

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 81/MP/2018

Coram:

Shri P.K.Pujari, Chairperson

Shri A.K Singhal, Member

Dr. M. K. Iyer, Member

Date of Order: 09.10.2018

In the matter of

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

And in the matter of

Western Regional Load Despatch Centre
F-3, MIDC Area, Marol, Andheri East,
Mumbai-93

....Petitioner

Vs

1. Managing Director, MSEDCL,
Prakashgadh, 5th Floor, Bandra East,



Mumbai-400 051, Maharashtra

2. Managing Director, GUVNL,
Sardar Patel Vidyut Bhawan Race Course,
Vadodra-390 007, Gujarat
3. Managing Director, MP Power Management Co. Ltd.,
3rd Floor, Block No. 11, Shakti Bhawan, Rampur,
Madhya Pradesh-482 008
4. Managing Director, CSPDCL,
PO-Sunder Nagar, Raipur, Dangania-492 013
Chhattisgarh
5. Secretary (Power), Electricity Department,
UT of Daman & Diu, Sachivalaya,
Daman & Diu Moti Daman-396210
6. Secretary (Power), UT of Dadra Nagar & Haveli,
Secretariat, Electric Department, 66 kV Amli Road,
Dadra Nagar & Haveli Silvassa-396 230
7. Managing Director, ESSAR STEEL INDIA LIMITED,
27th KM, Surat Hazira Road,
Surat-394 270, Gujarat
8. Chief Electrical Engineer, Goa Electricity Department,
Government of Goa, 3rd Floor, Vidyut Bhawan, Panjim,
Goa-403 001
9. General Manager, Bhadravathi HVDC, Power Grid Corprn. of India Ltd.,
Sumthana Village, Bhadravathi (Tahsil), Bhadravathi, Chandrapur (Dist)
Maharashtra-442 902



10. General Manager, Vindhyanchal HVDC, Power Grid Coprn. of India Ltd.
P.O. Vindhyanagar, P. Box. No. 12, Singrauli (Dist),
Madhya Pradesh-486 885
11. BARC FSCILITY- Plant Superintendent,
TRP Nuclear Recycle Board, Tarapur,
Mumbai – 401502, Maharashtra
12. General Manager, Korba STPS STG (I&II),
NTPC Ltd., P.O.: Vikas Bhawan, Jamnipali, Korba (District),
Chhattisgarh-495 450
13. General Manager, Korba STPS STG (III),
NTPC Ltd., P.O.: Vikas Bhawan, Jamnipali, Korba (Dist),
Chhattisgarh-495 450
14. General Manager, VSTPS-STAGE-I, Vindhayachal STPS,
NTPC Ltd., P.O.: Vidhyanagar, Sidhi (Dist),
Madhya Pradesh-486 885
15. General Manager, VSTPS-STAGE-II, Vindhyachal STPS,
NTPC Ltd., P.O.: Vidhyanagar, Sidhi (Dist),
Madhya Pradesh-486 885
16. General Manager, VSTPS-STAGE-III, Vindhyachal STPS,
NTPC Ltd., P.O.: Vidhyanagar, Sidhi (Dist),
Madhya Pradesh-486 885
17. General Manager, VSTPS-STAGE-IV, Vindhyachal STPS,
NTPC Ltd., P.O.: Vidhyanagar, Sidhi (Dist),
Madhya Pradesh-486 885



18. General Manager, VSTPS-STAGE-V, Vindhyachal STPS,
NTPC Ltd., P.O.: Vidhyanagar, Sidhi (Dist),
Madhya Pradesh-486 885
19. General Manager, Kawas Gas Power Project,
NTPC Ltd., P.O. Aditya Nagar, Surat,
Gujarat-394 516
20. General Manager, Gandhar Gas Power Project,
NTPC Ltd., P.O.:NTPC Township, Bharuch (Dist),
Gujarat-392 215
21. General Manager, SIPAT TPS Stg-I,
NTPC Ltd., SIPAT,
Chhattisgarh-495 558
22. General Manager, SIPAT TPS Stg-II,
NTPC Ltd., SIPAT,
Chhattisgarh-495 558
23. General Manager, Mouda STPP Stage-I,
NTPC Ltd., Mouda Ramtek Road, P.O. Mouda,
Nagpur (Dist), Maharashtra
24. General Manager, Mouda STPP Stage-II,
NTPC Ltd., Mouda Ramtek Road, P.O. Mouda,
Nagpur (Dist), Maharashtra
25. General Manager, 2 X 135 MW Kasaipali Thermal Power Project,
ACB (India) Ltd. District-Korba Chhattisgarh,
Chakabura-495 445
26. General Manager, Bharat Aluminium Co. Ltd.,



Captive Power Plant-II, BALCO Nagar
Chhattisgarh Korba-495 684

27. Executive Director, Coastal Gujarat Power Ltd. (CGPL-UMPP),
Tunda Vandh Road, Tunda Village, Mundra,
Gujarat Kutch-370 435
28. Executive Director, DB Power, Village-Baradarha,
Post-Kanwali, Dist-Janjgir, Champa,
Chhattisgarh Baradarha-495 695
29. Executive Director, Jindal Power Ltd. Stg-I,
OP Jindal STPP, PO-Tamnara, Gjarghoda Tehsil,
Chhattisgarh District-Raigarh, 496 107
30. Executive Director, Jindal Power Ltd. Stg-II,
OP Jindal STPP, PO-Tamnara, Gjarghoda Tehsil,
Chhattisgarh District-Raigarh, 496 107
31. Executive Director, DGEN Mega Power Project, Plot No. Z-9,
Dahej SEZ Area (Eastern side), At:Dahej, Taluka-Vagra, Dist-Bharuch,
Gujarat-392 130
32. Executive Director, EMCO Power Ltd., Plot No. B-1,
Mohabala MIDC Growth Center Post Tehsil-Warora, Dist-Chandrapur,
Maharashtra-442 907
33. Executive Director, ESSAR POWER MP LTD. Village Bandhora,
Post-Karsualal, Tehsil-Mada, Distt. Singrauli,
Madhya Pradesh-486 886
34. General Manager, GMR Chhattisgarh Energy Ltd.,
Skip House, 25/1, Museum Road, Bangalore,



35. Managing Director, Jaippee Nigrie Super Thermal Power Project,
Nigri District, Singrauli,
Madhya Pradesh-486 668
36. Executive Director, DCPD, OP Jindal STPP,
PO-Tamnar, Gjarghoda Tehsil,
Chhattisgarh District-Raigarh, 496107
37. Station Director, Nuclear Power Corporation of India Ltd.,
Kakrapara Atomic Power Station, PO-via Vyara, Dist-Surat,
Gujarat-395 651
38. Station Director, Tarapur Atomic Power Station 1 & 2,
Nuclear Power Corporation of India Ltd., P.O. TAPP, Thane (Dist),
Maharashtra-401 504
39. Station Director, Tarapur Atomic Power Station 3 & 4,
Nuclear Power Corporation of India Ltd., P.O. TAPP, Thane (Dist),
Maharashtra-401 504
40. Managing Director, Korba West Power Co. Ltd.,
Village-Chhote Bhandar, P.O.-Bade Bhandar, Tehsil-Pussore, Dist-Raigarh,
Chhattisgarh Raigarh 496 100
41. Managing Director, KSK Mahanadhi,
8-2-293/82/A/431/A, Road No. 22 Jubilee Hills,
Andhra Pradesh Hyderabad-500 033
42. General Manager (Comml), Lanco Power Ltd.,
Plot No.-397, Phase-III, Udyog Vihar,
Haryana Gurgaon-122 016

43. General Manager, NTPC-SAIL Power Company Pvt. Ltd.,
Puranena Village, Chhattisgarh Dist-Durg,
Bhilai-490 021
44. General Manager, Ratnagiri Gas & Power Pvt. Ltd.,
2nd Floor, Block-2, IGL Complex, Sector-126, Express-way, Noida,
Uttar Pradesh-201 304
45. Managing Director, Sasan Power Ltd.,
DAKC, I Block, 2nd Floor, North Wing, Thane Belapur Road,
Koparkhairana Maharashtra New Mumbai- 400 710
46. Member (Power), Narmada Control Authority,
Narmada Sadan, Sector-B, Scheme No. 74, Vijaynagar, Indore,
Madhya Pradesh-452 010
47. Managing Director, Vandana Vidyut Bhawan,
M.G. Road Chattisgarh Raipur-492 001
48. CEO, MB Power (Madhya Pradesh) Ltd.,
Corporate Office: 239, Okhla Industrial Estate Phase-III,
New Delhi-110 020
49. Chief General Manager, RKM Powergen Pvt. Ltd.,
Village: Uchpinda, PO: Dhurkot, Dist: Janjgir-Champa,
Chhattisgarh-495 692
50. Head (Commercial), Jhabua Power Ltd.,
Village-Barella, Pst-Attaria, Tahsil-Ghansor, Dist-Seoni,
Madhya Pradesh-480 997
51. Head (Commercial), Dhariwal Infrastructure Ltd.,



CESC House, Chowringhee Square,
Kolkata-700 001

52. Head (Commercial), SKS Power Generation Chhattisgarh Ltd.,
501 B, Elegant Business Park, Andheri Kurla Road, JB Nagar, Andheri (East),
Mumbai-400 059
53. General Manager/Plant Head, NTPC Ltd.,
Solapur Super Thermal Power Station,
PO: Hotgi Station Taluka: South Solapur, Dist: Solapur,
Maharashtra-413 003
54. Sr. Vice President (Power), M/s. TRN Energy Pvt. Ltd.,
18, Vasant Enclave, Rao Tula Ram Marg,
New Delhi-110 057
55. NTPC, LARA- Vill Chappora Po+Ps, Pusspra,
Chattisgarh- 496001
56. General Manager, Power Grid Corprn. of India Ltd.,
Western Region-I Headquarters, PO-Uppalwadi, Sampritinagar, Nagpur,
Maharashtra-440 026
57. Managing Director, ESSAR Power Transmission Co. Ltd.,
A-5, Sector-3, Gautam Buddha Nagar, Uttar Pradesh,
Noida-201 301
58. Executive Director, Jindal Power Ltd.,
OP Jindal STPP, OP Jindal STPS, PO-Tamnar,
Chhattisgarh Dist-Raigarh, 496 107
59. Executive Director, Torrent Power Grid Ltd.,
Torrent House, Off Ashram road,



Gujarat Ahmedabad-380 009

60. Vice President, Western Region Transmission (Gujarat) Pvt. Ltd.,
12th Floor, Building No.-10-B, DLF, Cyber City,
Haryana Gurgaon-122 002
61. Vice President, Western Region Transmission (Maharashtra) Pvt. Ltd.,
12th Floor, Building No.-10-B, DLF, Cyber City,
Haryana Gurgaon-122 002
62. General Manager (Comml), Adani Power Ltd. Achalraj,
Opp. Mayor Bungalow, Law Garden, Ahmedabad,
Gujarat-380 006
63. Head (Commercial), Bhopal Dhule Transmission Company Ltd.,
C-2, Mitra Corporate Suite, Iswar Nagar, Mathura Road,
New Delhi-110 065
64. Head (Commercial), Raichur Solapur Power Transmission Company Ltd.,
Patel Estate, SV Road, Jogeshwari West,
Mumbai-400 102
65. Head (Commercial), Jabalpur Transmission Company Ltd.,
Tower-B, 1st Floor, Logix Techno Park, Sector-127, Noida,
Uttar Pradesh-201 301
66. Head (Commercial), RAPP Transmission Company,
Mira Corporate Suites 1&2,
Ishwar Nagar, Okhla Crossing,
Mathura Road, New Delhi - 110065

.....**Respondents**

Parties present : Shri S.R. Narasimhan, NLDC



Shri Rakesh Kumar, NLDC
Shri Ashok Rajan, NLDC
Shri Manash Protim Nath, NERLDC
Shri Venkateshan M., SRLDC
Shri Aditya Prasad Das, WRLDC
Shri Manas Das, ERLDC
Shri Nadim Ahmad, ERLDC
Shri Debasis De, NRLDC

ORDER

The petitioner, Western Regional Load Despatch Centre (WRLDC), has filed the present petition under sub-section (4) of Section 28 of Electricity Act 2003 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 (PLI) for WRLDC for the financial year 2016-17

2. The petitioner, Western Regional Load Despatch Centre (WRLDC) setup under Section 27 of the Electricity Act, 2003 performs functions specified in Section 28 of the Electricity Act, 2003. 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.

3. 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 (KPI) as specified in Appendix-V & VI of the Fees and Charges Regulations or other such parameters as specified by the Commission.

4. 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 to submit to the Commission for approval as per Appendix- V and VI of the Fees and Charges Regulations.

5. Petitioner has submitted that as per methodology specified in Appendix V of the Fees and Charges Regulations, 2015, KPI score for WRLDC for the year 2016-17 ending 31.3.2017 has been computed by WRLDC as under:

Sl. No	Key Performance Indicators	Weighthage	(2016-17)
1	Reporting of Interconnection meter error	10	10.00
2	Reporting of Grid Incidents and Grid Disturbance	10	10.00
3	Average processing time of shut down request	10	10.00
4	Availability of SCADA System	10	10.00
5	Voltage Deviation Index (VDI)	10	10.00
6	Frequency Deviation Index (FDI)	10	10.00
7	Reporting of System Reliability	10	10.00
8	Availability of Website	10	10.00
9	Availability of Standby Supply	5	5.00
10	Variance of Capital expenditure	5	4.04
11	Variance of Non Capital expenditure	5	5.00
12	Percentage of Certified Employee	5	4.83
	Total	100	98.87



6. The Petitioner has submitted that as per the methodology provided in the Regulation 29(5) of the RLDC Fees and Charges Regulations 2015, WRLDC shall be allowed 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 comes at 8.774 % (For 90-95% additional 1% and for 95% to 98.87% additional 0.774%) of the Annual charges for the year 2016-17.

7. The petitioner has filed the present petition with the following prayers:

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

8. The matter was heard on 5.4.2018 and notices were issued to the respondents to file their replies. The Commission vide RoP dated 11.04.2018 directed the petitioner to submit the following:

- (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.

In response the petitioner vide affidavit dated 3.5.2018 has submitted the reply to the above queries and the same has been dealt in succeeding paras.

9. The matter was heard on dated 5.7.2018. The Petitioner has submitted that the requisite information has been filed as per the Commission's direction dated 5.4.2018. After hearing the representatives of the Petitioner, the Commission reserved order in the petition.

10. We have considered the submission of the petitioner. As per methodology of the incentive specified in Regulation 29 (5) of the Fees and Charges Regulations, 2015 the relevant extract is stated here:

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 pro-rata basis for the every 3% decrease on performance level below 85%.



11. The parameter-wise submissions made by the petitioner have been examined and dealt with in the succeeding paragraphs.

KPI-1: Reporting of Inter-connection metering error

12. The petitioner has submitted that the meter reading are processed on weekly basis and an error could only be detected after processing the same and after going through the validation process. RLDCs are reporting the meter errors on weekly basis. These are made available on RLDC websites as per the recommendations in the Regulations. Hence, the possible no. of reports in a year is 52 which have been converted to percentage based on actual reporting. The percentage performance has been proportionately converted to marks scored.

13. Further is it submitted by petitioner that as per Regulation 2.3.2 of IEGC, 2010, RLDCs are responsible for meter data processing. Regulation 2.3.2 of Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 is extracted below:

"2.3.2 The following are contemplated as exclusive functions of RLDCs

- (a) System operation and control including inter-state transfer of power, covering contingency analysis and operational planning on real time basis;
- (b) Scheduling / re-scheduling of generation;
- (c) System restoration following grid disturbances;
- (d) Metering and data collection;
- (e) Compiling and furnishing data pertaining to system operation;
- (f) Operation of regional UI pool account, regional reactive energy account and Congestion Charge Account, provided that such functions will be undertaken by any entity(ies) other than RLDCs if the Commission so directs.
- (g) Operation of ancillary services

Accordingly, problems related to meters including those installed at inter-regional/inter-national tie points are reported by concerned RLDCs to the utilities for corrective action.



14. The petitioner has submitted that as per Regulation 6.4.22 of the Grid Code (IEGC), computations on metering data are to be made available to the regional entities for checking/verifications for a period of 15 days.

Relevant extract is reproduced below:

".....All computations carried out by RLDC shall be open to all regional entities for checking and verifications for a period of 15 days. In case any mistake/omission is detected, the RLDC shall forthwith make a complete check and rectify the same...."

Accordingly, the data on inter-connection meter error is made available in Public Domain on regular basis for checking/verifications of regional entities. This information on inter-connection meter error is published on WRLDC website, on weekly basis. Web-link for the same is given below.

http://wrldc.org/Commercial/SEM_Discrepancy/

The petitioner has submitted that the discrepancy reports are discussed in detail in the different forum at RPC level.

15. The total weightage of parameter "reporting of Inter-connection metering error" is 10. The petitioner has submitted performance during the financial year 2016-17 and marks scored as under:

Performance during FY 2016-17 (in %)	100%
Marks Scored (In proportion of the %age performance above)	10
*Formula for performance calculation:	$(\text{No. of weekly reports issued} / 52 \text{ (Total no. of Weeks)}) * 100$



16. 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 claim of the petitioner for weightage factor for reporting of inter-connection meter error is allowed as 10 out of 10.

KPI-2: Reporting of Grid Incidents and Grid Disturbance

17. The petitioner has submitted that the incidences of grid disturbance/ incidences are being reported by the Regional Load Despatch Centres (RLDC) to National Load Despatch Centre (NLDC) on a monthly basis which are thereafter compiled and are independently verified by National Load Despatch Centre and reported to the Commission on a monthly basis as a part of monthly operational report issued by National Load Despatch Centre in accordance with the provisions of the Grid Code. 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. Percentage performance has been measured based on the actual number of reports generated, which has been proportionately converted to marks scored. A copy of the report is made available on public domain on POSOCO website (<https://posoco.in/reports/monthly-reports/>).

18. The total weightage of parameter "reporting of grid incidents and grid disturbance" is 10. The petitioner has submitted actual incidents of such events, performance during the financial year 2016-17 and marks scored as under:

Grid Incidents and Grid Disturbance for FY 2016-17			
Category	Count(No's)	Recovery period (Hrs)	Loss of Energy (MUs)
GI-1	40	59:10:00	1.29
GI-2	53	107:01:00	3.50



GD-1	49	75:14:00	9.67
GD-2	0	0:00:00	0.00
GD-3	0	0:00:00	0.00
GD-4	0	0:00:00	0.00
GD-5	0	0:00:00	0.00
All	142	241:25:00	14.46

Performance during FY 2016-17(in %)*	100
Marks scored(In proportion of the %age performance above)	10
*Formula for performance calculation	(No. of monthly reports issued /12)*100

19. 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 to the Commission. Accordingly, the weightage for reporting of grid incidents and grid disturbance is allowed as 10 out of 10.

KPI-3: Average processing time of shut down request (RLDC/NLDC)

20. The petitioner has submitted that the shutdown process, uniform across all the RLDCs has been discussed and approved at RPC level. Time allowed to NLDC for approval of the shutdown requests is 26 hours and RLDCs is 50 hours (including NLDC time). 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 & then prevailing grid conditions. The procedure to streamline the process of transmission outage coordination between SLDCs, RLDCs, NLDC, RPCs and Indenting Agencies was developed by NLDC in 2013 and 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. It may be noted that RLDCs after processing the shutdown 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). Relevant extract of 460th OCC meeting of Western Regional Power Committee (WRPC) summarizing the approved shutdown coordination procedure in Western Region is given under:

"3.2.A.....

 B.....
 In the 446th OCC meeting of WRPC a detailed outage coordination procedure was approved where in it was decided that

1. Outage of all the important grid elements shall planned one month in advance and be approved by WRPC in OCC meeting.
2. Subsequently the readiness for availing the outage shall be intimated to WRLDC on D-3 basis failing which the outage approved shall be deemed cancelled.
3. Any rescheduling of the plan originally approved by WRPC shall be put to WRPC secretariat and on concurrence from WRPC secretariat the proposal shall be put to WRLDC on D-3 basis.
4. Apart from above planned outages any emergency outages availed during the last month shall be explained by the availing agency in OCC forum and be regularized by WRPC.

....."

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.



21. The petitioner has submitted that 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	758	33690	44
2	May'16	798	37621	47
3	June'16	721	30719	43
4	July'16	620	29257	47
5	Aug'16	619	29992	48
6	Sep'16	768	36595	48
7	Oct'16	900	40729	45
8	Nov'16	947	44748	47
9	Dec'16	745	35018	47
10	Jan'17	964	37257	39
11	Feb'17	989	29250	30
12	Mar'17	1166	34603	30
	Total	9995	419479	42

Figures under column 'A' represents cumulative hours month wise.

The petitioner has further submitted that the total time allowed for approval of shutdown requests to NLDC and RLDC are 26 hours and 50 (Including NLDC Time) Hours respectively.



22. The total weightage for the parameter "average processing time of shut down request" is 10. The Petitioner has submitted the performance calculated during FY 2016-17 and marks scored as under:

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

23. 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 allowed as 10 out of 10.

KPI-4: Availability of SCADA

24. The Petitioner has submitted that the SCADA system at WRLDC acquire real time data from Remote Terminal Units (RTUs)/ Sub-Station Automation System (SAS) for central sector power stations and IPPS, ISTS sub-stations in Western Region, either through Unified Load Despatch and Communication (ULDC) network or through POWERTEL communication network. Telemeter data for state sector stations report to WRLDC through respective SLDCs over the inter control centre communication protocol (ICCCP), primarily using the ULDC network. Further WRLDC has backup control centre at different location (RLDC, New Delhi) receiving telemeter data independently through Terminal Servers (TS) and State (SLDC) backup control centres. WRLDC has entrusted redundant data links from all Terminal Server locations with dual reporting to both Main & Backup Control centres. Further, additional protection paths are provided for Terminal Servers and SLDCs through dedicated BSNL links. Critical infrastructure of WRLDC 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, the backup control centre is utilized to visualize the real time data. Data and link availability status at backup control centre is monitored on daily basis. In addition, any telemetry update is replicated from main to backup control centre on regular basis to ensure complete functionality of SCADA system at backup control centre during contingency. Thus, with multiple levels of backups at each hierarchy, WRLDC is able to achieve zero downtime of the SCADA system. Since, all these systems are covered under a comprehensive maintenance contract with the original equipment manufacturer (OEM), records of all the incidences are maintained. Any loss of SCADA system availability has direct financial implication on AMC vendor. The records for this KPI are prepared in accordance with above. Depending upon the real time availability of data, month wise percentage availability has been calculated. The average percentage availability of the 12 months has been proportionately converted to marks.

25. The total weightage of parameter "availability of SCADA" is 10. The Petitioner has submitted percentage availability of SCADA for the months (from April 2016 to March 2017), performance during FY 2016-17 and marks scored as under:

WRLDC		
S. No.	Month	% Availability
1	Apr-16	100.00
2	May-16	100.00
3	Jun-16	100.00
4	Jul-16	100.00
5	Aug-16	100.00
6	Sep-16	100.00
7	Oct-16	100.00
8	Nov-16	100.00
9	Dec-16	100.00
10	Jan-17	100.00
11	Feb-17	100.00



12	Mar-17	100.00
	Average of 12 months	100.00

Performance during FY 2016-17* (in %)	100.00
Marks Scored (In proportion of the %age performance above)	10.00
* Average of 12 months	

26. 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.

KPI-5: Voltage Deviation Index (VDI)

27. The Petitioner has submitted that VDI is calculated in line with the methodology specified in Appendix-VI of CERC (Fee and Charges of Regional Load Despatch Centre and other related matters) Regulation, 2015. Voltage Deviation Index (VDI) of important substations is calculated on daily, weekly and monthly basis and same is intimated to utilities via daily, weekly and monthly reports. VDI for each substation is calculated as percentage of time the voltage was outside the IEGC range (380-420 kV at 400kV, 728-800kV at 765kV). For this purpose, data recorded by SCADA is used. The percentage of samples lying outside the IEGC specified range constitutes the VDI for the station. A sample calculation for a 765kV node (substation) and a 400kV node in Western Region (WR) for typical day (5th December, 2016) is given below:

Table-1: Sample VDI calculation for a typical day at a 765kV substation in WR

Station	%age of time Voltage below 728kV	%age of time Voltage between 728kV & 800kV	%age of time Voltage above 800kV	Voltage deviation index (%age of time voltage is	Maximum Voltage(kV)	Minimum Voltage(kV)	Average Voltage(kV)
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				outside IEGC band)			
Indore	0.00%	100.00%	0.00%	0.00%	785	755	772

Table-2: Sample VDI calculation for a typical day at a 400kV substation in WR

Station	%age of time Voltage below 380kV	%age of time Voltage between 380kV & 420kV	%age of time Voltage above 420kV	Voltage deviation index (%age of time voltage is outside IEGC band)	Maximum Voltage(kV)	Minimum Voltage(kV)	Average Voltage(kV)
Raipur	0.00%	97.15%	2.85%	0.03%	424	405	413

Further, Section-3.5(f) of the WRLDC Operating Procedure-2016 summarizes the identified corrective actions to be taken in the event of voltage going high and low. The relevant extracts from the procedure is reproduced below:

"3.5 Voltage Control

(a).....

(f) Control of Voltage at grid substations/generating stations:

Following corrective measures shall be taken in the event of voltage going high/low:

In the event of high voltage (when the voltage goes above 410kV), following specific steps would be taken by the respective grid substations/generating station on their own, unless specifically mentioned by WRLDC/SLDCs

- (a) The manually switchable capacitor banks be taken out
- (b) The bus reactor be switched in
- (c) The switchable line/tertiary reactor are taken in
- (d) All the generating units on bar shall absorb reactive power within the capability curve limits
- (e) Operate synchronous condensers wherever available for VAR absorption



- (f) Operate hydro generator/gas turbine as synchronous condenser for VAR absorption wherever such facilities are available
- (g) Bring down power flow on HVDC terminals so that loading on parallel EHV network goes up resulting in drop in voltage
- (h) Optimize the filter banks at HVDC terminal
- (i) Open lightly loaded lines in consultation with WRLDC ensuring security of the balanced network. The list of lines that are opened on High Voltages during off-peak hours is given at Annex-XII.

In the event of low voltage (when the voltage goes below 390kV), following specific steps would be taken by the respective grid substation/generating station at their own, unless specifically mentioned by WRLDC/SLDCs.

- (a) Close the lines which were opened to control high voltage in consultation with WRLDC.
- (b) The bus reactor be switched out.
- (c) The manually switchable capacitor banks be switched in
- (d) The switchable line/tertiary reactor are taken out
- (e) Optimize the filter banks at HVDC terminal
- (f) All the generating units on bar shall generate reactive power within capability curve
- (g) Operate synchronous condenser for VAR generation
- (h) Operate hydro generator/gas turbine as synchronous condenser for VAR generation wherever such facilities are available
- (i) increase power flow on HVDC terminal so that loading on parallel EHV network goes down resulting in rise in voltage....."

Accordingly, corrective actions are being taken in Real Time Grid Conditions, by WRLDC. Apart from these, based on feedback from RLDCs, region wise persistent High Voltage and Low Voltage issues are being reported in 'NLDC Operational Feedback' every quarter. As an example, the web link for NLDC operational feedback for the quarter July'16-September'16 is given below:

https://posoco.in/download/nldc-operational-feedback_oct_2016_q2_final/?wpdmdl=7213

Nodes in western region experiencing low/high voltage are listed on page no. 73-75 of the above quarterly 'Operational Feedback'. This information is being discussed in meeting of



the Standing Committee Meeting (SCM) on Power System Planning with all the stakeholders. Corrective action is also being discussed in Operational Coordination Committee (OCC) meetings of WRPC.

28. The petitioner has submitted the reply on dated 3.5.2018 in compliance to the direction given by the Commission vide RoP dated 11.04.2018 related to the KPI-5 w.r.t. the Appendix-VI of the CERC (Fees & Charges of Regional Load Dispatch & Other related matters), 2015, WRLDC uploads the information on Voltage Deviation Index (VDI) on its website on daily, weekly, and monthly basis as a part of its Daily, Weekly, and Monthly reports. The relevant web links are given under:

KPI-5 (VDI)	Web Link on WRLDC website
Daily VDI	http://wrldc.org/9reportNew.aspx
Weekly VDI	http://wrldc.org/WReports/2016-17/
Monthly VDI	http://wrldc.org/Progresrep/2016-17/

29. The total weightage for the parameter "Voltage Deviation Index (VDI)" is 10. The Petitioner has submitted the performance calculated during FY 2016-17 and marks scored as under:

Performance during FY 2016-17* (in %)	100%
Marks scored (In proportion of the %age performance above)	10
*Formula for performance calculation	$((\text{No. of daily reports issued}/365(\text{Total no. of days in FY 2016-17}))*100)+(\text{No. of weekly reports issued}/52(\text{Total no. of weeks in FY 2016-17}))*100)+(\text{No. of monthly reports issued}/12)*100)/3$

30. We have considered the submission of the petitioner. It is observed that intimation of VDI is given to utilities for corrective action through daily, weekly and monthly reports and



there has been no default by the petitioner during the period 2016-17. Accordingly the weightage for Voltage Deviation Index (VDI) is considered as 10 out of 10.

KPI-6: Frequency Deviation Index (FDI)

31. The Petitioner has submitted that FDI is calculated in line with the methodology specified in Appendix-VI of CERC (Fee and Charges of Regional Load Despatch Centre and other related matters) Regulation, 2015. FDI is calculated as percentage of time frequency is outside IEGC band. Ten second synchrophasor used for calculation. The percentage of sample lying below 49.90Hz and above 50.05Hz together constitutes FDI. The sample is shown below:

Date	Percentage of time frequency is			Frequency Deviation Index(FDI)	Average Frequency (Hz)
	<49.9 Hz	49.9-50.05 Hz	>50.05 Hz		
01-May-2017	3.36	73.47	23.17	26.53	50.00

The deviation indices are being reported on daily basis for the critical nodes along with weekly and monthly as per regulation. The possible no. of reports which could be generated (365 daily, 52 weekly, and 12 monthly) have been converted to KPI scores based on actual reporting.

32. The petitioner has submitted the reply on dated 3.5.2018 in compliance to the direction given by the Commission vide RoP dated 11.04.2018 related to the KPI-6 w.r.t. the Appendix-VI of the CERC (Fees & Charges of Regional Load Dispatch & Other related matters), 2015, WRLDC uploads the information on Frequency Deviation Index (FDI) on its



website on daily, weekly, and monthly basis as a part of its Daily, Weekly, and Monthly reports. The relevant web links are given under:

KPI-6 (FDI)	Web Link on WRLDC website
Daily FDI	http://wrldc.org/9reportNew.aspx
Weekly FDI	http://wrldc.org/WReports/2016-17/
Monthly FDI	http://wrldc.org/Progresrep/2016-17/

33. The total weightage for the parameter "Frequency Deviation Index (FDI)" is 10. The Petitioner has submitted the performance calculated during FY 2016-17 and marks scored as under:

Performance during FY 2016-17* (in %)	100%
Marks scored (In proportion of the %age performance above)	10
* Formula for performance calculation	$((\text{No. of daily reports issued}/365(\text{Total no. of days in FY 2016-17}))*100)+(\text{No. of weekly reports issued}/52(\text{Total no. of weeks in FY 2016-17}))*100+(\text{No. of monthly reports issued}/12)*100)/3$

34. We have considered the submission of the petitioner. It is observed that intimation of FDI is given to utilities for corrective action through daily, weekly and monthly reports and there has been no default by the petitioner during the period 2016-17. Accordingly the weightage for Frequency Deviation Index (FDI) is allowed as 10 out of 10.

KPI-7: Reporting of System Reliability

35. The petitioner has submitted that the deviation indices are being reported on daily basis for the critical nodes along with weekly and monthly as per Regulation. The possible no. of reports which could be generated (365 daily, 52 weekly, and 12 monthly) have been converted to KPI scores based on actual reporting.



36. The petitioner has submitted the month-wise reports of system reliability to the commission on the following aspects:

- (a) Reporting of (N-1) violations (weightage X)
- (b) Reporting of ATC violations (weightage Y)
- (c) Reporting of Angle difference between important buses (weightage Z)

37. The petitioner has submitted that it has given intimation of RSR to utilities for corrective action through daily, weekly and monthly reports without any default during FY 2016-17.

38. The Commission in the instant petition vide RoP dated 11.04.2018 directed the petitioner to 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*

In response, the petitioner has submitted the reply on dated 3.5.2018 with reference to the System Reliability, the percentage of times N-1 criteria was violated in the inter-regional corridors, the percentage of times ATC (i.e. Available Transfer Capability) was violated in the inter-regional corridors and the percentage of times the angular difference on important buses was beyond the permissible limits, is being reported by NRLDC on daily weekly and monthly basis. The relevant web links are given under:

(i) % of times N-1 criteria was violated in the inter-regional corridors.

KPI-7	Web Link given on WRLDC website
Daily reporting	https://posoco.in/reports/system-reliability-indices/daily-vdittcatc/



Weekly reporting	https://posoco.in/reports/system-reliability-indices/weekly-vdittcatc/
Monthly reporting	http://wrldc.org/Progresrep/2016-17/

(ii) % of times ATC violated on inter-regional corridors.

KPI-7	Web Link given on WRLDC website
Daily reporting	https://posoco.in/reports/system-reliability-indices/daily-vdittcatc/
Weekly reporting	https://posoco.in/reports/system-reliability-indices/weekly-vdittcatc/
Monthly reporting	http://wrldc.org/Progresrep/2016-17/

(iii) % of time Angular difference on important buses was beyond permissible limit.

KPI-7	Web Link given on WRLDC website
Daily reporting	http://wrldc.org/Docs/Angular_separation_report/2016-17/
Weekly reporting	http://wrldc.org/WReports/2016-17/
Monthly reporting	http://wrldc.org/Progresrep/2016-17/

39. The total weightage for the parameter "Reporting of System Reliability" is 10. The Petitioner has submitted the performance calculated during FY 2016-17 and marks scored as under:

Performance during FY 2016-17 of X, Y, Z (in %)	100%
*Formula	$\left(\left(\frac{\text{No. of daily reports issued}}{365} \left(\frac{\text{Total no. of days in FY2016-17}}{\text{Total no. of days in FY2016-17}} \right) * 100 \right) + \left(\frac{\text{No. of weekly reports issued}}{52} \left(\frac{\text{Total no. of weeks in FY2016-17}}{\text{Total no. of weeks in FY2016-17}} \right) * 100 \right) + \left(\frac{\text{No. of monthly reports issued}}{12} * 100 \right) \right) / 3$
Marks scored (In proportion of the %age performance above)	10
*Formula	$(X+Y+Z)/3$



40. 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.

KPI-8: Availability of website

41. For evaluation of KPI of website availability, the Petitioner has submitted

(a) Redundancy of ISPs & Web servers:

In order to maintain continuous availability of website WRLDC maintains two websites (viz. wrldc.org and wrldc.in) which are identical to each other in all respects. The two web sites are hosted from two different servers through two different internet service providers (ISP). Each ISP supports one of the two websites (wrldc.org & wrldc.in). The selection of two service providers has been done judiciously after scrutinizing their infrastructure up to WRLDC building. This ensures adequate redundancy necessary for uninterrupted access to WRLDC website.

(b) Checking the Website Availability:

For evaluation of website availability, each ISP has provided user interface to check the availability of ISP link and the same is commercially linked to the quarterly payment through a service level agreement (SLA) mechanism. Further, availability of each ISP link is verified from the fire-wall analyzer at WRLDC. Each website server generates its server logs, which automatically maintains the list of activities it performed. Thus any instant of server failure (if any) is captured through these server logs. These system generated logs are used for calculation of monthly availability of WRLDC website.

Depending upon the availability of website, month-wise percentage availability has been calculated. Then, percentage average availability of 12 months, has been proportionately converted to marks scored.



42. The total weightage for the parameter "availability of website" is 10. The petitioner has submitted the month-wise percentage of availability of website, percentage of performance and marks scored during FY 2016-17 as under:

S. No.	Month	% Availability
1	Apr'16	100.00
2	May'16	100.00
3	June'16	100.00
4	July'16	100.00
5	Aug'16	100.00
6	Sep'16	100.00
7	Oct'16	100.00
8	Nov'16	100.00
9	Dec'16	100.00
10	Jan'17	100.00
11	Feb'17	100.00
12	Mar'17	100.00
	*Average of 12 months	100.00
Performance during FY 2016-17* (in %)		100%
Marks scored(In proportion to the %age performance above)		10.00

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

KPI-9: Availability of Standby Power Supply

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. Trial runs are carried on weekly basis to check the DG set availability. Daily records are being maintained at each of the locations. The corresponding data is used to calculate



the availability of standby power supply. Depending upon the availability data, Month wise percentage availability has been calculated. Then, percentage average availability of 12 months, has been proportionately converted to marks scored.

45. The total weightage for the parameter “availability of standby power supply” is 5. The Petitioner has submitted the performance calculated during FY 2016-17 and marks scored as under:

Performance during FY 2016-17*(in %)	100%
Marks scored (In proportion of the %age performance above)	5
* Average of 12 months	

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

KPI-10: Variance of Capital expenditure

47. The Petitioner has submitted that the figures (Capital and Non-Capital) in the Fees and Charges Petitions for the control period 2014-19 have been considered as targets and the figures as per the balance sheet have been taken as actual performance. 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. Percentage performance has been proportionately converted to marks scored.



48. The petitioner has submitted the details of Variance of Capital Expenditure as under:

(₹ in lakh)

Capital Expenditure allowed by CERC (A)	Actual Expenditure incurred (B)	% Variation $C=ABS((A-B)/A)*100$
587.00	189.90	67.65

The petitioner has submitted that the amount considered in the column A above is as per the Fees and Charges Regulations for the control period 2014-19. The petitioner has submitted that in Column B, value as per balance sheet for the year 2014- 15 have been considered.

49. The total weightage for the parameter "variance of capital expenditure" is 5. The petitioner has submitted the performance during FY 2016-17 and marks scored as under:

Performance during FY 2016-17*(in %)	80.78%
* Formula	IF(C>10, 100-(C-10)/3,100)#
Marks Scored (in proportion of the %age performance above)	4.04
* Average of 12 months	
#Upto 10% variation, performance is proposed to be considered 100% 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 RLDC Fees and Charges Regulations 2015	

50. We have considered the submission of the Petitioner. We also agree with the formula given by the petitioner to compute KPI-10. The weightage claimed for variance of



capital expenditure is allowed as 4.04 out of 5 in terms of Appendix VI of the Fees and Charges Regulations.

KPI-11: Variance of Non-Capital expenditure

51. The petitioner has submitted the details of variance of non-capital expenditure as under:

(₹ in lakh)

Capital Expenditure allowed by CERC (A)	Actual Expenditure incurred (B)	% Variation $C=ABS((A-B)/A)*100$
2295.05	2414.07	5.19

52. The Petitioner has submitted that in the Non-Capital Expenditure, HR Expenses, O&M Expenses have been considered. In column A, figures as per the RLDCs Fees and Charges Orders by CERC for the control period 2014-19 have been considered. In Column B, value as per Balance Sheet of FY 2016-17 has been considered.

53. The total weightage for the parameter "variance of non-capital expenditure" is 5. The Petitioner has submitted the performance during FY 2016-17 and marks scored as under:

Performance during FY 2016-17*(in %)	100.00%
* Formula	IF(C>10, 100-(C-10)/3,100)#
Marks Scored (in proportion of the %age performance above)	5.00
* Average of 12 months	



#Upto 10% variation, performance is proposed to be considered 100% 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 RLDC Fees and Charges Regulations 2015

54. The Commission vide RoP dated 11.4.2018 in the instant petition directed the petitioner to submit

"Submit the financial statement pertaining to NLDC or RLDCs for the FY 2016-17".

In response, the petitioner vide affidavit dated 3.5.2018 has submitted the copy of financial statement of WRLDC of FY 2016-17.

55. We have considered the submission of the Petitioner. We also agree with the formula given by the petitioner to compute KPI-11. Based on the percentage variation, the weightage claimed for variance of non-capital expenditure is allowed as 5 out of 5 in terms of Appendix VI of the Fees and Charges Regulations.

KPI-12: Percentage of certified employees

56. The Petitioner has submitted that the certification framework was introduced in 2011 based on recommendations of G.B. Pradhan Committee Report, which called for *"Introduction of system of 'certification' of System Operators by an independent body such as the NPC/NPTI" and "Establishment of an institute for training of system operators.....National Power Training Institute (NPTI) may be entrusted with the responsibility of training initially."*

57. Further it is submitted by Petitioner that a framework was developed for System Operators from the states and POSOCO for training and certification, with NPTI appointed as the certifying agency. The framework provides for Basic Level, Specialist Level and



Management Level courses. Till date 5 Basic Level Certification and 4 specialists level certifications have been introduced (Two on Regulatory Framework in Power Sector and Two on Power System Reliability). The exams are held online on an all India basis. Basic Level Certification is a foundation level exam where all System Operators in the country can appear, whereas, Specialist level exams focus on a particular area of expertise. Validity of both certificates is three years, System Operators are required to have at least one certificate still in its validity period to be qualified as certified.

The term "Eligible"- Includes all Executive who are in Technical Functions posted in the respective RLDC/NLDC on the cut-off date (excluding HR, Finance, Legal, Company Secretariat, Executive Secretaries etc.).

The term "No. of Employees Certified"-is number of eligible employees who have at least one valid certificate (either basic level or specialist level) on the date specified.

58. The Petitioner has submitted that while evaluating KPI-12, the performance is considered 100% if the percentage of certified employees at th RLDC = 85%. When the percentage of certified employees at the RLDC falls below 85%, ther performance (KPI-12) 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 Fee and Charges Regulations, 2015. Percentage performance has been proportionately converted to marks scored.

59. The total weigthage for the parameter “percentage of certified employees” is 5. The petitioner has submitted the details of percentage of certified employees, performance during FY 2016-17 and marks scored as under:



Name of NLDC / RLDC	WRLDC	
No. of Eligible Employees for Certification as on 31.3.2017 (A)	No. of Employees Certified as on 31.3.2017 (B)	%age of Employees Certified as on 31.3.2017 (C=B/A*100)
51	38	74.51
Performance during FY 2016-17* (in %)	96.50%	
* Formula	IF(C<85, (100-(85-C)/3),100)#	
Marks Scored (in proportion of the %age performance above)	4.83	
* Average of 12 months		
#Upto 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 2015		

60. We have considered the submission of the Petitioner. We also agree with the formula given by the petitioner to compute KPI-12. Based on the percentage variation, the weightage claimed for percentage of certified employees is allowed as 4.83 out of 5 in terms of Appendix VI of the Fees and Charges Regulations.

61. We have considered the submission of the petitioner with regard to KPI. The Key Performance Indicators allowed as per the Assessment Table depicted in Appendix-V of the Fees and Charges Regulations as under:

Sl. No	Key Performance Indicators	Weighthage	Claimed for (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



Sl. No	Key Performance Indicators	Weighthage	Claimed for (2016-17)	Allowed
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	5.0	5.0
10	Variance of Capital expenditure	5	4.04	4.04
11	Variance of Non Capital expenditure	5	5.0	5.0
12	Percentage of Certified Employee	5	4.83	4.83
	Total	100	98.87	98.87

62. As per the above table, the petitioner has achieved 98.87% Key Performance Indicators out of 100%. Accordingly, the petitioner is allowed to recover incentive of 8.774% of annual charges for the financial year 2016-17

63. Petition No. 81/MP/2018 is disposed of in terms of above.

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

Sd/-
(A.K.Singhal)
Member

Sd/-
(P.K.Pujari)
Chairperson

