



**Point of Connection Charges and Losses
Computation
(April 2013 - June 2013)**


**Meeting of the Validation Committee
Date : 08th February 2013
Venue: NLDC, New Delhi**



Contents



- Input Data for PoC Computation for H2 Case (Oct'12-Mar'13)
 - ▣ Comparison of Generation and Demand for H2 Case: Projected vs Actual
 - ▣ Variation in Transmission Lines Commissioning
 - ▣ Variation in LTA
- PoC Computation for Q1 Case (April'13-June'13)
 - ▣ Data from DICs
 - ▣ Scaling Requirement
 - ▣ Load Generation Balance
 - ▣ Inter-Regional Flows
 - ▣ Points for Discussion



Input Data for PoC Computation for H2 Case (Oct'12-Mar'13)

Comparison of Generation for H2 Case: Projected vs Actual

	Generation(MW)			
Region	Taken in H2Case	Actual	Difference	% Change in Generation
NR	30996	29243	-1753	-5.66%
ER	18067	16660	-1407	-7.79%
WR	38487	35782	-2706	-7.03%
NER	997	1004	7	0.68%
SR	26538	21381	-5157	-19.43%
ALL INDIA	115085	104069	-11015	-9.57%

Comparison of Demand for H2 Case: Projected vs Actual

	Demand(MW)			
Region	Taken in H2 Case	Actual	Difference	% Change in Demand
NR	32766	29872	-2895	-8.83%
ER	12618	11235	-1383	-10.96%
WR	38283	34854	-3429	-8.96%
NER	1289	1280	-9	-0.71%
SR	28275	26242	-2033	-7.19%
ALL INDIA	113232	103482	-9749	-8.61%

Variation in Transmission Line Commissioning

- **POWERGRID**

- **NETCL**

S. No.	Assets	Considered for H2	Anticipated DOCO	Remarks
1	400 kV D/C Silcher-Byrnihat	1/1/2013	01.02.2013	Not yet
2	400 kV D/C Byrnihat-Bongaigaon	1/4/2013	01.01.2014	

Variation in Transmission Line Commissioning - RPTL


S.No.	Project Name	Assets	Considered for H2	Likely DOCO
1	WRSSS Project-C	400 kV D/C Rajgarh Karamsad (length: 243 KM)	1/12/2012	1/6/2013
2	WRSSS Project-B	400 kV D/C Parli-Pune	1/12/2012	1/4/2013
3	WRSSS Project-B	400 kV D/C Pune-Aurangabad	1/3/2013	1/5/2013
4	WRSSS Project-B	LILO of 400 kV Lonikhand-Kalwa ckt 2	1/11/2012	1/3/2013

Variation in LTA

Delay in Generator's Commercial Operation

Name of the Generating Station	Anticipated DOCO	Actual DOCO	PoC Rate	MW
Rihand III Unit 1	Oct-12	Nov-12	109968	467.5
Vindhyachal St-IV Unit 1	Oct-12	-----	109968	467.5
Mauda Unit 1	Oct-12	-----	79968	467.5
Palatana GBPP	Jul-12	-----	79968	370
Palatana GBPP	Dec-12	-----	79968	370
ESSAR Mahan	Oct-12	-----	79968	1200

Name of the Generating Station	Anticipated DOCO	Actual DOCO	PoC Rate	MW
NEYVELLI II EXP	Dec-12	-----	59520	225
Vallur (ISGS)	Dec-12	29-Nov-12	59520	467.5
Kudankulam	Dec-12	-----	89520	900



PoC Computation for Q1 Case (April'13-June'13)

Load Generation Projection



- Load and Generation Projection
 - Based on Last 3 years data (April-June) from CEA website.
- New Generation
 - Expected DOCO by 1st May 2013
- Generation Projection
 - Increasing Trend : Last Year figures considered
 - In other cases : Average of last three years
 - Normative Auxiliary Consumption deducted
- Demand Projection
 - Based on FORECAST function of MS-Excel

Load Generation Projection



New Units	Plant Load Factor
Thermal Units with DOCO by 31 st March 2013	80%
Thermal Units with DOCO from 1 st April 2013 to 1 st May 2013	50%
Hydro Units with DOCO by 31 st March 2013	60%
Hydro Units with DOCO from 1 st April 2013 to 1 st May 2013	40%
Gas Units with DOCO by 31 st March 2013	30%
Gas Units with DOCO from 1 st April 2013 to 1 st May 2013	15%

Data Collection for PoC Computation (Q1) ... (1)

S. No.	DIC	Format I A	Format I B	Format II	Format III A	Format IIIB
1	Jaypee Powergrid Ltd.	√	√	√	-	-
2	Torrent Power Grid Ltd.	√	√		-	-
3	RPTL	√	√	√	-	-
4	NETCL	√	√		-	-
5	POWERGRID	√	√		-	-
6	NPCIL Kudankulam	-	-			√
7	NPCIL MAPS	-	-		√	√
8	NPCIL KAPS	-	-	√	√	√
9	NPCIL TAPS	-	-		√	√

Data Collection for PoC Computation (Q1) ... (2)

S. No.	DIC	Format I A	Format I B	Format II	Format III A	Format IIIB
10	NAPS	-	-			√
11	NLC	-	-		√	√
12	NTPC	-	-		√	√
13	BBMB	√	√		√	√
14	DVC	-	-	√	√	√
15	NHPC	-	-			√
16	MPPTCL	-	-	√	√	√
17	DTL	-	-		√	√
18	Rajasthan	-	-	√		
19	Kerala	-	-	√		√

Scaling Requirement in NEW Grid



- Total Generation: 92247 MW
- Total Demand: 84227 MW
- Losses: 2890 MW
- Export through Talcher-Kolar Inter-connector: 276 MW
- Export through Bhadrawati: 800 MW
- Export through Gajuwaka : 0 MW
- **Scaling Required : 3950 MW**

Scaling Requirement in SR Grid



- Total Generation : 31120 MW
- Total Demand : 29902 MW
- Losses : 1006 MW
- Import from Talcher : 2000 MW
- Import from Bhadrawati : 800 MW
- **Scaling Required : 212 MW**

Demand figures for Q1 Case



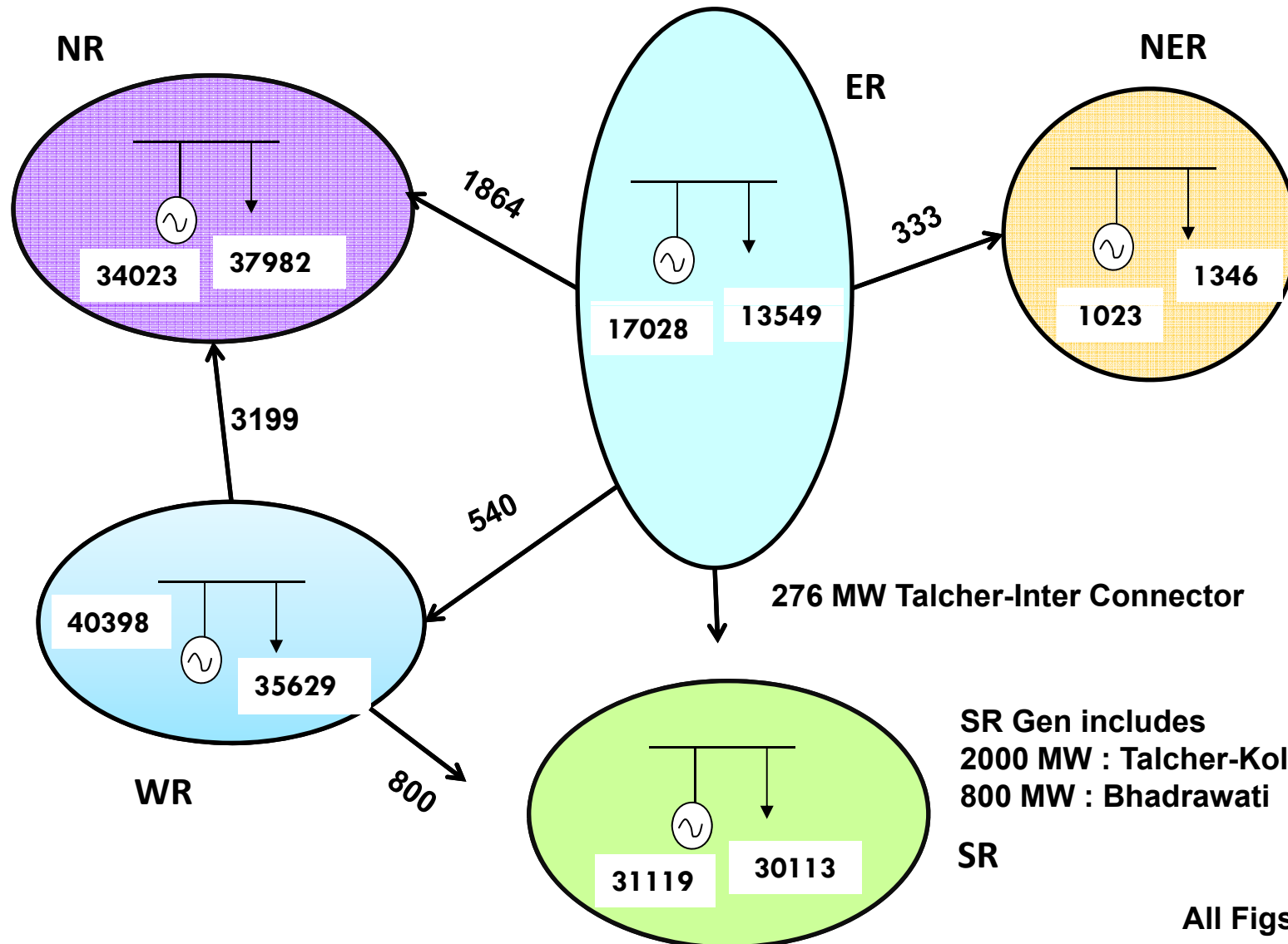
- Northern Region
- Eastern Region
- Western Region
- North-Eastern Region
- Southern Region

Generation Figures for Q1 Case



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

Inter Regional Flows



Points for Discussion



- Activities for Computation of PoC Results for Q1 Case

(1) In sub-clause (i) of clause (1) of Regulation 7 of the Principal Regulations, the words "not later than 15th of December in each financial year", shall be substituted as under, namely:

"three months before the revision of the YTC in accordance with first proviso to sub-clause (i) of clause (1) of this regulation".

- Date for Submission of Yearly Transmission Charges (YTC) by Licensees
- Submission of Results



Thank You !!

Demand figures – Northern Region

[Back](#)

S. No.	States	Proposed Demand (MW)	Incremental Demand (MW)	Scaled Demand (MW)
1	Chandigarh	229	0	229
2	Delhi	4980 (As per DTL)	10	4,990
3	Haryana	4720	345	5,065
4	Himachal Pradesh	1119	21	1,139
5	Jammu & Kashmir	1263	319	1,582
6	Punjab	5551	203	5,754
7	Rajasthan	6053	254	6,307
8	Uttar Pradesh	10333	1108	11,441
9	Uttarakhand	1412	61	1,474

Demand figures – Eastern Region

[Back](#)

S.No.	States	Proposed Demand (MW)	Incremental Demand (MW)	Scaled Demand (MW)
17	Bihar	1559	208	1,768
18	DVC	1914	103	2,017
19	Jharkhand	900 (As per MoM 1 st VC Meeting)	24	924
20	Orissa	2904	147	3,051
21	West Bengal	5458	50	5,508
22	Sikkim	60 (As per MoM 1 st VC Meeting)	0	60
23	Bhutan	0	0	0

Demand figures – Western Region

[Back](#)

S.No.	States	Proposed Demand (MW)	Incremental Demand (MW)	Scaled Demand (MW)
10	Chattisgarh	2334	26	2,360
11	Gujarat	10841 (As per WRLDC)	21	10,862
12	Madhya Pradesh	4881	411	5,292
13	Maharashtra	15629	461	16,090
14	Daman & Diu	182	14	196
15	Dadra Nagar Haveli	430	57	486
16	Goa-WR	245	14	259

Demand Figures – North-Eastern Region

[Back](#)

S.No.	States	Proposed Demand (MW)	Incremental Demand (MW)	Scaled Demand (MW)
24	Arunachal Pradesh	72	4	76
25	Assam	726	44	770
26	Manipur	48	2	51
27	Meghalaya	186	33	219
28	Mizoram	43	3	46
29	Nagaland	53	3	56
30	Tripura	121	5	126

Demand Figures – Southern Region



[Back](#)

S.No.	States	Proposed Demand (MW)	Incremental Demand (MW)	Scaled Demand (MW)
1	Andhra Pradesh	10200 (As per AP)	72	10272
2	Karnataka	7445	46	7491
3	Kerala	2486 (As per Kerala)	5	2491
4	Tamil Nadu	9397 (As per TN)	90	9487
5	Pondicherry	293	0	294
6	Goa-SR	80		80

Generation Figures – Northern Region

S. No.	Entity	Projections based on 3 Years Data	New Generation _H2	New Generation _Q1	TOTAL	Figure as per Comments	Considered in the Basecase
		(MW)	(MW)	(MW)	(MW)	(MW)	(MW)
1	UP	4396	1509		5905		6205
2	Delhi	1198			1198	1350	1350
3	Haryana	2092			2092		2092
4	Uttarakhand	589	0		589		589
5	Punjab	2433			2433		2433
6	Rajasthan	3135	832	0	3967		4297
7	Himachal Pradesh	433			433		433
8	Jammu & Kashmir	559		27	585		559
9	BBMB	1240			1240		1240
10	Chandigarh	0			0		0
11	Railways	0			0		0
12	Dadri Thermal	1383			1383		1383
13	Rihand	1718	374		2092		2092
14	Singrauli	1661			1661		1661
15	Unchahar	883			883		883

Generation Figures – Northern Region ...(2)

S. No.		Projections based on 3 Years Data	New Generation _H2	New Generation _Q1	TOTAL	Figure as per Comments	Considered in the Basecase
16	Auraiya	435			435		435
17	Dadri CCPP	625			625		625
18	NAPS	239			239		239
19	Jhajjar	935		374	1309		1309
20	DHAULIGANGA	140			140		140
21	Tanakpur	47			47		47
22	Koteshwar	123			123		123
23	Tehri	292			292		292
24	Anta	290			290		290
25	RAAP A,B,C	749			749		749
26	AD Hydro	92			92		92
27	Everest	32			32		32
28	Karcham Wangtoo	573			573		573
29	Bairasul	137			137		137

Generation Figures – Northern Region ...(3)

[Back](#)

S. No.		Projections based on 3 Years Data	New Generation _H2	New Generation _Q1	TOTAL	Figure as per Comments	Considered in the Basecase
30	Chamera 1	392			392		392
31	Chamera 2	236			236		236
32	Chamera 3	29	91		120		120
33	Naptha Jhakri	1078			1078		1078
34	Lanco Budhil	13			13		13
35	DULHASTI	338			338		338
36	Salal	502			502		502
37	Sewa-II	59			59		59
38	URI 1 HPS	467			467		467
39	URI II HPS			143	143		143
40	Sree Cement	220			220		220
41	Parbati III			154	154		154

Generation Figures – Eastern Region

[Back](#)

S. No.		Projections based on 3 Years Data	New Generation _H2	New Generation _Q1	TOTAL	Figure as per Comments	Considered in the Basecase
42	West Bengal	3969		78	4047	4049.94	4050
43	Odisha	1423	47		1470	2538	2538
44	Bihar	45			45		45
45	Jharkhand	304			304		304
46	Sikkim	0			0		0
47	DVC	2530	374	374	3278		3278
48	MPL	220			220		785
49	Sterlite	935			935	600	600
50	Teesta	341			341		341
51	Kahalgaon	1656			1656		1656
52	Farakka	1385			1385		1385
53	Talcher	862			862		862
54	Rangeet	36			36		36
55	Corporate Power		0		0		0
56	Adhunik Power		199		199		199
57	GMR		258	0	258		258
58	Bhutan	452			452	470	470

Generation Projection – Western Region...(1)

S. No.		Projections based on 3 Years Data	New Generation _H2	New Generation _Q1	TOTAL	Figure as per Comments	Considered in the Basecase
59	MP	2500	184	184	2868		2868
60	Maharashtra	8702	221	1213	10135		10135
61	Chattisgarh	1440			1440		1440
62	Gujarat	7236	587	51	7874		8657
63	Goa	34			34		
64	D&D	0			0		0
65	DNH	0			0		0
66	Vindhyachal	2823	374		3197		3197
67	Ratnagiri Dabhol	1257			1257		1257
68	TAPS (1,2,3,4)	1155			1155		1155
69	JINDAL	905			905		905
70	ESSAR Mahan		449				449
71	Sasan UMPP			494			494

Generation Projection – Western Region ... (2)

[Back](#)

S. No.		Projections based on 3 Years Data	New Generation_H2	New Generation_Q1	TOTAL	Figure as per Comments	Considered in the Basecase
72	BALCO		221		221		221
73	KSK Mahanadi			449	449		449
74	Vandana Vidyut			62	62		62
75	LANCO	368			368		368
76	NSPCL Bhilai	432			432		432
77	Korba	1868			1868		1868
78	SIPAT	1198			1198		1800
79	CGPL	550	598	1795	2944	2990	2990
80	Mauda		374		374		374
81	Gandhar	472			472		472
82	Kawas	408			408		408
83	KAPS	397			397		397

Generation Figures – North-Eastern Region ...(1)

S. No.		Projections based on 3 Years Data	New Generation _H2	New Generation _Q1	TOTAL	Figure as per Comments	Considered in the Basecase
84	AGTPP, NEEPCO	75			75		75
85	Doyang, NEEPCO	12			12		12
86	Kopili, NEEPCO	97			97		97
87	Khandong, NEEPCO	20			20		20
88	Ranganadi, NEEPCO	148			148		148
89	Kathalguri	184			184		184
90	Loktak, NHPC	37			37		37
91	Palatana GBPP		106		106		106

Generation Figures – North-Eastern Region ... (2)

[Back](#)

Sl. No.	Entity	Projections based on 3 Years Data	New Generation _H2	New Generation _Q1	TOTAL	Figure as per Comments	Considered in the Basecase
92	Arunachal Pradesh	0			0		0
93	Assam	184			184		184
94	Manipur	0			0		0
95	Meghalaya	53	25		78		78
96	Nagaland	5			5		5
97	Tripura	75			75		75
98	Mizoram	2			2		2

Generation Figures – Southern Region

[Back](#)

S. No.	Entity	Projections based on 3 Years Data	New Generation _H2	New Generation _Q1	TOTAL	Figure as per Comments	Considered in the Basecase
99	Andhra Pradesh	7773			7773	7400	7400
100	Karnataka	4700	823		5523	6037	6037
101	Kerala	1049			1049	1292	1292
102	Tamil Nadu	7006	898		7903	6514	6514
103	Pondy	29			29		29
104	Ramagundam	2280			2280		2280
105	Simhadri	423	374		797		797
106	SEPL (Unit 1)	101	110		211		211
107	Lanco Kondapalli	188			188		188
108	Kaiga	589			589		589
109	NEYVELI (EXT) TPS	364			364		364
110	NEYVELI TPS-II	1227			1227		1227
111	NEYVELI TPS-II EXP	0	180		180		180
112	MAPS	272			272		272
113	Vallur		374	374	748		748
114	Meenakhshi		110	110	221		221
115	Import from Talcher	1724			1724	2000	2000