosh Marathe