

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 57/MP/2018

Coram:

Shri P.K. Pujari, Chairperson

Shri A.K. Singhal, Member

Dr. M.K. Iyer, Member

Date of Order: 30th of August, 2018

In the matter of

Petition under Section 28(4) of Electricity Act, 2003 read with Regulation 6 and Regulation 29 of Central Electricity Regulatory Commission (Fees and Charges of Regional Load Despatch Centre and other related matters) Regulations, 2015 for approval of Performance Linked Incentive for SRLDC for the financial year 2016-17 with reference to SRLDC Charges for the control period 1.4.2014 to 31.3.2019.

And

In the matter of

Southern Regional Load Despatch Centre,
Power System Operation Corporation Ltd. (POSOCO)
No. 29, Race Course Cross Road, Bengaluru-560009

...Petitioner

Vs.

1. The CMD

APTRANSCO, Vidyut Soudha
Hyderabad-500082, Telangana

2. The CMD

TSTRANSCO, Vidyut Soudha
Hyderabad-500082, Telangana

3. The Managing Director

PCKL, KPTCL Building
Cauvery Bhavan, Bangalore-560009
Karnataka,

4. The Chairman

KSEB, Vaidyuthi Bhavanam
Pattom, Trivandrum-695004
Kerala

5. The Chairman
TNEB, 144, Anna Salai
Chennai-600002, Tamil Nadu

6. The Superintending Engineer
Puducherry, Electricity Dept. of Pondicherry
Pondicherry-605001

7. The Chief Engineer (Electrical)
Goa Electrical Board, Office of Chief Electrical Engineer (Electrical)
Govt. of Goa, Vidyuth Bhavan
3rd Floor, Panaji, Goa-403001

8. The Executive Director
Powergrid HVDC,
Southern Regional Transmission System-II
Near RTO Driving Test Track
Singanayakanhalli, Yelahanka
Bangalore-560064, Karnataka

9. The General Manager
Ramagundam STG I & II
NTPC, RSTPS, Jyothui Nagar
Dist. Karim Nagar
Telangana-505215

10. The General Manager
Ramagundam STG III
NTPC, RSTPS, Jyothui Nagar
Dist. Karim Nagar
Telangan-505215

11. The General Manager
Simhadri STG-II, NTPC, District-Viskhapatnam
Simhadri-531020, Andhra Pradesh

12. The Executive Director
NTPC, Talcher Stg-III
NTPC, Kaniha, Deepshikha
P.O., District-Angul-759147
Orissa

13. The DGM (O&M)
Kudgi STPP, NTPC, T.K. Basavana Bagewadi
Bijapur, Dist. 586121
Karnataka

14. The Chief General Manager
NLC TPS II STG I, Neyveli Lignite Corporation Ltd.
Thermal Power Station II
Neyveli-607801
Tamil Nadu

15. The Chief General Manager
NLC TPS II STG II, Neyveli Lignite Corporation Ltd
Thermal Power Station II
Neyveli-607801
Tamil Nadu

16. The Chief General Manager
NLC TPS I Expansion
Neyveli Lignite Corporation Ltd
Thermal Power Station I (Expn.)
Neyveli-607801
Tamil Nadu

17. The Chief General Manager
NLC TPS II Expansion
Neyveli Lignite Corporation Ltd
Thermal Power Station II (Expn.)
Neyveli-607801
Tamil Nadu

18. The Station Director (MAPS)
Nuclear Power Corporation of India Ltd.
Madras Atomic Power Station
Kalpakkam-603102
Tamil Nadu

19. The Station Director (KGS Units 1 & 2)
Nuclear Power Corporation of India Ltd
Kaiga Generating Station
Kaiga-581400, Karwar, Karnataka

20. The Station Director (KGS Units 3 & 4)
Nuclear Power Corporation of India Ltd
Kaiga Generating Station
Kaiga-581400, Karwar, Karnataka

21. The Station Director (KNPP Unit-1)
Kudankulam Nuclear Power Project
Nuclear power Corporation of India Ltd

Kudankulam Post, Radhapuram Taluk-627106
Tamil Nadu

22. The Station Director (KNPP Unit-2)
Kudankulam Nuclear Power Project
Nuclear power Corporation of India Ltd
Kudankulam Post, Radhapuram Taluk-627106
Tamil Nadu

23. The General Manager
NTPC Tamil Nadu Energy Company Ltd
Vallur Thermal Power Project
Vellivoyalchavadi Post
Poneri Taluck
Tiruvallur Dist, Chennai-600013, Tamil Nadu

24. The General Manager
NLC Tamil Nadu Power Limited
2*500 MW JV Thermal Power Project
Harbour Estate
Tuticorin-628004, Tamil Nadu

25. The Executive Director
Lanco Kodapalli St-II
Lanco Kondapalli Power Pvt. Ltd
Kondapalli, Ibrahimpatna Mandal-521228
Telangana

26. The Executive Director
Lanco Kodapalli St-III
Lanco Kondapalli Power Pvt. Ltd
Kondapalli, Ibrahimpatna Mandal-521228
Telangana

27. The CMD
Meenakshi Energy Pvt. Ltd
NSL ICON, Plot No. 1, 2, 3, 4, H No. 8-2-684/2/A
2nd Floor, Road No. 12, Banjara Hills
Hyderabad-500034, Telangana

28. The General Manager
Simhapuri Energy Limited
Madhucon Green Lands
6-3-866/2, 3rd Floor, Begumpet
Hyderabad-560016, Telangana

29. The President and CEO
Coastal Energen Pvt. Ltd
7th Floor, Buhari Towers
No. 4, Moores Road
Chennai-600006, Tamil Nadu

30. The Chief Commercial Officer (CCO)
Thermal Powertech Corporation India Ltd.
6-3-1090, A-BLOCK
5th Floor, TSR Towers
Raj Bhavan Road, Somajiguda
Hyderabad-500082, Telangana

31. The AGM-Electrical
IL&FS Tamil Nadu Power Company Limited
C. Pudhupettai (Post), Parangipettai (Via)
Chidambaram (TK), Cuddalore-608502
Tamil Nadu

32. The GM Operations
Sembcorp Gayatri Power Ltd
TP Gudur Mandal
Nellore-524344
Andhra Pradesh

33. The Executive Director
POWERGRID ISTS
Southern Regional Transmission System-II
Near RTO Driving Test Track
Singanayakanhalli, Yelahanka
Bangalore-560064
Karnataka

34. The Project in Charge
Raichur Sholapur Transmission Company Limited
Patel Estates
S.V. Road, Jogeshwari (West)
Mumbai-400102, Maharashtra

35. The Project in Charge
Kudgi Transmission Ltd.
Building No. 3, Second Floor
Sudeep Plaza, MLU Sector-11
Pocket-4, Dwarka
New Delhi-110075

36. The Project in Charge
Powergrid Vizag Transmission Ltd.
Vizag 400 kV SS, Sector 10,
Ukkanaguram, Vishakapatnam-530032
Andhra Pradesh

37. The CEO
Powergrid NM Transmission Ltd., SRTS-II
Near RTO Driving Track
Singanayakanahalli
Yelahanka-Doddaballapur Road
Bengaluru-560064
Karnataka

.....Respondents

Parties Present:

Shri Venkateshan M. SRLDC, POSOCO

ORDER

The Petitioner, Southern Regional Load Despatch Centre (hereinafter referred to as "SRLDC"), has filed the present petition under Section 28(4) of Electricity Act, 2003 (hereinafter referred to as 'the Act') read with Regulations 6 and 29 of Central Electricity Regulatory Commission (Fees and Charges of Regional Load Despatch Centre and other related matters) Regulations, 2015 (hereinafter referred to as "Fees and Charges Regulations") for approval of Performance Linked Incentive (hereinafter referred to as "PLI") for SRLDC for the financial year 2016-17 for the control period 1.4.2014 to 31.3.2019.

2. Brief facts of the case leading to the filing of the petition and subsequent developments after the filing of the petition are capitulated as under:

(a) The Petitioner setup under Section 27 of the Act performs functions specified in Section 28 of the Act. NLDC and RLDCs are operated by Power

System Operation Corporation Limited (POSOCO) in accordance with Government of India, Ministry of Power's notification dated 27.9.2010.

(b) As per Regulation 29 (1) to 29 (3) of the Fees and Charges Regulations, the recovery of performance linked incentive by NLDC and RLDCs shall be based on the achievement of Key Performance Indicators (KPIs) as specified in Appendix V of the Fees and Charges Regulations or other such parameters as specified by the Commission.

(c) As per Regulation 29(6) of the Fees and Charges Regulations, RLDCs or NLDC are required to compute the KPIs on annual basis for the previous year ending 31st March and submit to the Commission for approval as per Appendix V and VI of the Fees and Charges Regulations.

(d) As per methodology specified in Appendix-V of the Fees and Charges Regulations, KPI score for SRLDC for the year 2016-17 ending 31.3.2017 has been computed as under:

Sl. No	Key Performance Indicators	Weightage	Previous Year (as allowed by CERC (2015-16))	Current Year (2016-17)
1	Reporting of Interconnection meter error	10	10	10.00
2	Reporting of Grid Incidents and Grid Disturbance	10	10	10.00
3	Average processing time of shut down request	10	10	10.00
4	Availability of SCADA System	10	9.998	10.00
5	Voltage Deviation Index (VDI)	10	0	10.00
6	Frequency Deviation Index (FDI)	10	10	10.00
7	Reporting of System Reliability	10	7.778	10.00

8	Availability of Website	10	10	10.00
9	Availability of Standby Supply	5	5	5.00
10	Variance of Capital expenditure	5	4.65	4.481
11	Variance of Non Capital expenditure	5	5	4.962
12	Percentage of Certified Employee	5	5	4.956
	Total	100	87.426	99.399

(e) As per the methodology provided in Regulation 29 (5) of Fees and Charges Regulations, the Petitioner is entitled to recover 7% of annual charges for aggregate performance level of 85% for three years commencing from 1.4.2014. The incentive shall increase by 1% of annual charges for every 5% increase of performance level above 90%. Accordingly, recovery of Performance Linked Incentive for the year 2016-17 works out as 8.880% of the annual charges (for 90-95% additional 1% and for 95% to 99.399% additional 0.880%).

3. Against the above background, the Petitioner has filed the present petition with the following prayers:

“(a) Approve the proposed performance linked incentive based on the KPIs computed by SRLDC for the year ending 31.03.2017 given at para 5, the KPI score given at para 6 and PLI percentage of Annual Charges of the year 2016-17 as per para 7 above.

(b) Allow the Applicant to recover the above mentioned incentives from the users for the year 2016-17 as approved by the Hon'ble Commission.

(c) Pass such other order(s) as the Hon'ble Commission deems fit and appropriate in this case and in the interest of justice.”

4. The petition was heard on 5.4.2018 and notices were issued to the Respondents to file their replies. However, no reply has been filed by the Respondents despite notice. Vide Record of Proceedings for hearing dated 5.4.2018, the Petitioner was directed to file the following information:

- (a) Whether the Petitioners have informed the Commission about each incident of grid disturbance as required under Appendix VI of the Central Electricity Regulatory Commission (Fees and Charges of Regional Load Despatch Centre and other related matters) Regulations, 2015.
- (b) With regard to Voltage Deviation Index (VDI), submit the details of No. of hours the voltage at all sub-Stations of 400 kV and above was out of range in a month.
- (c) With regard to Frequency Deviation Index (FDI), submit the details of No. of hours during which frequency was out of range in a month.
- (d) Submit the following with regard to System Reliability, (i) % of times N-1 criteria was violated in the inter-regional corridors, (ii) % of times ATC violated on inter-regional corridors, (iii) % of time Angular difference on important buses was beyond permissible limit.

5. The Petitioner vide affidavit dated 7.5.2018 has submitted the information called for which has been dealt with in succeeding paras of this order.

6. The present petition has been filed under Regulations 6 and 29 of the Fees and Charges Regulations for approval of Performance Linked Incentive for the financial year 2016-17. Regulations 6 and 29 are extracted as under:

“6. Application for determination of fees and charges:

(1) The RLDCs and NLDC shall make application in the formats annexed as Appendix I to these regulations within 180 days from the date of notification of these Regulations, for determination of fees and charges for the control period, based on capital expenditure incurred and duly certified by the auditor as on 1.4.2014 and projected to be incurred during the control period based on the CAPEX and the REPEX.

(2) The application shall contain particulars such as source of funds, equipments proposed to be replaced, details of assets written off, and details of assets to be capitalized etc.

(3) Before making the application, the concerned RLDC or NLDC, as the case may be, shall serve a copy of the application on the users and submit proof of service along with the application. The concerned RLDC or NLDC shall also keep the complete application posted on its website till the disposal of its petition.

(4) The concerned RLDC or NLDC, as the case may be, shall within 7 days after making the application, publish a notice of the application in at least two daily

newspapers, one in English language and one in Indian modern language, having circulation in each of the States or Union Territories where the users are situated, in the same language as of the daily newspaper in which the notice of the application is published, in the formats given in Appendix II to these regulations.

(5) The concerned RLDC or NLDC, as the case may be, shall be allowed the fees and charges by the Commission based on the capital expenditure incurred as on 1.4.2014 and projected to be incurred during control period on the basis of CAPEX and REPEX duly certified by the auditor in accordance with these Regulations:

Provided that the application shall contain details of underlying assumptions and justification for the capital expenditure incurred and the expenditure proposed to be incurred in accordance with the CAPEX and REPEX.

(6) If the application is inadequate in any respect as required under Appendix-I of these regulations, the application shall be returned to the concerned RLDC or NLDC for resubmission of the petition within one month after rectifying the deficiencies as may be pointed out by the staff of the Commission.

(7) If the information furnished in the petition is in accordance with the regulations and is adequate for carrying out prudence check of the claims made the Commission shall consider the suggestions and objections, if any, received from the respondents and any other person including the consumers or consumer associations. The Commission shall issue order determining the fees and charges order after hearing the petitioner, the respondents and any other person permitted by the Commission.

(8) During pendency of the application, the applicant shall continue to bill the users on the basis of fees and charges approved by the Commission during previous control period and applicable as on 31.3.2014, for the period starting from 1.4.2014 till approval of the Fees and Charges by the Commission, in accordance with these Regulations.

(9) After expiry of the control period, the applicant shall continue to bill the users on the basis of fees and charges approved by the Commission and applicable as on 31.3.2019 for the period starting from 1.4.2019 till approval of fees and charges under the applicable regulations.”

“29. Performance linked incentive to RLDCs and NLDC:

(1) Recovery of incentive by the Regional Load Despatch Centre shall be based on the achievement of the Key Performance Indicators as specified in Appendix V or such other parameters as may be prescribed by the Commission.

(2) Each Regional Load Despatch Centre shall submit its actual performance against each of the key performance indicators to the Commission on annual basis as per the format specified in Appendix V.

(3) NLDC shall submit the details in regards to each Key Performance Indicator in the format specified in Appendix V along with the methodology for approval of the Commission.

(4) The Commission shall evaluate the overall performance of the RLDCs or NLDC, as the case may be, on the basis of weightage specified in Appendix V. The Commission, if required, may seek advice of the Central Electricity Authority for evaluation of the performance of system operator.

(5) The RLDCs or NLDC, as the case may be, shall be allowed to recover incentive of 7% of annual charges for aggregate performance level of 85% for three years commencing from 1.4.2014 and for aggregate performance level of 90% from 1.4.2017. The incentive shall increase by 1% of annual charges for every 5% increase of performance level above 90%: Provided that incentive shall be reduced by 1% of annual charges on prorata basis for the every 3% decrease in performance level below 85%.

(6) The RLDCs or NLDC, as the case may be, shall compute the Key Performance Indicators on annual basis for the previous year ending on 31st March and submit to the Commission along with petitions for approval of the Commission as per Appendix V and Appendix VI of these Regulations:

Provided that the key performance indicators of previous year ending on 31st March shall be considered to recover incentive on each year and shall be trued up at the end of the control period.”

7. In light of the above provisions, we have considered the Petitioner’s claim for PLI. The Petitioner has submitted that the Commission has notified the various performance indicators and their weightage for determination of fees and charges in the Fees and Charges Regulations and performance on these KPIs has been quantified to make it measurable. The Petitioner has submitted KPI-wise details which have been dealt with in the succeeding paragraphs:

A. Reporting of Inter-connection metering error (Parameter-1):

8. The Petitioner has submitted that the meter readings are processed on weekly basis and an error could only be detected after processing the same and after going through the validation process. According to the Petitioner, RLDCs are reporting the meter errors on weekly basis and these are made available on web sites as per the recommendations specified in the Fees and Charges Regulations. Therefore, the possible number of reports

in a year is 52 which have been converted to percentage based on the actual reporting. Percentage performance has been proportionately converted to marks scored.

9. The total weightage given for this parameter is 10. The Petitioner has submitted performance-wise details as under:

Performance during financial year 2016-17 (In %) A* =	100
Marks scored (In proportion of the percentage performance above)	10
*Formula for performance calculation	[No. of weekly reports issued /52 (Total no. of Weeks)]*100

10. The Petitioner has submitted that as per Regulation 2.3.2 of the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 (Grid Code), RLDCs are responsible for meter data processing. Accordingly, problems related to meters including those installed at inter-regional/inter-national tie points are reported by RLDCs concerned to the utilities for corrective action. The Petitioner has submitted that as per Regulation 6.4.22 of the Grid Code, computations on metering data are to be made available to the regional entities for checking/verifications for a period of 15 days. Accordingly, the data on inter-connection meter error is made available in Public Domain on regular basis for checking/verifications of regional entities. The Petitioner has submitted that information regarding inter-connection meter error is published on SRLDC website, i.e <http://srlcdc.org/weekly%120Sem%20Data%2016-17.aspx?yr=2016-17> and the discrepancy reports are discussed in detail in the different forum at RPC level.

11. We have considered the submission of the Petitioner. Since, the Petitioner has complied with the provisions of the Regulation 6.4.22 of the Grid Code, the claims of the

Petitioner for weightage factor for reporting of inter-connection meter error is allowed for the purpose of incentive.

B. Reporting of Grid Incidents and Grid Disturbance (Parameter 2):

12. The Petitioner has submitted that grid incidents and grid disturbances are compiled with on monthly basis and the same is forwarded to NLDC for further compilation on National basis for further reporting to the Commission on consolidated basis. As the reporting on grid incidences and grid disturbances is generated on monthly basis, target reports to be generated have been considered to be 12. The Petitioner has submitted that percentage performance has been measured based on the actual number of reports generated, which has been proportionately converted to marks scored.

13. The Petitioner has submitted that as against the total weightage of 10 for parameter reporting of grid incidents and grid disturbance, actual incidents of such events during the financial year 2016-17 are as under:

Grid Incidents and Grid Disturbance for financial year 2016-17			
Category	Count (Nos)	Recovery period (Hrs)	Loss of Energy (MUs)
GI-1	24	36:08:00	1.77
GI-2	36	136:52:00	0.00
GD-1	40	245:29:00	17.52
GD-2	0	0 : 00 :00	0.00
GD-3	0	0 : 00 :00	0.0
GD-4	0	0 : 00 :00	0.10
GD-5	0	0 : 00 :00	0.33
All	100	418:29:00	19.28

14. Vide Records of Proceedings for the hearing dated 5.7.2018, the Petitioner was directed to clarify whether it has informed the Commission about each incident of grid

disturbance as required under Appendix VI of the Fees and Charges Regulations. The Petitioner vide its affidavit dated 7.5.2018 has submitted the incidences of grid incidents/ disturbances are being reported by the RLDCs to NLDC on a monthly basis which are thereafter compiled and are independently verified by National Load Despatch Center and the same are reported to the Commission on monthly basis as a part of Monthly Operational Report issued by National Load Despatch Center in accordance with Grid Code. The Petitioner has submitted that copy of the report is made available on public domain on POSOCO's website i.e <https://posoco.in/reports/monthly-reports/>. The Petitioner has submitted the details of the report for the financial year 2016-17 as under:

Sl. No.	Month	Date of Reporting
1	April 2016	23 rd May 2016
2	May 2016	23 rd June 2016
3	June 2016	22 nd July 2016
4	July 2016	22 nd August 2016
5	August 2016	23 rd September 2016
6	September 2016	21 st October 2016
7	October 2016	23 rd November 2016
8	November 2016	23 rd December 2016
9	December 2016	23 rd January 2017
10	January 2017	23 rd February 2017
11	February 2017	23 rd March 2017
12	March 2017	21 st April 2017

15. The Petitioner has submitted performance-wise details as under:

Performance during financial year 2016-17 (In %) * =	100
Marks scored(In proportion of the percentage performance above)	10
*Formula for performance calculation :	(No. of Monthly reports issued /12) *100

16. We have considered the submission of the Petitioner. Perusal of the above reveals that the Petitioner is reporting incident of grid disturbance each month to the Commission. As per our direction, the Petitioner has placed on record the details of reporting.

Accordingly, the claims of the Petitioner for weightage factor for reporting of grid incidents and grid disturbance is allowed for the purpose of incentive.

C: Average processing time of shut down request (Parameter 3):

17. The Petitioner has submitted that the shut-down process uniform across all the RLDCs, has been discussed and approved at RPC level. Time allowed to NLDC and RLDCs for approval of the shut-down requests is 26 hours and 50 hours (including NLDC Time) respectively. This methodology has been devised considering primarily the planned outages approved in the monthly OCC meetings of RPCs which are processed by RLDCs on D-3 basis (3-day ahead of actual day of outage) based on confirmation from the shutdown requesting agency and then prevailing grid conditions. The Petitioner has submitted that RLDCs after processing the shut down requests at regional level forward the list to NLDC for impact assessment at national level. After clearance from NLDC, the final list of cleared shut down requests is intimated by respective RLDCs to the requesting agencies on D-1 (i.e. one day ahead of the proposed date of outage). The Petitioner has submitted that as per the formula used for calculating KPI score for this parameter, performance will be considered 100%, if the time taken for processing shut down requests is less than the prescribed time i.e. 26 hours for NLDC and 50 Hours for RLDCs. If the time taken is more than the prescribed time, then the performance will come down in the same proportion e.g. if the time taken in processing the request is more than 5% of the prescribed time then the percentage performance will be 95%. Percentage performance has been proportionately converted to marks scored.

18. The total weightage for the parameter “average processing time of shut down request is 10. The Petitioner has submitted average processing time of shut down request during the financial year 2016-17 as under:

S.No.	Month	Total No of shutdown request in a month (B)	Total time (hrs) taken to approve the shutdown in a month(A)	Total time(hrs) taken to approve the shutdown in a month/Total No of shutdown requests in a month(C=A/B)
1	Apr'16	61	1139.12	18.67
2	May'16	57	1006.83	17.65
3	June'16	50	832.37	16.65
4	July'16	161	3103.00	19.27
5	Aug'16	131	2639.00	20.15
6	Sep'16	195	4191.00	21.49
7	Oct'16	228	4872.00	21.37
8	Nov'16	283	6006.00	21.22
9	Dec'16	324	6120.00	18.89
10	Jan'17	339	7118.00	21.00
11	Feb'17	355	7067.00	19.91
12	Mar'17	429	8017.00	18.69
	Total	2613.00	49851.00	19.08

For SRLDC

Performance during the financial year 2016-17 (In percentage)	100
Marks scored (In proportion of the percentage performance above)	10
*Formula for performance calculation	$IF((A-B*50)>0,(1-(A-B*50)/(B*50))*100,100)$

19. The Petitioner has submitted that the procedure to streamline the process of transmission outage coordination between SLDCs, RLDCs, NLDC, RPCs and Indenting Agencies was developed by NLDC in 2015 and was approved in OCC forum. As per the approved process, RLDC approves the shutdown requests of inter-State transmission lines and NLDC approves the shut down requests for inter-regional and all 765 KV transmission lines. Therefore, SRLDC consults NLDC for approval of outage requests. Relevant extract of Operating procedure of Southern Region section 4.2.2 is as under:

“(e) The Detailed outage procedure will be as per NLDC “Procedure for Transmission Elements Outage Coordination” as amended from time to time enclosed at Annexure 20.”

The relevant extracts of NLDC Outage Procedure is as under:

“6. Procedure for approval of outage on D-3 basis

6.1. Planned Outages which have been approved in the OCC meeting of a region shall be considered for approval by RLDCs/NLDC on D-3 basis. This practice is necessary to realize the seriousness and readiness of the agency which indented the outage request in the first place as it is observed that many outages are not availed as per the monthly scheduled. IN case the agency indenting the shutdown does not plant to avail the outage, RLDCs must be informed at least 3 days in advance.

6.2. Request for outage which are approved by OCC must be sent by the owner of the transmission asset at least 3 days in advance to respective RLDC by 1000 hours. If an outage is to be availed on say 10th of the month, the indenting agency would forward such requests to the concerned RLDC on 7th of the month by 1000 hours.

6.3. In case the owner is not availing the OCC approved outage, the same shall be intimate to the respective RLDC at least 3 days in advance.

6.4. Any planned outage which is not approved in OCC shall not be considered.

20. The Petitioner has submitted that as per the above procedure, total time allowed for approval of the shutdown requests to RLDCs including NLDC is 50 hours (1000 hrs of D-3 to 1200 hrs of D-1). Out of these 50 hours, time allowed to NLDC is 26 hours (1000 hrs of D-2 to 1200 hrs of D-1).

21. We have considered the submission of the Petitioner. As per Appendix VI of the Fees and Charges Regulations, weightage for average processing time of shut down request is considered as 10 out of 10.

D. Availability of SCADA (Parameter 4):

22. The Petitioner has submitted that SCADA system at SRLDC Main Control Centre acquires real time data from Remote Terminal Unit (RTU) /Sub-station Automation

System (SAS) for Central Sector Stations and IPPs, ISTS sub-stations in Southern Region, either through Unified Load Despatch and Communication (ULDC) network or through POWERTEL communication network. The Petitioner has submitted that telemetered data for State Sector Stations report to SRLDC through respective SLDCs over the inter control centre communication protocol (ICCP), primarily using the ULDC network. The Petitioner has submitted that SRLDC has backup control centre at different location receiving telemetered data independently through terminal server and State back control centers. The Petitioner has submitted that SRLDC has ensured redundant data links from all terminal server locations with dual reporting to both main and backup control centers. The Petitioner has submitted that critical infrastructure of SRLDC SCADA is redundant at server level as well as network level to ensure hot standby operation and continuous availability in case of any contingency. In case, data at main control centre is not available, then back-up control centre is utilized to visualize the real-time data. Due to different level of hierarchy of back-ups, SRLDC is able to achieve zero downtime of the SCADA system. The Petitioner has submitted that as these systems are under comprehensive maintenance with the OEM, records of all the incidences are maintained which also has financial implication to the AMC vendor and records for KPI are made in the accordance with it.

23. The total weightage for this parameter is 10. The Petitioner has submitted percentage availability of 12 months (April 2016 to march, 2017) as 100. The marks claimed by the Petitioner are as under:

Performance during the financial year 2016-17*	100
Marks scored (In proportion of the percentage	10

performance above)	
* Average of 12 months	

24. We have considered the submission of the Petitioner. We have worked out the average of 12 months as (100+ 100+ 100+ 100+ 100+ 100+ 100+ 100+ 100+ 100+ 100+ 100)/12=100. Accordingly, the marks scored for availability of SCADA has been allowed as 10 out of 10.

E. Voltage Deviation Index (Parameter 5):

25. The total weightage for the parameter Voltage Deviation Index (VDI) is 10. The Petitioner has submitted the details of VDI as under:

KPI-5: Voltage Deviation Index (VDI)				
Name of the Region: Southern Regional Load Despatch Centre				
S. No.	Name of the 400/765 kV substation	Intimation to utilities through Daily reports for corrective action or not	Intimation to utilities through weekly reports for corrective action or not	Intimation to utilities through monthly reports for corrective action or not
A	B	C	D	E
1	ARASUR	Yes	Yes	Yes
2	BIDADI	Yes	Yes	Yes
3	BHADRAVATHI	Yes	Yes	Yes
4	CUDDPAH	Yes	Yes	Yes
5	GAZUWAKA	Yes	Yes	Yes
6	GHANAPUR	Yes	Yes	Yes
7	GOOTY	Yes	Yes	Yes
8	HASAN	Yes	Yes	Yes
9	HIRIYUR	Yes	Yes	Yes
10	HOSUR	Yes	Yes	Yes
11	KAIGA	Yes	Yes	Yes
12	KARAIKUDI	Yes	Yes	Yes
13	KUDANKULAM	Yes	Yes	Yes
14	KHAMMAM	Yes	Yes	Yes
15	KALIVINDAPATTU	Yes	Yes	Yes
16	KOCHI	Yes	Yes	Yes
17	LANCO	Yes	Yes	Yes
18	MADURAI	Yes	Yes	Yes
19	MEPL	Yes	Yes	Yes

20	MUNIRABAD	Yes	Yes	Yes
21	MYSORE	Yes	Yes	Yes
22	NELLORE	Yes	Yes	Yes
23	NELLORE PS	Yes	Yes	Yes
24	NYVELI ST2	Yes	Yes	Yes
25	NYVELI 1 EXP	Yes	Yes	Yes
26	NYVELI 2 EXP	Yes	Yes	Yes
27	NARENDRA	Yes	Yes	Yes
28	NAGARJUNASAG AR	Yes	Yes	Yes
29	NUNNA	Yes	Yes	Yes
30	PALAKKAD	Yes	Yes	Yes
31	PONDY	Yes	Yes	Yes
32	PUGULUR	Yes	Yes	Yes
33	RAMAGUNDAM	Yes	Yes	Yes
34	SALEM	Yes	Yes	Yes
35	SEPL	Yes	Yes	Yes
36	SIMHADRI ST2	Yes	Yes	Yes
37	SRIPERAMBUDU R	Yes	Yes	Yes
38	TALRC	Yes	Yes	Yes
39	TRICHUR	Yes	Yes	Yes
40	TRICHY	Yes	Yes	Yes
41	TIRUNELVELI	Yes	Yes	Yes
42	TRIVENDAM	Yes	Yes	Yes
43	UDUMALPET	Yes	Yes	Yes
44	VALLUR	Yes	Yes	Yes
45	WARANGAL	Yes	Yes	Yes
46	YELHANKA	Yes	Yes	Yes
47	MADAKADRA	Yes	Yes	Yes
48	ALAMATHY	Yes	Yes	Yes
49	METT	Yes	Yes	Yes
50	NCTPS ST2	Yes	Yes	Yes
51	SALEM TN	Yes	Yes	Yes
52	SRIPERAMBUDU R TN	Yes	Yes	Yes
53	SVCHATRAM	Yes	Yes	Yes
54	BOOPALPALLY	Yes	Yes	Yes
55	CHITTOOR	Yes	Yes	Yes
56	DICHIPALLY	Yes	Yes	Yes
57	GAJWEL	Yes	Yes	Yes
58	GMR	Yes	Yes	Yes
59	GOUTHAMI	Yes	Yes	Yes
60	GVK	Yes	Yes	Yes
61	KONASEEMA	Yes	Yes	Yes
62	KONASEEMA	Yes	Yes	Yes
63	KTPS	Yes	Yes	Yes
64	MAHABOOBNAG AR	Yes	Yes	Yes

65	MALKARAM	Yes	Yes	Yes
66	MAMIDIPALLI	Yes	Yes	Yes
67	NARNOOR	Yes	Yes	Yes
68	NELLORE AP	Yes	Yes	Yes
69	SHANKARA PALLI	Yes	Yes	Yes
70	SIMHADRI ST1	Yes	Yes	Yes
71	SRISAILAM	Yes	Yes	Yes
72	VEMAGIRI	Yes	Yes	Yes
73	VTPS	Yes	Yes	Yes
74	VTSO2	Yes	Yes	Yes
75	KRISHNAPATNA M	Yes	Yes	Yes
76	BTPS	Yes	Yes	Yes
77	GUTTUR	Yes	Yes	Yes
78	HOODY	Yes	Yes	Yes
79	JINDAL	Yes	Yes	Yes
80	NEELAMANGALA	Yes	Yes	Yes
81	RTPS	Yes	Yes	Yes
82	TALAGUPPA	Yes	Yes	Yes
83	UPCL	Yes	Yes	Yes
84	TALAC	Yes	Yes	Yes
85	SOMANAHALLI	Yes	Yes	Yes
86	COASTAL ENERGN	Yes	Yes	Yes
87	TPCIL	Yes	Yes	Yes
88	NTPL	Yes	Yes	Yes
89	TIRUVALLAM	Yes	Yes	Yes
90	KARNOOL	Yes	Yes	Yes
91	RAICHUR PG	Yes	Yes	Yes
92	SATTENAPALLI	Yes	Yes	Yes
93	KOLAR	Yes	Yes	Yes
94	TIRUVALLAM TN	Yes	Yes	Yes
95	KAYATHAR	Yes	Yes	Yes
96	TUTICORAN PS	Yes	Yes	Yes
97	ILFS	Yes	Yes	Yes
98	NELLORE 765	Yes	Yes	Yes
99	KURNOOL 765	Yes	Yes	Yes
100	RAICHUR 765	Yes	Yes	Yes
101	TIRUVALLAM 765	Yes	Yes	Yes

26. Vide Record of Proceedings for the hearing dated 5.7.2018, the Petitioner was directed to submit the details of No. of hours the voltage at all sub-stations of 400 kV and above and clarify whether these were out of range in a month. The Petitioner vide its

affidavit dated 7.5.2018 has submitted that number of hours, the voltage remained out of the range stipulated in the Grid Code for all 12 months in the financial year 2016-17 (April 2016 to March 2017). The Petitioner has submitted that in compliance to the KPI-5 w.r.t the Appendix-VI of the Fees and Charges Regulations, SRLDC uploads the information regarding VDI on its website on daily, weekly and monthly basis as a part of its daily, weekly and monthly reports. The Petitioner has submitted the relevant web links as under:

KPI-5 (VDI)	Web Link on SRLDC website	Remarks
Daily VDI	http://www.srldc.org/DailyReport.aspx	Select VDI drop down
Weekly VDI	http://www.srldc.org/WeeklyReport.aspx	Select VDI/FDI drop
Monthly VDI	http://www.srldc.org/MonthlyReport.aspx	down

27. According to the Petitioner, VDIs of important sub-stations are being calculated and reported on daily basis and is also being hosted on websites by RLDCs which is thereafter compiled at NLDC and circulated internally. Similarly, RLDCs are also calculating and reporting VDIs on their websites as part of weekly reports. The Petitioner has submitted that NLDC independently calculates and reports VDIs of important sub-station on a monthly basis which is available on its website as part of monthly report.

28. The Petitioner has submitted that persistent problems of low/high voltage are identified in the quarterly operational feedback submitted to CTU and CEA.

Performance during financial year 2016-17*	100
Marks scored (In proportion of the percentage performance above)	10
* Formula for performance calculation	$[\frac{((\text{No. of daily reports issued (to be derived from column C/365}(\text{Total no.of days in financial year 2016-17}) * 100) + (\text{No. of weekly reports issued$

	(to be derived from column D)/ 52 (Total no. of weeks in financial year 2016-17)*100)+(No. of monthly reports issued (to be derived from column E/12)*100))/3
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29. The Petitioner has submitted that Clause 3.10 of the SRLDC Operating Procedure, 2016 provides the corrective actions to be taken in the event of high voltage and low voltage. The relevant extract of the Clause 3.10.1 of the SRLDC Operating Procedure, 2016 is extracted as under:

3.10.1 High voltage

“ On observing the High voltage at sub-stations (e.g. 400 kV bus voltages going above 410 kV), the following specific steps would be taken by the respective grid substations/generating station in their own, unless specifically mentioned by SLRDC otherwise:

- a) The bus reactors be switched in
- b) The manually switchable capacitor banks be taken out
- c) The switchable line/tertiary reactors are taken in.
- d) Optimize the filter banks at HVDC terminal. ***
- e) All the generating units connected on bar shall absorb reactive power within capability limits of the respective generating units.
- f) Operate synchronous condensers wherever available, for VAR absorption.
- g) Operate hydro generators/gas turbines as synchronous condenser for VAR absorption wherever such facility is available.
- h) Re-route the power flows between HVDC links to control voltage rise.
- i) Open one of the lightly loaded double circuit and single circuit lines in consultation with SRLDC, keeping in view the security of the balance network. Line Opening would be the Last Resort by SRLDC after receipt of message from the constituents. Details of measures taken needed to be communicated in the line opening request message. The request for line opening should be as per format enclosed at Annexure 12.

3.10.2 Low voltage

On observing low voltage (e.g. 400 kV bus voltages going down below 390 kV), the following specific steps would be taken by the respective grid substations/generating station at their own, unless specifically mentioned by SRLDC otherwise:

- a) Close the lines which were opened to control high voltage, in consultation with SRLDC.
- b) The bus reactors be switched out.
- c) The capacitor banks be switched in.
- d) The switchable line/tertiary reactors are taken out.
- e) Optimize filter banks at HVDC terminal. ***
- f) All the generating units shall generate reactive power within capability limits of the respective generating units.

- g) Operate synchronous condensers wherever available, for VAR generation.
- h) Operate hydro generators/gas turbines as synchronous condenser for VAR generation, wherever such facility is available.
- i) Re-route the power flows between HVDC links to improve voltages.”

30. The Petitioner has submitted that corrective actions are being taken in Real Time Grid Conditions by SRLDC at 400 kV, 765 kV and Inter-State level by opening /closing shunt reactors, transmission lines, etc. The Petitioner has submitted that for voltage deviations taking place in/resulting from intra-State system, SRDLC write regularly to the constituents and discuss the same in the OCC meetings. The Petitioner has placed on record the extracts from OCC meeting of SRPC, sample letters from SLDC stating sustained voltage deviation and suggested corrective actions. The Petitioner has submitted that apart from these, persistent high voltage and low voltage are being reported every quarter to the NLDC operational feedback.

31. We have considered the submission of the Petitioner. As per Regulation 29 (6) of the Fees and Charges Regulations, RLDCs or NLDC are required to compute the Key Performance Indicators on annual basis for the previous year ending on 31st March and are required to submit the same to the Commission for approval. The Petitioner has computed the Key Performance Indicators on annual basis. Accordingly, the weightage for VDI is considered as 10 out of 10 as per Appendix VI of the Fees and Charges Regulations.

F. Frequency Deviation Index (Parameter 6):

32. The Petitioner has submitted that Frequency Deviation Index (FDI) is calculated as the percentage of time frequency is outside the Grid Code band. The total weightage for FDI is 10. The Petitioner has submitted month-wise details of FDI i.e. April, 2016 to

March, 2017 and intimated to utilities through daily reports, weekly reports and monthly reports for corrective actions.

33. The Petitioner, vide Record of Proceeding for the hearing dated 5.7.2018, was directed to submit the details of number of hours the frequency remained out of range in a month. The Petitioner vide its affidavit dated 7.5.2018 has submitted the details of number of hours the frequency remained out of the range stipulated in the Grid Code in for all 12 months in the financial year 2016-17 (April 2016 to March 2017). The Petitioner has submitted that in compliance to the KPI-6 w.r.t the Appendix-VI of the Fees and Charges Regulations, SRLDC uploads the information regarding FDI on its website on daily, weekly and monthly basis as a part of its daily, weekly and monthly reports for which the relevant web links are as under:

KPI-6 (FDI)	Web Link on SRLDC website	Remarks
Daily FDI	http://www.srldc.org/DailyReport.aspx	Select Frequency Graph
Weekly FDI	http://www.srldc.org/WeeklyReport.aspx	Select VDI/FDI drop
Monthly FDI	http://www.srldc.org/MonthlyReport.aspx	down

34. The details of KPI-VI are as under:

Performance during financial year 2016-17*	100
Marks scored (In proportion of the percentage performance above)	10
*Formula for performance calculation	$\frac{[(\text{No. of daily reports issued (to be derived from column C/365 (Total no. of days in financial year 2016-17))} \times 100) + (\text{No. of weekly reports issued (to be derived from column D/52 (Total no. of weeks in financial year 2016-17))} \times 100) + (\text{No. of monthly reports issued (to be derived from column E/12)} \times 100)]}{3}$

35. We have considered the submission of the Petitioner. FDIs submitted by the Petitioner are found to be in order. Accordingly, in terms of Appendix VI of the Fees and Charges Regulations, weightage for FDI has been allowed as 10 out of 10.

G. Reporting of System Reliability (Parameter 7)

36. The Petitioner has submitted that deviation indices are being reported on daily basis for the critical nodes along with weekly and monthly as per the Fees and Charges Regulations. The Petitioner has submitted that the possible number of reports which could be generated (365 for daily, 52 for weekly and 12 for monthly) have been converted to KPI scores based on the actual reporting.

37. The total weightage for this parameter Reporting of System Reliability (RSR) is 10.

The Petitioner has submitted the reports of system reliability as under:

(a) Reporting of (N-1) violations (To be reported to CERC)

S.No.	Month	Intimation to utilities through Daily reports for corrective action or not	Intimation to utilities through weekly reports for corrective action or not	Intimation to utilities through monthly reports for corrective action or not
A	B	C	D	E
1	April 16	Yes	Yes	Yes
2	May, 16	Yes	Yes	Yes
3	June'16	Yes	Yes	Yes
4	July'16	Yes	Yes	Yes
5	August16	Yes	Yes	Yes
6	September,16	Yes	Yes	Yes
7	October 16	Yes	Yes	Yes
8	November 16	Yes	Yes	Yes
9	December16	Yes	Yes	Yes
10	January 17	Yes	Yes	Yes
11	February 17	Yes	Yes	Yes
12	March 17	Yes	Yes	Yes

X*

100

*Formula	$\frac{(((\text{No. of daily reports issued (to be derived from column C/365}(\text{Total no. of days in financial year 2016-17})) * 100) + (\text{No. of weekly reports issued (to be derived from column D) / 52}(\text{Total no. of weeks in financial year 2016-17})) * 100) + (\text{No. of monthly reports issued (to be derived from column E/12) * 100}))}{3}$
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(b) Reporting of ATC violations (To be reported to CERC)

S.No.	Month	Intimation to utilities through Daily reports for corrective action or not	Intimation to utilities through weekly reports for corrective action or not	Intimation to utilities through monthly reports for corrective action or not
A	B	C	D	E
1	April 16	Yes	Yes	Yes
2	May 16	Yes	Yes	Yes
3	June 16	Yes	Yes	Yes
4	July 16	Yes	Yes	Yes
5	August 16	Yes	Yes	Yes
6	September 16	Yes	Yes	Yes
7	October 16	Yes	Yes	Yes
8	November 16	Yes	Yes	Yes
9	December 16	Yes	Yes	Yes
10	January 17	Yes	Yes	Yes
11	February 17	Yes	Yes	Yes
12	March 17	Yes	Yes	Yes

Y*	100
*Formula	$\frac{(((\text{No. of daily reports issued (to be derived from column C/365}(\text{Total no. of days in FY 2016-17})) * 100) + (\text{No. of weekly reports issued (to be derived from column D) / 52}(\text{Total no. of weeks in FY 2016-17})) * 100) + (\text{No. of monthly reports issued (to be derived from column E/12) * 100}))}{3}$

(c) Reporting of Angle difference between important buses (To be reported to CERC)

S.No.	Month	Intimation to utilities through Daily reports for	Intimation to utilities through weekly reports for	Intimation to utilities through monthly reports for
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		corrective action or not	corrective action or not	corrective action or not
A	B	C	D	E
1	Apr'16	Yes	Yes	Yes
2	May'16	Yes	Yes	Yes
3	June'16	Yes	Yes	Yes
4	July'16	Yes	Yes	Yes
5	Aug'16	Yes	Yes	Yes
6	Sep'16	Yes	Yes	Yes
7	Oct'16	Yes	Yes	Yes
8	Nov'16	Yes	Yes	Yes
9	Dec'16	Yes	Yes	Yes
10	Jan'17	Yes	Yes	Yes
11	Feb'17	Yes	Yes	Yes
12	Mar'17	Yes	Yes	Yes

Z*	100
*Formula	$\frac{(((\text{No. of daily reports issued (to be derived from column C)/365}(\text{Total no. of days in FY 2016-17})) * 100) + (\text{No. of weekly reports issued (to be derived from column D) 52 (Total no. of weeks in FY 2016-17)) * 100) + (\text{No. of monthly reports issued (to be derived from column E/12)} * 100))}{3}$

Performance during financial year 2016-17* =	100
Marks scored (In proportion of the percentage performance above)	10
*Formula	(X+Y+Z)/3

38. The Petitioner, vide Record of Proceedings for the hearing dated 5.7.2018, was directed to submit the information with regard to System Reliability, namely (a) Whether percentage of times N-1 criteria was violated in the inter-regional corridors, (b) Percentage of times ATC violated on inter-regional corridors, and (c) Percentage of time angular difference on important buses was beyond permissible limit. The Petitioner vide its affidavit dated 7.5.2018 has submitted as under:

(i) With regard to (a) above, the Petitioner has submitted that violation of

percentage of times N-1 criteria in the inter-regional corridors is being reported by SRLDC on daily, weekly and monthly basis on the following web links:

KPI-7	Web Link on SRLDC website	Remarks
Daily	http://www.srldc.org/DailyReport.aspx	Select Reliability Violation Report (ATC and N-1)
Weekly	http://www.srldc.org/WeeklyReport.aspx	
Monthly	http://www.srldc.org/MonthlyReport.aspx	Select Reliability Violation (Angular difference, ATC & N-1)

The Petitioner has placed on record the Reports of 12 months (April 2016 to March 2017) indicating N-1 criteria violations.

(ii) With regard to (b) above, the Petitioner has submitted that violation of percentage of times ATC (i.e. Available Transfer Capability) in the inter-regional corridors is being reported by SRLDC on daily weekly and monthly basis on the following web links:

KPI-7	Web Link on SRLDC website	Remarks
Daily	http://www.srldc.org/DailyReport.aspx	Select Reliability Violation Report (ATC and N-1)
Weekly	http://www.srldc.org/WeeklyReport.aspx	
Monthly	http://www.srldc.org/MonthlyReport.aspx	Select Reliability Violation (Angular difference, ATC and N-1)

(iii) With regard to (c) above, the Petitioner has submitted that the percentage of times the angular difference on important buses was beyond the permissible limits and the same is being reported by SRLDC on daily, weekly and monthly basis on the following web links:

KPI-7	Web Link on SRLDC website	Remarks
Daily	http://www.srldc.org/DailyReport.aspx	Select Reliability Violation (Angular difference)
Weekly	http://www.srldc.org/WeeklyReport.aspx	
Monthly	http://www.srldc.org/MonthlyReport.aspx	Select Reliability Violation (Angular difference, ATC

		and N-1)
--	--	----------

The Petitioner has placed on record the monthly reports (April 2016 to March 2017) on angular difference between important buses.

39. The Petitioner has submitted that the score for KPI No-7 (Reporting of System Reliability) has come out to be 10 out of 10. We have considered the submission of the Petitioner. Reporting of System Reliability is being done by the Petitioner as per Appendix VI of the Fees and Charges Regulations. Accordingly, weightage claimed for reporting system reliability is allowed as 10 out of 10.

H. Availability of website (Parameter 8)

40. The Petitioner has submitted that in order to maintain continuous availability of website, SRLDC maintains two websites, namely srldc.org and srldc.in, which are identical to each other in all respects. The above web-sites are hosted from two servers through two different Internet Service Providers (ISP). Each IPS supports one of the above two websites. The selection of two service providers has been done judiciously after scrutinizing their infrastructures up to SRLDC building. This ensures adequate redundancy necessary for uninterrupted access to SRLDC website. The Petitioner has submitted that for evaluation of website availability, each ISP availability is commercially linked to the quarterly payment through a service level agreement mechanism. Each ISP link availability is verified from the fire-wall analyzer at SRLDC.

41. The total weightage for the parameter “availability of website” is 10. The Petitioner has submitted the details of percentage of availability of website for all 12 months (April, 2016 to March, 2017) as 100%. The details of marks scored are as under:

Performance during financial year 2016-17*	100
Marks scored (In proportion of the percentage performance above)	10
* Average of 12 months	

42. We have considered the submission of the Petitioner. Since, the Petitioner is reporting availability of website as per Appendix VI of the Fees and Charges Regulations, the weightage claimed for availability of website is allowed as 10 out of 10.

I. Availability of Standby power supply (Parameter 9)

43. The total weightage for the parameter “availability of standby power supply” is 5. The Petitioner has submitted availability of standby power supply as under:

Performance during financial year 2016-17*	100
Marks scored (In proportion of the percentage performance above)	5
* Average of 12 months	

44. The Petitioner has submitted that powers to all the critical infrastructures are supplied through redundant UPS system and battery system. Inputs to these UPS are being supplied either through incoming feeders or DG sets (in case of failure of main inputs). These auxiliary systems are also under AMC and are being checked/tested on regular basis. The Petitioner has submitted that trial runs are carried out on weekly basis to check the DG set availability and daily records are being maintained at each of the locations. The Petitioner has submitted the month-wise percentage in line with the methodology of incentive calculation prescribed in Regulation 29 (5) of the Fees and Charges Regulations. The Petitioner has submitted that percentage performance has been proportionately converted to marks scored.

45. We have considered the submission of the Petitioner. Since, the Petitioner has claimed availability of standby power supply as per Appendix VI of the Fees and Charges Regulations, weightage claimed for availability of standby power supply is considered as 5 out of 5.

J. Variance of Capital expenditure (Parameter 10)

46. The total weightage for the parameter “Variance of capital expenditure” is 5. The Petitioner has submitted the details of Variance of Capital Expenditure as under:

(Rs.in lakh)		
Capital Expenditure allowed by CERC (A)	Actual Expenditure incurred (B)	% Variation $C = \frac{A-B}{A} \times 100$
295.00	173.71	41.12

47. The Petitioner has submitted that the amount considered in the column A above is for the control period 2014-19 as per the Fees and Charges Regulations. The Petitioner has submitted that in Column B, value as per balance sheet for the year 2016-17 has been considered.

Performance during financial year 2016-17*	89.63
*Formula	$IF(C > 10, 100 - (C - 10) / 3, 100) \#$
Marks Scored (in proportion of the percentage performance above)	4.481
*Average of 12 months	
# Up to 10% variation, performance is proposed to be considered 100% and for any additional 3% variation beyond initial 10%, performance shall be decrease by 1% in line with the methodology of the incentive calculation prescribed in Regulation 29(5) of the Fees and Charges Regulations.	

48. The Petitioner has submitted that figures indicating in the present petition have been considered as targets and the figure as per the balance sheet have been considered as actual performance. The Petitioner has submitted that limit of upto 10% variation has been considered for claiming 100% performance and for any additional 3%

variation beyond initial 10%, performance shall decrease by 1% in line with the methodology of the incentive calculation prescribed in the Regulation 29(5) of the Fees and Charges Regulations. The Petitioner has submitted that percentage performance has been proportionately converted to marks scored.

49. We have considered the submission of the Petitioner. The weightage claimed for variance of capital expenditure is provisionally considered as 4.481 out of 5 in terms of Appendix VI of the Fees and Charges Regulations.

K. Variance of Non-Capital expenditure (Parameter 11)

49. The total weightage for the parameter “variance of non-capital expenditure” is 5.

The Petitioner has submitted the details of variance of non-capital expenditure as under:

(Rs.in lakh)

Non Capital Expenditure allowed by CERC (A)	Actual Expenditure incurred (B)	Percentage Variation $C = \text{ABS}(A-B)/A * 100$
1876.95	2107.86	12.30
In the Non-Capital Expenditure, HR Expenses, O&M Expenses and depreciation have been considered. In column A, figures as per the RLDCs fees and Charges petitions filed with CERC for the control period 2014-19 have been considered. In column B, value as per Balance sheet of FY 2015-16 has been considered.		

Performance during financial year 2016-17*	99.23
*Formula	$\text{IF}(C > 10, 100 - (C - 10) / 3, 100) \#$
Marks Scored (in proportion of the percentage performance above)	4.962
*Average of 12 months	
# Up to 10% variation, performance is proposed to be considered 100% and for any additional 3% variation beyond initial 10%, performance shall be decrease by 1% in line with the methodology of the incentive calculation prescribed in Regulation 29(5) of the RLDC Fees and Charges Regulations.	

50. We have considered the submission of the Petitioner. Based on the percentage variance, the weightage claimed for variance of non-capital expenditure is allowed as 4.962 out of 5 in terms of Appendix VI of the Fees and Charges Regulations.

L. Percentage of certified employees (Parameter 12):

51. The Petitioner has submitted that the pursuant to recommendations of G.B. Pradhan Committee, a framework was developed for System Operators from the States and POSOCO for training and certification by certifying agency, i.e. NPTI. The Petitioner has submitted that framework provides for basic level, specialist level and management level courses and till date five basic level certification and four specialist level certifications have been introduced. The Petitioner has submitted that the exams are held online on all India basis and certification is foundation level exam where all system operators in the country can appear, whereas specialist level exams focus on a particular area of expertise.

52. The total weightage for the parameter “variance of percentage of certified employees” is 5. The Petitioner has submitted the details of variance of percentage of certified employees as under:

No. of Employees for Certification as on 31.3.2015(A)	No. of Employees for Certification as on 31.3.2015(B)	Percentage of Employees Certified as on 31.3.2015 (C=B/A*100)
51	42	82.35

Performance during financial year 2016-17*	100
*Formula	IF [C<85,(100-(85-C)/3),100]#
Marks Scored (in proportion of the percentage performance above)	4.956

*Average of 12 months
Up to 85% certification, performance is proposed to be considered 100% and for certification below 85%, performance shall decrease by 1% for every 3% decrease in the certification in line with the methodology of the incentive calculation prescribed in the Regulation 29(5) of the RLDC Fees and Charges Regulations.

53. As per the methodology of the incentive specified in Regulation 29 (5) of the Fees and Charges Regulations, for certification upto 85%, performance would be considered 100% and for certification below 85%, performance would be decreased by 1% for every 3% decrease in the certification. Accordingly, the weightage for percentage of certified employees is considered as 5 out of 5 as per Appendix VI of the Fees and Charges Regulations.

54. We have considered the submissions of the Petitioner with regard to KPI. The following KPIs are allowed as per the methodology specified in Appendix-V of the Fees and Charges Regulations:

Sl. No	Key Performance Indicators	Weightage	Petitioner claimed for financial year 2016-17	Allowed
1	Reporting of Interconnection meter error	10	10	10
2	Reporting of Grid Incidents and Grid Disturbance	10	10	10
3	Average processing time of shut down request	10	10	10
4	Availability of SCADA System	10	10	10
5	Voltage Deviation Index (VDI)	10	10	10
6	Frequency Deviation Index (FDI)	10	10	10
7	Reporting of System Reliability	10	10	10
8	Availability of Website	10	10	10
9	Availability of Standby Supply	5	5	5
10	Variance of Capital expenditure	5	4.481	4.481

11	Variance of Non Capital expenditure	5	4.962	4.962
12	Percentage of Certified Employee	5	4.956	4.956
	Total	100	99.399	99.399

55. Perusal of the above table reveals that the Petitioner has achieved 99.399% Key Performance Indicators out of 100%. Accordingly, the Petitioner is allowed to recover incentive of 8.880% of annual charges for the financial year 2016-17.

56. The Petition No. 57/MP/2018 is disposed of in terms of the above.

Sd/-
(Dr. M. K. Iyer)
Member

sd/-
(A.K. Singhal)
Member

sd/-
(P.K. Pujari)
Chairperson