CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

Petition No. 72/MP/2019

Coram: Shri P.K. Pujari, Chairperson Dr. M.K. Iyer, Member Shri I.S. Jha, Member

Date of Order: 28.06.2019

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 Dispatch Centre and other related matters) Regulations, 2015 for approval of Performance Linked Incentive for NLDC for the financial year 2017-18 with reference to NLDC Charges for the control period 1.4.2014 to 31.3.2019.

And In the matter of

National Load Dispatch Centre, Power System Operation Corporation Ltd. (POSOCO) (A Govt. of India undertaking), Registered office: B-9, Qutab Institutional Area, 1st Floor, Katwaria Sarai, New Delhi -110016

....Petitioner

Vs.

Users of NRLDC: Users under the category of Distribution Licensees and Buyers

1. CMD, UPPCL, Uttar Pradesh Power Corporation Limited, Shakti Bhawan, 14-Ashok Marg, Lucknow-226001

2. Principal Secretary, Government of J&K, Civil secretariat, Srinagar, J&K.



3. CMD, Rajasthan Rajya Vidyut Prasaran Nigam Limited, Vidyut Bhawan, Vidyut Marg, Jaipur-302005.

4. Chairman, RUVNL, Vidyut Bhawan, Janpath, Jyoti Nagar, Jaipur- 302005, Rajasthan

5. Chairman, Punjab State Transmission Corporation Limited, PSEB Head Office The Mall, Patiala-147001

6.6.Managing Director, Haryana Vidyut Prasaran Nigam Limited, Shakti Bhawan, Sector-6, Panchkula-134109

7. Chief Engineer, Haryana Power Perchase Center, Room No-308, Shakti Bhawan, Sector-6 Panchkula-134109, Haryana

8. CMD, Delhi Transco Limited, Shakti Sadan, Kotla Road, New Delhi-110 002

9. Chairman, Himachal Pradesh State Electricity Board Ltd., Kumar House, Vidyut Bhawan, Shimla-171004

10.Managing Director,Power Transmission Corporation of Uttarakhand Limited,7-B, Lane No-1, Vasant Vihar Enclave,



Dehradun - 248 001.

11.Managing Director, Uttarakhand Power Corporation Ltd., Kanwli Road, Urja Bhawan, Dehradun-248001,Uttrakhand

12.Chief Engineer, Electricity Department, UT Chandigarh, Sector 9-D, UT Chandigarh-160019

13.Chief Electrical Engineer, North Central Railway General Manger Office, Subedarganj Uttar Madhya Railway, Allahabad, UP- 211011.

14. The DGM, Electrical, National Fertilizers Limited, District:- Ropar, Naya Nangal 140124, Punjab

15.Chief General Manager, PGCIL Kurukshetra (±800 KV HVDC Inter Connector Project) V.P.O. Bhadson, Opp Piccadily Sugar Mill, Tehsil INDRI, District Karnal-132117 (Haryana)

16.Senior DGM, PGCIL Bhiwadi HVDC (±500 KV), 4th Km Mile Stone, Bhiwadi- Alwar Bye-Pass Road, P.O. Khijuriwas, Distt. Alwar, (Rajashtan)-301018.

17.General Manager, PGCIL, Dadri HVDC (±500 KV), PO-Vidyut Nagar, Distt: Gautambuddh Nagar (U.P.)-201008.



18. Senior GM, PGCIL,
Agra HVDC Terminal 765/400/220 KV, Sub-Station,
12.6 KM, Mile Stone, Shamshabad Road,
P.O. Shyamo, Agra-283125 (U.P.)

19.Senior DGM, PGCIL, Ballia HVDC (±500 KV) Sub-Station, Village & Post: Ibrahimpatti, (via Krihirapur), Tehsil: Belthra Road, Distt:- Ballia (U.P.) Pin-221716.

20.General Manager, PGCIL Rihand HVDC Station, Inside NTPC Rihand Plant Premises, P.O-Bijpur Distt: Sonebhadra, (U.P.) Pin-231223

Users the category of Generating Stations and Sellers

21.General Manager, Singrauli Super Thermal Power Station, Shakti Nagar, UP-231222

22.General Manager, Singrauli Solar PV Power Project, Shakti Nagar, UP-231222

23.General Manager, Singrauli Small Hydro Power Project, Shakti Nagar, UP-231222

24.2General Manager, Rihand Super Thermal Power Station-I, Rihand Nagar, UP-231223

25.General Manager,



Rihand Super Thermal Power Station-II, Rihand Nagar, UP-231223

26.General Manager, Rihand Super Thermal Power Station-III, NTPC Rihand, Dist-Sonbhadra, UP – 231223

27.General Manager, Dadri, National Capital Power Project, Dadri Dhaulana Road, Distt. Gautam Buddh Nagar, UP-201008

28.General Manager, Dadri – Stage - II, National Capital Power Project, Dadri Dhaulana Road, Distt. GautamBuddh Nagar, UP-201008

29.General Manager, Firoz Gandhi Unchahar Thermal Power Project-I P.O. Unchahar, Distt. Raibareilly, UP

30.General Manager, Firoz Gandhi Unchahar Thermal Power Project-II, P.O. Unchahar, Distt. Raibareilly, UP

31.General Manager,Firoz Gandhi Unchahar Thermal Power Project-III,P.O. Unchahar,Distt. Raibareilly, UP

32.General Manager, Firoz Gandhi Unchahar Thermal Power Project-IV, P.O. Unchahar, Dist.: Raibareilly, U.P.- 229406



33.General Manager, Firoz Gandhi Unchahar Solar PV Power Project, Unchahar, Distt. Raibareilly, UP

34.General Manager, Dadri Gas Power Project, Dhaulana Road, Distt. Gautam Buddh Nagar, UP-201008

35.General Manager, Dadri Solar PV Power Project, Dhaulana Road, Distt. Gautam Buddh Nagar, UP-201008

36.General Manager, Auraiya Gas Power Project (Gas Fired, RLNG Fired, Liquid Fired), Dibiyapur, Distt Etawah, UP-206244

37.General Manager, Anta Gas Power Project (Gas Fired, RLNG Fired, Liquid Fired), Distt. Baran, Rajasthan-325209

38.General Manager, Koldam HPP, NTPC, Post- Barman, Dist- Bilaspur, Himachal Pradesh 174013

39. Station Director, Narora Atomic Power Station, Narora, Distt. Bulandshahar, UP-202389

40.Station Director, Rajasthan Atomic Power Station-B, NPCIL Rawatbhata, PO- Anu Shakti Vihar, Kota, Rajasthan-323303



41.Station Director, Rajasthan Atomic Power Station-C, (RAPS-5&6) NPCIL Rawatbhata, PO-Anushakti Vihar, Kota, Rajasthan-323303

42.General Manager, Bairasiul Hydro Electric Project, NHPC Ltd.,Surangini, Distt. Chamba, HP-176317

43.General Manager, Salal Hydro Electric Project, NHPC Ltd, Jyotipuram, Distt. Udhampur, J&K-182312

44.General Manager, Tanakpur Hydro Electric Project, NHPC Ltd., Banbassa, Distt. Champawa,Uttrakhand-262310

45.General Manager, Chamera-I Hydro Electric Project, NHPC Ltd., Khairi, Distt. Chamba, HP-176310

46.General Manager, Uri Hydro Electric Project, NHPC Ltd., Mohra, Distt. Baramulla, J&K-193122

47.General Manager, Chamera-II Hydro Electric Project, NHPC Ltd., Karian, Distt. Chamba, HP-176310

48.General Manager, Chamera-III Hydro Electric Project, NHPC Ltd.,Dharwala,



Distt.- Chamba, HP-176311

49.General Manager, Dhauliganga Hydro Electric Project, NHPC Ltd., Tapovan, Dharchula, Pithoragarh, Uttrakhand-262545

50.General Manager, Dulhasti Hydro Electric Project, NHPC Ltd., Chenab Nagar, Distt. Kishtwar, J&K-182206

51. General Manager, Uri 2 Hydro Electric Project, NHPC Ltd., Nowpura, Distt. Baramulla, J&K-193123

52.General Manager, Parbati HE Project Stage-III Behali, P.O- Larji Kullu 175122 Himachal Pradesh

53.Chief Engineer, Sewa-II Power Station, NHPC Ltd. Mashke, post Bag no-2, P.O-Khari, Dist: Kathua, Jammu and Kasmir -176325

54.General Manager, Naptha Jhakhri HEP, Satluj Jal Vidyut Nigam Ltd. Power Project, Jhakri, Rampur, Distt. Shimla, HP-172201

55.General Manager, Rampur HEP, Satluj Jal Vidyut Nigam Ltd. Power Project, Jhakri, Rampur, Distt. Shimla, HP-172201



56.General Manager, Tehri Hydro Development Corporation Ltd., Bhagirath Puram, Tehri, Uttrakhand-249001

57. General Manager, Koteshwar HEP, THDCIL, Koteshwerpuram, Post Office- Pokhari Tehri Garwal, Uttarakhand - 249146

58.General Manager, ADHPL, Village- Prini, PO -Jagat Sukh, Tehsil - Manali, Distt- Kullu (H.P) India.

59. General Manager, Indra Gandhi Super Tharmal Power Project, PO -Jharli, Tahsil Matanhail, Dist – Jhajjar, (Haryana)-124125

60.General Manager, Karcham Wangtoo HEP, Himachal Baspa Power Company Limited, Sholtu Colony, PO- Tapti, Dist-Kinnaur, -172104 (HP).

61. Director, Malana - II Everest Power Pvt. Ltd, Hall-A/ First Floor Plot No-143-144, Udyog Vihar, Phase -4, Gurgaon, Haryana 122015

62. Company Secretary, Shree Cement Thermal Power Project Bangurnagar, Beawar ,Dist Ajmer, Rajasthan -305901

63.Company Secretary, Greenco Budhil HPS Ltd,



Plot No. 1367 Road No- 45, Jubilee Hills, Hyderabad- 500033

64. Project General Manager, Himachal Sorang Power Limited, D-7, Lane-I, Sector-I, New Shimla, Shimla, H.P.-171009.

65.Director (Power Regulation),
Bhakra Power House,
SLDC Complex ,
66 KV Substation, Industrial Area Phase-I,
Madhya Marg, BBMB Chandigarh

66.Superintending Engineer, Dehar HEP, BBMB, PW, Solapper, Tehsil Sundernagar, District: Mandi Himachal Pradesh-175017

67.Superintending Engineer, Pong Power House Circle, Power wing BBMB Talwara, District: Hoshiarpur, Punjab 144216

68.General Manager, Sainj HEP, HPPCL, Larji, Distric - Kullu, Himachal Pradesh, 175122

Users under the category of Inter State Transmission Licensees

69.Executive Director, PGCIL, NRTS-I, Power Grid Corporation of India Ltd., B-9, Qutab Institutional Area, New Delhi-110016.

70.Director, Operations, Powerlinks Transmission Ltd., 10th Floor, DLF Tower-A,



District Centre, J asola, New Delhi-110044

71.Executive Director & CEO, Jaypee POWERGRID Ltd. F-Block, Sector -128 Noida- U.P

72.Director, Adani Transmission India Ltd, Business Development, Achalraj, O Opp Mayor Bungalow, Law Garden, Ahmedabad 380009.

73.Managing Director, Parbati Koldam Transmission Company LTD., 5th Floor 1A, JMD Galleria, Sec-48, Sohna Road, Gurugram, Haryana 122018.

74.General Manager, Indira Gandhi Super Thermal Power Project, Power company Private Limited, P.O.: Jharli, Dist-Jhajjar

75. The Vice President,
NRSS XXIX Transmission Limited,
F-1, Mira Corporate Suite,
Ishwar Nagar,
Mathura Road, New Delhi – 110065.

76.The DIRECTOR, Patran Transmission Company Limited, 400 KV 220kV GIS Substation, Village-Banwala, Tehsil-Patran, District: Patiala 147105 Punjab.

77. The Vice President, RAPP Transmission Company Ltd, F-1, Mira Corporate Suite, Ishwar Nagar,



Mathura Road, New Delhi - 110065

78. The Vice President, NRSS XXXI (B) Transmission Ltd. Essel Infra projects Ltd. 06th Floor, Plot No. 19, Film City, Sec-16 A, Gautam Buddha Nagar, Noida U.P. – 201301

79. The Vice President, NRSS XXXVI Transmission Ltd. Essel Infra projects Ltd. 06th Floor, Plot No. 19, Film City, Sec-16 A, Gautam Buddha Nagar , Noida U.P. – 201301

80.CEO, POWERGRID Unchahar Transmission Ltd. 765/400/220kV Substation, Village Chauferava, Post & Dist Fatehpur, Uttar Pradesh, 212601.

Users of WRLDC:

Users under the category of Distribution Licensees and Buyers

81. Managing Director,MSEDCL, Prakashgadh,5th Floor, Bandra East,Maharashtra Mumbai 400051.

82.Managing Director, GUVNL, Sardar Patel Vidyut Bhavan, Race Course Gujarat Vadodara 390007.

83.Managing Director, MP Power Management Co Ltd, 3rd Floor, Block No 11, Shakti Bhavan, Rampur,



Madhya Pradesh 482008

84.Managing Director, CSPDCL, PO - Sunder Nagar Chhattisgarh Raipur, Dangania 492013.

85.Secretary (Power), Electricity Department, UT of Daman & Diu, Sachivalaya, Daman & Diu Moti Daman 396210

86.Secretary (Power),
UT of Dadra Nagar & Haveli,
Secretariat, Electric Depatment,
66kv Amli Road,
Dadra Nagar & Haveli Silvassa 396230

87.Managing Director, ESSAR STEEL INDIA LIMITED, 27th KM, Surat Hazira Road, Gujarat Surat 394270

88.Chief Electrical Engineer,Goa Electricity Department,Government of Goa,3rd Floor, Vidyut Bhavan,Panjim, Goa – 403001.

89.General Manager, Bhadravathi HVDC, Power Grid Corporation of India Ltd, Sumthana Village, Bhadravathi(Tahsil), Bhadravathi, Chandrapur(Dist), Maharashtra-442 902

90.General Manager, Vindhayachal HVDC, Power Grid Corporation of India Ltd, P.O.Vindhyanagar, P.Box.No.12,



Singrauli(Dist), Madhya Pradesh-486 885

91.BARC FACILITY- Plant Superintendent, BARC-Nuclear Recycle Board(NRB), BARC, Tarapur, Mumbai – 401502, Maharashtra

92.Station Incharge, +/- 800 kV Champa HVDC Terminal, Power Grid Corporation of India Ltd, Vill: Taga, Tahsil: Akaltara, Janjgir-Champa, Chhattisgarh - 495668

Users under the category of Generating Stations and Sellers

93.General Manager, Korba STPS STG (I & II), NTPC Ltd., P.O.: Vikas Bhavan, Jamnipali, Korba(District), Chhattisgarh- 495 450.

94.General Manager, Korba STPS STG (III), NTPC Ltd, P.O.Vikas Bhavan, Jamnipali, Korba(Dist), Chhattisgarh- 495 450

95.General Manager, VSTPS-STAGE-I, Vindhayachal STPS, NTPC Ltd, P.O.: Vindhyanagar, Sidhi(District), Madhya Pradesh – 486 885

96.General Manager, VSTPS-STAGE-II, Vindhayachal STPS, NTPC Ltd., P.O.: Vindhyanagar, Sidhi(Dist),Madhya Pradesh – 486 885

97.General Manager, VSTPS-STAGE-III, Vindhayachal STPS, NTPC Ltd, P.O.: Vindhyanagar, Sidhi(Dist),Madhya Pradesh – 486 885



98.General Manager, VSTPS-STAGE-IV, Vindhayachal STP National Thermal Power Corporation of India Ltd, P.O Vindhyanagar, Sidhi(Dist),Madhya Pradesh – 486 885

99.General Manager, VSTPS-STAGE-V, Vindhayachal STP National Thermal Power Corporation of India Ltd, P.O Vindhyanagar, Sidhi(Dist), Madhya Pradesh – 486 885

100. General Manager, Kawas Gas Power Project, NTPC Ltd , P.O.Aditya Nagar, Surat, Gujarat - 394 516

101. General Manager, Gandhar Gas Power Project, NTPC Ltd, P.O.: NTPC Township, Bharuch(Dist), Gujarat- 392215

102. General Manager, SIPAT TPS Stg-I, NTPC Ltd, SIPAT, Chhattisgarh - 495558.

103. General Manager, SIPAT TPS Stg-II, NTPC Ltd., SIPAT, Chhattisgarh-495558.

104. General Manager, Mouda STPP Stage-I, NTPC Ltd, Mouda Ramtek Road, P.O.Mouda, Nagpur (Dist), Maharashtra

105. General Manager, Mouda STPP Stage-II, NTPC Ltd, Mouda Ramtek Road,



P.O.Mouda, Nagpur (Dist), Maharashtra

106. General Manager/ Plant Head, NTPC Ltd., Solapur Super Thermal Power Station, PO: Hotgi Station, Taluka: South Solapur, District: Solapur, Maharashtra-413003.

107. Station-Incharge,
NTPC Ltd LARA STPP, - Vill-Chhappora Po+Ps- Pussora,
Raigarh, Chattisgarh-496001
108. Station-Incharge,
NTPC Ltd. Gadarwara STPP,
Village-Dongargaon, PO: Gangai,
Tehsil- Gadarwara, Dist-Narsinghpur,
Madhya Pradesh (Mobile: 9004497016)

109. General Manager,2 X 135 MW Kasaipali Thermal Power Project,ACB (India) Ltd.District - Korba Chhattisgarh Chakabura 495445

110. General Manager,Bharat Aluminium Co. Ltd,Captive Power plant-II,BALCO Nagar Chhattisgarh Korba 495684

111. Executive Director, Costal Gujarat Power Ltd (CGPL-UMPP), Tunda Vandh Road, Tunda Village, Mundra, Gujarat Kutch 370435

112. Executive Director,DB Power, Village - Baradarha,Post - Kanwali, Dist - Janjgir, Champa,Chhattisgarh Baradarha 495695

113. Executive Director Jindal Power Ltd. Stg-I, OP Jindal STPP, PO-Tamnar, Gjarghoda Tehsil,



Chhattisgarh District - Raigarh, 496107

114. Executive Director Jindal Power Ltd. Stg-II, OP Jindal STPP, PO-Tamnar, Gjarghoda Tehsil, Chhattisgarh District - Raigarh, 496107

115. Executive Director,DGEN Mega Power Project,Plot No Z-9, Dahej SEZ Area (Eastern side),At: Dahej, Taluka-Vagra,Dist-Bharuch, Gujarat 392130

116. Executive Director,
GMR Warora Energy Limited,
Plot No B-1, Mohabala MIDC Growth Center
Post Tehsil - Warora, Dist – Chandrapur,
Maharashtra 442907

117. Executive Director, ESSAR POWER MP LTD. Village Bandhora, Post- Karsualal, Tehsil- Mada, Distt. Singrauli, Madhya Pradesh – 486886

118. Head(Commercial), GMR CHHATTISGARH ENERGY LTD, Skip House, 25/1, Museum Road, Karnataka, Banglore-560025

119. Managing Director, Jaypee Nigrie Super Thermal Power Project, Nigri District, Singrauli, Madhya Pradesh 486668

120. Executive Director, DCPP, OP Jindal STPP, PO-Tamnar, Gjarghoda Tehsil,



Chhattisgarh District - Raigarh, 496107

121. Station Director,Nuclear Power Corporation of India Itd,Kakrapara Atomic Power Station,PO - via Vyara, Dist – Surat,Gujarat - 395651

122. Station Incharge, Kakrapar Atomic Power Project-3&4(KAPP-3&4), Regd. Office: NPCIL, 16th Floor, Centre-1, World Trade Centre, Cuffe Parade, Colaba, Mumbai-400005

123. Station Director, Tarapur Atomic Power Station 1&2, Nuclear Power Corporation of India Ltd, P.O.TAPP, Thane(Dist), Maharashtra- 401 504

124. Station Director, Tarapur Atomic Power Station 3&4, Nuclear Power Corporation of India Ltd, P.O.TAPP, Thane(Dist), Maharashtra- 401 504

125. Managing Director,
Korba West Power Co.Ltd.,
Village - Chhote Bhandar, P.O. - Bade Bhnadar,
Tehsil - Pussore, District - Raigarh,
Chhattisgarh Raigarh 496100

126. Managing Director, KSK Mahanadhi , 8-2-293/82/A/431/A, Road No 22 Jubilee Hills Andhra Pradesh Hyderabad 500033



127. General Manager(Comml), LANCO Power Ltd, Plot No - 397, phase -III, Udyog Vihar, Haryana Gurgaon 122016

128. General Manager, NTPC-SAIL Power Company Private Ltd, Puranena Village, Chhattisgarh Dist - Durg, Bhilai 490021

129. General Manager,
Ratnagiri Gas & Power Pvt Ltd (RGPPPL),
5th floor, GAIL Jubilee Tower,
B-35-36, Sector-1, Noida,
Gautam Budh Nagar, Uttar Pradesh 201301

130. Managing Director,
Sasan Power Ltd,
Reliance Centre, Near Parbhat Colony,
Off Western Express Highway,
Santacruz (E), Mumbai 400055

131. Member (Power),
Narmada Control Authority,
Narmada Sadan, Sector -B,
Scheme No 74, Vijaynagar, Indore,
Madhya Pradesh-452010 (Mobile: 9978934846)

132. CEO, MB Power (Madhya Pradesh) Ltd., Corporate Office: 239, Okhla Industrial Estate Phase-III, New Delhi- 110020 (Tel: 011-47624100)

133. Chief General Manager, RKM Powergen Pvt. Ltd., Village: Uchpinda, PO: Dhurkot, Dist: Janjgir-Champa, Chhattisgarh -495692



134. Head (Commercial),
Jhabua Power Ltd., Village – Barrella,
Post – Attaria, Tahsil –Ghansor, Dist – Seoni,
Madhya Pradesh – 480997

135. Head (Commercial), Dhariwal Infrastructure Ltd., CESC House, Chowringhee Square, Kolkata – 700001

136. Head (Commercial),
SKS Power Generation Chhattisgarh Ltd.,
501B, Elegant Business Park,
Andheri Kurla Road, J B Nagar,
Andheri (East), Mumbai – 400059

137. Sr. Vice President (Power),M/s. TRN Energy Pvt. Ltd.,18, Vasant Enclave, Rao Tula ram Marg,New Delhi-110057

138. Solar Energy Corporation of India Ltd. 1st Floor, D-3, A-Wing, Religare Building, District Centre, New Delhi Saket 110017

139. NTPC Viddut Vyapar Nigam Limited,(NVVNL),7th Floor,Core3,SCOPE Complex,7, Institutional Area,Lodhi Road, New Delhi-110003

140. Director, Sugen, Torrent Power Limited, Torrent House, Off Ashram Road, Ahmedabad, Gujarat-380009

141. APL Gen, Associate General Manager - Business Development, Achalraj, Opp. Mayor Bungalow, Law Garden, Ahmedabad,



Gujarat-380 006

142. Head (Electrical),Heavy Water Board, Department of Atomic Energy,V. S. Bhavan, Anushaktinagar,Mumbai-400094

143. CEDE (Western Railway),Office of Chief Electrical Engineer,5th Floor, New Building,Churchgate Rly Station, W. Rly HQ,Mumbai -400020

Users under the category of Inter State Transmission Licensees

144. General Manager,Power Grid Corporation of India Ltd.Western Region - I Headquarters,PO - Uppalwadi, Sampritinagar,Nagpur, Maharashtra - 440026

145. Managing Director, Essar Power Transmission Co. Ltd.- 27 Km Surat Hazira Road, Surat Gujarat -394270 India

146. Executive Director, Jindal Power Ltd., OP Jindal STPP, OP Jindal STPS, PO- Tamnar, Chhattisgarh District - Raigarh, 496107

147. Executive Director, Torrent Power Grid Ltd, Torrent House, Off Ashram Road, Gujarat Ahmedabad 380009

148. General Manager,Western Transco Power Limited.,601,6th Floor, Hallmark Business Plaza,



Opp Gurunanak Hospital, Bandra(E), Mumbai-51

149. General Manager, Western Transmission Gujarat Limited., 601, 6th Floor, Hallmark Business Plaza, Opp Gurunanak Hospital,, Bandra(E), Mumbai-51

150. General Manager (Comml),Adani Power Ltd. Achalraj,Opp. Mayor Bungalow, Law Garden,Ahmedabad, Gujarat - 380006

151. Head (Commercial),
Bhopal Dhule Transmission Company Ltd.,
Sterlite Grid Ltd. 634 Tulip,
New Minal Presidency,
J K Road, Ayodhya Bypass,
Madhya Pradesh Bhopal 462023

152. Head (Commercial), Raichur Solapur Power Transmission Company Ltd, Patel Estate, SV Road, Jogeshwari West, Mumbai 400102

153. Head (Commercial),
Jabalpur Transmission Company Limited (JTCL)-Sterlite Grid Ltd.
634 Tulip, New Minal Presidency,
J K Road, Ayodhya Bypass,
Madhya Pradesh Bhopal 462023

154. RAPP Transmission Company, Sterlite Grid Ltd. 634 Tulip, New Minal Presidency, J K Road, Ayodhya Bypass, Madhya Pradesh Bhopal 462023

155. CEO,



Powergrid Warora Transmission Ltd. (PWTL), Sampriti Nagar, Nari Ring Road, Nagpur, Maharashtra- 440026

Users of ERLDC:

Users under the Category of Distribution Licensees & Buyer

156. Chairman, Bihar State Holding Co. Ltd., Vidyut Bhavan, Bailey Road, Patna, Bihar 800021

157. Chairman, Jharkhand Urja Vikash Nigam Limited, Dhurwa Road, Ranchi, Jharkhand 834002

158. Chairman, Damodar Valley Corporation, DVC Tower, VIP Road, Kolkata, WB 700054

159. Chairman, Grid Corporation of India Ltd, J Janpath, Bhubaneswar, Odisha 751022

160. Secretary, Power Deptt., Govt. of Sikkim, Kaji Road Sikkim Gangtok 731101

161. Chairman, West Bengal State Electricity Distribution Corporation Limited, Bidyut Bhavan,



Saltlake, Kolkata WB 700091

162. Executive Director, ERTS – I, Power Grid Corporation Limited, Board Colony, Shastri Nagar,Patna-800023

163. Addl. General Manager, NTPC Vidyut Vyapar Nigam Limited, Lodhi Road New Delhi 110003.

164. The DGM(Commercial), Power Grid Corporation Of India Ltd., RHQ, ERTS-II, CF-17, Action Area-1C, New Town, Kolkata 700156,West Bengal.

Users under the Category of Generating Stations & Sellers

165. General Manager, Farakka Super Thermal Power Plant-I&II, NTPC Ltd., Farakka, WB 742236

166. General Manager, Kahalgaon Super Thermal Power Plant-I NTPC Ltd, Bhagalpur, Bihar 813214

167. General Manager, Kahalgaon Super Thermal Power Plant-II NTPC Ltd, Bhagalpur, Bihar 813214

168. Executive Director, Talcher Super Thermal Power Stn-I NTPC Ltd, Nayapalli, Odisha 751012



169. Chief Engineer (Elect), Teesta V HEP, NHPC, Singtam, East Sikkim 737134

170. Chief Engineer,Rangit Hydro Electric Project NHPC,P.O. Rangit Nagar South Sikkim 737111

171. Chairman, Damodar Valley Corporation DVC Tower, VIP Road West Bengal, Kolkata 700054

172. General Manager, Farakka Super Thermal Power Plant-III, NTPC Ltd., Farakka, WB 742236

173. CEO, Maithon Power Limited MA-5 Gogna Colony, P.O: Maithon, Dhanbad, Jharkhand 828027

174. Addl. General Manager, National Thermal Power Corporation Limited, BARH Thermal Power Station, Patna, Bihar 803213

175. President & Director - Projects, GATI Infrastructure Pvt.Ltd, 268, Udyog Vihar, Phase-IV, Gurgaon, Haryana 122001

176. DGM (Electrical), Adhunik Power & Natural Resource Limited Village: Padampur, PS: Kandra Tata-Seraikela Road,



Jharkhand 832105.

177. Addl. General Manager(Commercial),
Talcher Solar PV, ER-II Headquaters,
NTPC Limited, 3rd Floor,
OLIC Builiding, Plot No.:
N-17/2, Nayapalli,
Odissa Bhubaneswar 751012.

178. GM (Power Sales & Regulatory), GMR Kamalanga Energy Ltd, Plot No.-29, Satyanagar, Bhubaneswar, Odissa-751007.

179. Head Power & Sales, Jindal India Thermal Power Ltd., Plot No.12,Local Shopping Complex, Sector-B1,Vasant Kunj, New Delhi- 110070.

180. Advisor(Power),
Ind-Barath Energy Utkal Ltd ,
Sahajbahal, PO Cgarpali Barpali,
Dist - Jharsuguda,
Odisha , Pin – 768211.

181. Head Commercial, Tata Power Trading Co. Ltd., C-43, Sec-62, UP Noida 201307.

182. Sr. General Manager (PP), Grid Corporation of India Ltd., Janpath, Orissa, Bhubaneswar 751022.

183. AGM ,Dans Energy Pvt. Ltd.5th Floor, DLF Building No. 8,



Tower C, DLF Cyber City, Phase – II, Gurgaon- 122002, Haryana.

184. The General Manager (O&M), Bharatiya Rail Bijlee Company Ltd. Nabinagar, Khera Police Station Dist.-Aurangabad, Bihar-824303.

185. Sr.Vice President (O&M), Teesta Urja Ltd.(Teesta -III HEP) Vijaya Building, 2nd Floor, 17, Barakhamba Road, New Delhi 110001

186. VP(Commercial),Sneha Kinetic Power ,Roject Private Ltd,1366, Road no. 45, Jubilee Hills,Hyderabad 500033,Telangana.

187. President – Technical, Shiga Energy Private Ltd. 5th Floor, DLF Building No.8, Tower C, Phase-II, Gurgaon 122002, Haryana.

188. GM(C&RA),OPGC, Zone-A,7th Floor, Fortuna Towers,Chandrashekharpur,Bhubanneswar 751023,Odisha.

Users under the Category of Inter-State Transmission Licensees

189. Chairman,East North Interconnection Company Ltd.,C-2, Mathura Road,New Delhi 110065



190. Executive Director, ER-I, Power Grid Corporation (I) Ltd, Board Colony, Shastri Nagar, Patna- 800023.

191. General Manager, Powerlinks Transmission Limited Vidyut Nagar, Siliguri WB 734015.

192. Head- Asset Manament/O&M, Purulia & Kharagpur Transmission Comp. Ltd, 634A-Tulip New Minal Residency, J.K Road Near Ayodhya Bypass Road, Bhopal-462023.

193. Sr.Vice President,Teestavalley Power Transmission Ltd.,Vijaya Building, 2nd Floor,17 Barakhamba Road, New Delhi -110001.

194. General Manager, A-26/03,Mohan Cooperative Industrial Estate, Mathura Road, New Delhi 110044.

195. Project Director,F-1 Mira Corporate Suites,1&2 Ishwar Nagar, Okhla Crossing,Mathura Road, New Delhi—110065

Users of SRLDC:

Users under the category of Distribution licensees and Buyers

196. Chairman cum Managing Director APTRANSCO, Vidyut Soudha, Hyderabad – 500 082, Telangana



197. Chairman cum Managing Director TSTRANSCO, Vidyut Soudha, Hyderabad – 500 082, Telangana

198. Managing Director PCKL, KPTCL building, Cauvery Bhavan, Bangalore-560 009, Karnataka

199. Chairman KSEB, Vaidyuthi Bhavanam, Pattom, Trivandrum-695 004, Kerala

200. Chairman TNEB, 144, Anna Salai, Chennai – 600 002, Tamil Nadu

201. Superintending Engineer PUDUCHERRY ELE. DEPT, Electricity Dept. of Pondicherry, Pondicherry – 605 001.

202. Chief Engineer (Electrical)Goa Electricity Board,Office of Chief Electrical Engineer (Electrical) Govt. of Goa,Vidyuth Bhavan, 3rd Floor,Panaji, Goa-403 001

203. Executive Director POWERGRID HVDC, PGCIL, Southern Regional Transmission System – II, Near.RTO Driving Test Track, Singanayakanhalli, Yelahanka, Bangalore – 560 064, Karnataka



Users under the category of Generating Stations and Sellers

204. General Manager, RAMAGUNDAM STG I & II NTPC, RSTPS, Jyothi Nagar, Dist. Karim Nagar, Telangana - 505 215

205. General Manager, RAMAGUNTAM STG III NTPC, RSTPS, Jyothi Nagar, Dist. Karim Nagar, Telangana - 505 215

206. General Manager, SIMHADRI STG I NTPC, District - Vishakhapatnam, Simhadri – 531 020, Andhra Pradesh

207. General Manager, SIMHADRI STG I NTPC, District - Vishakhapatnam, Simhadri – 531 020, Andhra Pradesh

208. Executive Director, NTPC, TALCHER STG II NTPC, Kaniha, Deepshikha - P.O, District – Angul – 759 147, Orissa

209. The DGM (O&M), Kudgi STPP NTPC, T.K.Basavana Bagewadi, Bijapur Dist - 586 121, Karnataka

210. Chief General Manager, NLC TPS II STG I Neyveli Lignite Corpn. Ltd, Thermal Power Station II, Neyveli 607 801, Tamil Nadu

211. Chief General Manager, NLC TPS II STG II Neyveli Lignite Corpn. Ltd,



Thermal Power Station II, Neyveli 607 801, Tamil Nadu

212. Chief General Manager, NLC TPS I EXPANSION Neyveli Lignite Corpn. Ltd., Thermal Power Station I (Exp.), Neyveli 607 801, Tamil Nadu

213. Deputy General Manager, NLC TPS II EXPANSION Neyveli Lignite Corpn. Ltd., Thermal Power Station II (Expn.), Neyveli 607 801, Tamil Nadu.

214. General Manager, New Neyveli Thermal Power Project, Neyveli - 607807, Cuddalore Dist. Tamil Nadu.

215. Station Director,MAPS Nuclear Power Corpn. Of India Ltd,Madras Atomic Power Station,Kalpakkam – 603 102, Tamil Nadu

216. Station Director, KGS UNITS 1&2 Nuclear Power Corpn. Of India Ltd, Kaiga Generating Station, Kaiga – 581 400, Karwar, Karnataka

217. Station Director,
KGS UNIT 3&4 Nuclear Power Corpn. Of India Ltd,
Kaiga Generating Station,
Kaiga – 581 400, Karwar,
Karnataka

218. The Station Director, KNPP Unit-1 Kudankulam Nuclear Power Project, Nuclear Power Corporation of India ltd., Kudankulam Post, Radhapuram Taluk – 627106,



Tamil Nadu

219. The Station Director, KNPP Unit-2 Kudankulam Nuclear Power Project Nuclear Power Corporation of India Itd., Kudankulam Post, Radhapuram Taluk – 627 106, Tamil Nadu

220. The General Manager,
NTPC Tamilnadu Energy Company Ltd.,
Vallur Thermal Power Project,
Vellivoyalchavadi Post,
Poneri Taluck, Tiruvallur Dist,
Chennai – 600 013, Tamil Nadu

221. The General Manager,
NLC Tamilnadu Power Limited,
2 * 500MW JV Thermal Power Project,
Harbour Estate, Tuticorin – 628 004,
Tamilnadu

222. Executive Director, LANCO KODAPALLI St II, LANCO KONDAPALLI POWER PVT. LTD, Kondapalli, Ibrahimpatnam Mandal, PIN 521 228, Telangana

223. Executive Director, LANCO KODAPALLI St III, LANCO KONDAPALLI POWER PVT. LTD, Kondapalli, Ibrahimpatnam Mandal, PIN 521 228, Telangana

224. The Chairman & Managing Director, Meenakshi Energy Pvt Ltd. (Phase I), 405, Saptagiri Towers, 1-10-75/1/1 to 6, Begumpet, Secunderabad – 500016, Telangana.

225. The Chairman & Managing Director



Meenakshi Energy Pvt Ltd (Phase II), 405, Saptagiri Towers, 1-10-75/1/1 to 6, Begumpet, Secunderabad – 500016, Telangana.

226. The General Manager Simhapuri Energy Ltd., Madhucon Green lands, 6 – 3 – 866 / 2, 3rd Floor, Begumpet, Hyderabad – 560 016, Telengana.

227. The President & CEO
Coastel Energen Pvt Limited,
7th Floor, Buhari Towers,
No.4 Moores Road, Chennai – 600006,
Tamil Nadu

228. The Chief Commercial Officer (CCO)
Sembcorp Energy India Ltd., 6-3-1090,
A-Block, 5th Floor,
T.S.R Towers, Raj Bhavan Road,
Somajiguda, Hyderabad 500082,
Telangana

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

230. The GM Operations Sembcorp Energy India Ltd. Project 2, TP Gudur Mandal, Nellore - 524344, Andhra Pradesh

Users under the category of Inter State Transmission Licensees

231. Executive Director POWERGRID ISTS, Southern Regional Transmission System – II, Near.RTO Driving Test Track,



Singanayakanhalli, Yelahanka, Bangalore – 560 064, Karnataka.

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

233. The Project In Charge Kudgi Transmission Ltd., Building No 3, Second Floor, Sudeep Plaza, MLU Sector - 11, Pocket - 4, Dwarka, NEW DELHI – 110 075, Delhi

234. The Project In Charge Powergrid Vizag Transmission Ltd. Vizag 400kV SS, Sector 10, Ukkanaguram, Vishakapatnam 530032, Andhra Pradesh

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

236. Head-O&M/Assets Management, Maheswaram Transmission Co. Ltd., Tulip-634, New Minal Residency, J.K.Road, Near Ayodhya Bypass, Bhopal 462023, Madhya Pradesh.

Users of NERLDC:

Users under the category of Distribution licensees and Buyers



237. Chairman, APDCL, Bijuli Bhavan, Paltan Bazar, Guwahati- 781001

238. Chairman & Managing Director, MePDCL, Meter Factory Area, Short Round Road, Integrated Office Complex, Shillong- 793001

239. Chairman & Managing Director, TSECL, Bidyut Bhavan, North Banamalipur, Agartala- 799001.

240. Chief Engineer (W. Zone), Dept. of Power, Govt. of Ar. Pradesh, Bidyut Bhavan, Itanagar- 791111.

241. Engineer-in-Chief, P & E Dept., Govt. of Mizoram, Khatla,Aizawl- 796001.

242. Chief Engineer (Power), Dept. of Power, Govt. of Nagaland, Kohima- 797001.

243. Managing Director, MSPDCL, 3rd Floor, New Directorate Building, Near 2nd MR Gate, Imphal – Dimapur Road, Imphal- 795001, Manipur

244. Addl. General Manager,Power Grid Corporation of India Ltd,800 kV HVDC Converter Station,Biswanath Chariali, Vill- Niz Baghmari, P.O.- Burigang,



Assam-784176

Users under the category of Generating Stations and Sellers

245. General Manager, Doyang HEP, NEEPCO, Wokha, Nagaland

246. General Manager, Ranganadi HEP, NEEPCO, P.O. Ranganadi Proj. Dist. Subansiri, Arunachal Pradesh-791121

247. General Manager, AGBPP, NEEPCO, Tinsukia, Assam-786191

248. General Manager, AGTCCP, NEEPCO, Ramchandranagar, Agartala, Tripura-799008

249. General Manager, KHANDONG HEP, NEEPCO, Umrangsoo, N.C.Hills, Assam

250. General Manager, KOPILI HEP, NEEPCO, Umrangsoo, N.C.Hills, Assam

251. General Manager, KOPILI-2 HEP, NEEPCO, Umrangsoo, N.C.Hills, Assam

252. Chief Engineer,



NHPC Loktak HEP, Leimatak-795124, Manipur

253. .Managing Director,ONGC Tripura Power Company Ltd,6th Floor, A Wing, IFCI Tower-61,Nehru Place, New Delhi-110019

254. AGM, NTPC Ltd., BgTPP, Salakati (P), Dist: Kokrajhar (BTAD), Assam-783369.

Users under the category of Inter State Transmission Licensees

255. Executive Director, NERTS, Power Grid Corporation of India Ltd., Lapalang, Shillong-793006, Meghalaya.

256. Managing Director,North Eastern Transmission Company Ltd,1st Floor, Ambience Corporate Tower,Ambience Mall, Gurgaon, 122001,Haryana

257. Head-Corporate Affairs, ENICL, C-2 Mira Corporate Suite, Ishwar Nagar, Mathura Road, New Delhi- 110065.

.....Respondents

Parties Present:

- 1. Shri Ashok Rajan, NLDC
- 2. Shri S.R. Narsimhan, NLDC
- 3. Shri Rakesh Kumar, NLDC



<u>ORDER</u>

The Petitioner, National Load Dispatch Centre (hereinafter referred to as "NLDC"), 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 Dispatch 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 NLDC for the financial year 2017-18 for the control period 1.4.2014 to 31.3.2019.

Background

2. Brief facts of the case are 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 NLDC for the year 2017-18 ending 31.3.2018 has been submitted by petitioner as under:

SI. No	Key Performance Indicators	Weightage	Previous Year (as allowed by CERC (2016-17)	Current Year (2017-18)
1	Interconnection Meter Error	10	10.00	10.00
2	Disturbance Measurement	10	10.00	10.00
3	Average processing time of shutdown request	10	10.00	10.00
4	Availability of SCADA system	10	9.998	9.99
5	Voltage Deviation Index (VDI)	10	10.00	10.00
6	Frequency Deviation Index (FDI)	10	10.00	10.00
7	Reporting of System Reliability	10	10.00	10.00
8	Availability of Website	10	9.940	9.97
9	Availability of Standby Supply	5	5.00	5.00
10	Variance of Capital expenditure	5	4.192	3.779
11	Variance of Non-Capital	5	4.068	3.945
12	Percentage of Certified Employee	5	4.715	4.615
	Total	100	97.913	97.299

		Score	
Slabs	>90%	90-95 %	95-97.72 %
% age Incentive (Slab wise)	7	1	0.460
Net Incentive as %age of Annual Charges	8.460		



(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 comes at 8.460% (For 90-95% additional 1% and for 95% to 97.299% additional 0.460%) of the Annual charges for the year 2017-18.

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 NLDC for the year ending 31.03.2018 given at para 5, the KPI score given at para6and PLI percentage of Annual Charges of the year 2017-18.

(b)Allow the Applicant to recover the above mentioned incentives from the users for the year 2017-18 as approved by the Hon'ble Commission.

(c) Allow the increase in PRP kitty as prayed in petition No. 344/MP/2018 on 8th November 2018.

(d) 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 Respondent UPPCL has filed reply to NLDC vide affidavit dated 20.4.2018 as under :

- (a) As per Regulation 29(5) of the RLDC (Fees and charges Regulation 2015,
 - NLDC shall be allowed to recover 7% of the annual charges for aggregate



performance level of 85% for 3 years commencing from 01.04.2014. The incentive shall increased by 1% of annual charges for every 5% increase of performance level above 90%. The present performance level calculated by the petitioner is 97.299% which means that the performance linked incentive works out to 8.460% of the annual charges for the year 2017-1 8

- (b) The incentive for the performance of NLDC has increased from 7% to 8.46% which means a substantial additional burden of 1.46% which is quite important from the point of view of critical analysis of the calculation of the weightage of KPI as well as percentage of KPI for 2017-18. However, the Petitioner has :-
 - (i) Failed to provide the derivation of the weightage of KPI against all the 12 Key Performance Indices.
 - (ii) Failed to provide the details of calculation of percentage of the KPI in respect of all the 12 No. Key Performance Indices.
- (c) In view of the above it is prayed the Commission to direct the Petitioner to provide calculations of the weightage as well as the percentage of KPI so that, their analytical study can be carried out by the beneficiaries and the conspicuous points may be brought to the knowledge of Hon'ble Commission which will be helpful in deciding the issues covered under the heading prayer of the Petitioner pertaining to instant petition.

Analysis and Decision

5. The petition was heard on 23.4.2019 and notices were issued to the Respondents to file their replies.Vide Record of Proceedings for hearing dated 23.4.2019, the Petitioner



was directed to explain the procedure for measurement of parameter of "Availability of

SCADA", on or before 3.5.2019.

6. The Petitioner vide affidavit dated 01.03.2019 has submitted the information called

for which has been dealt with in succeeding paras of this order.

7. 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 2017-18. 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 Dispatch 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 Dispatch 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."

8. In light of the above provisions, we have considered the Petitioner's claim for Performance Linked Incentive (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:

KPI-1: Reporting of Inter-connection metering error

9. 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.

10. Further it is 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

- 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

11. 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. Considering above, KPI-1 parameter is not applicable to NLDC.

Performance of NLDC has been considered as average performance of RLDC against

this parameter.

12. The petitioner has contended that since the reporting of inter-connection metering

error is not applicable for NLDC, performance of NLDC has been considered as

average performance of RLDCs against this parameter.



13. We have observed that submission made by petitioners in other KPI related petitions as under:

S.No.	RLDC	Petition No.	Performance during FY 2017- 18 (in %age)	Marks Scored (in proportion of the %age performance
1	NRLDC	79/MP/2019	100	10
2	SRLDC	91/MP/2019	100	10
3	WRLDC	92/MP/2019	100	10
4	ERLDC	98/MP/2019	100	10
5	NERLDC	99/MP/2019	100	10

14. The total weightage of parameter "reporting of Inter-connection metering error" is10. The petitioner has submitted performance during the financial year 2017-18 and marks scored as under:

Performance during FY 2017-18 (in %)	100%
Marks Scored (In proportion of the %age performance above)	10
Formula for performance calculation:	(No. of weekly reports issued / 52 (Total no. of Weeks))*100

15. We have considered the submission of the petitioner. We have worked out the average of marks scored by five (5) RLDCs mentioned in table above as (10 + 10 + 10 + 10 + 10 + 10)/5=10. Accordingly, 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:

16. The Petitioner has submitted that The Grid Incidents and Grid disturbances are reported by the RLDCs to NLDC on a monthly basis. The same are then compiled and



independently verified by National Load Dispatch Center. Afterwards the same is reported to the Hon'ble Commission on a monthly basis as a part of Monthly operational report issued by National Load Dispatch Center in accordance to the Indian Electricity 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. The percentage performance has been measured based on the actual number of reports generated, which has been proportionately converted to marks scored.

17. 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 2017-18 are as under:

Grid Incidents and Grid Disturbance for financial year 2017-18				
Category	Count (Nos)	Recovery period (Hrs)	Loss of Energy (MUs)	
GI-1	142	184:51:00	4.56	
GI-2	206	787:41:00	5.72	
GD-1	532	874:18:55	37.88	
GD-2	6	1:48:00	0.61	
GD-3	3	0:46:00	0.68	
GD-4	1	0:07:00	0.24	
GD-5	0	0:00:00	0.00	
All	890	1849:31:55	49.69	

18. The Petitioner has submitted that copy of the report is made available on public domain on POSOCO's website (<u>https://posoco.in/reports/monthly-reports/monthly-reports-2017-18/</u>)

19. The Petitioner has submitted the details of the report for the financial year 2017-18 as under :



SI.	Month	Date of Reporting
No.		
1	April 2017	23 nd May 2017
2	May 2017	23 rd June 2017
3	June 2017	21 nd July 2017
4	July 2017	23 nd August 2017
5	August 2017	21 rd September 2017
6	September 2017	23 st October 2017
7	October 2017	22 rd November 2017
8	November 2017	22 rd December 2017
9	December 2017	23 rd January 2018
10	January 2018	23 rd February 2018
11	February 2018	23 rd March 2018
12	March 2018	23 st April 2018

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

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

21. We have considered the submissions of the Petitioner. Perusal of the above reveals that the Petitioner is reporting incident of grid disturbance each month to the Commission. Accordingly, as per Appendix VI of the RLDC Fees and Charges Regulations, 2015 the weightage factor for reporting of grid incidents and grid disturbance is considered 10 out of 10.

KPI-3: Average processing time of shut down request

22. 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). 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. It 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.

23. 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 are intimated by respective RLDCs to the requesting agencies on D-1 (i.e one day ahead of the proposed date of outage).



24. As per outage planning procedure, shutdown processing time for NLDC/RLDCs is as tabulated below:

SI. No.	Activity	Day	Time (hrs.)
1	Request of shutdown from indenting agency to concerned RLDC.	D-3	1000
2	Forwarding request of shutdown requiring NLDC approval from RLDC to other concerned RLDCs and NLDC (along with the recommendations and study result)	D-2	1000
3	Comments of other RLDCs or NLDC	D-2	1600
4	Approval or Rejection of Request	D-1	1200

As per table above:

Shutdown Processing Time for NLDC is Calculated as: Sr. No(4) - Sr. No(2)= 26hrs Shutdown Processing Time for RLDC is Calculated as: Sr. No(4) - Sr. No(1)= 50hrs

25. 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 2017-18 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(A)
1	Apr'17	80.00	1666.00	20.83
2	May'17	91.00	2109.00	23.18
3	June'17	56.00	1431.00	25.55
4	July'17	67.00	1356.00	20.24
5	Aug'17	87.00	1267.00	14.56
6	Sep'17	94.00	1363.00	14.50
7	Oct'17	116.00	1781.00	15.35
8	Nov'17	108.00	1522.00	14.09
9	Dec'17	74.00	1112.00	15.03
10	Jan'18	78.00	1952.00	25.03
11	Feb'18	124.00	2724.00	21.97
12	Mar'18	101.00	1415.00	14.01
	Total	1076.00	19698.00	18.31

For NLDC



Performance during the financial year	100
2017-18 (ln %)	
Marks scored (In proportion of the	10
percentage performance above)	
*Formula for performance calculation	IF((A-B*26)>0,(1-(A-B*26)/(B*26))*100,100)

26. We have considered the submission of the Petitioner. As per Appendix VI of the RLDC Fees and Charges Regulations 2015, weightage for average processing time of shut down request is considered 10 out of 10.

KPI-4: Availability of SCADA

27. Vide Records of Proceedings for the hearing dated 23.4.2019, the Petitioner was directed to explain the procedure for measurement of parameter of "Availability of SCADA". The Petitioner vide its affidavit dated 2.5.2019 submitted the following procedure for measurement of Availability of SCADA:

(a) Availability of SCADA

Main reasons of outages of real-time data are listed below:

- 1. Failure of critical SCADA servers (hardware level)
- 2 Failure of critical SCADA applications (software level)
- 3. Communication failure

Critical infrastructure of SCADA is redundant at server and network level to ensure standby operation and 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.



SCADA systems are covered under long term maintenance contract by System Integrator/OEM having financial implications in case of outages even in the component level. The System Integrator need to attend the issues as per time lines defined in the maintenance contract, failing which a portion of the maintenance charges can be deducted as penalty measure. Records of all incidences are maintained along with resolution details. The measures for the maintenance contract have been kept stringent so that it does not affect the overall SCADA system availability to the Grid Operators. The records for KPI are generated in line with above philosophy.

(b) Methodology followed for calculation of SCADA system availability

Both main and back-up SCADA systems have two SCADA servers working in redundant mode with one of the servers in master role and the other in standby role. Consequently, services of SCADA system is considered available when at least one of the redundant servers is up. In the event of failure of both the SCADA servers at Main control centre (CC), monitoring of regional grid can be done through SCADA system of Backup. Accordingly, for the purpose of computation of SCADA availability, the status of main and standby SCADA servers at Main and Backup control centres is checked. If any one of the servers is working at any instant and real time SCADA data is available to the control room, the SCADA system is considered to be available.

The SCADA system at Main and Backup control centres is checked for healthiness on daily basis based on Server logs and system alarms of SCADA system in Hardware and Software levels. Daily check on healthiness of SCADA system



components such as Servers, Networks, and Processes etc. is made by the system

integrator and kept in record.

(c) Measurement & Computation of SCADA Availability

There are different levels of severities depending upon the criticality of the failures.

Loss of SCADA system to control room is categorised as Severity 1. The severity

matrix as per maintenance contract is given below:

Category	Definition
Urgent	Complete system failure, severe system instability, loss or failure of any major subsystem or system component such as to cause a significant adverse impact to system availability, performance, or operational capability
Serious	Degradation of services or critical functions such as to negatively impact system operation. Failure of any redundant system component such that the normal redundancy is lost
	Non-availability of System Integrator's Man-power at Control Centre during working hours, non-availability of spares
Severity 3	Any other system defect, failure, or unexpected operation
	Request for information, technical configuration assistance, "how to" guidance and enhancement requests

If due to any fault/malfunction real time grid operations get affected, down time is

recorded for the period for which the fault I malfunctioning persist.

For example, if both Main & Back up Servers of SCADA system are down and Grid

operators are not getting any data through SCADA system, the incident is

considered with highest severity and contributes to unavailability.

As Communication networks are provided by the ULDC/POWERTEL/Third party

lease lines, RLDC does not have direct control over the availability of each links. As



such the data outage due to communication network is not considered under SCADA availability calculation.

The downtime for all such incidents reported in a month are accumulated to arrive at the total system downtime in that Month based on the status of servers stored in SCADA database, month wise %age availability in terms of hours & % age is calculated. The same is compiled for computation of monthly/ quarterly availability of the SCADA system

28. The Petitioner in its petition has submitted that SCADA system at NLDC 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 National Region, either through Unified Load Dispatch and Communication (ULDC) network or through POWERTEL communication network. Main reason reasons of outages of real-time data are listed below:

S. No.	Description	Remarks
1	Failure of critical Servers (hardware level)	Maintained by AMC vendor
2	Failure of critical Applications (software level)	Maintained by AMC vendor
3	Communication equipment failure	Provided and maintained by POWERGRID / Communication provider
4	Communication links failure	Provided and maintained by POWERGRID / Communication Provider

29. The Petitioner has submitted that telemetered data for State sector stations report to NLDC through respective SLDCs over the inter control centre communication protocol (ICCP), primarily using the ULDC network. The Petitioner has submitted that NLDC has backup control centre at different location receiving telemetered data independently through terminal server and State back control centers. The



Petitioner has submitted that NLDC has ensured redundant data links from all terminal server locations with dual reporting to both main and backup control centers. Due to different level of hierarchy of back-ups, NLDC is able to achieve zero downtime of the SCADA system.

30. The total weightage for this parameter is 10. The Petitioner has submitted percentage availability of 12 months (April 2017 to march, 2018) is 99.90. The marks claimed by the petitioner is as follows:

	KPI-4: Availability of SCADA					
Name of	NLDC / RLDC : National Load D	espatch Centre				
SI no	Month	% Availability				
1	April'17	100.00				
2	May'17	100.00				
3	June'17	100.00				
4	July'17	100.00				
5	August'17	100.00				
6	September'17	100.00				
7	October'17	100.00				
8	November'17	99.21				
9	December'17	100.00				
10	January'18	100.00				
11	February'18	99.55				
12	March'18	100.00				
	Average of 12 months	99.90				

Performance 2017-18*	during	the	financ	ial	year	99.90
Marks score percentage p				of	the	9.99



* Average of 12 months	

31. We have considered the submission of the Petitioner. We have worked out the average of 12 months as 99.90. Accordingly, as per Appendix VI of the RLDC Fees and Charges Regulations 2015, the weightage for availability of SCADA is considered 9.99 out of 10.

KPI-5: Voltage Deviation Index

32. 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: National Load Dispatch Centre						
S. No.	Name of the 400/765 kV substation		Intimation to utilities through weekly reports for corrective action or not				
Α	В	С	D	E			
1	Agra	Yes	Yes	Yes			
2	Anpara-D	Yes	Yes	Yes			
3	Anta	Yes	Yes	Yes			
4	Ballia	Yes	Yes	Yes			
5	Bhiwani	Yes	Yes	Yes			
6	Fatehpur	Yes	Yes	Yes			
7	Greater Noida	Yes	Yes	Yes			
8	Lucknow	Yes	Yes	Yes			
9	Lalitpur	Yes	Yes	Yes			
10	Meerut	Yes	Yes	Yes			
11	Moga	Yes	Yes	Yes			
12	Phagi	Yes	Yes	Yes			
13	Unnao	Yes Yes		Yes			
14	Akola	Yes	Yes	Yes			
15	Aurangabad	Yes	Yes	Yes			
16	Bhopal (BDTCL)	Yes	Yes	Yes			
17	Bilaspur	Yes	Yes	Yes			



	KPI-5: Voltage Deviation Index (VDI)					
	Name of the Region: National Load Dispatch Centre					
18	Bina	Yes	Yes	Yes		
19	Champa	Yes	Yes	Yes		
20	Dharamjaigarh	Yes	Yes	Yes		
21	Dhule (BDTCL)	Yes	Yes	Yes		
22	Gwalior	Yes	Yes	Yes		
23	Indore	Yes	Yes	Yes		
24	Koradi	Yes	Yes	Yes		
25	Pune	Yes	Yes	Yes		
26	Raigarh PS (Kotra)	Yes	Yes	Yes		
27	Sasan	Yes	Yes	Yes		
28	Seoni	Yes	Yes	Yes		
29	Sipat	Yes	Yes	Yes		
30	Sholapur	Yes	Yes	Yes		
31	Tamnar PS	Yes	Yes	Yes		
32	Tirora	Yes	Yes	Yes		
33	Vadodara	Yes	Yes	Yes		
34	Wardha	Yes	Yes	Yes		
35	Nellore PS	Yes	Yes	Yes		
36	Raichur	Yes	Yes	Yes		
37	Kurnool	Yes	Yes	Yes		
38	Thiruvalam	Yes	Yes	Yes		
39	Srikakulam	Yes	Yes	Yes		
40	Angul	Yes	Yes	Yes		
41	Gaya	Yes	Yes	Yes		
42	Jharsuguda	Yes	Yes	Yes		
43	Ranchi	Yes	Yes	Yes		
44	Bongaigaon	Yes	Yes	Yes		
45	Bongaigaon TPS	Yes	Yes	Yes		
46	Biswanath Chariali	Yes	Yes	Yes		
47	Misa	Yes	Yes	Yes		
48	Silchar	Yes	Yes	Yes		

33. The Petitioner has submitted that VDI is calculated in line with the methodology specified in Appendix VI of CERC (Fees and Charges of Regional Load Dispatch



Centre and other related matters) Regulations, 2015. Voltage deviation index of important substations is calculated on daily, weekly as well as monthly basis and same is intimated to utilities via daily, weekly and monthly reports. VDI for each important station is calculated as the percentage of time the voltage was outside the IEGC range (380-420 kV at 400 kV level, 728-800 kV at 765 kV level). 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 is shown below:

Station	%age of time Voltage below 728/380 kV	%age of time Voltage between 728/380 kV & 800/420 kV	%age of time Voltage above 800/420 kV	Voltage deviation index (%age of time voltage is outside IEGC band)	Maximum Voltage (kV)	Minimum Voltage (kV)	Average Voltage (kV)
Agra	0.00%	100.00%	0.00%	0.00%	796	755	777

Accordingly, Corrective actions are being taken in Real Time Grid Conditions, by NLDC. 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, Link for NLDC operational feedback for the quarter Jul'17-Sept'17 quarter:

https://posoco.in/download/nldc-operational-

feedback_october_2018_q2/?wpdmdl=14884



Nodes experiencing low/high voltage are listed on page no. 44 of Operational Feedback . This information is being discussed in meetings of the Standing Committee (SCM) on Power System Planning with all the stake holders. Corrective action is also being discussed in Operation Coordination Committee (OCC) meetings.

NLDC also 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 NLDC website	
Daily VDI	https://posoco.in/reports/system-reliability-indices/daily-	
Weekly VDI	vdittcatc/daily-vdittcatc-2017-18/	
Weekly VDI	https://posoco.in/reports/system-reliability-indices/weekly- vdittcatc/weekly-vdittcatc-2017-18/	
Monthly VDI	https://posoco.in/reports/monthly-reports/monthly-reports- 2017-18/	

34. The Petitioner has submitted that Clause 3.10 of the NLDC 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 NLDC 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 NLDC, keeping in view the security of the balance network. Line Opening would be the Last Resort by NLDC 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 NLDC otherwise:

- a) Close the lines which were opened to control high voltage, in consultation with NLDC.
- 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."
- 35. The Petitioner has submitted that corrective actions are being taken in Real Time

Grid Conditions by NLDC. The Petitioner has submitted that apart from these,

persistent high voltage and low voltage are being reported every quarter to the

NLDC operational feedback.

36. The Petitioner has submitted that persistent problems of low/high voltage are

identified in the quarterly operational feedback submitted to CTU and CEA. The



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

Performance during financial year 2017-	100
18*	
Marks scored (In proportion of the	10
percentage performance above)	
* Formula for performance calculation	[((No.of daily reports issued (to be
	derived from column C/365(Total no.of
	days in financial year 2017-
	18)*100)+(No. of weekly reports issued
	(to be derived from column D)/ 52
	(Total no. of weeks in financial year
	2017-18)*100)+(No. of monthly reports
	issued (to be derived from column
	E/12)*100))]/3

37. We have considered the submission of the Petitioner. Accordingly, as per Appendix VI of the RLDC Fees and Charges Regulations 2015, the weightage for Voltage Deviation Index (VDI) is considered 10 out of 10.

KPI-6: Frequency Deviation Index

- 38. 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 moth wise details of FDI i.e. April, 2017 to March, 2018.
- 39. FDI is calculated as the percentage of time frequency is outside IEGC band. Ten second synchrophasor data is used for the calculation. The percentage of samples



lying below 49.90 Hz and above 50.05 Hz together constitutes FDI. The sample is shown below:

_	Percentag	e of time fre	Freq. Deviation	Average	
Date	<49.90 Hz	49.90 - 50.05 Hz	>50.05 Hz	Index (FDI)	Frequency (Hz)
01-May-17	3.36	73.47	23.17	26.53	50.00

40. The deviation indices are being reported on daily basis for the critical nodes along with weekly and monthly reporting as per Regulation. The possible no. of reports which could be generated (365 for daily, 52 for weekly and 12 for monthly) has been converted to KPI scores based on the actual reporting. NLDC 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 NLDC website
Daily FDI	https://posoco.in/reports/frequency-profile/frequency-profile-2017-18/
Weekly FDI	https://posoco.in/reports/weekly-reports/weekly-reports-2017-18/
Monthly FDI	https://posoco.in/reports/monthly-reports/monthly-reports-2017-18/

41. The total weightage for this parameter Reporting of frequency deviation index (FDI) is 10. The Petitioner has submitted the following reports of system reliability The details of KPI-VI are as under:



KPI-6: Frequency Deviation Index (FDI)

Name	Name of the Region: National Load Dispatch Centre					
Α	В	С	D	E		
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		
1	Apr-17	Yes	Yes	Yes		
2	May-17	Yes	Yes	Yes		
3	Jun-17	Yes	Yes	Yes		
4	Jul-17	Yes	Yes	Yes		
5	Aug-17	Yes	Yes	Yes		
6	Sep-17	Yes	Yes	Yes		
7	Oct-17	Yes	Yes	Yes		
8	Nov-17	Yes	Yes	Yes		
9	Dec-17	Yes	Yes	Yes		
10	Jan-18	Yes	Yes	Yes		
11	Feb-18	Yes	Yes	Yes		
12	Mar-18	Yes	Yes	Yes		

Performance during financial year 2017-18*	100
Marks scored (In proportion of the percentage performance above)	10
*Formula for performance calculation	[((No. of daily reports issued (to be derived from column C/365(Total no.of days in financial year 2017-18))*100)+(No. of weekly reports issued(to be derived from column D)/ 52 (Total no. of weeks in financial year 2017-18))*100)+(No. of monthly reports issued (to be derived from column E/12)*100))]/3



42. We have considered the submission of the Petitioner. Petitioner has provided FDI reports as per Regulation. Accordingly, as per Appendix VI of the RLDC Fees and Charges Regulations 2015, the weightage for Frequency Deviation Index (FDI) is considered 10 out of 10.

KPI-7: Reporting of System Reliability

- 43. The Petitioner has submitted that deviation indices are being reported on daily basis for the critical nods 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.
- 44. The total weightage for this parameter Reporting of System Reliability (RSR) is 10. The Petitioner has submitted the following reports of system reliability:

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

S.No.	Month	Intimation to utilities		
		through Daily	through weekly	through monthly
		reports for	reports for	reports for
		corrective action or	corrective action or	corrective action or
		not	not	not
А	В	С	D	E
1	April 17	Yes	Yes	Yes
2	May, 17	Yes	Yes	Yes
3	June'17	Yes	Yes	Yes
4	July'17	Yes	Yes	Yes



5	August17	Yes	Yes	Yes
6	September,17	Yes	Yes	Yes
7	October 17	Yes	Yes	Yes
8	November 17	Yes	Yes	Yes
9	December17	Yes	Yes	Yes
10	January 18	Yes	Yes	Yes
11	February 18	Yes	Yes	Yes
12	March 18	Yes	Yes	Yes

X*	100
*Formula	[((No. of daily reports issued (to be derived from column C/365(Total no. of days in financial year 2017-18))*100)+(No. of weekly reports issued(to be derived from column D) /52 (Total no. of weeks in financial year 2017-18))*100)+(No. of monthly reports issued (to be derived from column E/12)*100))]/3

(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	
А	В	С	D	E	
1	April 17	Yes	Yes	Yes	
2	May17	Yes	Yes	Yes	
3	June17	Yes	Yes	Yes	
4	July17	Yes	Yes	Yes	
5	August 17	Yes	Yes	Yes	
6	September 17	Yes	Yes	Yes	
7	October 17	Yes	Yes	Yes	
8	November17	Yes	Yes	Yes	
9	December 17	Yes	Yes	Yes	



10	January 18	Yes	Yes	Yes
11	February 18	Yes	Yes	Yes
12	March18	Yes	Yes	Yes

Y*	100
*Formula	[((No. of daily reports issued (to be derived from column C/365(Total no. of days in FY 2017-18))*100)+(No. of weekly reports issued(to be derived from column D) /52 (Total no. of weeks in FY 2017-18))*100)+(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	Intimation to utilities through weekly	Intimation to utilities through monthly
		reports for	reports for	reports for
		corrective action or	corrective action or	corrective action or
		not	not	not
A	В	С	D	E
1	April 17	Yes	Yes	Yes
2	May17	Yes	Yes	Yes
3	June17	Yes	Yes	Yes
4	July17	Yes	Yes	Yes
5	August 17	Yes	Yes	Yes
6	September 17	Yes	Yes	Yes
7	October 17	Yes	Yes	Yes
8	November17	Yes	Yes	Yes
9	December 17	Yes	Yes	Yes
10	January 18	Yes	Yes	Yes
11	February 18	Yes	Yes	Yes
12	March18	Yes	Yes	Yes

Z*	100
*Formula	[((No. of daily reports issued (to be derived from column C/365(Total no. of days in FY 2017-18))*100)+(No. of weekly reports issued(to be derived from column D) 52



(Total no. of weeks in FY 2017-18))*100)+(
No. of monthly reports issued (to be
derived from column E/12)*100))]/3

Performance during financial year 2017- 18*=	100
Marks scored (In proportion of the percentage performance above)	
*Formula	(X+Y+Z)/3

45. The Petitioner has submitted that violation of percentage of times N-1 criteria in the

inter-regional corridors is being reported by NLDC on daily, weekly and monthly

basis on the following web links:

KPI-7	Web Link given on NLDC website
Daily reporting	https://posoco.in/reports/system-reliability-indices/daily- vdittcatc/daily-vdittcatc-2017-18/
Veekly	https://posoco.in/reports/system-reliability-indices/weekly-
eporting	vdittcatc/weekly-vdittcatc-2017-18/
Monthly	https://posoco.in/reports/system-reliability-indices/monthly-
reporting	vdittcatc/monthly-vdittcatc-2017-18/

The Petitioner has placed on record the Reports of 12 months (April 2017 to March 2018) 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 NLDC on daily weekly and monthly basis on the following web links:

KPI-7	Web Link given on NLDC website
Daily	https://posoco.in/reports/system-reliability-indices/daily-
reporting	vdittcatc/daily-vdittcatc-2017-18/
Weekly	https://posoco.in/reports/system-reliability-indices/weekly-
reporting	vdittcatc/weekly-vdittcatc-2017-18/
Monthly	https://posoco.in/reports/system-reliability-indices/monthly-
reporting	vdittcatc/monthly-vdittcatc-2017-18/



(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 NLDC on daily, weekly and monthly basis on the following web links:

KPI-7	Web Link given on NLDC website
Daily reporting	https://posoco.in/reports/system-reliability-indices/daily-angular- difference/daily-angular-difference-2017-18/
Weekly reporting	https://posoco.in/reports/system-reliability-indices/weekly-angular- difference/weekly-angular-difference-2017-18/
Monthly reporting	https://posoco.in/reports/system-reliability-indices/monthly- vdittcatc/monthly-vdittcatc-2017-18/

The Petitioner has placed on record the monthly reports (April 2017 to March 2018) on angular difference between important buses.

46. The Petitioner has submitted the score for KPI No-7 (Reporting of System Reliability) as 10 out of 10. We have considered the submission of the Petitioner. Accordingly, as per Appendix VI of the RLDC Fees and Charges Regulations 2015, the weightage for reporting system reliability is allowed as 10 out of 10.

KPI-8: Availability of website

47. The petitioner has submitted that Different type of network monitoring tools have been deployed at different control centre to capture the outages of websites, some of those are PRTG, Trend Micro Anti-APT Deep Discovery etc. This network management software generates the comprehensive reports. Similarly, with the ISP



service provider's user interface, user can see the availability of the ISP links which is commercially linked also.

Depending upon the availability data, Month wise % age availability has been calculated. Then, %age average availability of 12 months, has been proportionately converted to marks scored.

48. 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,2017 to March,2018) as 99.71%. The details of marks scored are as follows:

KPI-8: Availability of website			
Name of NLDC / RLDC :		NLDC	
SI. No	Month	% Avalibility	
1	April'17	99.90	
2	May'17	99.68	
3	June'17	98.73	
4	July'17	99.61	
5	August'17	100.00	
6	September'17	98.95	
7	October'17	99.90	
8	November'17	99.86	
9	December'17	100.00	
10	January'18	99.94	
11	February'18	100.00	
12	March'18	99.92	
	Average of 12 months	99.71	
Performance during FY 2017-18*:		99.71	
Marks Scored (In performance above	9.97		



* Average of 12 months

Performance during financial year	99.71		
2017-18*			
Marks scored (In proportion of the 9.97			
percentage performance above)			
* Average of 12 months			

49. We have considered the submission of the Petitioner. The Petitioner has reported availability of website as 100%. The weightage allowed for availability of website is allowed as 9.97 out of 10.

KPI-9: Availability of Standby power supply

- 50. 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 % age availability has been calculated.
- 51. The Petitioner has submitted the details of percentage of availability of standby power supply" for all 12 months (April, 2017 to March, 2018) as 100%. 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	100
2017-18*	
Marks scored (In proportion of the	5
percentage performance above)	
* Average of 12 months	

52. We have considered the submission of the Petitioner. Since, the Petitioner has claimed availability of standby power supply as 100%. Weightage allowed for availability of standby power supply is considered as 5 out of 5

KPI-10: Variance of Capital expenditure

53. 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	Actual Expenditure	% Variation	
allowed by CERC (A) incurred (B) C= ABS (A-B)/A)*			
1768.00	295.68	83.28	
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 2017-18 has been considered.			

54. 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

2017-18 has been considered.

Performance during FY 2017-18*	75.57	
* Formula	IF(C>10, 100-(C-10)/3,100)#	
Marks Scored (in proportion of the %age performance above)	3.779	



. . . .

* Average of 12 months

Up to 10% variation, performance is proposed to be considered 100% and for any additional 3% variation beyond intitial 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.

- 55. 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.
- 56. We have considered the submission of the Petitioner. The weightage allowed for variance of capital expenditure is considered as 3.779 out of 5.

KPI-11: Variance of Non-Capital expenditure

57. 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	Actual Expendit	ure % Variation		
allowed by CERC (A)	incurred (B)	C= ABS(A-B)/A)*100		
2492.71	4319.29	73.28		
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 2017-18 has been considered				



Performance during financial year	78.91
2017-18*	
*Formula	IF(C>10,100-(C-10)/3,100)#
Marks Scored (in proportion of the percentage performance above)	3.945
*Average of 12 months	
# Up to 10% variation, performance is and for any additional 3% variation bey be decrease by 1% in line with the meth prescribed in Regulation 29(5) of Regulations.	ond initial 10%, performance shall odology of the incentive calculation

58. We have considered the submission of the Petitioner. Based on the percentage variance, the weightage allowed for variance of non-capital expenditure is considered as 3.945 out of 5.

KPI-12: Percentage of certified employees

59. 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. Till date 6 Basic Level certification and 5 specialist level certifications have been introduced (Two on Regulatory Framework in Power Sector, Two on Power System Reliability and one on Power System Logistics). The examinations 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 duration of both the certificates is three years. Eligible System Operators

are required to have at least one valid certificate to be considered as certified.

The term "Eligible" in the preceding paragraph includes all executives who are deployed in Technical Functions in the respective RLDC/ NLDC on the cut-off date i.e.

(excluding HR, Finance, Legal, Company Secretariat, Executive Secretaries etc.).

"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

60. The total weightage for the parameter "percentage of certified employees" is 5. The Petitioner has submitted the details of percentage of certified employees as under:

No. of Employees for	No. of Employees fo	Percentage of
Certification as on	Certification as or	Employees Certified as
31.3.2015(A)	31.3.2015(B)	on 31.3.2015
		(C=B/A*100)
63.00	39.00	61.90

Performance during financial year 2017-18*	92.30
*Formula	IF [C<85,(100-(85-C)/3),100]#
Markes Scored (in proportion of the %age performance above)	4.615
* 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

- 61. 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 4.615 out of 5.
- 62. 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 RLDC Fees and Charges Regulations:

SI. No	Key Performance Indicators	Weightage	Petitioner claimed for financial year 2017-18	Allowed
1	Reporting of Interconnection meter error	10	10.00	10.000
2	Reporting of Grid Incidents and Grid Disturbance	10	10.00	10.000
3	Average processing time of shut down request	10	10.00	10.000
4	Availability of SCADA System	10	9.99	9.990
5	Voltage Deviation Index (VDI)	10	10.00	10.000
6	Frequency Deviation Index (FDI)	10	10.00	10.000
7	Reporting of System Reliability	10	10.00	10.000
8	Availability of Website	10	9.97	9.971
9	Availability of Standby Supply	5	5.00	5.000
10	Variance of Capital expenditure	5	3.779	3.779
11	Variance of Non Capital expenditure	5	3.945	3.945
12	Percentage of Certified Employee	5	4.615	4.615
	Total	100	97.299	97.300



63. Perusal of the above table reveals that the Petitioner has achieved 97.300% Key

Performance Indicators out of 100%. Further, the Commission in its Order dated

10.06.2019 in Petition No. 344/MP/2018 has provided as under:

"62.

.....in exercise of provisions of "Power to Relax" under Regulation 35 of Fees and Charges Regulations, 2015 we hereby relax Regulation 29(5) of Fees and Charges Regulations, 2015 and direct that RLDCs or NLDC, as the case may be, shall be allowed to recover incentive of 15% of annual charges post implementation of pay revision w.e.f 1.1.2017 subject to ceiling as per DPE Guidelines in place of 7%, keeping other provisions of Regulation 29(5) same. In case of shortfall as per DPE Guideline, the balance amount shall be paid from the LDCD fund"

64. In view of the above, the petitioner is allowed to recover 16.460% of annual charges for the financial year 2017-18 subject to ceiling as per DPE Guidelines. In case of shortfall as per DPE Guideline, the balance amount shall be paid from the LDCD fund.

65. The Petition No. 72/MP/2019 is disposed of in terms of the above.

Sd/-

Sd/-

Sd/-

(I. S. Jha) Member (Dr. M. K. Iyer) Member (P.K. Pujari) Chairperson

