



National Load Despatch Centre
पॉवर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड
POWER SYSTEM OPERATION CORPORATION LIMITED

(A wholly owned subsidiary of POWERGRID)

CIN No.: U40105DL2009GOI188682

B-9, QUTUB INSTITUTIONAL AREA, KATWARIA SARAI, NEW DELHI -110016

Ref:POSOCO/NLDC/SO/Weekly Report

Date: 22nd April 2016

To,

1. महाप्रबंधक, पू. क्षे. भा. प्रे. के., 14, गोल्फ क्लब रोड , कोलकाता - 700033
General Manager, ERLDC, 14 Golf Club Road, Tolleygunge, Kolkata, 700033
2. कार्यपालक निदेशक, ऊ. क्षे. भा. प्रे. के., 18/ ए , शहीद जीत सिंह सनसनवाल मार्ग, नई दिल्ली - 110016
Executive Director, NRLDC, 18-A, Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi – 110016
3. महाप्रबंधक, प. क्षे. भा. प्रे. के., एफ-3, एम आई डी सी क्षेत्र , अंधेरी, मुंबई - 400093
General Manager, WRLDC, F-3, M.I.D.C. Area, Marol, Andheri (East), Mumbai-400093
4. महाप्रबंधक, ऊ. पू. क्षे. भा. प्रे. के., डोंगतेिह, लोअर नॉग्रह , लापलंग, शिलॉंग - 793006
General Manager, NERLDC, Dongteih, Lower Nongrah, Lapalang, Shillong - 793006, Meghalaya
5. कार्यपालक निदेशक, द. क्षे. भा. प्रे. के., 29, रेस कोर्स क्रॉस रोड, बंगलुरु - 560009
Executive Director, SRLDC, 29, Race Course Cross Road, Bangalore-560009

Sub: Weekly Status Report 11th April to 17th April 2016.

महोदय/Dear Sir,

आईईजीसी-2010 की धारा स.- 5.5.1 के प्रावधान के अनुसार, 11 अप्रैल से 17 अप्रैल 2016, सप्ताह की अखिल भारतीय प्रणाली की ग्रिड निष्पादन रिपोर्ट राभाप्रेके की वेबसाइट पर निम्न लिंक पर उपलब्ध है :-

As per article 5.5.1 of the Indian Electricity Grid Code, the weekly status report pertaining power supply position report of All India Power System for the week 11th April to 17th April 2016, is available at the NLDC website, at the following link.

<http://posoco.in/WebsiteData/Reports/WeeklyReports/2016-2017/Weekly%20110416%20to%20170416.pdf>

Thanking You.

Yours faithfully,

DGM (SO)

पॉवर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड

राष्ट्रीय भार प्रेषण केंद्र, नई दिल्ली

साप्ताहिक रिपोर्ट (11 अप्रैल से 17 अप्रैल - 2016 तक)

रिपोर्टिंग तिथि:- 22-Apr-16

(आई० ई० जी० सी० की धारा संख्या-5.5.1 के अंतर्गत)

1. अधिकतम मांग आपूर्ति और आधिकतम कमी (मे०वा०)

क्षेत्र	उत्तरी क्षेत्र		पश्चिमी क्षेत्र		दक्षिणी क्षेत्र		पूर्वी क्षेत्र		पूर्वोत्तर क्षेत्र		कुल	
	अधिकतम मांग आपूर्ति	आधिकतम कमी	अधिकतम मांग आपूर्ति	आधिकतम कमी	अधिकतम मांग आपूर्ति	आधिकतम कमी	अधिकतम मांग आपूर्ति	आधिकतम कमी	अधिकतम मांग आपूर्ति	आधिकतम कमी	अधिकतम मांग आपूर्ति	आधिकतम कमी
	(मे०वा०)	(मे०वा०)	(मे०वा०)	(मे०वा०)	(मे०वा०)	(मे०वा०)	(मे०वा०)	(मे०वा०)	(मे०वा०)	(मे०वा०)	(मे०वा०)	(मे०वा०)
11-04-2016	39981	2144	43471	78	37516	514	17705	632	2152	210	140825	3578
12-04-2016	38912	2240	43815	48	38632		18862		2244	120	142465	2408
13-04-2016	40051	2155	45008	81	38744	125	18097	100	2149	172	144049	2633
14-04-2016	40667	2142	45039	203	36232		17700		1980	229	141618	2574
15-04-2016	41062	2039	43173	70	37798	1025	17963		2114	142	142110	3276
16-04-2016	42345	1403	44602	143	37168	525	17895		1732	473	143743	2544
17-04-2016	40731	1918	43098		34776	166	18441	100	2006	196	139051	2380

2. ऊर्जा आपूर्ति और पनबिजली उत्पादन (मि०यू०)

क्षेत्र / तिथि	उत्तरी क्षेत्र		पश्चिमी क्षेत्र		दक्षिणी क्षेत्र		पूर्वी क्षेत्र		पूर्वोत्तर क्षेत्र		कुल	
	ऊर्जा आपूर्ति	पनबिजली उत्पादन	ऊर्जा आपूर्ति	पनबिजली उत्पादन	ऊर्जा आपूर्ति	पनबिजली उत्पादन	ऊर्जा आपूर्ति	पनबिजली उत्पादन	ऊर्जा आपूर्ति	पनबिजली उत्पादन	ऊर्जा आपूर्ति	पनबिजली उत्पादन
	(मि०यू०)	(मि०यू०)	(मि०यू०)	(मि०यू०)	(मि०यू०)	(मि०यू०)	(मि०यू०)	(मि०यू०)	(मि०यू०)	(मि०यू०)	(मि०यू०)	(मि०यू०)
11-04-2016	842	126	1055	28	910	54	391	33	37	5	3235	246
12-04-2016	837	122	1070	36	933	68	392	32	36	9	3268	266
13-04-2016	849	125	1073	26	944	63	394	31	36	5	3295	249
14-04-2016	870	125	1071	23	928	61	399	36	32	5	3301	250
15-04-2016	885	135	1064	28	932	75	403	33	30	5	3313	277
16-04-2016	912	194	1066	32	937	53	406	37	29	6	3350	321
17-04-2016	896	210	1031	27	884	37	404	33	31	8	3245	316

3. आवृत्ति (प्रतिशत समय में)

तिथि	49.8-49.9	<49.9	49.9-50.05	>50.05	Average	FVI
	ऑ० ई० ग्रिड	ऑ० ई० ग्रिड	ऑ० ई० ग्रिड	ऑ० ई० ग्रिड	ऑ० ई० ग्रिड	ऑ० ई० ग्रिड
11-04-2016	16.23	18.29	73.08	8.63	49.96	0.067
12-04-2016	6.81	7.31	69.42	23.26	50.00	0.044
13-04-2016	6.42	7.11	69.97	22.93	50.00	0.048
14-04-2016	18.62	21.20	66.09	12.71	49.96	0.076
15-04-2016	13.97	15.97	69.77	14.26	49.98	0.064
16-04-2016	16.71	17.78	66.59	15.64	49.98	0.063
17-04-2016	2.55	2.78	69.24	27.99	50.02	0.035

*NEW & SR grid running in synchronisation.

4. NEW ELEMENTS COMMISSIONED

NIL

5. Maximum Demand Met during the day & Peak Hour Shortage in States (in MW)

Region	Date	11-04-2016		12-04-2016		13-04-2016		14-04-2016		15-04-2016		16-04-2016		17-04-2016	
	States	Max. Demand Met during the day	Peak hr Shortage	Max. Demand Met during the day	Peak hr Shortage	Max. Demand Met during the day	Peak hr Shortage	Max. Demand Met during the day	Peak hr Shortage	Max. Demand Met during the day	Peak hr Shortage	Max. Demand Met during the day	Peak hr Shortage	Max. Demand Met during the day	Peak hr Shortage
NR	Punjab	4699	0	4670	0	5115	0	5159	0	5211	0	5411	0	5353	0
	Haryana	6617	0	6116	0	6532	0	6471	0	6611	0	7013	0	6521	0
	Rajasthan	8177	0	8288	0	8579	0	8353	0	8190	0	8475	0	8322	0
	Delhi	3737	0	3737	13	3861	0	3835	0	3998	3	4198	8	4287	12
	UP	13184	550	13355	0	13027	200	12984	550	12974	1520	13908	2020	14035	200
	Uttarakhand	1732	0	1710	80	1763	0	1781	0	1828	0	1807	0	1732	0
	HP	1247	0	1240	0	1220	0	1206	0	1099	0	1149	0	1134	0
	J&K	2023	506	2081	520	2058	515	2007	502	1988	497	2072	518	1993	498
Chandigarh	196	0	200	0	197	0	205	0	207	0	225	0	212	0	
WR	Chhattisgarh	3835	41	3852	0	3809	0	3797	0	3749	0	3891	0	3764	0
	Gujarat	13564	24	13699	0	13778	0	13702	34	13890	0	13794	34	12885	0
	MP	8259	5	8348	34	8125	0	8270	0	8168	0	7909	0	8093	0
	Maharashtra	19926	0	20055	101	20116	0	19945	0	19569	0	19797	0	18516	41
	Goa	479	0	467	0	437	0	438	0	468	0	458	0	417	0
	DD	301	0	306	0	303	0	278	0	308	0	304	0	287	0
	DNH	709	0	723	0	712	0	733	0	757	0	721	0	712	0
	Essar steel	473	0	439	0	462	0	455	0	555	0	536	0	522	0
SR	Andhra Pradesh	6952	0	7213	0	7334	0	7334	0	7147	0	7135	0	6905	0
	Telangana	6624	0	6624	0	6710	0	6745	0	6679	0	6663	0	6208	0
	Karnataka	9331	500	9551	0	9284	0	9309	0	8907	900	9049	700	8411	0
	Kerala	3786	0	3770	0	3831	125	3579	0	3844	125	3823	125	3620	0
	Tamil Nadu	14614	0	14721	0	14505	0	13713	0	14967	0	14790	0	13754	0
	Pondy	350	0	342	0	332	0	310	0	348	0	350	0	319	0
ER	Bihar	3026	0	3247	0	3201	0	3320	0	3194	0	3380	0	3474	100
	DVC	2885	0	3068	0	3195	0	3315	0	2864	0	2907	0	2942	0
	Jharkhand	1190	0	908	0	976	0	1048	0	1049	0	1077	0	1170	0
	Odisha	3840	0	4148	0	3872	0	3810	0	4224	0	4109	0	4176	0
	West Bengal	7732	0	8190	0	7772	0	7387	0	8154	0	7713	0	7525	0
	Sikkim	54	0	79	0	80	0	70	0	69	0	71	0	42	0
NER	Arunachal Pradesh	111	0	102	1	105	3	118	2	118	2	117	3	95	5
	Assam	1301	87	1317	93	1225	118	1185	94	1273	53	1068	246	1155	145
	Manipur	142	2	147	0	142	4	134	1	134	1	97	28	141	1
	Meghalaya	267	0	257	0	262	0	252	0	250	0	229	0	249	0
	Mizoram	73	3	71	0	68	2	79	1	79	2	76	5	69	1
	Nagaland	121	0	127	0	121	6	98	2	82	18	78	22	79	21
	Tripura	251	4	249	1	262	3	231	12	243	1	236	0	235	6

6. Energy Consumption in States (MUs)

Region	States	11-04-2016	12-04-2016	13-04-2016	14-04-2016	15-04-2016	16-04-2016	17-04-2016
NR	Punjab	94.2	100.3	110.6	104.0	106.6	109.8	107.9
	Haryana	107.3	109.7	113.5	115.4	119.2	122.3	116.6
	Rajasthan	179.4	186.2	185.0	184.0	184.8	191.2	182.4
	Delhi	79.4	79.0	76.3	81.3	83.8	85.0	86.9
	UP	277.7	257.2	257.0	279.3	285.1	297.8	299.1
	Uttarakhand	35.1	34.8	36.7	37.1	37.6	37.0	36.0
	HP	23.8	23.2	23.5	24.1	21.9	23.1	22.6
	J&K	41.3	42.6	42.2	40.7	41.5	41.6	40.1
Chandigarh	3.9	4.1	4.0	4.1	4.1	4.5	4.3	
WR	Chhattisgarh	89.5	91.7	91.4	89.5	91.1	90.9	91.3
	Gujarat	304.1	311.5	309.8	315.2	313.5	312.2	297.4
	MP	179.0	179.1	179.5	182.3	182.3	181.2	177.1
	Maharashtra	439.5	445.5	450.3	443.4	433.8	438.1	422.7
	Goa	10.6	9.9	9.8	9.4	9.9	9.3	8.2
	DD	6.6	6.6	6.7	6.4	6.6	6.8	6.5
	DNH	16.4	16.5	16.8	16.6	16.5	16.5	16.5
	Essar steel	9.3	8.7	8.1	8.5	9.8	11.1	11.3
SR	Andhra Pradesh	156.5	162.5	161.5	163.8	163.4	160.6	154.9
	Telangana	148.8	150.7	151.6	152.8	153.3	151.9	139.8
	Karnataka	204.2	208.9	211.2	209.5	200.6	205.2	194.8
	Kerala	74.3	76.1	77.3	72.9	76.7	77.6	71.8
	Tamil Nadu	319.2	327.4	334.4	321.6	330.2	334.5	315.0
	Pondy	7.3	7.5	7.6	7.3	7.5	6.9	7.2
ER	Bihar	61.1	60.1	62.9	70.1	71.3	71.4	69.9
	DVC	65.1	64.4	64.2	65.6	66.2	65.5	65.7
	Jharkhand	23.2	23.6	22.2	22.3	20.2	24.3	23.9
	Odisha	80.2	83.1	83.2	85.2	85.5	85.1	88.5
	West Bengal	160.0	160.0	160.5	155.0	158.7	158.4	155.0
	Sikkim	1.3	0.9	1.1	1.0	0.7	1.0	0.7
NER	Arunachal Pradesh	1.8	1.8	1.7	1.7	1.7	1.6	1.5
	Assam	21.1	21.1	21.1	17.7	16.3	17.2	17.5
	Manipur	2.2	2.0	1.7	1.6	1.7	1.0	1.5
	Meghalaya	4.5	3.9	4.6	4.4	3.9	3.7	4.3
	Mizoram	1.3	1.3	1.2	1.3	1.3	0.9	1.2
	Nagaland	2.1	1.9	1.8	1.9	1.5	1.0	1.2
	Tripura	3.9	4.0	4.1	3.7	4.0	3.2	3.4
ALL INDIA TOTAL		3235.1	3267.9	3295.0	3300.7	3313.0	3349.6	3244.8

पॉवर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड
राष्ट्रीय भार प्रेषण केंद्र, नई दिल्ली

साप्ताहिक रिपोर्ट (11 अप्रैल से 17 अप्रैल - 2016 तक) [2]
(आई० ई० जी० सी० की धारा संख्या-5.5.1 के अंतर्गत)

7. अंतर्क्षेत्रीय विनिमय [प्रथम क्षेत्र से द्वितीय क्षेत्र को आयात (+) / निर्यात (-)]

दिनांक	11-04-2016	12-04-2016	13-04-2016	14-04-2016	15-04-2016	16-04-2016	17-04-2016
East to North	-22.0	-34.0	-38.0	-36.5	-36.4	-34.1	-40.6
East to West	-13.0	-14.0	-15.0	-12.4	-16.8	-18.5	-8.8
East to South	-55.0	-62.0	-63.0	-55.7	-57.1	-55.6	-61.6
East to North-East	-16.0	-14.0	-15.0	-13.9	-113.0	-9.6	-5.2
North to North-East	11.6	11.6	10.1	11.8	11.8	5.9	1.6
West to North	-128.7	-131.0	-123.2	-132.1	-142.0	-139.5	-123.7
West to South	-70.8	-75.8	-78.0	-79.3	-75.5	-76.8	-67.6

**भूटान , नेपाल एव बांग्लादेश के साथ अंतरराष्ट्रीय विद्युत विनिमय INTERNATIONAL
EXCHANGE WITH BHUTAN, NEPAL AND BANGLADESH**

साप्ताहिक रिपोर्ट (11 अप्रैल से 17 अप्रैल - 2016 तक) 2

अंतरराष्ट्रीय विद्युत विनिमय [भारत से दूसरे देश को आयात (+) / निर्यात (-)] Transnational Exchange from India (Import=(+ve) /Export =(-ve))

दिनांक Date	भूटान BHUTAN		नेपाल NEPAL			बांग्लादेश BANGLADESH		
	Energy Exchange (In MU)	Day Average (MW)	Energy Exchange (In MU)	Day Peak (MW)	Day Average (MW)	Energy Exchange (In MU)	Day Peak (MW)	Day Average (MW)
11-04-2016	3.6	150	-7.1	-314	-297	-12.2	-514	-510
12-04-2016	4.8	202	-6.7	-302	-279	-12.3	-535	-512
13-04-2016	4.0	165	-6.4	-301	-268	-12.2	-534	-510
14-04-2016	5.6	232	-6.8	-315	-282	-12.5	-538	-519
15-04-2016	4.3	178	-5.4	-315	-226	-12.6	-539	-524
16-04-2016	4.7	196	-6.8	-325	-284	-11.5	-538	-480
17-04-2016	6.2	257	-6.7	-329	-279	-12.2	-559	-507
कुल Total	33.1		-46.0			-85.4		

8). Major Grid Incidences (Provisional):-

S.No.	Region	Name of Elements	Owner / Agency	Outage		Revival		Outage Duration	Event	Generation Loss(MW)	Load Loss(MW)	Category as per CEA Grid
				Date	Time	Date	Time					
1	SR	1) 400 kV Tuticorin PS-NTPL (coastal line) 2) Unit-1 (600 MW) at Coastal energen 3) NTPL Unit-1 (500 MW)	NTPL/Coastal	11.04.2016	07:04	11.04.2016	09:49	02:45	400 kV Tuticorin PS-NTPL (Coastal Line) tripped on B-N fault due to which SPS operated and unit-1 (600 MW) at Coastal energen tripped. At the same time NTPL's unit-1 (500 MW) tripped on electrical fault.	1100		GD-I
2	ER	1) 400 kV Mendhasal-Baripada 2) 400 kV Mendhasal-New Dhubri 3) 400 kV Mendhasal-Meramundali	OPTCL	12.04.2016	12:41	12.04.2016	13:16	00:35	Due to fault at Mendhasal station, elements given in column C tripped.			GI-II
3	NER	1) 220 kV Kaithalguri-New Mariani-Misa2) 2) Doyang Unit-II 3) Khandong Unit-II	NER	13.04.2016	19:26	13.04.2016	20:11	00:45	Due to operation of Buchholz relay of Line Reactor of the line, the line got tripped.Khandong unit tripped on overfrequency and overvoltage. Doyang unit was withdrawn for safety reasons.		1227	GD-I
4	WR	1) 400KV JP Nigrie – Satna 1 & 2 2) JP Nigrie Unit-I & II	JP	14.04.2016	13:29	14.04.2016	14:03	00:34	400KV JP Nigrie – Satna 1 & 2 Tripped due to fault, following which JPN U-1 (660MW) & 2 (660MW) tripped on loss of evacuation.		1089	GD-I
5	ER	1) 400 kV Sterlite-Meramundali 2) 400 kV Sterlite-Meramundali 3) Unit-II & IV at Sterlite(600 MW each)	SEL	15.04.2016	09:30	15.04.2016	10:01	00:31	R-Phase CVT of 400 kV Sterlite-Meramundali burst at Meramundali end, causing the tripping of lines and generating units on loss of evacuation path.	800		GD-I
6	ER/SR	1) 400 kV Jeypore-Bolangir 2) 400 kV Jeypore-Gazuwaka-I & II 3) 400 kV Indravati(PG)-Indravati(OPTCL) 4) 315 MVA ICT-I & II Jeypore 5) 400 kV Rengali-Indravati 6) Balimela and U.Kolab Units 7) Gazuwaka B/B HVDC	PG/OPTCL	15.04.2016	12:19	15.04.2016	13:22	01:03	400 kV Rengali-Indravati tripped on B-N fault and following that lines given in column C tripped on Overvoltage from Jeypore end.	200	400	GD-I
7	SR	1) 220 kV Raichur Station 2) Unit-I,II,III & IV at Raichur Station	KSEB	15.04.2016	15:46	15.04.2016	19:23	03:37	Due to Busbar protection operation the elements given in column C tripped.	700		GD-I
8	ER	1) 220 KV Meramundali-Bhanjanagar-II 2) 315 MVA ICT-I & II at Mendhasal	OPTCL	16.04.2016	09:55	16.04.2016	10:15	00:20	220kV Meramundali-Bhanjanagar-II tripped on B-ph, E/F, Z-1, If=2.4kA, 20kM from Bhanjanagar. At the same time,315MVA 400/220 ICT- I & II at Mendasal tripped on O/c relay operation. This resulted load loss of 450 MW in Chandaka, Bhubaneswar, Nimapara.		470	GD-I

S.No.	Region	Name of Elements	Owner / Agency	Outage		Revival		Outage Duration	Event	Generation Loss(MW)	Load Loss(MW)	Category as per CEA Grid
				Date	Time	Date	Time	Time				
9	NER	1) 400 kV Bongaigaon-New Siliguri-I,II,III & IV 2) 315 MVA ICT at Bongaigaon 3) Several 220 kV and 400 kV lines in NER 4) HVDC BNC-Agra	Parts of NER	16.04.2016	12:03	16.04.2016	12:51	00:48	At around 12:03:29 hrs a B-Ph to earth fault occurred at 400kV Bongaigaon-NTPC-I with relay indication. 400kV New-Siliguri –Bongaigaon I, II, and III & IV tripped at NEW Siliguri end in Zone –II from New Siliguri S/S .These four lines remained charged from Bongaigaon end & resulted high voltage at Bongaigaon(495 kV) & Balipara(464 kV) as observed from PMU plots. Subsequently these lines tripped on over voltage protection. 400kV Bongaigaon-NTPC-I line tripped after 440ms at Bongaigaon from the instant of initiation of fault.400kV Bongaigaon –NTPC –II tripped after 530ms on carrier Direct Trip receipt from NTPC end. After that at 12:03:45 hrs +/- HVDC BNC Agra pole –I blocked. The 400/220kV 315MVA ICT at Bongaigaon tripped on over current protection on HV Side. 220 kV Salakati-BTPS I & II also tripped at the same time at BTPS end.Due to above trippings NER grid de-synchronized from national grid. 220kV Salakati S/S remained connected with Birpara and Gelephu S/S. Major part of NER grid failed due to load –generation mismatch.AGBPP, LTPS and NTPS stations survived with generation of 150MW, 90MW and 60 MW respectively with upper Assam load due to successful operation of Islanding scheme. The island was synchronized with main grid at Misa at 1406 hrs.Tripura system initially survived along with AGTPP generation with demand of around 60MW. Subsequently this island collapsed at due to load generation mismatch.NER System was restored progressively by 1430 Hrs.	1125	973	GD-V
10	WR	1) 400 KV Karad- Kolhapur -I 2) 400 KV Karad BUS COUPLER 3) 400 KV Karad – New Koyna- II 4) 400 KV Karad – Jaigad- II 5) 400/220 KV 315 MVA ICT-I at Karad	MSEB	16.04.2016	16:38	16.04.2016	17:12	00:34	During hand tripping of 400 KV Karad- Kolhapur –I for over voltage, R phase pole of ABB make circuit breaker blasted. All the feeders connected to 400 KV BUS-I at Karad S/S along with Bus Coupler tripped.			GI-II
11	SR	1) 400kV Coastal-Tuticorin PS 2) NTPL-Tuticorin 3) Units at Coastal Energen and NTPL	NTPL/Coastal	17.04.2016	01:09	17.04.2016	02:02	00:53	B-phase to earth fault had occurred in 400kV Coastal-Tuticorin PS line at 1:09:37 hrs. The fault was cleared from both the ends and line auto-reclosed at Tuticorin PS end.Distance relay at Coastal end gave a single phase trip, however after dead time, relay issued a 3 phase trip. From D.R of Coastal and Tuticorin P.S end it was observed there was rise in current in R and Y phase 600ms after occurrence of 1st fault. SPS at Coastal energen operated and tripped Unit-1 at Coastal energen immediately after tripping of 400kV Coastal-Tuticorin PS line. At the same time NTPL-Tuticorin pooling station line tripped from NTPL end on operation of zone-2. Due to tripping of 400kV Coastal-Tuticorin PS line and 400kV NTPL-Tuticorin PS line, the evacuating path for Units at NTPL and Coastal energen was lost and hence running units at NTPL and Coastal energen got tripped due to over-speeding and resulting in generation loss of 1900MW.	1900		GD-I