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

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

To

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

Subject: Minutes of the 4<sup>th</sup>Meeting of Validation Committee for the Application Period from 1st January, 2017to 31st March, 2017 for implementation of CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010

Sir,

Please find enclosed herewith minutes of the 4<sup>th</sup> Meeting of the Validation Committee for the year 2016-17 (Application Period from 1st January, 2017 to 31st March, 2017) for implementation of CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 held on 24.11.2016 in the NRLDC Conference Room at New Delhi for information and necessary action.

Yours faithfully,

Dated: 16/12/2016

Sd/-(Shilpa Agarwal) Dy. 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	Central Electricity Regulatory							
''	OLIKO	(Engg	Commission,							
		(=1.99	3 <sup>rd</sup> & 4 <sup>th</sup> Floor, Chanderlok Building,							
			36-Janpath, New Delhi -110001							
2.		Shri P.K. Awasthi,	Central Electricity Regulatory							
		Joint Chief (Fin.)	Commission							
			3 <sup>rd</sup> & 4 <sup>th</sup> Floor, Chanderlok Building,							
			36-Janpath, New Delhi -110001							
3.	CEA	Chief Engineer, (PSP & PA-	Central Electricity Authority							
		II) Division	3 <sup>rd</sup> Floor, N-Wing							
			SewaBhawan, R.K. Puram,							
			New Delhi - 110 066							
4.		Director, GM Division	Central Electricity Authority							
			6 <sup>th</sup> Floor, N-Wing							
			SewaBhawan, R.K.Puram,							
	OTIL!		New Delhi-110066							
5.	CTU/	Shri H.K Mallick,	Power Grid Corporation of India Ltd							
	Powergrid	GM (Comm)	Plot No. 2, Sector-29,							
			Near IFFCO Chowk,							
6		Chri Dilin Bozokor DCM	Gurgaon-122001							
6.		Shri Dilip Rozekar, DGM	Power Grid Corporation of India Ltd							
		(SEF)/ alternate member Shri RVMM Rao, Chief.	Plot No. 2, Sector-29, Near IFFCO Chowk,							
		Design Engineer (SEF)	Gurgaon-122001							
7.	POSOCO	Design Engineer (GET)	Northern Regional Load							
' '		Shri P. K. Agarwal	DespatchCentre,Jeet Singh Marg,							
		General Manager	KatwariaSarai, New Delhi-110016							
8.		AGM, SRLDC	Southern Regional Load Despatch							
		,	Centre							
			29, Race Course Cross Road,							
			Bangalore, Karnataka-560009							
9.		Shri K.V.S Baba	National Load Despatch Centre							
		Executive Director	B-9, Qutab Institutional							
			Area,Katwaria Sarai,							
	_		New Delhi-110016							
10.		Shri U.K. Verma,	Eastern Regional Load Despatch							
		General Manager	Center							
			14, Golf Club Road, Tollygunge,							
1.4	NDDC	D.C. Mhooko	Kolkata-700 033 (W.B.)							
11.	NRPC	P.S. Mhaske	Northern Regional Power Committee							
		Member Secretary	18-A Shaheed Jeet Singh Marg,							
12.	WPDC	Shri S.D. Takaanda	KatwariaSarai, New Delhi-11							
12.	WRPC	Shri S.D. Taksande,	Western Regional Power Committee							
		Member Secretary	Plot No. F-3, MIDC Area, Marol, Opp : SEEPZ, Andheri (East),							
			Mumbai-400093							
			IVIUITIDAI-400033							

13.	SRPC	Shri S.R. Bhat,	Southern Regional Power Committee							
10.	Orti O	Member Secretary	29, Race Course Cross Road,							
			Bangalore-560009, Karnataka							
14.	ERPC	Shri A.K. Bandyopadhyay,	Eastern Regional Power Committee							
		Member Secretary	14, Golf Club Road, Tollygunge,							
		,	Kolkata-700 033 (W.B.)							
15.		Shri S.K.Das,	Bihar State Electricity Board							
		Director Engineering	1 <sup>st</sup> Floor, Vidyut Bhawan, Bailey							
		January State Stat	Road, Patna-21, Bihar							
16.	NERPC	Shri P.K Mishra	North Eastern Regional Power							
		Member Secretary	Committee, NERPC Complex, Dong							
			Parmaw, Lapalang, Shillong-793006							
			Phone No:0364-2534077 Fax							
			NO.:0364-2534040							
17.		Shri Jatin Baishya,	State Load Despatch Centre							
		Dy. General Manager	Complex,Kahelipara,Guwahati							
18.	SLDC	Shri P.A.R. Bende,	Chief Engineer							
		Chief Engineer, SLDC	Madhya Pradesh Power							
			Transmission Company Ltd.,							
			Nayagaon,Rampur,							
			Jabalpur- 482008							
19.	KPTCL	Shri S. Sumanth	Karnataka Power Transmission							
		Director(Transmission),	Corp.Ltd.,							
		KPTCL `	Kauvery Bhavan, K.G. Road,							
			Bangalore – 560009							
20.	UPPTCL	Shri A.K. Singh,	Uttar Pradesh Power Transmission							
		Director(Operation),	Corporation Ltd , 7th Floor,							
		Uttar Pradesh Power								
		Transmission Corporation	=							
		Ltd.								

## **LIST OF GENERATING COMPANIES**

SI. No.	Name of the Statutory Bodies	Name of the persons and Designation	Address
1.	NTPC	Shri A.K Gupta, Executive Director (Commercial) (I/C)	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 4<sup>th</sup> Meeting of Validation Committee for the Application Period from 1st January, 2017to 31st March, 2017, 2016held on 24<sup>th</sup>November, 2016 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, and Maharashtra through video conferencing. List of the participants is enclosed at *Annexure-I*.
- 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 fourth Quarter of 2016-17.
- 3. It has been informed that Demand and Generation projections were presented for discussion in the respective RPC forum prior to the Validation Committee meeting. The details were discussed in RPCs in WR, NER, SR & NR and they have given their observations; while the feedback was not available from ER. While the data has been considered to be in order, few changes/suggestions were indicated by the constituents, as mentioned below:
- 4. Demand Projection for Q4 of Application Period from 1st January, 2017to 31st March, 2017
- 4.1 Northern Region: Subsequent to Validation Committee Meeting, RVPNL has submitted that demand projection of Rajasthan may be taken as 9,000 MW as against the projected demand of 10,275 MW based on last three years peak demand of the same quarter. After exchange of e-mails with NRPC, NRLDC and IA, it emerged that demand projection of Rajasthan should be taken as 10,275 MW. Accordingly demand projection of Rajasthan shall be taken as 10,275 MW.

#### 4.2 Eastern Region:

- (i) Representative of ERLDC suggested that Demand projections of Bihar and Odisha may be taken as 3,600 MW and 4,058 MW instead of 4,065 MW and 4,150 MW respectively.
- (ii) Subsequently West Bengal has confirmed its demand as 7,397 MW.

#### 4.3 Western Region :

WRLDC representative suggested that Demand projection of Essar steel may be taken as 600 MW instead of 654 MW

#### 4.4 North Eastern Region:

Demand projections for NER constituents are in order.

## 4.5 Southern Region:

- (i) Subsequent to Validation Committee Meeting, TSRANSCO has submitted that demand projection of Telangana may be taken as 7,500 MW as against demand projection of 6,287 based on previous 3 years data. IA has suggested that demand projection as suggested by TSRANSCO may be considered. Accordingly demand projection of Telangana shall be taken as 7,500 MW.
- (ii) Similarly, APTRANSCO has submitted that demand projection of Andhra Pradesh may be taken as 8,565 MWas against demand projection of 7,792 MW based on previous 3 years data. After exchange of e-mails with SRPC, SRLDC and IA, it emerged that demand projection of Andhra Pradesh should be taken as 7,792 MW. Accordingly demand projection of Andhra Pradesh shall be taken as 7,792 MW.

## 5. Generation Projection for Q4 of Application Period from 1st January, 2017to 31st March, 2017

## **5.1 Northern Region**:

- (i) Representative of Punjab submitted that the generation from Punjab may be taken as 3,500 MW instead of 3,547 MW.
- (ii) Representative of SJVN submitted that generation projection of Nathpa Jhakri may be taken as 1,350 MW instead of 695 MW
- (iii) Subsequent to the Validation Committee Meeting, Rajasthan has submitted that generation projection of Rajasthan may be taken as 8,231 MW against generation projection of 6731MW based on previous 3 years data. Rajasthan has stated that 660 MW unit of Chhabra had not been considered for arriving at projected generation. In view of above, IA has suggested that as per present practice 70% of ex-bus installed capacity i.e. 435 MW may also be considered. Thus total generation of Rajasthan should be taken as 7,166 MW (6731+435=7166 MW). Accordingly Rajasthan generation shall be taken as 7,166 MW.

#### 5.2 Western Region:

- (i) Members present at WRLDC suggested the following:
  - (a) Generation from Mauda may be taken as 900 MW instead of 1,135 MW
  - (b) Generation from SSP may be taken as 200 MW instead of 768 MW.
  - (c) Generation from RGPPL may be taken as 520 MW instead of 187 MW.

- (ii) After the Validation committee meeting, NTPC representative has confirmed that generation of Gandhar may be taken as 300 MW.
- (iii) WRLDC representative confirmed that generation of CGPL may be taken as 3826 MW.
- (iv) Subsequently D.B Power has confirmed its generation 800 MW instead of 581 MW.

The Generation figures as suggested above were agreed.

#### 5.3 Eastern Region:

- (i) Members present at ERLDC suggested the following:
  - (a) Generation from Bihar may be considered as 240 MW instead of 154 MW.
  - (b) Generation from Chuzachen may be considered as 55 MW instead of 91 MW.
  - (c) Generation from Odisha may be considered as 3,430 MW instead of 3,418 MW
  - (d) Generation from MPL may be considered as 990 MW instead of 1,019 MW.
  - (e) Generation from GMR Kamalanga may be considered as 660 MW instead of 733 MW.
  - (f) Generation from Bhutan and Adhunik Power may be considered as 70 MW and 450 MW instead of 303 MW and 345 MW.
  - (g) Generation from JITPL and Jorethang may be considered as 1,130 MW and 55 MW instead of 1085 MW and 69 MW respectively.
- (ii) NTPC representative suggested that generation from Barh may be taken as 1,057 MW instead of 1,097 MW.
- (iii) Subsequently West Bengal has confirmed its generation as 5,203 MW.

The generation figures suggested by ERLDC and NTPC were agreed.

#### 5.4 North Eastern Region:

Representative of NERPC mentioned that the demand and generation data had already been discussed in the last OCC meeting of NERPC and the Generation projections for NER constituents as per presentation are in order except in case Meghalaya generation may be taken as 200 MW instead of 256 MW.

#### 5.5 Southern Region:

- (i) Members present at SRLDC suggested following changes:
  - (a) Generation from Karnataka may be taken as 6,500 MW instead of 7,795 MW.
  - (b) Generation from Lanco Kondanpalli may be taken as 700 MW instead of 355 MW.
- (ii) Subsequent to Validation Committee Meeting, APTRANSCO has submitted that generation projection of Andhra Pradesh may be taken as 9,882 MW against generation projection of 6386MW based on previous 3 years data. After exchange of e-mails with SRPC, SRLDC and IA, it emerged that generation projection of Andhra Pradesh should be taken as 6,386 MW. Accordingly generation projection of Andhra Pradesh shall be taken as 6,386 MW.

- (iii) Similarly, TSRANSCO has submitted that generation projection of Telangana may be taken as 5,246 MW. IA has suggested that generation projection as suggested by TSRANSCO may be considered. Accordingly generation projection of Telangana shall be taken as 5,246 MW.
- (iv) As per email received from SRLDC, in view of planned shutdown of unit-1 for 70 days from January, 2017, generation from Kudankulam may be taken as 0 MW. Accordingly generation projection of Kudankulam shall be taken as 0MW.

#### 6. HVDC Set Points:

- (i) HVDC set points to be considered in the All India Basecase for computation of PoC charges and Losses for January- March' 2017 period were projected by Implementing Agency based on last 3 years' maximum flow during the Application Period.
- (ii) The following HVDC set points were finalised:

**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)						

#### 7. Other Issues:

- (i) Representative of CEA has suggested that the list of the New transmission lines being considered for POC computation may be informed to all DICs/ Members of the Validation Committee in advance. It was agreed that CTU/ transmission licensees should furnish the list of new transmission lines and its tariff as approved by the Commission to the IA and IA shall forward the same to all the DICs /Members of Validation Committee.
- (ii) Representative of POWERGRID raised the issue regarding the inclusion of LILO of 765kV Seoni- Bina S/C line and 400KV Unchahaar – Fatehpur D/C line in PoC computation for the period of Q4\_2016-17.

After discussion, it was decided that being the connectivity lines, the said transmission lines will not be considered in PoC computation before CoD of first unit or date of start of LTA whichever is earlier of respective generating stations.

2nd proviso to clause 8 of Central Electricity Regulatory Commission (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-State Transmission and related matters) (Second Amendment) Regulations, 2012 provides as under;

"Provided also that the transmission charges for such dedicated transmission line shall be payable by the generator even if the generation project gets delayed or is abandoned."

"42.(c)As per Regulation 8(5) of the Sharing Regulations, the charges for connectivity line of NTPC are required to be paid by NTPC till date of COD of first unit of Kudgi or date of start of LTA, whichever is earlier. Accordingly, from the period 16.11.2015, NTPC shall pay the transmission charges to the petitioner in terms of the Regulation 8 (5) of the Sharing Regulations."

In line with the above mentioned parts of the Connectivity Regulation and CERC order, till COD of the first unit or date of start of LTA whichever is earlier transmission charges will be paid by the respective generating stations only.

NTPC representative stated that date of start of connectivity is November, 2016 and that PLCC for the Unchahaar –Fatehpur line is yet to be commissioned.

- (iii) As discussed in 3rd Validation Committee meeting for Q3 of 2016-17, wherein representative of CEA stated that there is a need to compare the ISTS drawal of upcoming quarter with projected demand and projected generation data of states and their actual ISTS drawal. In this regard Implementing Agency has prepared the comparison of actual and projected demand of states for the period of last one year. which is enclosed as **ANNEXURE- II.** The same shall be deliberated in next meeting.
- (iv) Representative of NRPC informed that they have certified 7 lines of Rajasthan and 2 lines of U.P as inter- state lines to be considered in POC. It was suggested to NRPC that they should advise respective state to file a tariff petition in this regard at CERC or bring line wise approved tariff from respective SERC.
- (v) NRPC representative also suggested that few elements remain on outage condition. The tariff for such assets should not be included in POC. Chief (Engg) stated that the matter needs to be taken up with commission separately.
- (vi) CTU representative stated that BNC-Agra HVDC line Billing is being trued upseparately in Bill-3 on quarterly basis. The DICs of NR & SR DICs (MB Power, GMR Warora etc.), are raising queries on the rates of HVDC BNC-Agra system as the HVDC rates indicated in the notification for POC rates comprise both the Regional HVDC and HVDC BNC-Agra system. Therefore, for better clarity, rates of HVDC BNC-Agra may be shown in separate column in the CERC notification for PoC rates. Chief (Engg), CERC stated that existing practise may continue for present.

#### 8. After the deliberations, following was concluded:

- (i) Peak generation of new hydro generation shall be considered at 80% of its capacity.
- (ii) In case of non-submission of data by the DICs, for the purpose of Basecase 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.

## <u>List of Participants in the 4<sup>th</sup> meeting for 2016-17 of the Validation Committee held on 24<sup>th</sup> November, 2016 at , New Delhi.</u>

#### **CERC**

- 1. Shri S.C.Shrivastava, Chief (Engg.) In Chair
- 2. Shri P.K Awasthi, Jt. Chief (Fin.)
- 3. Ms Shilpa Agarwal, Dy. Chief (Engg.)
- 4. Shri Harish Kumar, Engineer

#### **POWERGRID**

- 5. Shri H.K Mallick, GM (Comml.)
- 6. Shri Dilip Rozekar, AGM(Comml.)
- 7. Shri Avinash M. Pavgi, AGM
- 8. Ms Manju Gupta, AGM (Comml.)
- 9. Shri V Sriniwas, DGM (Comml.)

#### **NLDC**

- 10. Shri K.V.S Baba, ED, NLDC
- 11. Shri S.S. Barpanda, AGM
- 12. Shri G. Chakraborty, DGM
- 13. Shri Gaurav Verma, Senior Engineer
- 14. Shri Sanny Machal, Engineer

#### CEA

15. Shri Pardeep Jindal, Chief Engg.

#### **NHPC**

16. Shri Vijay Kumar, Manager

#### **WRPC**

- 17. Shri S.D Taksande, Member Secretary
- 18. Shri L.K.S Rathore, DD(Operation)

#### **WRLDC**

- 19. Shri Abhimanyu Gartia, AGM
- 20. Ms Pushpa.S, AGM
- 21. Ms S.Usha, AGM
- 22. Shri Sanjay Jadhav, Dy Manager

#### **ERPC**

23. Shri P.K DE, EE

#### **ERLDC**

- 24. Shri S. Banerjee, DGM
- 25. Shri P.P Bandyopadhyay, DGM
- 26. Shri M.K Thakur, Dy Manager

- 27. Shri Saurav Sahay, Sr. Engineer
- 28. Shri R.P Kundu, Engineer

#### DVC, Kolkata

29. Shri Manuranjan Sahoo, DCE (Comml)

#### **SRPC**

- 30. Shri Rangarajan.R.M, SE
- 31. Shri LEN. J.B, EE
- 32. Ms Meena Kumari.v.patil, EE, SLDC
- 33. Shri Ravindra. M, EE, SLDC
- 34. Shri Prakash M.V, AEE, SLDC
- 35. MS Shobha M.S, CA, SLDC

#### **SRLDC**

- 36. Shri V. Balaji, DGM
- 37. Shri Jane Jose, Asst. GM
- 38. Shri Vo Suresh, Asst. GM
- 39. Shri Pramod Singh, Manager
- 40. Ms Anusha Baruah, Sr Engineer

#### **NRPC**

- 41. Shri H.K Pandey, SE
- 42. Shri B.S Bairwa, EE

#### SLDC, Kalwa

- 43. Shri Bulbule Arvindu, SE(LM)
- 44. Shri S.S Patil, SE(LM)
- 45. Shri D.J Kolhe, EE(OP)
- 46. Shri A.I Tadwa, AE(LM)

#### **APNRL**

47. Shri P.K Shrivastava, Manager

#### **NERPC**

- 48. Shri S.M Aimol, EE
- 49. Shri S. Mukherjee, AEE
- 50. Shri Sadiq Imam, AEE

#### **NRLDC**

- 51. Shri H. K Chawla, DGM. NRLDC
- 52. Shri Rajiv Porwal, DGM, NRLDC
- 53. Shri Shyam Sunder Goyal, Engineer NRLDC

#### **NTPC**

54. Shri Vinod Kumar Jain, DGM

## **NERLDC**

55. Shri Amaresh Mallick, DGM

56. Shri Jerin Jacob, Engineer

57. Shri Subhash Kumar, Engineer

58. Shri Rahul Chakrabarti, Engineer

#### **KPMG**

59. Shri Yasir Altaf, AD

#### **APTRANSO**

60. Shri M. Murali Krishna, ADE

## **MEPTCL**

61. Shri T Giddon, EE, SLDC

62. Shri Alakesh Koch, AE, SLDC

## **ANNEXURE- II**

Comparison of Actual and Projected Demand																		
2015-16	2015-16 Q1				Q2		Q3		Q4			Q1_16-17			Q2_16-17			
In MW	Actual	Projected	% Change	Actual	Projected	% Change	Actual	Projected	% Change	Actual	Projected	% Change	Actual	Projected	% Change	Actual	Projected	% Change
Northern Region																		
Chandigarh	283	336	-16%	314	339	-7%	218	230	-5%	222	215	3%	327	279	17%	330	322	2%
Delhi	5,276	6,100	-14%	5,545	5,700	-3%	3,979	4,500	-12%	3,862	3900	-1%	5,749	5365	7%	5,756	5600	3%
Haryana	7,285	8,172	-11%	8,829	8,700	1%	7,025	7,000	0%	6,759	6750	0%	8,063	7608	6%	9,118	9508	-4%
Himachal Pradesh	1,330	1,072	24%	1,316	1,295	2%	1,396	1,389	1%	1,455	1451	0%	1,291	1366	-6%	1,306	1374	-5%
Jammu & Kashmir	1,957	1,988	-2%	1,964	1,956	0%	2,056	2,143	-4%	2,087	2165	-4%	2,080	2134	-3%	1,978	2055	-4%
Punjab	7,984	9,271	-14%	10,642	10,850	-2%	6,487	6,500	0%	5,967	6100	-2%	8,426	8427	0%	11,069	11540	-4%
Rajasthan	8,462	9,436	-10%	9,824	10,603	-7%	9,785	10,843	-10%	10,196	10267	-1%	9,541	9076	5%	8,930	11126	-20%
Uttar Pradesh	12,953	11,648	11%	13,265	11,696	13%	13,209	12,480	6%	12,716	12541	1%	14,889	13497	10%	15,100	15375	-2%
Uttarakhand	1,878	1,918	-2%	1,916	1,917	0%	1,898	1,904	0%	1,938	1991	-3%	1,931	1966	-2%	1,912	1953	-2%
Western Region S S S S S S S S S S S S S S S S S S S																		
Chattisgarh	3,451	3,462	0%	3,528	2,953	19%	3,417	3,159	8%	3,511	3500	0%	3,474	3683	-6%	3,532	3363	5%
Gujarat	13,201	14,327	-8%	14,419	14,085	2%	13,218	13,050	1%	12,967	12375	5%	14,295	14254	0%	13,302	16064	-17%
Madhya Pradesh	7,090	7,324	-3%	7,661	7,503	2%	10,341	10,700	-3%	9,992	8836	13%	7,810	6861	14%	7,104	8800	-19%
Maharashtra	19,527	19,051	2%	18,899	19,065	-1%	19,817	19,700	1%	18,778	20200	-7%	19,686	21388	-8%	18,291	19000	-4%
Daman & Diu	287	309	-7%	298	305	-2%	303	314	-3%	303	327	-7%	312	294	6%	327	303	8%
Dadra Nagar Haveli	728	684	7%	724	682	6%	725	678	7%	727	728	0%	753	779	-3%	760	749	1%
Goa	489	465	5%	401	472	-15%	425	484	-12%	433	432	0%	472	512	-8%	472	480	-2%
ESIL	574	500	15%	474	568	-17%	488	568	-14%	475	477	0%	595	600	-1%	713	482	48%
Southern Region											•							
Andhra Pradesh	6,714	5,903	14%	6,543	5,568	18%	6,736	6,547	3%	7,119	6983	2%	7,240	7047	3%	7,618	6699	14%
Telangana	6,173	5,903	5%	6,537	5,568	17%	6,489	6,865	-5%	6,470	7016	-8%	6,422	6645	-3%	7,778	7306	6%
Karnataka	8,772	8,326	5%	8,072	8,055	0%	7,826	8,440	-7%	9,347	9000	4%	9,012	9403	-4%	9,006	8842	2%
Kerala	3,531	3,377	5%	3,431	3,249	6%	3,451	3,200	8%	3,686	3447	7%	3,807	3833	-1%	3,467	3520	-1%
Tamil Nadu	12,697	14,270	-11%	13,456	13,500	0%	12,498	12,621	-1%	13,848	13567	2%	14,616	13486	8%	14,337	14400	0%
Pondicherry	347	358	-3%	340	345	-1%	320	322	-1%	330	332	-1%	365	362	1%	353	349	1%
Eastern Region														•				
Bihar	2,822	2,470	14%	3,185	3,250	-2%	3,385	3,542	-4%	3,394	3550	-4%	3,533	3293	7%	3,466	3650	-5%
DVC	2,625	2,640	-1%	2,483	2,650	-6%	2,318	2,800	-17%	2,425	2550	-5%	2,575	2569	0%	2,516	2860	-12%
Jharkhand	1,064	991	7%	1,095	959	14%	1,110	1,055	5%	1,124	950	18%	1,265	1086	16%	1,111	1100	1%
Odisha	3,851	3,700	4%	3,867	3,528	10%	3,886	3,352	16%	3,920	3700	6%	3,960	4018	-1%	3,908	3523	11%
West Bengal	7,666	7,468	3%	7,484	7,600	-2%	7,056	6,497	9%	6,847	7080	-3%	7,595	7939	-4%	7,640	7676	0%
Sikkim	79	67	17%	83	80	4%	99	77	28%	109	82	33%	99	78	27%	97	83	17%
N. Eastern Region																		
Arunachal Pradesh	110	111	-1%	115	117	-2%	125	110	14%	122	103	18%	130	116	12%	137	130	5%
Assam	1,289	1,200	7%	1,327	1,250	6%	1,340	1,220	10%	1,324	1220	9%	1,412	1406	0%	1,585	1306	21%
Manipur	149	110	36%	144	136	6%	159	150	6%	160	150	6%	147	164	-10%	145	160	-10%
Meghalaya	301	308	-2%	307	288	7%	335	361	-7%	338	320	6%	296	312	-5%	295	280	5%
Mizoram	82	71	15%	84	86	-3%	89	88	1%	95	88	8%	83	91	-8%	84	88	-4%
Nagaland	115	115	0%	130	125	4%	126	138	-9%	118	132	-11%	111	127	-12%	119	120	-1%
Tripura	247	266	-7%	260	273	-5%	244	244	0%	231	220	5%	262	266	-2%	267	365	-27%