

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: 7/9/2017

To

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

Subject: Minutes of the 3rd Meeting of Validation Committee for the Application Period from 1st October, 2017 to 31st December, 2017 for implementation of CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010

Sir,

Please find enclosed herewith minutes of the **3rd Meeting** of the Validation Committee for the **year 2016-17 (Application Period from 1st October, 2017 to 31st December, 2017)** for implementation of CERC (Sharing of Inter-State Transmission Charges and Losses) **Regulations, 2010** held on 29.8.2017 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

Sl. 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, Joint 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/ Powergrid	Shri H.K Mallick, GM (Comm)	Power Grid Corporation of India Ltd Plot No. 2, Sector-29, Near IFFCO Chowk, Gurgaon-122001
6.		Shri Dilip Rozekar, AGM (SEF)/ alternate member Shri RVMM Rao, Chief. Design Engineer (SEF)	Power Grid Corporation of India Ltd Plot No. 2, Sector-29, Near IFFCO Chowk, Gurgaon-122001
7.	POSOCO	Shri P. K. Agarwal Executive Director	Northern Regional Load Despatch Centre, Jeet Singh Marg, Katwaria Sarai, New Delhi-110016
8.		Shri G. Anbunesan GM, SRLDC	Southern Regional Load Despatch Centre 29, Race Course Cross Road, Bangalore, Karnataka-560009
9.		Shri U.K Verma, Executive Director	National Load Despatch Centre B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110016
10.		Shri P. Mukhopadhyay Executive Director	Eastern Regional Load Despatch Center 14, Golf Club Road, Tollygunge, Kolkata-700 033 (W.B.)
11.	NRPC	Shri M.A.K.P. Singh Member Secretary	Northern Regional Power Committee 18-A Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi-11
12.	WRPC	Shri A. Balan, Member Secretary	Western Regional Power Committee Plot No. F-3, MIDC Area, Marol, Opp : SEEPZ, Andheri (East), Mumbai-400093
13.	SRPC	Shri S.R. Bhat,	Southern Regional Power Committee

		Member Secretary	29, Race Course Cross Road, Bangalore-560009, Karnataka
14.	ERPC	Shri A.K. Bandyopadhyay , Member Secretary	Eastern Regional Power Committee 14, Golf Club Road, Tollygunge, Kolkata-700 033 (W.B.)
15.		Shri S.K. Das, Director Engineering	Bihar State Electricity Board 1 st Floor, Vidyut Bhawan, Bailey Road, Patna-21, Bihar
16.	NERPC	Shri P.K Mishra Member Secretary	North Eastern Regional Power Committee, NERPC Complex, Dong Parmaw, Lapalang, Shillong-793006 Phone No:0364-2534077 Fax NO.:0364-2534040
17.		Shri Jatin Baishya, Dy. General Manager	State Load Despatch Centre Complex,Kahelipara,Guwahati
18.	SLDC	Shri P.A.R. Bende, Chief Engineer, SLDC	Chief Engineer Madhya Pradesh Power Transmission Company Ltd., Nayagaon,Rampur, Jabalpur- 482008
19.	KPTCL	Shri S. Sumanth Director(Transmission), KPTCL	Karnataka Power Transmission Corp. Ltd, Kauvery Bhavan, K.G. Road, Bangalore – 560009
20.	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

LIST OF GENERATING COMPANIES

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

Minutes of the 3rd Meeting of Validation Committee for the Application Period from 1st October, 2017 to 31st December, 2017 held on 29th August, 2017 at NRLDC, New Delhi.

1. The Chairman of the Validation Committee, Shri S.C Shrivastava, Chief (Engg.), CERC welcomed the participants present in NRLDC Conference Room and also the other participants of RPCs, RLDCs, STUs and Generating Companies present at Conference Room of WRLDC, SRLDC, ERLDC, NERLDC, SLDCs of Gujarat, Madhya Pradesh, Chhattisgarh, Rajasthan, Punjab, U.P, Delhi, Himachal Pradesh, DVC, Jharkhand, Meghalaya, Assam and Maharashtra through video conferencing. 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 Third Quarter of 2017-18. *The presentation shown during the Validation Committee Meeting dated 29.08.2017 is attached at ANNEXURE- II*
3. **Demand Projection for Application Period from 1st October, 2017 to 31st December, 2017(Q3 of 2017-18).**

3.1 Northern Region:

- (i) Representative of NRLDC suggested that Demand projection of Chandigarh may be taken as 227 MW instead of 222 MW.
- (ii) Representative Rajasthan suggested that Demand projection of Rajasthan may be considered as 9608MW (as projected based on last 3-year data) instead of 10119MW.

The Demand figures as suggested above were agreed.

- 3.2 Eastern Region:** Members present at ERLDC suggested that Demand projection of West Bengal, Sikkim and DVC may be taken as 6,970 MW, 95 MW and 2,725 MW instead of 7,640 MW, 102 and 2,775 MW respectively.

The Demand figures as suggested above were agreed.

3.3 Western Region :

- (i) Members present at WRLDC suggested that Demand projection of Dadra Nagar Haveli and ESIL Hazira may be taken as 770 MW and 600 MW instead of 814 MW and 675 MW respectively.
- (ii) Representative of Chhattisgarh suggested that Demand projection of Chhattisgarh may be taken as 3,530 MW instead of 3,755 MW.

The Demand figures as suggested above were agreed.

- 3.4 North Eastern Region:** Demand projections for NER constituents are in order.

3.5 Southern Region: Demand projections for SR constituents are in order.

4. Generation Projection for Application Period from 1st October, 2017 to 31st December, 2017(Q3 of 2017-18).

4.1 Northern Region:

- (i) Representative of NRLDC suggested that generation projection of Delhi may be taken as 764 MW instead of 744 MW.
- (ii) Representative of NRPC suggested that generation from Tehri may be taken as 1,000 MW instead of 1,079 MW.
- (iii) Representative of SLDC Himachal Pradesh suggested that generation projection of Himachal Pradesh may be taken as 405 MW instead of 356 MW.
- (iv) Representative of SLDC Rajasthan suggested that their chhabra unit of 660 MW is expected by 30.9.2017 and they have added 976 MW wind and solar generation. It was decided that considering last 3 years projection, 70% PLF of chhabra unit generation projection of Rajasthan shall be taken as 7460 MW instead of 9205 MW to which representative of Rajasthan agreed.
- (v) Representative of SLDC Madhya Pradesh stated that they have considered Solar generation (600 MW) and Wind (400 MW) while providing generation projection. It was decided that generation projection of Madhya Pradesh shall be taken as 5,992 MW.
- (vi) NTPC representative suggested following changes:
 - (a) Generation from Unchahar and Dadri CCPP may be taken as 1,283 MW (including 327 MW from unit -4) and 250 MW instead of 956 MW and 400 MW respectively.
 - (b) Generation from Auriya and Anta may be taken as zero instead of 150 MW respectively.

The Generation figures as suggested above were agreed.

4.2 Western Region:

- (i) Representative of SLDC Maharashtra stated that they have considered wind generation (600MW) and Solar (400 MW) while giving generation projection. It was decided that generation projection of Maharashtra shall be taken as 16,400 MW instead of 17,600 MW.
- (ii) Representative of SLDC Chhattisgarh suggested that generation projection of Chhattisgarh may be taken as 2,697 MW instead of 3,344 MW.
- (iii) Members present at WRLDC and suggested following changes:
 - (a) Generation from RGPPL and TAPS may be taken as 500MW and 1000 MW instead of 659 MW and 1,183 MW respectively.
 - (b) Generation from Jindal Power, SSP and Balco may be taken as 700 MW, 400 MW and 300 instead of 768 MW, 708 MW and 611 MW respectively.
 - (c) Generation from KSK Mahanadi, JP Nigrie and GMR Warora may be taken as 1,130 MW, 1,150 MW and 550 MW instead of 757 MW, 1,240 MW and 550 MW respectively.

(d) Generation from KAPS, DGEN, and Korba West may be taken as zero instead of 203 MW, 438 MW and 508 MW respectively.

(iv) NTPC representative suggested that generation from Mauda, Kawas and Gandhar may be taken 1,567 MW, 300 MW and 300 MW instead of 1,135 MW, 200 MW and 200 MW respectively.

(v) On the issue of generation projection of Essar Mahan, Chief (Engg) CERC asked MS, WRPC regarding the status of LILO of Essar Mahan. MS (WRPC) stated that extension up to September 2017 has been provided in WRPC meeting held on 27th and 28th July, 2017. He further stated that they are in the process of issuance of minutes. Chief (Engg) stated that Commission has directed vide order dated 30.6.2017 in petition no 127/MP/2017 that communication be sent to commission by 5.7.2017. Further vide letter dated 4.8.2017 again the status of minutes was sought. However no communication has been received till date. He stated that WRPC must issue the communication expeditiously. It was also observed that there is no certainty of commissioning of the Mahan - Sipat 400 kV D/C dedicated line by Sep 2017. In light of above events it was decided that generation of Essar Mahan shall be taken as zero for the next quarter (Q3 of 2017-18) in the absence of permission of extension of LILO and the fact that dedicated line is not yet commissioned.

The Generation figures as suggested above were agreed.

4.3 Eastern Region:

(i) Member present at ERLDC suggested following changes

(a) Generation from Bihar may be taken as 309 MW instead of 159 MW

(b) Generation from GMR Kamalanga may be taken as 350 MW instead of 464 MW

(ii) Representative of SLDC, Jharkhand suggested that generation from Jharkhand may be taken as 325 MW instead of 464 MW.

The Generation figures as suggested above were agreed.

4.4 North Eastern Region: NERLDC representative suggested that generation from Tripura may be taken as 187MW (including 101MW from Monarchak CCGT) instead of 86MW.

The Generation figures as suggested above were agreed.

4.5 Southern Region: Member present at SRLDC suggested following changes:

(a) Generation form SEPL may be taken as 140 MW instead of 398 MW.

(b) Generation form Lanco Kondanpalli may be taken as zero instead of 353MW.

(c) Generation form Meenakshi may be taken as 140 MW instead of 282MW.

(d) Generation form Neyveli TPS II may be taken as 1,100 MW instead of 1,277MW.

(e) Generation form Coastal Energen may be taken as 600 MW instead of 857MW.

(f) Generation form Kudankulam may be taken as 1,820 MW instead of 2,017 MW.

(g) Generation form Thermal Powertech may be taken as 1100 MW instead of 1,279MW.

(h) Generation form IL&FS may be taken as 900 MW instead of 1,127 MW.

(i) Generation form Sembcorp Gayatri Power: 1,000 MW instead of 864 MW.

The Generation figures as suggested above were agreed.

5. HVDC Set Points:

- (i) HVDC set points to be considered in the All India Base case for computation of PoC charges and Losses for October 2017 – December 2017 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	<i>MW Values</i> Set points to be considered in Basecase
Mundra-Mahindergarh Pole-1	1250
Mundra-Mahindergarh Pole-2	1250
Talcher-Kolar Pole- 1	1000
Talcher-Kolar Pole- 2	1000
Rihand-Dadri Pole- 1	700
Rihand-Dadri Pole- 2	700
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 NER)
Champa-Kurukshetra Pole-1	1000
Champa-Kurukshetra Pole-2	1000

6. Other Issues:

- (i) IA suggested that STU lines for the evacuation from RGPPL be included in PoC computation. In this regard Maharashtra representative informed that they do not want these lines to be considered in PoC computation. Implementing Agency suggested that lines emanating from RGPPL may be treated as ISTS and the STU may approach the Hon'ble Commission and get the tariff approved for such transmission lines.

Chief (Engg.), CERC suggested that the respective STU may take decision whether its lines to be declared as ISTS or not. Further separate tariff for these lines is not available as the same is already covered in ARR of state. Without availability of separate tariff, in any case, line cannot be included in POC. Validation Committee is not the appropriate forum to discuss such issues and therefore, Hon'ble Commission may be approached for further directions in this regard.

- (ii) **Transmission system of POWERGRID Kala Amb Transmission Ltd:** Representative of POWERGRID Kala Amb Transmission Ltd stated that its system be considered under PoC. Representative of IA stated that LILO of 400kV D/C

Karcham Wangtoo – Abdullapur along with 40% series compensation owned by POWERGRID Kala Amb Transmission Ltd cannot be considered in PoC computation at present due to non-availability of the downstream network. It was also informed that in line with the CERC order dated 4.1.2017 in petition no. 155/MP/2016, the cost of said transmission line may be recovered from the owner of the downstream network. It was also informed that the said line and associated substation have not been commissioned reportedly due to non-availability of shutdown of 400kV D/C Karcham Wangtoo – Abdullapur during high hydro season. It was observed that a issue emerge as to ascertaining date of COD to be considered for TBCB in accordance with the TSA and the date from which such TBCB system shall be considered under PoC. In light of the above it was decided that transmission system of POWERGRID Kala Amb Transmission Ltd shall not be considered under POC due to non-availability of the downstream network and the same shall be governed as per order dated 4.1.2017 in Petition no 155/MP/2016.

Chief (Engg.), CERC suggested to devise a procedure to be followed in all such cases which can be useful in making decision regarding consideration of such transmission lines in PoC computations. He asked the members of Validation Committee to give their suggestions/comments in this regard which may be sent separately through Letter/email for discussion during next validation Committee meeting.

- (iii) During the Validation Committee Meeting, Implementing Agency presented a comparison of projected and actual peak demand met of Q1 2017-18. It was observed that for some of the states, the difference was more than 2%. Chief Engg., CERC suggested that the difference should not be more than 2%. All the states were requested to provide projected demand near to actual. Further Chief (Engg) suggested that such comparison for generation figures may also be discussed during next Validation Committee meeting.
- (iv) New lines to be included for this quarter as proposed by IA.

Name of the Transmission line	ISTS Licensee	Discussion
400 kV D/C (Quad) Dehradun -Abdullapur transmission line along with associated bays at Dehradun and Abdullapur Substation	PGCIL	To be Considered
400 kV D/C (Quad) Dulhasti- Kishenpur single circuit strung along with associated bays at Kishenpur end	PGCIL	To be Considered
Extension of Kudankulam APP-Tirunelveli 400 kV (Quad) D/C line to Tuticorin Pooling Station along with associated bays at Tuticorin Pooling Station	PGCIL	To be Considered
Solapur STPP-Solapur 400 kV D/C (Quad) 2nd Transmission Line along with associated bays at Solapur Sub-Station	PGCIL	Not to be considered in PoC. Dedicated line shall be considered under provision of CERC
400 kV OPGC- Jharsuguda Transmission Line	Odisha Generation Phase-II Transmission Ltd	Connectivity Regulations as per Regulation no 8(8)
LILO of one ckt of 400 kV D/C Khandwa-Rajgarh transmission line at Khargone TPP	Khargone Transmission Ltd	

7. After the deliberations, following was concluded:

- (i) After deliberation among members, it was decided that the peak generation for new hydro units shall be considered at 80% since most of the hydro units will be able to generate at 80% load for the peak hours during October to December. 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, 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.

Preparation of final All India Basecase 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 3rd meeting for 2017-18 of the Validation Committee held on 29th August, 2017 at , New Delhi.

CERC

1. Shri S.C.Shrivastava, Chief (Engg.) – In Chair
2. Ms Shilpa Agarwal, Joint. Chief (Engg.)
3. Shri Harish Kumar, Engineer

POWERGRID

4. Ms Manju Gupta,AGM(Comml.)
5. Shri V Srinivas, DGM (Comml.)
6. Shri Rajesh Verma, Chief Manager
7. Shri Anil Kumar Meena, Chief Manager
8. Shri Jasbir Singh, Chief Manager

NLDC

9. Shri S.R Narsiman, GM
10. Shri S.S. Barpanda, AGM
11. Shri G. Chakraborty, DGM
12. Shri Gaurav Verma, Senior Engineer
13. Shri Sanny Machal, Engineer

CEA

14. Shri Vikram Singh, Director.

NHPC

15. Shri V.K Srivastava, Manager

WRPC

16. Shri A. Balan, M.S, WRPC
17. Shri L.K.S Rathore, DD, WRPC
18. Shri P.D Lone
19. Shri D.N Gawai

WRLDC

20. Shri V.K Shrivastava ED
21. Shri Abhimanu Gartia, GM, POSOCO
22. Ms Pushpa.S, AGM
23. Ms Chitrakshi, Manager
24. Shri Pradeep Sanodiya, SE

ERPC

25. Shri P.K DE, EE

ERLDC

26. Shri P. Mukhopadhyai, ED
27. Shri S. Banerjee, DGM
28. Shri Manoj Kumar Thakur, Manager
29. Shri Saurav Sahay, Dy Manager
30. Shri S. Ghosh, Engineer

DVC, Kolkata

31. Shri S Ganguly, Dy. Chief Manager

SRPC

32. Shri Rangarajan. R.M, SE

33. Shri LEN. J.B, EE

34. Shri Anusha Das J, AEE

SRLDC

35. Shri V Balaji, DGM

36. Shri Shamreena Verghere, Manager

37. Shri Madukar, Manager

38. Shri Muthu Kumar, Manager

39. Shri Venkateshan, Manager

NRPC

40. Shri M.A.K.P Singh, MS

41. Shri Upendra Kumar, SE

42. Shri H.K Pandey, SE

43. Shri Anil Kwarani, EE

NRLDC

44. Shri Rajiv Porwal, DGM

45. Shri Riza Naqvi, Sr. Engineer

46. Shri Rinku Narang, IT Admin, NRLDC

NTPC

47. Shri Vinod Kumar Jain, DGM

48. Shri Uday Shankar, DGM

NERLDC

49. Shri Amaresh Mallick, DGM

50. Shri Momai Dey, Sr. Engineer

51. Shri Pglash Jyoti Borah, Engineer

52. Shri Jerin Jacob, Engineer

NERPC

53. Shri S.M Aimol, Dy. Director

MSETCL

54. Shri S.N Bhopale, Chief Engineer

55. Shri D.K Rokade, SE(Op)SLDC

56. Shri D.J Kolhe, EE(Op) SLDC

57. Shri Umesh . S. Bhagat, EE, STU

58. Ms Santosh. G Gawai, DYEE, STU

MSEDCL

59. Shri S.S Patil, EE(LM)

MEPTCL

60. Shri F.E Kharsiing, SE

61. Shri T. Gidon, EE

SLDC, Tamilnadu

62. Shri Gunanidhi

63. Shri Murugavelan

SLDC Telangana

64. Shri Suresh Babu, SE

65. Shri Madhusudhan

KSEBL

66. Shri Shanji .N.N, Chief Engineer

67. Shri S.R Anand, Dy Chief Engineer

Point of Connection Charges and Losses Computation

October 2017 -December 2017 (Q3)

Meeting of the Validation Committee

Date : 29th Aug, 2017

**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 Q3 Case (Oct'17 - Dec'17)
 - ▣ 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 30th Sep, 2017.

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: $\frac{\text{Projected All India Peak Demand Met}}{\text{Sum of projected met for all states}}$

Load Generation Projection

New Units	Loading
Thermal Units with DOCO from 1st Jan'17 to 30th Sep'17	70%
Hydro Units with DOCO from 1st Jan'17 to 30th Sep'17	80%
Gas Units with DOCO from 1st Jan'17 to 30th Sep'17	30%

Demand Projection



- Northern Region
- Eastern Region
- Western Region
- North-Eastern Region
- Southern Region

Generation Projection (Including New Generation)



- Northern Region
- Eastern Region
- Western Region
- North-Eastern Region
- Southern Region

HVDC Set points

- Maximum Flow based on operational experience.

MW Values

HVDC Name	Set points to be considered in Basecase
Mundra-Mahindergarh Pole-1	1250
Mundra-Mahindergarh Pole-2	1250
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 NER)
Champa-Kurukshetra Pole-1	1500

Data not Received

- **Jammu & Kashmir**
- **Haryana**
- **Himachal Pradesh**
- **Chandigarh**
- **Goa**
- **DD**
- **DNH**
- **West Bengal**
- **Jharkhand**
- **Bihar**
- **Sikkim**
- **Andhra Pradesh**
- **Karnataka**
- **Pondicherry**

Data not Received

- **AD Hydro**
 - **Everest**
 - **HBPCL**
 - **Sree cement**
 - **Maithon Power Ltd.**
 - **Adhunik Power**
 - **GMR Kamalanga**
 - **Lanco Amarkantak**
 - **NSPCL Bhilai**
 - **SEPL+MEPL**
 - **LANCO Kondapalli**
- Balco**
- KSK Mahanadi**
- NLC**
- Vandana Vidyut**
- Sasan UMPP**
- Coastal Energen**
- Vallur**
- RGPPL**
- Tehri**
- TRN Energy**
- SGPL**

YTC Data received from Transmission Licensees



- ▣ Reliance Power Transmission Ltd.
- ▣ Adani Power Limited
- ▣ Darbhanga Motihari Transmission Company Ltd.
- ▣ Raichur Sholapur Transmission company Ltd.
- ▣ Parbati Koldam Trans. Co. Ltd
- ▣ Jabalpur Transmission Company Ltd.
- ▣ East North Inter-connection Ltd.
- ▣ Bhopal Dhule Transmission Company Ltd.
- ▣ RAPP Transmission Company Ltd.
- ▣ Purulia & Kharagpur Transmission Company Ltd.
- ▣ NRSS-XXIX Transmission Ltd.
- ▣ NRSS-XXXI B Transmission Ltd.
- ▣ NRSS-XXXVI Transmission Ltd.

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- ▣ Maheshwaram Trans. Ltd.
 - ▣ Gurgaon-Palwal Trans. Ltd.
 - ▣ Khargone Trans. Ltd.
 - ▣ Odisha Generation Phase-II Trans. Ltd.
 - ▣ Patran Trans. Co. Ltd.
 - ▣ POWERGRID Unchahar Trans. Ltd.
 - ▣ POWERGRID Warora Trans. Ltd.
 - ▣ POWERGRID Kala Amb Trans. Ltd.
 - ▣ Teestavalley Power Transmission Limited
 - ▣ Power Grid Corporation of India Limited
 - ▣ POWERGRID NM Trans. Ltd.

YTC Data not received

- ▣ Aravali Power Company Pvt. Ltd.
- ▣ Jaypee Powergrid Limited
- ▣ Kudgi Trans. Ltd.
- ▣ Torrent Power Grid Ltd.
- ▣ POWERGRID Vizag Trans. Ltd.
- ▣ North East Transmission Company Ltd.
- ▣ Essar Power Transmission Company Ltd.
- ▣ Jindal Power Ltd.
- ▣ Powerlinks Transmission Ltd.

YTC Data received from States

- ▣ Karnataka
- ▣ Kerala
- ▣ Madhya Pradesh
- ▣ Assam
- ▣ Meghalaya

Points for Discussion



- ❑ Transmission Line to be considered in PoC computation
 - STU line for the evacuation from RGPPL

- ❑ POWERGRID Kala Amb Trans. Ltd.

List of new lines

PGCIL	Ant. CoD
400 kV D/C (Quad) Dehradun -Abdullapur transmission line along with associated bays at Dehradun and Abdullapur Substation	31-08-2017
400 kV D/C (Quad) Dulhasti-Kishenpur - single circuit strung along with associated bays at Kishenpur end	31-10-2017
Solapur STPP-Solapur 400 kV D/C (Quad) 2nd Transmission Line alongwith associated bays at Solapur Sub-Station	Aug'17
Extension of Kudankulam APP-Tirunelveli 400 kV (Quad) D/C line to Tuticorin Pooling Station alongwith associated bays at Tuticorin Pooling Station	Aug'17
Odisha Generation Phase-II Trans. Ltd.	
400 kV OPGC- Jharsuguda Transmission Line	31-07-2017
Khargone Transmission Ltd.	
LILO of one ckt of 400 kV D/C Khandwa-Rajgarh transmission line at Khargone TPP	01-11-2017



Thank You !!

Demand Projection – Northern Region

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Entity	Q3 (Oct-Dec'17) Projected Demand (MW) (Based on Peak Met figures of last 3 years) before normalization	Data Given by DICs/States
Chandigarh	222	
Delhi	4,297	4,120
Haryana	7,259	
Himachal Pradesh	1,400	
Jammu & Kashmir	2,031	
Punjab	6,886	6,992
Rajasthan	9,608	10,119
Uttar Pradesh	15,851	18,000
Uttarakhand	1,948	1,830
Total	49,503	
Normalization Factor	0.92	

Demand Projection – Eastern Region

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Entity	Q3 (Oct-Dec'17) Projected Demand (MW) (Based on Peak Met figures of last 3 years) before normalization	Data Given by DICs/States
Bihar	4,214	
DVC	2,453	2,775
Jharkhand	1,244	
Odisha	4,020	4,141
West Bengal	7,640	
Sikkim	102	
Total	19,673	
Normalization Factor	0.92	

Demand Projection – Western Region

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Entity	Q3 (Oct-Dec'17) Projected Demand (MW) (Based on Peak Met figures of last 3 years) before normalization	Data Given by DICs/States
Chhattisgarh	3,429	3,755
Gujarat	13,701	13,530
Madhya Pradesh	11,183	11,400
Maharashtra	20,782	20,600
Daman & Diu	320	
Dadra Nagar Haveli	814	
Goa_WR	480	
ESIL Hazira	675	
Total	51,384	
Normalization Factor		0.92

Demand Projection – North-Eastern Region ²³

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Entity	Q3 (Oct-Dec'17) Projected Demand (MW) (Based on Peak Met figures of last 3 years) before normalization	Data Given by DICs/States
Arunachal Pradesh	132	135
Assam	1,634	1550
Manipur	163	168
Meghalaya	304	290
Mizoram	102	93
Nagaland	133	130
Tripura	273	358
Total	2,740	
Normalization Factor	0.92	

Demand Projection – Southern Region

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Entity	Q3 (Oct-Dec'17) Projected Demand (MW) (Based on Peak Met figures of last 3 years) before normalization	Data Given by DICs/States
Andhra Pradesh	7,833	
Telangana	8,231	8,800
Karnataka	9,955	
Kerala	3,691	3,660
Tamil Nadu	15,152	13,900
Pondicherry	350	
Goa- SR	80	
Total	45,291	
Normalization Factor		0.92

Generation Projection – Northern Region ²⁵

S. No.	Entity	Projections based on 3 Years Data (A)	Generation addition during 1st Jan'17 – 30th June'17 (B)	Generation CoD from 1st July'17 to 30 th Sep'17 (C)	TOTAL D=A+B+C	Comments From DICs /States (if any)	Figure as per Comments
		(MW)	(MW)	(MW)	(MW)		(MW)
1	Uttar Pradesh	8003	-	-	8003	As per data given by Uttar Pradesh	9900
2	Delhi	779	-	-	779	As per data given by Delhi	744
3	Haryana	2851	-	-	2851		
4	Uttarakhand	906	-	178	1084	As per data given by Uttarakhand	1148
5	Punjab	3863	-	-	3863	As per data given by Punjab	4701
6	Rajasthan	6189	432	-	6621	As per data given by Rajasthan	9205
7	Himachal Pradesh	356	-	-	356		
8	Jammu & Kashmir	550	-	-	550		
9	BBMB	2134	-	-	2134	As per data given by BBMB	2074

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

S. No.	Entity	Projections based on 3 Years Data (A)	Generation addition during 1st Jan'17 – 30th June'17 (B)	Generation CoD from 1st July'17 to 30 th Sep'17 (C)	TOTAL D=A+B+C (MW)	Comments From DICs /States (if any)	Figure as per Comments (MW)
		(MW)	(MW)	(MW)	(MW)		(MW)
10	Dadri Thermal	1428	-	-	1428	As per data given by NTPC	1697
11	Rihand	2859	-	-	2859		2807
12	Singrauli	1841	-	-	1841		1863
13	Unchahar	997	-	327	1325		956
14	Auraiya	244	-	-	244		150
15	Dadri CCPP	561	-	-	561		400
16	NAPS	420	-	-	420	As per NAPS	400
17	Jhajjar	1233	-	-	1233	-	
18	Dhauliganga	286	-	-	286	As per NHPC	280
19	Tanakpur	75	-	-	75		73
20	Koteshwar	335	-	-	335	As per Koteshwar	334
21	Tehri	1079	-	-	1079	-	
22	Anta	302	-	-	302	As per data given by NTPC	150
23	RAAP B	404	-	-	404	-	
24	RAAP C	335	-	-	335	-	
25	AD Hydro	136	-	-	136	-	
26	Everest	96	-	-	96	-	
27	Karcham Wangtoo	880	-	-	880	-	

Generation Projection – Northern Region(3)

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S. No.	Entity	Projections based on 3 Years Data (A)	Generation addition during 1st Jan'17 – 30th June'17 (B)	Generation CoD from 1st July'17 to 30 th Sep'17 (C)	TOTAL D=A+B+C (MW)	Comments From DICs /States (if any)	Figure as per Comments (MW)
		(MW)	(MW)	(MW)	(MW)		(MW)
28	Bairasul	177	-	-	177	As per NHPC	180
29	Chamera 1	557	-	-	557		540
30	Chamera 2	299	-	-	299		300
31	Chamera 3	233	-	-	233		231
32	Naptha Jhakri	1610	-	-	1610	As per SJVN	1482
33	Lanco Budhil	59	-	-	59	-	
34	Dulhasti	456	-	-	456	As per NHPC	390
35	Salal	451	-	-	451		404
36	Sewa-II	126	-	-	126		120
37	URI I HPS	366	-	-	366		350
38	URI II HPS	182	-	-	182		180
39	Sree Cement	215	-	-	215	-	
40	Parbati III	309	-	-	309	As per NHPC	390
41	Rampur HEP	456	-	-	456	As per SJVN	442
42	Koldam	875	-	-	875	As per data given by NTPC	792

Generation Projection – Eastern Region...(1) ²⁸

S. No.	Entity	Projections based on 3 Years Data (A)	Generation addition during 1st Jan'17 – 30th June'17 (B)	Generation CoD from 1st July'17 to 30 th Sep'17 (C)	TOTAL D=A+B+C	Comments From DICs /States (if any)	Figure as per Comments
		(MW)	(MW)	(MW)	(MW)		(MW)
43	West Bengal	4900	-	-	4900	-	
44	Odisha	2854	-	-	2854	Forecasted peak injection as given by GRIDCO	3202
45	Bihar	159	-	-	159	-	
46	Jharkhand	464	-	-	464	-	
47	Sikkim	-	-	-	-	-	
48	Chujachan	112	-	-	112	As per CERC order dated: 22.06.2017	99
49	DVC	3449	-	-	3449	As per data given by DVC (Average)	3766
50	Durgapur Steel		-	-			
51	Koderma TPP		-	-			
52	Raghunathpur						
53	Bokaro TPS Expn.						
54	MPL	1005	-	-	1005	Last quarter Gen.	990

Generation Projection – Eastern Region...(2)²⁹

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S. No.	Entity	Projections based on 3 Years Data (A)	Generation addition during 1st Jan'17 – 30th June'17 (B)	Generation CoD from 1st July'17 to 30 th Sep'17 (C)	TOTAL D=A+B+C (MW)	Comments From DICs /States (if any)	Figure as per Comments (MW)
55	Teesta V	534	-	-	534	As per CERC order dated: 22.06.2017	510
56	Kahalgaon	2202	-	-	2202	As per data given by NTPC	2178
57	Farakka	2019	-	-	2019		1968
58	Talcher	970	-	-	970		
59	Rangeet	72	-	-	72	As per NHPC	63
60	Corporate Power	-	-	-	-		
61	Adhunik Power	498	-	-	498	-	
62	Barh	1252			1252	As per data given by NTPC	1057
63	Kamalanga TPP (GMR)	667	-	-	667	-	
64	JITPL	1142	-	-	1142	As per Email from JITPL dtd: 28.08.2017	350
65	Jorthang	84	-	-	84		
66	Bhutan	1011	-	-	1011	-	-
67	Teesta-III	-	<u>950</u>	-	950	As per CERC order dated: 22.06.2017	879
68	Dikchu HEP	-	-	76	76		
69	Nabinagar BRBCL	-	-	301	301		

Generation Projection – Western Region...(1) 30

S. No.	Entity	Projections based on 3 Years Data (A)	Generation addition during 1st Jan'17 – 30th June'17 (B)	Generation CoD from 1st July'17 to 30 th Sep'17 (C)	TOTAL D=A+B+C	Comments From DICs /States (if any)	Figure as per Comments
		(MW)	(MW)	(MW)	(MW)		(MW)
70	MP	4739	-	-	4739	As per forecasted gen. given by MP	5992
71	Maharashtra	14852	864	-	15715	As per data given by Maharashtra	17600
72	Chhattisgarh	3468	-	-	3468	As per data given by Chhattisgarh	3344
73	Gujarat	9994	-	164	10158	As per data given by Gujarat	10588
74	Goa	-	-	-	-		
75	D&D	-	-	-	-		
76	DNH	-	-	-	-		
77	Vindhyachal	4631	-	-	4631	As per NTPC	4440
78	Ratnagiri Dabhol	659	-	-	659		
79	TAPS (1,2,3,4)	1183	-	-	1183		
80	JINDAL	768	-	-	768		
81	LANCO	575	-	-	575		
82	NSPCL Bhilai	429	-	-	429		
83	Korba	2486	-	-	2486	As per NTPC	2431

Generation Projection – Western Region ... (2) 31

S. No.	Entity	Projections based on 3 Years Data (A)	Generation addition during 1st Jan'17 – 30th June'17 (B)	Generation CoD from 1st July'17 to 30 th Sep'17 (C)	TOTAL D=A+B+C	Comments From DICs /States (if any)	Figure as per Comments
		(MW)	(MW)	(MW)	(MW)		(MW)
84	SIPAT	2858	-	-	2858	As per NTPC	2809
85	CGPL	3708	-	-	3708	-	
86	Mauda	681	<u>432</u>		1113	As per NTPC	1135
87	Gandhar	388	-	-	388		200
88	Kawas	354	-	-	354		200
89	SSP	708	-	-	708		
90	KAPS	203	-	-	203		
91	Essar Mahan	531	-	<u>393</u>	924		
92	BALCO	611	-	-	611	-	
93	KSK Mahanadi	757	-	-	757		
94	Vandana Vidyut	0		-	0		
95	Sasan UMPP	3811	-	-	3811		
96	Tamnar TPP	971	-	-	971		

Generation Projection – Western Region ... (3) 32

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S. No.	Entity	Projections based on 3 Years Data (A)	Generation addition during 1st Jan'17 – 30th June'17 (B)	Generation CoD from 1st July'17 to 30 th Sep'17 (C)	TOTAL D=A+B+C	Comments From DICs /States (if any)	Figure as per Comments
		(MW)	(MW)	(MW)	(MW)		(MW)
97	DGEN	438	-	-	438		
98	DB Power	1150	-	-	1150	As per email from DB Power	950
99	Korba West	508	-	-	508		
100	Dhariwal	278	-	-	278	As per Dhariwal	273
101	GMR Chattishgarh Energy Ltd.	0	-	-	0	Last quarter generation	460
102	JP Nigrie	1193	-	-	1193	As per data given by JP Nigrie	1240
103	GMR Warora	557	-	-	557		
104	ACBIL+ Spectrum+MCCPL	610	-	-	610	As per ACBIL	678
105	MB Power (Anuppur)	576	-	-	576	As per MB Power	1131
106	RKM Power		<u>232</u>	232	464		
107	Jhabua Power	266	-	-	266		
108	TRN Energy	280	<u>196</u>		476		
109	Sholapur STPP			435	435	As per NTPC	435

Generation Projection – North-Eastern Region

S. No.	Entity	Projections based on 3 Years Data (A)	Generation addition during 1st Jan'17 – 30th June'17 (B)	Generation CoD from 1st July'17 to 30 th Sep'17 (C)	TOTAL D=A+B+C	Comments From DICs /States (if any)	Figure as per Comments
		(MW)	(MW)	(MW)	(MW)		(MW)
110	AGTPP, NEEPCO	132	-	-	132	As decided in 135 th OCC meeting	132
111	Doyang, NEEPCO	69	-	-	69		71
112	Kopili , NEEPCO	195	-	-	195		192
113	Kopili 2, NEEPCO	24			24		22
114	Khandong, NEEPCO	49	-	-	49		44
115	Ranganadi, NEEPCO	415	-	-	415		402
116	AGBPP_Kathalguri	229	-	-	229		220
117	Loktak, NHPC	104	-	-	104		105

Generation Projection – North-Eastern Region ³⁴

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S. No.	Entity	Projections based on 3 Years Data (A)	Generation addition during 1st Jan'17 – 30th June'17 (B)	Generation CoD from 1st July'17 to 30 th Sep'17 (C)	TOTAL D=A+B+C	Comments From DICs /States (if any)	Figure as per Comments
		(MW)	(MW)	(MW)	(MW)		(MW)
117	Palatana GBPP	538			538	As decided in 135 th OCC meeting	547
118	Bongaigaon_NTPC	250			250		230
119	Arunachal Pradesh	-			-		-
120	Assam	290			290		241
121	Manipur	-			-		-
122	Meghalaya	183			183		321
123	Nagaland	16			16		24
124	Tripura	85			85		86
125	Mizoram	4			4		8

Generation Projection – Southern Region...(1)³⁵

S. No.	Entity	Projections based on 3 Years Data (A)	Generation addition during 1st Jan'17 – 30th June'17 (B)	Generation CoD from 1st July'17 to 30 th Sep'17 (C)	TOTAL D=A+B+C	Comments From DICs /States (if any)	Figure as per Comments
		(MW)	(MW)	(MW)	(MW)		(MW)
126	Andhra Pradesh	6104	-	-	6104		
127	Telangana	3248	-	-	3248	As per data given by Telangana	5368
128	Karnataka	6452	-	-	6452	-	
129	Kerala	1531	-	-	1531	As per Kerala	1410
130	Tamil Nadu	8494	-	-	8494	As per data given by TN	7605
131	Pondy	0	-	-	0	-	-
132	Ramagundam	2508	-	-	2508	As per NTPC	2431
133	Simhadri 2	984	-	-	984		948
134	Simhadri 1	982	-	-	982		948
135	SEPL	398	-	-	398	-	
136	Lanco Kondapalli	353	-	-	353		

Generation Projection – Southern Region...(2)

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S. No.	Entity	Projections based on 3 Years Data (A)	Generation addition during 1st Jan'17 – 30th June'17 (B)	Generation CoD from 1st July'17 to 30 th Sep'17 (C)	TOTAL D=A+B+C	Comments From DICs /States (if any)	Figure as per Comments
		(MW)	(MW)	(MW)	(MW)		(MW)
137	Kaiga	811	-	-	811		
138	NEYVELI (EXT) TPS	397	-	-	397		
139	NEYVELI TPS-II	1277	-	-	1277		
140	NEYVELI TPS-II EXP	297	-	-	297		
141	MAPS	379	-	-	379		
142	Vallur	1411	-	-	1411		
143	Meenakhshi	282	-	-	282		
144	Coastal Energen	857	-	-	857		
145	Kudankulam	1082	<u>935</u>	-	2017		
146	Tuticorin TPP	953	-	-	953		
147	Thermal Powertech	1279	-	-	1279		
148	IL&FS	1127	-	-	1127		
149	Talcher Stage-II	1941	-	-	1941		
150	Sembcorp Gayatri Power Ltd.	-	<u>864</u>	-	864		
151	Kudgi STPS	-		524	524	As per NTPC	524

Expected Generation addition – Northern Region

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		Generation declared Commercial from 1st Jan '17 to 30th June'17				Generation declared/expected to be declared Commercial from 1 st July'17 to 30th Sep'17				
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)
Uttarakhand						Shravanti Gas	4	75	59	178
						Shravanti Gas	5	75	59	
						Shravanti Gas	6	75	59	
Rajasthan	Chhabra	5	660	432						
Unchahar						Unchahar	4	500	325	325

Expected Generation addition – Western Region

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Entity	Generation declared Commercial from 1st Jan '17 to 30th June'17					Generation declared/expected to be declared Commercial from 1 st July'17 to 30th Sep'17				
	Bus Name	Unit No.	Installed Capacity	Gen. considered	Total	Bus Name	Unit No.	Installed Capacity	Gen. considered	Total
			(MW)	(MW)	(MW)			(MW)	(MW)	(MW)
Maharashtra	Koradi TPS	9	660	432	864					
	Koradi TPS	10	660	432						
Gujarat	Bhavnagar TPP	2	250	164	164					
Mauda	Mauda	3	660	432	432					
Essar Mahan						Essar Mahan	2	600	393	393
RKM Power	RKM Power	2	360	232	232	RKM Power	3	360	232	232
TRN Energy	TRN Energy	2	300	196	196					
Sholapur STPP						Sholapur STPP	1	660	435	435

Expected Generation addition – Eastern Region

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Entity	Generation declared Commercial from 1st Jan '17 to 30th June'17					Generation declared/expected to be declared Commercial from 1 st July'17 to 30th Sep'17				
	Bus Name	Unit No.	Installed Capacity	Gen. considered	Total	Bus Name	Unit No.	Installed Capacity	Gen. considered	Total
			(MW)	(MW)	(MW)			(MW)	(MW)	(MW)
Teesta- III	Teesta- III	1	200	158	950					
	Teesta- III	2	200	158						
	Teesta- III	3	200	158						
	Teesta- III	4	200	158						
	Teesta- III	5	200	158						
	Teesta- III	6	200	158						
Dikchu HEP						Dikchu HEP	1	48	38	76
						Dikchu HEP	2	48	38	
Nabinagar BRBCL	Nabinagar BRBCL	1	230	151	151	Nabinagar BRBCL	2	230	151	151

Expected Generation addition – Southern Region

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Entity	Generation declared Commercial from 1st Jan '17 to 30th June'17					Generation declared/expected to be declared Commercial from 1 st July'17 to 30th Sep'17				
	Bus Name	Unit No.	Installed Capacity	Gen. considered	Total	Bus Name	Unit No.	Installed Capacity	Gen. considered	Total
			(MW)	(MW)	(MW)			(MW)	(MW)	(MW)
Kudankulam	Kudankulam	2	1000	935	935					
Sembcorp Gayatri Power Ltd.	Sembcorp Gayatri Power Ltd.	1	600	432	864					
	Sembcorp Gayatri Power Ltd.	2	600	432						
Kudgi STPS						Kudgi STPS	1	800	524	524

Comparison of Demand for Q1-17-18

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Northern Region			
State/Region/System	Actual Peak Demand Met (MW)	Projected Demand (MW)	Change (in %)
Chandigarh	319	327	↓ -3%
Delhi	6077	5450	↑ 12%
Haryana	8052	8518	↓ -5%
Himachal Pradesh	1352	1318	↑ 3%
Jammu & Kashmir	2137	2160	↓ -1%
Punjab	9031	8724	↑ 4%
Rajasthan	9936	9807	↑ 1%
Uttar Pradesh	17737	16800	↑ 6%
Uttarakhand	1979	1959	↑ 1%

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Eastern Region

State/Region/System	Actual Peak Demand Met (MW)	Projected Demand (MW)	Change(in %)
Bihar	3942	4112	↓ -4%
DVC	2702	2770	↓ -2%
Jharkhand	1169	1200	↓ -3%
Orissa	4090	4323	↓ -5%
West Bengal	7705	8291	↓ -7%
Sikkim	81	95	↓ -15%

Western Region

Chhattisgarh	3601	3650	↓ -1%
Gujarat	15434	14973	↓ 3%
Madhya Pradesh	8081	8300	↓ -3%
Maharashtra	21597	20600	↑ 5%
Daman & Diu	338	313	↑ 8%
Dadra Nagar Haveli	764	809	↓ -6%
Goa	508	480	↑ 6%

Contd..

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Southern Region

State/Region/System	Actual Peak Demand Met (MW)	Projected Demand (MW)	Change (in %)
Andhra Pradesh	7910	7964	↓ -1%
Telangana	7868	7900	↓ 0%
Karnataka	9319	9104	↑ 2%
Kerala	3765	3889	↓ -3%
Tamil Nadu	14831	15167	↓ -2%
Pondicherry	380	371	↑ 2%

North Eastern Region

Arunachal Pradesh	132	138	↓ -4%
Assam	1534	1415	↑ 8%
Manipur	157	161	↓ -3%
Meghalaya	289	319	↓ -9%
Mizoram	82	93	↓ -11%
Nagaland	132	126	↑ 5%
Tripura	265	285	↓ -7%