CENTRAL ELECTRICITY REGULATORY COMMISSION 3rd & 4th floor, Chanderlok Building, 36-Janpath, New Delhi-110001

No. Engg/Tr.Pricing/Validation/L-1/44/2013/CERC

Dated: 17/03/2020

То

Members of the Validation Committee & Generating Companies (As per list enclosed)

Subject: Minutes of the 1st Meeting of Validation Committee for the Application Period from 1st April 2020 to 30th June, 2020 for implementation of CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010

Sir,

Please find enclosed herewith minutes of the 1st Meeting of the Validation Committee for the **year 2019-20 (Application Period from 1st April 2020 to 30th June, 2020)** for implementation of CERC (Sharing of Inter-State Transmission Charges and Losses) **Regulations, 2010** held on 24.02.2020 in the NRLDC Conference Room at New Delhi for information and necessary action.

Yours faithfully,

Sd/-(Shilpa Agarwal) Joint Chief (Engg)

Encl.: As above

Validation Committee Members

SI. No	Name of the Organizations	Name of the nominated persons	Address		
• 1.	CERC	Shri S.C Shrivastava, Chief (Engg)	Central Electricity Regulatory Commission, 3 rd & 4 th Floor, Chanderlok Building, 36-Janpath, New Delhi -110001		
2.		Shri P.K. Awasthi, Chief (Fin.)	Central Electricity Regulatory Commission 3 rd & 4 th Floor, Chanderlok Building, 36-Janpath, New Delhi -110001		
3.	CEA	Chief Engineer, (PSP & PA-II) Division	Central Electricity Authority 3 rd Floor, N-Wing, Sewa Bhawan, R.K. Puram, New Delhi - 110 066		
4.		Director, GM Division	Central Electricity Authority 6 th Floor, N-Wing Sewa Bhawan, R.K. Puram, New Delhi-110066		
5.	CTU/ Power grid	Shri J. Mazumder ,GM (Comm)	Power Grid Corporation of India Ltd Plot No. 2, Sector-29, Near IFFCO Chowk, Gurgaon-122001		
6.		Shri Ashok Pal, GM alternate member Shri RVMM Rao, Chief. Design Engineer (SEF)			
7.		Shri S.S Barpanda, Executive Director, NRLDC	Northern Regional Load Despatch Centre, Jeet Singh Marg, Katwaria Sarai, New Delhi-110016		
8.		Shri A. Gartia Executive Director, SRLDC	Southern Regional Load Despatch Centre 29, Race Course Cross Road, Bangalore, Karnataka-560009		
9.	500000	Shri V.K.Shrivastava Executive Director, WRLDC	Western Regional Load Despatch Center F3, MIDC Area, Marol, Andheri East, Mumbai- 400093		
10.	POSOCO	Shri D.K Jain Executive Director, ERLDC	Eastern Regional Load Despatch Center 14, Golf Club Road, Tollygunge, Kolkata-700 033 (W.B.)		
11.		Shri Debasis dey Executive Director, NLDC	National Load Despatch Centre B-9, Qutab Institutional Area, KatwariaSarai, New Delhi-110016		
12.		Shri V.Suresh Executive Director, NERLDC	North Eastern Regional Load Despatch Centre, Lower Nongrah, Dongtieh, Lapalang, Shillong – 793006		

SI. No	Name of the Organizations	Name of the nominated persons	Address
13.	NRPC	Shri Naresh Bhandari, Member Secretary	Northern Regional Power Committee 18-A Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi-11
14.	WRPC	Member Secretary	Western Regional Power Committee Plot No. F-3, MIDC Area, Marol, Opp : SEEPZ, Andheri (East), Mumbai-400093
15.	SRPC	Member Secretary	Southern Regional Power Committee 29, Race Course Cross Road, Bangalore-560009, Karnataka
16.	ERPC	Shri Joydeb Bandyopadhyay , Member Secretary	Eastern Regional Power Committee 14, Golf Club Road, Tollygunge, Kolkata-700 033 (W.B.)
17.		Shri S.K. Das, Director Engineering	Bihar State Electricity Board 1 st Floor, VidyutBhawan, Bailey Road, Patna-21, Bihar
18.	NERPC	Member Secretary	North Eastern Regional Power Committee, NERPC Complex, Dong Parmaw, Lapalang, Shillong-793006 Phone No:0364-2534077 Fax NO.:0364-2534040
19.		Shri Jatin Baishya, Dy. General Manager	State Load Despatch Centre Complex,Kahelipara,Guwahati
20.	SLDC	Shri P.A.R. Bende, Member Director, SLDC	Chief Engineer Madhya Pradesh Power Transmission Company Ltd., Nayagaon, Rampur, Jabalpur- 482008
21.	KPTCL	Shri S. Sumanth Director(Transmission), KPTCL	Karnataka Power Transmission Corp. Ltd, KauveryBhavan, K.G. Road, Bangalore – 560009
22.	UPPTCL	Shri A.K. Singh, Director (Operation), Uttar Pradesh Power Transmission Corporation Ltd.	Uttar Pradesh Power Transmission Corporation Ltd , 7th Floor, Shakti Bhavan, Ashok Marg, Lucknow– 226001

SI. Name of the Address Name of the persons No. **Statutory Bodies** and **Designation** 1. Shri A.K Gupta, Director NTPC Bhawan, Core 7, Scope Complex, NTPC Institutional Area, Load Road, New Delhi -(Commercial) 110003 2. NHPC Shri N S NHPC office Complex, Sector-33. Faridabad – 121003 (Haryana) Parameshwaran. Executive Director, (O&M) 3. NEEPCO Ms. Debjani Dey Brookland Compound, Lower New Colony, GM (Commercial) Shillong-793003 4. NLC Director (Commercial) No.135, Periyar E.V.R. High Road, Kilpauk, Chennai - 600 010. Tamil Nadu, India. . SJVN Ltd, Sharma Niwas Below BCS, 5. SJVN Shri Romesh Kapoor, General Manager New Shimla - 171009. (C&SO)

LIST OF GENERATING COMPANIES

Minutes of the 1st Meeting of Validation Committee for the Application Period from 1st April 2020 to 30th June 2020 held on 24th February, 2020 at NRLDC, New Delhi.

- The Chairman of the Validation Committee, Shri S.C Shrivastava, Chief (Engg.), CERC welcomed the participants present in NRLDC Conference Room and participants of RPCs, RLDCs, STUs and Generating Companies present through video conferencing from the Conference Room of WRLDC, SRLDC, ERLDC, NERLDC, SLDCs of Tamilnadu, Karnataka, Odisha, Haryana, Maharashtra, Madhya Pradesh, Chhattisgarh, Gujarat, DVC, Telangana, Kerala, Andhra Pradesh. List of the participants is enclosed at *Annexure-I.*
- 2. Chief (Engg.), CERC stated that the meeting is convened to discuss the Load Generation data for consideration of load flow studies for implementation of CERC (Sharing of Inter-State Transmission Charges and Losses), Regulations, 2010 for the First Quarter of 2020-21. The presentation shown during the meeting is attached at *Annexure- II.*
- **3.** After deliberation among members, it was decided that the peak generation for new hydro units shall be considered at 100%, for new thermal units and new gas based stations, peak injection would be considered as 70% and 30% of ex-bus capacity, respectively. In case of non-submission of data by the DICs, following shall be considered for the purpose of Base case preparation
 - (a) Peak Demand: Forecasted peak demand to be calculated from last 3 years' data taken from CEA website as per provisions of the Regulations.
 - (b) Peak Generation: Forecasted peak generation to be calculated from last 3 years' SEM/SCADA data available with RLDCs as per the provisions of the Regulations.
- 4. Demand Projection for Application Period from 1st April 2020 to 30th June, 2020 (Q1 of 2019-20).

5.1 Northern Region:

Demand projections for NR constituents as agreed at OCC and submitted by them were agreed upon.

5.2 Eastern Region:

- (i) Projected demand by IA for Bihar was 6006 MW. During the meeting, Bihar representative suggested its demand projection as 6000 MW.
- (ii) Projected demand by IA for DVC was 3129 MW. During the meeting, DVC representative suggested its demand projection as 3200 MW.
- (iii) Projected demand by IA for Odisha was 5296 MW. During the meeting, Orissa representative suggested its demand projection by IA includes Vedanta drawl hence demand projection may be considered as 5140 MW. After discussion it was decided to consider the demand Projections for Odisha as 5296 MW as projected by IA.
- (iv) Projected demand by IA for West Bengal was 9668 MW. During the meeting, ERPC representative suggested demand projection for West Bengal as 9550 MW.
- (v) Projected demand by IA for Sikkim was 98 MW. During the meeting, ERPC representative suggested demand projection for Sikkim as 100 MW.

The Demand figures as suggested above were agreed.

5.3 Western Region:

- (i) Projected demand for Chhattisgarh by IA was 4670 MW. Prior to meeting, Chhattisgarh had submitted its demand as 4345 MW. During the meeting WRLDC suggested to consider demand projection as 4512 MW.
- (ii) Projected demand for Gujarat by IA was 19,123 MW. Prior to meeting, Gujarat had submitted its demand as 17800 MW. It was observed that as per LGBR demand of Gujarat in 19000 MW. During the meeting it was decided to consider demand projection as 18700 MW as per historical demand patterns.
- (iii) Projected demand for Madhya Pradesh by IA was 10949 MW. Prior to meeting, Madhya Pradesh had submitted its demand as 9924 MW. During the meeting, it was decided to consider its demand projection as 10000 MW as per LGBR.

The Demand figures as discussed above agreed.

5.4 Southern Region:

The Demand figures as suggested were agreed upon.

5.5 North Eastern Region:

(i) Projected demand for Meghalaya by IA was 376 MW. Prior to the meeting Meghalaya had provided its demand projection as 341 MW. During the meeting it was decided to consider its demand projection as 376 MW considering historical ISTS drawl. Demand projections for NER constituents as agreed at OCC and submitted by them were agreed upon.

5. Generation Projection for Application Period from 1st April, 2020 to 30th June, 2020 (Q1 of 2020-21).

6.1 Northern Region:

- (i) Projected generation by IA for Haryana was 3084 MW. Prior to meeting Haryana has suggested its generation projection as 3660 MW. During the meeting it was decided to consider its generation projection 3084 MW considering historical ISTS drawl.
- (ii) Projected generation by IA for Rajasthan was 8103 MW. Prior to meeting, Rajasthan has suggested its generation projection as 9627 MW. During the meeting, it was decided to consider its generation projection as 9000 MW considering historical ISTS drawl.
- (iii) Member present at NRLDC suggested following changes:
 - (a)Generation from AD hydro may be taken as 210 MW instead of 222 MW.
 - (b)Generation from Karcham Wangtoo may be taken as 1100 MW instead of 1133 MW.

The Generation figures as suggested above were agreed. The other generation figures as discussed in OCC were agreed.

6.2 Eastern Region:

- Projected generation by IA for Bihar was 204 MW. During the meeting, Bihar has submitted its generation projection as 250 MW.
- Projected generation by IA for DVC was 5094 MW. During the meeting, DVC has submitted its generation projection as 4333 MW.
- (iii) Projected generation by IA for Jharkhand was 301 MW. During the meeting, representative of Jharkhand suggested that generation may be taken as 415 MW.
- (iv) Projected generation by IA for Odisha was 3417 MW. During the meeting, Odisha has suggested to consider generation projection for Odisha as 3800 MW as Vedanta will inject around 400 MW.
- (v) Member present at ERLDC suggested following changes:
 - (a) Generation from Chujachan may be taken as 100 MW.
 - (b)Generation from MPL may be taken as 950 MW instead of 1005 MW.
 - (c) Generation from Teesta V may be taken as 510 MW instead of 526 MW.
 - (d)Generation from JITPL may be taken as 550 MW instead of 674 MW as one unit is in operation.

- (e)Generation from Teesta III may be taken as 1200 MW instead of 1317 MW.
- (f) Generation from Dikchu HEP may be taken as 94 MW instead of 123 MW.
- (g)Generation from Nabinagar BRBCL may be taken as 500 MW instead of 860 MW.
- (h)Generation from Tashideng may be taken as 94 MW instead of 112 MW.
- (i) Generation from Kanti Bijlee may be taken as 350 MW instead of 300 MW.

The Generation figures as suggested above were agreed upon.

6.3 Western Region:

- (i) Member present at WRLDC suggested following changes:
 - (a) Generation from Ratnagiri Dabhol may be taken as 660 MW instead of 619 MW.
 - (b)Generation from TAPS (1, 2, 3, 4) may be taken as 1292 MW instead of 1166 MW.
 - (c) Generation from NSPCL Bhilai may be taken as 454 MW instead of 476 MW.
 - (d)Generation from SSP Power may be taken as 900 MW instead of 290 MW.
 - (e)Generation from KAPS may be taken as 405 MW instead of 308 MW as two units are in service.
 - (f) Generation from KSK Mahanadi may be taken as 1600 MW instead of 1245 MW.
 - (g)Generation from DGEN may be taken as 385 MW instead of 541 MW.
 - (h)Generation from Sholapur may be taken as 700 MW instead of 970 MW.
 - (i) Generation from SKS Power may be taken as 534 MW as provided by SKS instead of 511 MW.
 - (j) Generation from Vadwa Green may be taken as 115 MW considering Installed capacity as 230 MW.
 - (k) Generation from Roha Green infra may be taken as 113 MW considering Installed capacity as 226 MW.
 - Generation from Ratadiya AGEMPL may be taken as 63 MW considering Installed capacity as 126 MW.
 - (m) Generation from Dayapar Inox wind may be taken as 75 MW considering Installed capacity as 150 MW.
 - (n)Generation from Bhuvad_renew wind may be taken as 92 MW considering Installed capacity as 185 MW.

The Generation figures as suggested above were agreed upon.

6.4 Southern Region:

- (i) Projected generation for Tamilnadu by IA was 9294 MW. Prior to meeting Tamil nadu has submitted its generation projection as 10563 MW. It was observed that Tamilnadu has given as 8500 MW as generation projection in LGBR .During the meeting it was decided to consider generation projection as 9294 MW as projected by IA.
- (ii) Member present at SRLDC suggested following changes:
 - (a) Generation from Ramagundum may be taken as 2240 MW instead of 2421 MW.
 - (b) Generation from Kaiga may be taken as 780 MW instead of 822 MW.
 - (c) Generation from Neyveli (Ext) may be taken as 380 MW instead of 557 MW.
 - (d) Generation from Neyveli TPS-II may be taken as 1200 MW instead of 725 MW.
 - (e) Generation from Neyveli TPS-II Exp may be taken as 300 MW instead of 738 MW.
 - (f) Generation from MAPS may be taken as 192 MW instead of 227 MW.
 - (g) Generation from Vallur may be taken as 1200 MW instead of 1334 MW.
 - (h) Generation from Meenakhshi may be taken as 0 MW instead of 14 MW.
 - (i) Generation from Coastal Energen may be taken as 558 MW instead of 604 MW.
 - (j) Generation from Kundankulam may be taken as 900 MW instead of 1118 MW.
 - (k) Generation from Tuticorin TPP may be taken as 850 MW instead of 724 MW.
 - Generation from Sembcrop Energy India Ltd. may be taken as 1250 MW instead of 1271 MW.
 - (m) Generation from IL&FS may be taken as 1110 MW instead of 907 MW.
 - (n) Generation from Talcher Stage-II may be taken as 1875 MW instead of 1912 MW.
 - (o) Generation from Sembcrop Gayatri Ltd. may be taken as 1150 MW instead of 1270 MW.
 - (p) Generation from Kudgi STPS may be taken as 1400 MW instead of 2050 MW.
 - (q) Generation from Betam Wind may be taken as 25 MW.

The Generation figures as suggested above were agreed upon.

6.5 North Eastern Region:

(i) Generation projections for NER constituents as agreed at OCC and submitted by them were agreed upon.

Note: The data not specifically indicated above shall be as submitted by DIC or where DIC has not submitted any data, the projected data as forecasted by IA shall be considered as recorded in V.C. presentation.

6. HVDC Set Points:

- (i) HVDC set points to be considered in the All India Base case for computation of PoC charges and Losses for April 2020 – June 2020 period were projected by Implementing Agency based on operational experience and was put up for validation before the Committee.
- (ii) After discussion, following HVDC set points are finalized.

HVDC Name	Set points (in MW) to be considered in Base case
Mundra-Mahindergarh Pole-1	1000
Mundra-Mahindergarh Pole-2	1000
Talcher-Kolar Pole- 1	1000
Talcher-Kolar Pole- 2	1000
Rihand-Dadri Pole- 1	750
Rihand-Dadri Pole- 2	750
Balia-Bhiwadi Pole-1	500
Balia-Bhiwadi Pole-2	500
Bhadrawati_HVDC	1000
Vindhyachal_HVDC	250
Gajuwaka_HVDC	650
Pusauli HVDC	400
Chandrapur-Padghe Pole-1	750
Chandrapur-Padghe Pole-2	750
BNC-Agra Pole-1 & Pole-2	500 (towards NR)
Alipurduar-Agra Pole-1 & Pole-2	500
Champa-Kurukshetra Pole-1 & Pole- 2	2000
Champa-Kurukshetra Pole-3	1000

7. New Assets:

- (i) The inclusion of assets of M/s. Khargone Transmission Limited (KTL) was discussed. M/s KTL submitted that the remaining assets would be commissioned by the end of Jan'20. As unit#2 of NTPC Khargone was anticipated to be COD by the end of Mar'20, It was decided to consider the assets of M/s KTL for 2020-21 Q1 computations.
- (ii) Implementing agency informed that it was decided in 3rd validation committee meeting in 2019-20 to maintain status-quo in case of M/s. Odisha generation Phase-II Transmission Limited (OGPTL) since the matter was sub-judice. It was discussed upon considering same for 2020-21 Q1 computations. It was informed that Hon'ble Commission had already issued order in Petition no: 128/MP/2019 on 26.12.2019

wherein OPGCL was directed to pay transmission charges of 400kV OPGC-Jharsuguda D/c line under bilateral arrangement as per bills raised by CTU. Hence, 400kV OPGC-Jharsuguda D/c should be billed as per CERC directions.

- (iii) Implementing Agency informed regarding the new assets of M/s. PowerGrid that are to be considered for 2020-21 Q1 computations as per data submitted by PowerGrid. The list of assets is included in Annexure-II. It was discussed and decided to consider all these assets in 2020-21 Q1 computations.
- (iv) Implementing agency informed that the asset cost of 13 state utilities whose approved Tariff by the Commission was not available as on 31.03.2019 were excluded in 2019-20 Q3 computations as decided in the 3rd Validation Committee meeting for 2019-20. It was continued in 2019-20 Q4 computations as well as decided in 4th Validation Committee meeting. It was discussed upon continuing same in 2020-21 Q1 computations and decided to continue the exclusion of the YTC of state utilities whose approved tariff by Commission was not available as on 31.03.2019 in 2020-21 Q1 calculations. For cases where Tariff for 31.03.2019 is available shall be included.

S.No.	Name of the Transmission line	ISTS Licensee	CoD as per TSA	Actual CoD as submitte d by transmiss ion licensee	Remarks	
1.	765kV Khandwa-Dhule		July,201 9		Not claimed by	
2.	765kV Line Dhule bays for Khandwa-Dhule		July,2 9	July,201 9		Licensee for 2020-21 Q1
3.	Khandwa Substation 2*1500 MVA 765/400 kV		July,201 9	Jan,2020	To be considered in PoC as per Order dated 21.10.2019 in IA No. 78/2019 in Petition No. 308/MP/20 19 and Order	
4.	765kV Khandwa-Indore	Khargone Transmis	July,201 9			
5.	400kV Khargone TPP switchyard- Khandwa pool	sion Limited	July,201 9			

(a)TBCB Assets:-

S.No.	Name of the Transmission line	ISTS Licensee	CoD as per TSA	Actual CoD as submitte d by transmiss ion licensee	Remarks
					dated 6.11.2018 in Petition no. 261/MP/20 17
6.	Single Circuit LILO of 400 KV D/C Durgapur (PG) – Jamshedpur (PG) at DSTPS - Twin Moose Conductor			01-Feb-11	
7.	Single Circuit LILO of 400 KV D/C Maithon (PG) – Ranchi(PG) at RTPS	Damodar Valley		01-Jul-12	Tariff for assets have been approved in CERC Order
8.	Double Circuit 400 KV DSTPS - RTPS Twin	Corporati on (DVC)		01-Aug-13	dated 5.2.2020. To be Considered in PoC Q1 2020-21
9.	Double Circuit 400 KV RTPS – Ranchi (PG) Quad Moose Conductor	1		30-Aug-17	

(b)Assets as submitted by PGCIL

S.No.	Name of the Transmission line	ISTS Licensee	Anticipated CoD / Actual CoD	Date of CERC Order	Remarks
1.	One no of 500 MVA,765/400kVTransformer as spareICT at Agra substation	Power Grid	01-May-17	10-Jan-20	To be Considere d in PoC

S.No.	Name of the Transmission line	ISTS Licensee Power	Anticipated CoD / Actual CoD	Date of CERC Order	Remarks
2.	One no of 500 MVA, 765/400 kV Transformer as spare ICT at Fatehpur sub- station		01-Oct-17	10-Jan-20	
3.	765/400 KV,500MVA, single phase Auto Transformer as spare ICT at Jhatikra sub- station		30-Jun-18	10-Jan-20	
4.	400kV Mundra (CGPL) -Bhuj (Triple Snowbird) Ckt-2 Line alongwith associated line bays at Mundra (CGPL) Generating station and 765/400kV Bhuj Substation		20-Mar-19	13-Jan-20	
5.	1x63 MVAR,400 kV Bus Reactor-I at 400/220 kV Sohawal Sub-station		29-Jul-17	22-Jan-20	
6.	1x63 MVAR,400 kV Bus Reactor-II at 400/220 kV Sohawal Sub-station		07-May-18	22-Jan-20	
7.	50 MVAR Line reactor at Jaipur (South) in 400 kV D/C Kota- Jaipur (South) line (Part of 400 kV D/C Rapp- Jaipur TL) utilized as Bus reactor at Jaipur (south) substation		05-Mar-18	05-Feb-20	

S.No.	Name of the Transmission line	ISTS Licensee Power	Anticipated CoD / Actual CoD	Date of CERC Order	Remarks
8.	Establishment of Fibre Optic communication system in Northern Region; Central sector portion (1646.039 km)		20-Jan-18	22-Jan-20	
9.	Replacement of 315 MVA 400/220 kV ICT- II with 500 MVA 400/220 kV ICT at Pusauli sub-station		Jan'2020	22-Aug-16	
10.	Circuit 1 of the 765 kV D/C Darlipalli TPS (NTPC)-Jharsuguda (Sundergarh) Pooling Station transmission line alongwith one 765 kV line Bays at Jharsuguda (Sundergarh) Pooling Station		07-Jun-17	21-Nov-17	Generation is anticipated to be COD by end of March 2020. Hence lines to be considered in PoC.

 (i) It was decided that assets put into use or anticipated to be put under use shall be considered in PoC subject to CERC Regulations & Orders.

Preparation of final All India Base case in PSS/E platform :

It may be mentioned that there would be variation in the validated generation and demand figures in the final all India Base case because of the following steps involved:

- (i) Normalization with All India Forecasted Peak Demand figure.
- (ii) Arriving at Load Generation Balance for convergence of the All India Base case.
- (iii)Adjustment of Slack Bus Generation.

List of Participants in the 1st meeting for 2020-21 of the Validation Committee held on 24th February, 2020 at New Delhi.

CERC

- 1. Shri S.C.Shrivastava, Chief (Engg.) In Chair
- 2. Ms Shilpa Agarwal, Joint. Chief (Engg.)
- 3. Shri Abhishek Rohilla Dy Chief (Engg.)
- 4. Ms Sonika Hayaran, Research Officer

CEA

5. Shri Prakash Khichi, Director (GM)

POWERGRID

- 6. Shri Ajay Upadhyay, Chief Manager
- 7. Shri Chitikena Abhijith, Dy. Manager
- 8. Shri Kamal Kumar Jain, Sr. DGM
- 9. Shri P S Das, GM,

NLDC

- 10. Shri G Chakraborty, CGM
- 11. Shri Ravi Shankar Chinnam, Manager
- 12. Shri Sanny Machal, Dy. Manager
- 13. Shri Laxman Singh, AM

NRLDC

- 14. Shri S. S. Barpanda, ED
- 15. Shri Amit Gupta, Manager
- 16. Shri Gaurav Malviya, Dy. Manager

WRPC

17. Shri P. Peddi Reddy

WRLDC

18. Ms. Pushpa S, GM , WRLDC, POSOCO 19. Ms. Chitrankshi G, Chief Manager

NRPC

20. Shri Naresh Bhandari, Member Secretary

ERPC

21. Shri Mohan Jha, Consultant, ERPC

ERLDC

22. Shri D K Jain, ED, POSOCO 23. Shri A Mallick, CGM , POSOCO 24. Shri S Banerjee, SGM, POSOCO

SRPC

25. Shri A Balan, MS 26. Ms. Anusha Das J, EE 27. Shri M Venkata Subba Reddy, AEE 28. Shri Meka Rawakrishna, SE

SRLDC

29. Shri Pradeep Reddy, Manager 30. Shri G Madhukar, CM 31. Shri S P Kumar, CGM

NERLDC

32. Shri Samar ch. De., GM, POSOCO
33. Shri Namrata Pathak, ENGINEER, POSOCO
34. Shri Sachin Singh, AE, POSOCO
35. Shri Chitra bahadur thapa, DM, POSOCO

36. Shri Jerin Jacob, DM, POSOCO

TANTRANSCO

37. Shri R Alamelu, AEE(SS) 38. Shri P Murugavelan, AEE(Grid)

KPTCL SLDC

39. Shri Krishwaban, SEE40. Shri Mohana Kumara G, AE(Ele)41. Shri D Chethan, EE42. Ms. Divya Prabha H, AEE

GRIDCO

43. Shri S.K.Maharana, AGM (Electrical)

HVPNL

44. Shri Sunny, AEE 45. Shri Deepak, AE

DMTCL

46. Shri Neeraj Kumar Verma, Sr. Manager, DMTCL

Maharastra

47. Shri. Peeyush Sharma (S.E.- Operation)48. Shri. Sachin Lomate (A.E.E.-Operation)49. Shri. Vinod Patil (A.E.E.-Operation)50. Shri. Abhishek Samant (DyEE-Operation)

Madhya Pradesh

51. Shri. Shankar Chakraborty(Executive Engineer)52. Shri. R. P. Rakhya (Assistant Engineer)53. Shri. Samiran Roy (Junior Engineer)

Chhattisgarh

54. Ms. Namita Vibha Lakra (Executive Engineer)

Torrent

55. Shri Jaydip Chudasama, AGM, Torrent 56. Shri M.H.Kshatriya, , Torrent

Gujrat

57. Shri B. M. Shah, EE, SLDC – Gujarat 58. Shri G. J. Mistry, DE, SLDC – Gujarat 59. Shri D. H. Kalsaria, DE, STU, GETCO, Vadodara 60. Shri P. V. Patel, DE, DGVCL

DVC

61. Shri Samit Mandal, SE, DVC62. Shri Subratra Ghose, DCE(Comml), DVC63. Shri Manoranjan Sahu, DCE(Comml), DVC

TS-SLDC

64. Ms. S Susmitha, DE (I/c) (CGS)
65. Shri P Suresh Babu, CE(SLDC)
66. Shri B Jetya Naik, DE(DS-S-II)
67. Shri G Raghu, ADE(ReI)
68. Shri N Rajshekar, AE(Studies)
69. Ms D Anusha, AE(RE-II)

KSEB

70. Shri Subramony.H.N, AEE 71. Shri Anu S Ramesh, AE

AP SLDC

72. Shri P Kondala Rao, EE SLDC

73. Shri Radha Lakshmi, AEE

Annexure-II

Point of Connection Charges and Losses Computation April 2020 - June 2020 (Q1)

Meeting of the Validation Committee Date :24th February, 2020

Venue: NRLDC Conference Room, New Delhi

Assumptions

- As per CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 and amendments thereof;
- Maximum/Peak generation (based on SEM data) and Maximum/Peak load (based on CEA data) considered.

Contents

PoC Computation for Q1 Case (Apr'20 - Jun'20)

Demand & Generation Projection

New Generation

HVDC Set points

Demand Generation Projection

- Demand and Generation Projection
 - Based on Last 3 years data.
- Generation Projection
 - Average of monthly maximum injection in the last three years.
 - Based on actual metered data available with RLDCs.
 - Increasing Trend : Last Year Average figure considered
 - In other cases : Average of last three years
 - For State's generation, maximum injection data for last 3 yrs and projected generation to be provided by state SLDC.

Demand Generation Projection

- For State's generation, in case of non-submission of data by the DICs, the maximum injection of the concerned State is taken as the difference between peak met and withdrawal from ISTS based on actual metered data (for the time block corresponding to the block in which peak met occurred).
- New Generation: DOCO by 31th Mar, 2020.

Demand Generation Projection

Demand Projection

- Projection based on last 3 year's average of corresponding month's peak demand met figures.
- Projected all India peak demand met calculated.
- Based on FORECAST function of MS-Excel
- Data taken from monthly power supply position published by CEA.
- Normalization factor: <u>Projected All India Peak Demand Met</u>

Sum of projected met for all states

Load Generation Projection

New Units	Loading
Thermal Units with DOCO from 1st July'19 to 31st Mar'20	70%
Hydro Units with DOCO from 1st July'19 to 31st Mar'20	100%
Gas Units with DOCO from 1st July'19 to 31st Mar'20	30%

Demand and Generation Projections

Northern Region	Projection	<u>Gen. addition</u>
Eastern Region	Projection	Gen. addition
Western Region	Projection	Gen. addition
North-Eastern Region	Projection	<u>Gen. addition</u>
Southern Region	Projection	<u>Gen. addition</u>

HVDC Set points

Maximum Flow based on operational experience.

MW Values

HVDC Name	Set points to be considered in Basecase	
Mundra-Mahindergarh Pole-1	1000	
Mundra-Mahindergarh Pole-2	1000	
Talcher-Kolar Pole- 1	1000	
Talcher-Kolar Pole- 2	1000	
Rihand-Dadri Pole- 1	750	
Rihand-Dadri Pole- 2	750	
Balia-Bhiwadi Pole-1	500	
Balia-Bhiwadi Pole-2	500	
Bhadrawati_HVDC	1000	
Vindhyachal_HVDC	250	
Gajuwaka_HVDC	650	
Pusauli HVDC	400	
Chandrapur-Padghe Pole-1	750	
Chandrapur-Padghe Pole-2	750	
BNC- Agra Pole-1& Pole-2	500 (towards NR)	
Alipurduar-Agra Pole-1 & Pole-2	500	
Champa-Kurukshetra Pole-1 & Pole-2	2500	
Champa-Kurukshetra Pole-3	1250	

Data not Received

- Jharkhand
- Bihar
- Odisha
- West Bengal
- Sikkim
- Andhra Pradesh
- Karnataka
- Pondicherry

- Jammu & Kashmir
- Chandigarh
- Uttrakhand
- Dadra Nagar Haveli

Data not Received

- □ AD Hydro
- Everest
- □ Sree cement
- □ Maithon Power Ltd.
- Adhunik Power
- **GMR Kamalanga**
- □ SEPL+MEPL
- □ LANCO Kondapalli

Tehri SGPL IL&FS Tuticorin TPP Semcorp Energy India Ltd. Coastal Energen

YTC Data received from Transmission Licensees

- Adani Power Limited
- **Darbhanga Motihari Transmission Company Ltd.**
- Jabalpur Transmission Company Ltd.
- **East North Inter-connection Ltd.**
- **Bhopal Dhule Transmission Company Ltd.**
- **BAPP Transmission Company Ltd.**
- **D** Purulia & Kharagpur Transmission Company Ltd.
- NRSS-XXIX Transmission Ltd.
- NRSS-XXXI B Transmission Ltd.
- Maheshwaram Trans. Ltd.
- Parbati Koldam Trans. Company Ltd.
- **Gurgaon-Palwal Trans. Ltd.**
- **G** Khargone Trans. Ltd.
- Jindal Power Ltd.



YTC Data received from Transmission Licensees... (2)

- Odisha Generation Phase-II Trans. Ltd.
- Teestavalley Power Transmission Ltd.
- **Essar Power Transmission Company Ltd.**
- Western Transco Power Limited
- Western Transmission Gujarat Limited
- Sipat Transmission Limited
- Chhattisgarh -WR Transmission Limited
- Raipur-Rajnandgaon-Warora Transmission Limited
- Aravali Power Company Pvt. Ltd.
- **D** Patran Trans. Co. Ltd.
- **D** Torrent Power Grid Ltd.
- **D** Jaypee Powergrid Ltd.
- Power Grid Corporation of India Limited



YTC Data received from Transmission Licensees... (3)

- **D** PowerGrid Jabalpur Trans. Ltd.
- **D** POWERGRID Warora Trans. Ltd.
- **D** POWERGRID NM Trans. Ltd.
- **D** POWERGRID Vizag Trans. Ltd.
- **D** PowerGrid Parli Trans. Ltd.
- **D** PowerGrid Unchahar Trans. Ltd.
- **D** PowerGrid Kala Amb Trans. Ltd.
- **POWERGRID Southern Interconnector Transmission System Limited**

YTC Data not received

- **G** Kudgi Trans. Ltd.
- Powerlinks Transmission Ltd.
- Warora-Kurnool Transmission Limited
- Raichur Sholapur Transmission company Ltd
- North East Transmission Company Ltd.
- Alipurduar Transmission Limited
- NRSS-XXXVI Transmission Ltd.

YTC Data received from States

- Andhra Pradesh
- Assam
- Madhya Pradesh
- DVC

List of new assets			
Name of the Transmission Asset	CoD as per TSA	As per CEA website	Anticipated/ Actual CoD
Khargone Transmission Lim	ited		
765kV Khandwa-Dhule	July,2019		Not claimed by Licensee
765kV Line Dhule bays for Khandwa-Dhule	July,2019		for 2020-21 Q1 as well
Khandwa Substation 2*1500 MVA 765/400 kV	July,2019		Jan 2020
765kV Khandwa-Indore	July,2019		Jan 2020
400kV Khargone TPP switchyard- Khandwa pool	July,2019		Jan 2020
LILO of one ckt of 400kV Khandwa-Rajgarh D/c line Khargone TPI	P Feb,2018		March 2018

List of new assets... (2)

Name of the Transmission Asset

Anticipated/ Actual CoD

Odisha Generation Phase-II transmission Ltd

- > Both the lines 400kV OPGC-Jharsuguda D/c and 765kV Raipur-Jharsuguda commissioned.
- OPGC Stage-II U#3 was commissioned on 03rd July 2019
- OPGC Stage –II U#4 was commissioned on 21st Aug 2019
- > OPGC relinquished its LTA and wanted U#4 to be considered under state's jurisdiction
- Petition filed with CERC
- As per the minutes of validation Committee meeting held for 2019-20 Q3, it was decided that status- quo will be maintained since matter is sub-judice.
- Cost of 765kV Raipur-Jharsuguda D/c being considered in PoC
- Cost of 400kV OPGC-Jharsuguda D/c being considered for bilateral billing
- Whether to consider 400kV OPGC-Jharsuguda D/c in PoC for 2020-21_Q1 computations

List of new assets ... (3)

SI. No	Name of Transmission line	CoD	CERC Order date
DAMODAR VALLEY CORPORATION			
1	Single Circuit LILO of 400 KV D/C Durgapur (PG) – Jamshedpur (PG) at DSTPS Twin Moose Conductor	01-02-2011	
2	Single Circuit LILO of 400 KV D/C Maithon (PG) – Ranchi(PG) at RTPS	01-07-2012	05-02-2020
3	Double Circuit 400 KV DSTPS - RTPS Twin	01-08-2013	
4	Double Circuit 400 KV RTPS – Ranchi (PG) Quad Moose Conductor	30-08-2017	

List of new assets (PowerGrid) ... (3)

SI. No	Name of Transmission line	Act. CoD	CERC Order date
1	One no of 500 MVA, 765/400 kV Transformer as spare ICT at Agra substation	01-05-2017	10-Jan-20
2	One no of 500 MVA, 765/400 kV Transformer as spare ICT at Fatehpur sub-station	01-10-2017	10-Jan-20
	765/400 KV,500MVA, single phase Auto Transformer as spare ICT at Jhatikra sub-station	30-06-2018	10-Jan-20
4	400kV Mundra (CGPL) -Bhuj (Triple Snowbird) Ckt-2 Line alongwith associated line bays at Mundra (CGPL) Generating station and 765/400kV Bhuj Substation	20-03-2019	13-Jan-20
5	1x63 MVAR,400 kV Bus Reactor-I at 400/220 kV Sohawal Sub- station	29-07-2017	22-Jan-20

List of new assets (PowerGrid) ... (4)

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SI. No	Name of Transmission line	Act. CoD	CERC Order date
6	1x63 MVAR,400 kV Bus Reactor-II at 400/220 kV Sohawal Sub- station	07-05-2018	22-Jan-20
7	50 MVAR Line reactor at Jaipur (South) in 400 kV D/C Kota- Jaipur (South) line (Part of 400 kV D/C Rapp- Jaipur TL) utilized as Bus reactor at Jaipur (south) substation	05-03-2018	5-Feb-20
8	Establishment of Fibre Optic communication system in Northern Region; Central sector portion (1646.039 km)	20-01-2018	22-Jan-20
9	Replacement of 315 MVA 400/220 kV ICT- II with 500 MVA 400/220 kV ICT at Pusauli sub-station	Jan'2020	22-Aug-16
10	Circuit 1 of the 765 kV D/C Darlipalli TPS (NTPC)-Jharsuguda (Sundergarh) Pooling Station transmission line alongwith one 765 kV line Bays at Jharsuguda (Sundergarh) Pooling Station	07-06-2017	21-Nov-17

Other Issue:

ERSS-VI implemented by Darbhanga - Motihari Transmission company Ltd.

- 1. Darbhanga Element
 - > 2 x 500 MVA, 400/220 kV GIS Substation at Darbhanga
 - Muzaffarpur (PG) Darbhanga 400 kV D/C line with triple snowbird conductor
- 2. Motihari Element
 - > 2 x 200 MVA, 400/132 kV GIS Substation at Motihari
 - LILO of Barh Gorakhpur 400 kV D/C line at Motihari, 400 kV 2 x D/C Quad

Thank You !!

Demand and Generation Projection – Northern Region

Entity	Projected Demand (MW) by IA	Demand as given by DICs	Projected Generation (MW) by IA	Generation data as given by DICs	Projected ISTS drawal (MW) as per IA	ISTS drawal as per data submitt ed by DICs			
Chandigarh	348	-	-	-	348	-			
Delhi	6,470	6500	1248	1095	5222	5405			
Haryana	9,639	9216	3084	3660	6555	5556			
Himachal Pradesh	1,571	1569	1045	-	526	-			
Jammu & Kashmir	2,478	-	996	-	1482	-			
Punjab	10,007	10007	5462	5462	4545	4545			
Rajasthan	12,591	12999	8103	9627	4488	3372			
Uttar Pradesh	22,579	22000	10892	10833	11687	11167			
Uttarakhand	2,142	-	1046	-	1096	-			
Normalization Factor			0.91						

Generation Projection – Northern Region²⁵

S. No.	Entity	Projections based on 3 Years Data (A)	Generation addition during 1st July'19 to 31st Dec'19 (B)	Generation CoD from 1st Jan'20 to 31st Mar'20 (C)	TOTAL D=A+B+C	Comments From DICs /States (if any)	Figure as per Comments
		(MW)	(MW)	(MW)	(MW)		(MW)
1	BBMB	2133	-	-	2133	As per data given by BBMB	2145
2	Dadri Thermal	1847	-	-	1847	-	1200
3	Rihand	2912	-	-	2912		2795
4	Singrauli	1716	-	-	1716	As per data given	1858
5	Unchahar	1472	-	-	1472	by NTPC	1421
6	Auraiya	281	-	-	281		150
7	Dadri CCPP	641	-	-	641		300
8	NAPS	399	-	-	399	-	-
9	Jhajjar	1118	-	-	1118	Data given by APCPL Jhajjar	1414

Generation Projection – Northern Region ...(2) 26

S. No.	Entity	Projections based on 3 Years Data (A)	Generation addition during 1st July'19 to 31st Dec'19 (B)	Generation CoD from 1st Jan'20 to 31st Mar'20 (C)	TOTAL D=A+B+C	Comments From DICs /States (if any	Figure as per Comments
		(MW)	(MW)	(MW)	(MW)		(MW)
10	Dhauliganga	291	-	-	291	As per NHPC	289
11	Tanakpur	91	-	-	91	As per NHPC	94
12	Koteshwar	407	-	-	407	As per data given by Koteshwar	333
13	Tehri	568	-	-	568	-	-
14	Anta	267	-	-	267	As per data given by NTPC	150
15	RAAP B	377	-	-	377	-	-
16	RAAP C	429	-	-	429	-	-
17	AD Hydro	222	-	-	222	-	-
18	Everest	104	-	-	104	-	-
19	Karcham Wangtoo	1133	-	-	1133	-	-

Ge	eneratior	۱ Proje	ction – ľ	Norther	n Re	gion(3)	27 Back								
S. No.	Entity	Projections based on 3 Years Data (A)	Generation	Generation CoD from 1st Jan'20 to 31st Mar'20 (C)		Comments From DICs /States	Figure as per Comments								
		(MW)	(MW)	(MW)	(MW)		(MW)								
20	Bairasul	123	-	-	123	As per NHPC	120								
21	Chamera 1	555	-	-	555	As per NHPC	544								
22	Chamera 2	308	-	-	308	As per NHPC	303								
23	Chamera 3	248	-	-	248	As per NHPC	237								
24	Naptha Jhakri	1624	-	-	1624	As per Naptha Jhakri	1605								
25	Lanco Budhil	73	-	-	73	-	-								
26	Dulhasti	378	-	-	378	As per NHPC	390								
27	Salal	704	-	-	704	As per NHPC	690								
28	Sewa-II	139	-	-	139	As per NHPC	129								
29	URI I HPS	549	-	-	549	As per NHPC	480								
30	URI II HPS	248	-	-	248	As per NHPC	243								
31	Sree Cement	223	-	-	223	-	-								
32	Parbati III	491	-	-	491	As per NHPC	520								
33	Rampur HEP	449	-	-	449	As per SJVN	442								
34	Koldam	878	-	-	878	As per NTPC	792								
35	Kishanganga	271	-	-	271	As per NHPC	220								
36	Sainj HEP	71	-	-	71	-	-								
37	Tanda Stg-2	-	-	432	432	As per NTPC	433								
38	Bhadhla Solar	-	-	-	-	-	-								

Demand and Generation Projection – Eastern Region²⁸

Entity	Projected Demand (MW) by IA	Demand as given by DICs	Projected Generation (MW) by IA	Generation data as given by DICs	Projected ISTS drawal (MW) as per IA	ISTS drawal as per data submitt ed by DICs
Bihar	6,006	-	204	-	5802	-
DVC	3,129	-	5094	-	-1965	-
Jharkhand	1,415	-	301	-	1114	-
Odisha	5,296	-	3417	-	1879	-
West Bengal	9,668	-	5479	-	4189	-
Sikkim	98	-	-	-	98	-
Normalization Factor			0.91			

Generation Projection – Eastern Region...(1)²⁹

S. No.	Entity	Projections based on 3 Years Data (A)	addition during	Generation CoD from 1st Jan'20 to 31st Mar'20 (C)	TOTAL D=A+B+ C	Comments From DICs /States (if any	Figure as per Comments
		(MW)	(MW)	(MW)	(MW)		(MW)
1	Chujachan	111	-	-	111	-	-
2	MPL	1005	-	-	1005	-	-
3	Teesta V	532	-	-	532	As per NHPC	526
4	Kahalgaon	2079	-	-	2079	As par data giyan by NTDC	2171
5	Farakka	1858	-	-	1858	As per data given by NTPC	1960
6	Talcher	978	-	-	978	-	-
7	Rangeet	67	-	-	67	As per NHPC	63
8	Adhunik Power	503	-	-	503	-	-
9	Barh	1276	-	-	1276	As per data given by NTPC	1238

Generation Projection – Eastern Region...(2)³⁰

Back

S. No.	Entity	Projections based on 3 Years Data (A)	Generation addition during 1st July'19 to 31st Dec'19 (B)	Generation CoD from 1st Jan'20 to 31st Mar'20 (C)	TOTAL D=A+B+C	Comments From DICs /States (if any)	Figure as per Comments
		(MW)	(MW)	(MW)	(MW)		(MW)
10	Kamalanga TPP (GMR)	633	-	-	633	-	-
11	JITPL	674	-	-	674	-	-
12	Jorthang	91	-	-	91	-	-
13	Bhutan	1152	-	570	1722	-	-
14	Teesta-III	1317	-	-	1317	_	-
15	Dikchu HEP	123	-	-	123		-
16	Nabinagar BRBCL	696	-	164	860	-	-
17	Tashideng	112	-	-	112	-	-
18	Kanti Bijlee Stg-2 (KBUNL)	-	-	-	-	-	-
19	Nabinagar STPS	-	432	-	432	-	-
20	Darlipalli STPP ST-I	-	-	524	524	As per NTPC	560

Demand and Generation Projection – Western Region³¹

				Generati	Projected	ISTS
Entity	Projected Demand (MW) by IA	Demand as given by DICs	Projected Generation (MW) by IA	on data as given by DICs	ISTS drawal (MW) as per IA	drawal as per data submitte d by DICs
Chattisgarh	4,670	4345	2429	2261	2241	2084
Gujarat	19,123	17800	11893	12890	7230	4910
Madhya Pradesh	10,949	9924	5162	5022	5787	4902
Maharashtra	24,142	23300	15823	15985	8319	7315
Daman & Diu	346	340	-	-	346	340
Dadra Nagar Haveli	835	-	-	-	835	-
Goa	623	550	-	-	623	550
ESIL	570	700	-	-	570	700
Normalization Factor			0.91			

Generation Projection – Western Region...(1) ³²

S. No.	Entity	Projections based on 3 Years Data (A)	Generation addition during 1st July'19 to 31st Dec'19 (B)	Generation CoD from 1st Jan'20 to 31st Mar'20 (C)	TOTAL D=A+B+C	Comments From DICs /States (if any	Figure as per Comment s
		(MW)	(MW)	(MW)	(MW)		(MW)
1	Vindhyachal	4581	-	-	4581	As per NTPC	4415
2	Ratnagiri Dabhol	619	-	-	619	-	-
3	TAPS (1,2,3,4)	1166	-	-	1166	-	-
4	JINDAL	623	-	-	623	As per data given by JPL	360
5	LANCO	576	-	-	576	As per data given by LANCO	546
6	NSPCL Bhilai	476	-	-	476	-	-
7	Korba	2477	-	-	2477	As per NTPC	2421
8	SIPAT	2882	-	-	2882	As per NTPC	2794
9	CGPL	3407	-	-	3407	As per CGPL	3800
10	Mauda	2217	-	-	2217	As per NTPC	2050
11	Gandhar	484	-	-	484	As per NTPC	350

Generation Projection – Western Region ... (2) ³³

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S. No.	Entity	Projections based on 3 Years Data (A)	Generation addition during 1st July'19 to 31st Dec'19 (B)	Generation CoD from 1st Jan'20 to 31st Mar'20 (C)	TOTAL D=A+B+C	Comments From DICs /States (if any	Figure as per Comments
		(MW)	(MW)	(MW)	(MW)		(MW)
12	Kawas	510	-	-	510	As per NTPC	250
13	SSP	290	-	-	290	-	-
14	KAPS	308	-	-	308	-	-
15	Essar Mahan	958	-	-	958	As per data given by Essar Mahan	1123
16	BALCO	586	-	-	586	As per BALCO	400
17	KSK Mahanadi	1245	-	-	1245	-	-
18	Sasan UMPP	3824	-	-	3824	-	-
19	JPL Stg-2	1088	-	-	1088	As per data given by JPL	1100
20	DGEN	541	-	-	541	-	-
21	DB Power	1182	-	-	1182	As per DB Power	1020
22	Korba West(REGL)	385	-	-	385	As per data given by Korba West	500
23	Dhariwal	282	-	-	282	As per data given by Dhariwal	273
24	GMR Chattishgarh	747	-	-	747	As per data given by GMR Chattisgarh(REL)	1100
25	JP Nigrie	1249	-	-	1249	As per data given by JP Nigrie	1240
26	GMR Warora	566	-	-	566	As per data given by GMR Warora	550

G	eneration	Projec	tion – V	Nester	n Regi	ion (3)	34 Deels
S. No.	Entity	Projections based on 3 Years Data (A)	Generation addition during 1st July'19 to 31st Dec'19 (B)	Generation CoD from 1st Jan'20 to 31st Mar'20 (C)	TOTAL D=A+B+C	Comments From DICs /States (if any	Back Figure as per Comments
		(MW)	(MW)	(MW)	(MW)		(MW)
27	ACBIL+ Spectrum+MCCPL	674	-	-	674	As per data given by ACBIL	676
28	MB Power	1082	-	-	1082	As per data given by MB Power	900
29	RKM Power	880	-	-	880	As per data given by RKM Power	900
30	Jhabua Power	497	-	-	497	As per Jhabua Power	566
31	TRN Energy	449	-	-	449	As per data given by TRN Energy	549
32	Sholapur STPP	549	432	-	981		970
33	Lara STPP	678	-	-	678	As per NTPC	560
34	SKS Power	511	-	-	511	-	-
35	Gadarwada	-	528	-	528	As per NTPC	560
36	Khargone STPS	-	-	864	864	As per NTPC	867
37	Naranpar_Ostro	-	-	-	-	As per last Quarter	125
38	Rewa_Solar (Acme+Arinsun+Badw ar_Mahinder)	-	-	-	-	As per last Quarter	0

Generation Projection – Western Region (4) 35 **Back** Generation **Projections Generation CoD Comments From** addition during S. based on 3 TOTAL Figure as per from 1st Jan'20 Entity 1st July'19 to 31st **DICs / States** to 31st Mar'20 No. **Years Data** D=A+B+C Comments Dec'19 (if any (C) (A) (B) (MW) (MW) (MW) (MW) (MW) Vadwa_Green As per last Quarter 39 90 --Infra(wind)

40	Roha Green Infra (Wind)	-	-	-	-	As per last Quarter	91
41	Ratadiya AGEMPL	-	-	-	-	As per last Quarter	25
42	Dayapar Inox wind	-	-	-	-	As per last Quarter	75
43	Bhuvad_Renew wind	-	-	-	-	As per last Quarter	60

³⁶ Demand and Generation Projection – North Eastern Region

Entity	Projected Demand (MW) by IA	Demand as given by DICs	Projected Generation (MW) by IA	Generation data as given by DICs	Projected ISTS drawal (MW) as per IA	ISTS drawal as per data submitt ed by DICs			
Arunachal Pradesh	140	171	6	6	134	165			
Assam	1,797	1850	208	305	1589	1545			
Manipur	199	196	0	0	199	196			
Meghalaya	376	341	208	258	168	83			
Mizoram	114	129	29	58	85	71			
Nagaland	131	144	12	21	119	123			
Tripura	305	379	183	169	122	210			
Normalization Factor		0.91							

Generation Projection – North-Eastern Region³⁷

S. No.	Entity	Projections based on 3 Years Data (A)	Generation addition during 1st July'19 to 31st Dec'19 (B)	Generation CoD from 1st Jan'20 to 31st Mar'20 (C)	TOTAL D=A+B+C	Comments From DICs /States (if any	Figure as per Comments
		(MW)	(MW)	(MW)	(MW)		(MW)
1	AGTPP, NEEPCO	104	-	-	104		135
2	Doyang, NEEPCO	48	-	-	48		60
3	Kopili , NEEPCO	188	-	-	188		0
4	Kopili 2, NEEPCO	25	-	-	25	As per 165 th OCC	25
5	Khandong, NEEPCO	47	-	-	47	Meeting of NERPC	48
6	Ranganadi, NEEPCO	386	-	-	386		401
7	AGBPP_Kathalguri	230	-	-	230		230
8	Loktak, NHPC	105	-	-	105		105

Generation Projection – North-Eastern Region³⁸

Back

S. No.	Entity	Projections based on 3 Years Data (A)	Generation addition during 1st July'19 to 31st Dec'19 (B)	Generation CoD from 1st Jan'20 to 31st Mar'20 (C)	TOTAL D=A+B+ C	Comments From DICs /States (if any	Figure as per Comments
		(MW)	(MW)	(MW)	(MW)		(MW)
9	Palatana GBPP	647	-	-	647		680
10	Bongaigaon_NTPC	695	-	-	695	As per 165 th OCC Meeting of NERPC	615
11	Pare NEEPCO	119	-	-	119		110

Demand and Generation Projection – Southern Region

Entity	Projected Demand (MW) by IA	Demand as given by DICs	Projected Generation (MW) by IA	Generation data as given by DICs	Projected ISTS drawal (MW) as per IA	ISTS drawal as per data submitt ed by DICs			
Andhra Pradesh	10,740	-	7019	-	3721	-			
Telangana	9,583	9959	6338	6733	3245	3226			
Karnataka	13,210	-	9073	-	4137	-			
Kerala	4,353	3950	1534	1600	2819	2350			
Tamil Nadu	15,994	16000	9294	10563	6700	5437			
Pondicherry	480	-	-	-	480	-			
Goa_SR	80	-	-	-	80	-			
Normalization Factor		0.91							

Generation Projection – Southern Region...(1)⁴⁰

S. No.	Years Data (A)		1st July 19 to 31st		TOTAL D=A+B+C	Comments From DICs /States (if any	Figure as per Comments
		(MW)	(MW)	(MW)	(MW)		(MW)
1	Ramagundam	2433	-	-	2433		2421
2	Simhadri 2	964	-	-	964	As per NTPC	943
3	Simhadri 1	904	-	-	904		943
4	SEPL	-	-	-	-	-	-
5	Lanco Kondapalli	-	-	-	-	-	-
6	Kaiga	822	-	-	822	-	-
7	NEYVELI (EXT) TPS	557	-	-	557	-	-
8	NEYVELI TPS-II	725	-	-	725	-	-
9	NEYVELI TPS-II EXP	738	-	-	738	-	-

Generation Projection – Southern Region...(2)

							Dack
S. No.	Entity	Projections based on 3 Years Data (A)	Generation addition during 1st July'19 to 31st Dec'19 (B)	Generation CoD from 1st Jan'20 to 31st Mar'20 (C)	TOTAL D=A+B+C	Comments From DICs /States (if any	Figure as per Comments
		(MW)	(MW)	(MW)	(MW)		(MW)
10	MAPS	227	-	-	227	-	-
11	Vallur	1334	-	-	1334	-	-
12	Meenakhshi	14	-	-	14	-	-
13	Coastal Energen	604	-	-	604	-	-
14	Kudankulam	1118	-	-	1118	-	-
15	Tuticorin TPP	724	-	-	724	-	-
16	Sembcorp Energy India Ltd.	1271	-	-	1271	-	-
17	IL&FS	907	-	-	907	-	-
18	Talcher Stage-II	1912	-	-	1912	-	-
19	Sembcorp Gayatri Power Ltd.	1270	-	-	1270	-	-
20	Kudgi STPS	1771	-	-	1771	As per NTPC	2050
21	Neyveli New Thermal Power	-	330	330	660	-	-
22	Green Infra_SR	-	-	-	-		125
23	Mytrah	-	-	-	-	As per last Quarter	125
24	Orange	-	-	-	-		100

41

Back

Expected Generation addition – Northern Region

Back

42

		red Comm to 31st D	nercial from ec'19				ed to be decla) to 31st Mar'			
Entity	Bus Name	Unit No.	Installed Capacity	Gen. considered	Total	Bus Name	Unit No.	Installed Capacity	Gen. considered	Total
			(MW)	(MW)	(MW)			(MW)	(MW)	(MW)
Tanda Stg-2	-	-	-	-	-	Tanda Stg-2	1	660	432	432

Expected Generation addition – Western Region

Back

			lared Com 19 to 31st	nmercial fro Dec'19	Generation declared/expected to be declared Commercial from 1st Jan'20 to 31st Mar'20					
Entity	Bus Name	Unit No.	Installed Capacity	Gen. considered	Total	Bus Name	Unit No.	Installed Capacity	Gen. considered	Total
			(MW)	(MW)	(MW)			(MW)	(MW)	(MW)
Gujarat	Wanakbori TPS Extn.	8	800	524	524					
Sholapur STPP	Sholapur STPP	2	660	432	432					
Gadarwada	Gadarwada	1	800	528	528					
Khargone						Khargone	1	660	432	864
STPS						STPS	2	660	432	004

Expected Generation addition – Eastern Region

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	Generation declared Commercial from 1st July'19 to 31st Dec'19				Generation declared/expected to be declared Commercial from 1st Jan'20 to 31st Mar'20							
Entity	Bus Name	Unit No.	Installed Capacity	Gen. considered	Total	Bus Name	Unit No.	Installed Capacity	Gen. considered	Total		
			(MW)	(MW)	(MW)			(MW)	(MW)	(MW)		
Odisha	OPGC Stage-II	4	660	432	432							
			1			Mangdechu HEP	1	180	143			
Mangdechu HEP						Mangdechu HEP	2	180	143	570		
пср						Mangdechu HEP	3	180	143			
						Mangdechu HEP	4	180	143			
Nabinagar BRBCL	Nabinagar BRBCL					Nabinagar BRBCL	4	250	164	164		
Nabinagar STPS	Nabinagar STPS	1	660	432	432							
Darlipalli STPP ST-I						Darlipalli STPP ST-I	1	800	524	524		

Expected Generation addition – Southern Region

45

Back

	Genera	Generation declared/expected to be declared Commercial from 1st Jan'20 to 31st Mar'20								
Entity	Bus Name	Unit No.	Installed Capacity	Gen. considered	Total	Bus Name	Unit No.	Installed Capacity	Gen. considere	d Total
			(MW)	(MW)	(MW)			(MW)	(MW)	(MW)
Neyveli New Thermal Power	Neyveli New Thermal Power	1	500	330	330	Neyveli New Thermal Power	2	500	330	330

Expected Generation addition – North Eastern Region ⁴⁶

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		eclared Co v'19 to 31s	mmercial fro t Dec'19	Generation declared/expected to be declared Commercial from 1st Jan'20 to 31st Mar'20						
Entity	Bus Name	Unit No.	Installed Capacity	Gen. considered	Total	Bus Name	Unit No.	Installed Capacity	Gen. consider ed	Total
			(MW)	(MW)	(MW)			(MW)	(MW)	(MW)
Arunachal Pradesh	Dikshi HEP	1	8	6.4	6.4					