

# पावर सिस्टम ऑपरेशन कॉर्पोरेशन लिमिटेड

(भारत सरकार का उद्यम)

## POWER SYSTEM OPERATION CORPORATION LIMITED

(A Govt. of India Enterprise)



केन्द्रीय कार्यालय : 61, आई एफ सी आई टावर, 8 एवं 9वीं मंजिल, नेहरु प्लैस, नई दिल्ली -110019  
Corporate Office : 61, IFCI Tower, 8 & 9th Floor, Nehru Place, New Delhi - 110019  
CIN : U40105DL2009GOI188682, Website : [www.posoco.in](http://www.posoco.in), E-mail : posococc@posoco.in, Tel.: 011- 40234672

संदर्भ संख्या: - POSOCO/NLDC/MR/

दिनांक: 22.01.2020

सेवा में,

वितरण सूची के अनुसार

विषय:- निष्पादन रिपोर्ट -दिसम्बर-2019

महोदय,

आई०ई०जी०सी०-2010 के प्रावधान के अनुसार, दिसम्बर-2019 माह की अखिल भारतीय प्रणाली की निष्पादन रिपोर्ट संलग्न है।

धन्यवाद

भवदीय

*Cpl. S/Contd/RM*  
(एन नल्लारसन)

मुख्य महाप्रबंधक  
(रा०भा०प्र०क०)

संलग्नक: मासिक प्रणाली रिपोर्ट

## वितरण सूची

### Distribution List

- 1 सचिव, के.वि.नि.आ. तीसरा एवं चौथा तल, चंद्रलोक भवन, 36, जनपथ, नई दिल्ली-110001  
Secretary, CERC, 3<sup>rd</sup> & 4<sup>th</sup> Floor, Chanderlok Building, 36, Janpath, New Delhi-110001
- 2 मुख्य अभियंता (जी एम), के.वि.प्रा., सेवा भवन, आर. के. पुरम, नई दिल्ली-110066  
Chief Engineer (GM), CEA, Sewa Bhavan, R.K.Puram, New Delhi-110066
- 3 सदस्य सचिव, उ. क्षे. वि. स., 18/ए, शहीद जीत सिंह सनसनवाल मार्ग, नई दिल्ली - 110016  
Member Secretary, NRPC, 18/A, SJSS Marg, Katwaria Sarai, New Delhi-110016
- 4 सदस्य सचिव, प. क्षे. वि. स., एफ-3, एम आई डी सी क्लेट्र, अंधेरी(पूर्व), मुंबई - 400093  
Member Secretary, WRPC, F-3, MIDC Area, Andheri (East), Mumbai-400093
- 5 सदस्य सचिव, द. क्षे. वि. स., 29, रेस कोर्स क्रॉस रोड, बंगलूरु - 560009  
Member Secretary, SRPC, 29, Race Course Cross Road, Bangalore-560009
- 6 सदस्य सचिव, पू. क्षे. वि. स., 14, गोल्फ क्लब रोड, कोलकाता - 700033  
Member Secretary, ERPC, 14, Golf Club Road, Kolkata-700033
- 7 सदस्य सचिव, पू. क्षे. वि. स., मेघालय राज्य आवासीय वित्त सहकारी समिति लिमिटेड भवन, नॉग्रिम हिल्स, शिलोंग - 793003  
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- 8 मुख्य अभियंता, राष्ट्रीय विद्युत समिति, एनआरपीसी भवन, तृतीय तल, 18/ए, शहीद जीत सिंह सनसनवाल मार्ग, नई दिल्ली - 110016  
Chief Engineer, National Power Committee, NRPC Building, 3rd floor, 18/A, SJSS Marg, Katwaria Sarai, New Delhi-110016
- 9 कार्यपालक निदेशक, पू. क्षे. भा. प्रे. के., 14, गोल्फ क्लब रोड, कोलकाता - 700033  
Executive Director, ERLDC, 14, Golf Club Road, Kolkata-700033
- 10 कार्यपालक निदेशक, प. क्षे. भा. प्रे. के., एफ-3, एम आई डी सी क्लेट्र, अंधेरी(पूर्व), मुंबई - 400093  
Executive Director, WRLDC, F-3, MIDC Area, Andheri (East), Mumbai-400093
- 11 महाप्रबंधक, उ.क्षे.भा.प्रे.के., 18/ए, शहीद जीत सिंह सनसनवाल मार्ग, नई दिल्ली - 110016  
General Manager, NRLDC, 18/A, SJSS Marg, Katwaria Sarai, New Delhi-110016
- 12 महाप्रबंधक, द. क्षे. भा. प्रे. के., 29, रेस कोर्स क्रॉस रोड, बंगलूरु - 560009  
General Manager, SRLDC, 29, Race Course Cross Road, Bangalore-560009
- 13 कार्यपालक निदेशक, पू. क्षे. भा. प्रे. के., डोंगतिएह, लोअर नॉग्रह, लापलंग, शिलोंग- 793006  
Executive Director, NERLDC, Dongtien, Lower Nongrah, Laplang, Shillong-793006



# POWER SYSTEM OPERATION CORPORATION LIMITED

पॉवर सिस्टम ऑपरेशन  
लिमिटेड

NATIONAL LOAD DESPATCH CENTRE –राष्ट्रीय भार प्रेषण केन्द्र

मासिक ऑपरेशन रिपोर्ट

Monthly  
Operation Report



दिसंबर  
2019

पावर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड  
राष्ट्रीय भार प्रेषण केंद्र, नई दिल्ली

**POWER SYSTEM OPERATION CORPORATION LTD**  
**NATIONAL LOAD DESPATCH CENTRE, NEW DELHI**



माह दिसंबर-2019 के लिए प्रचालन निष्पादन रिपोर्ट

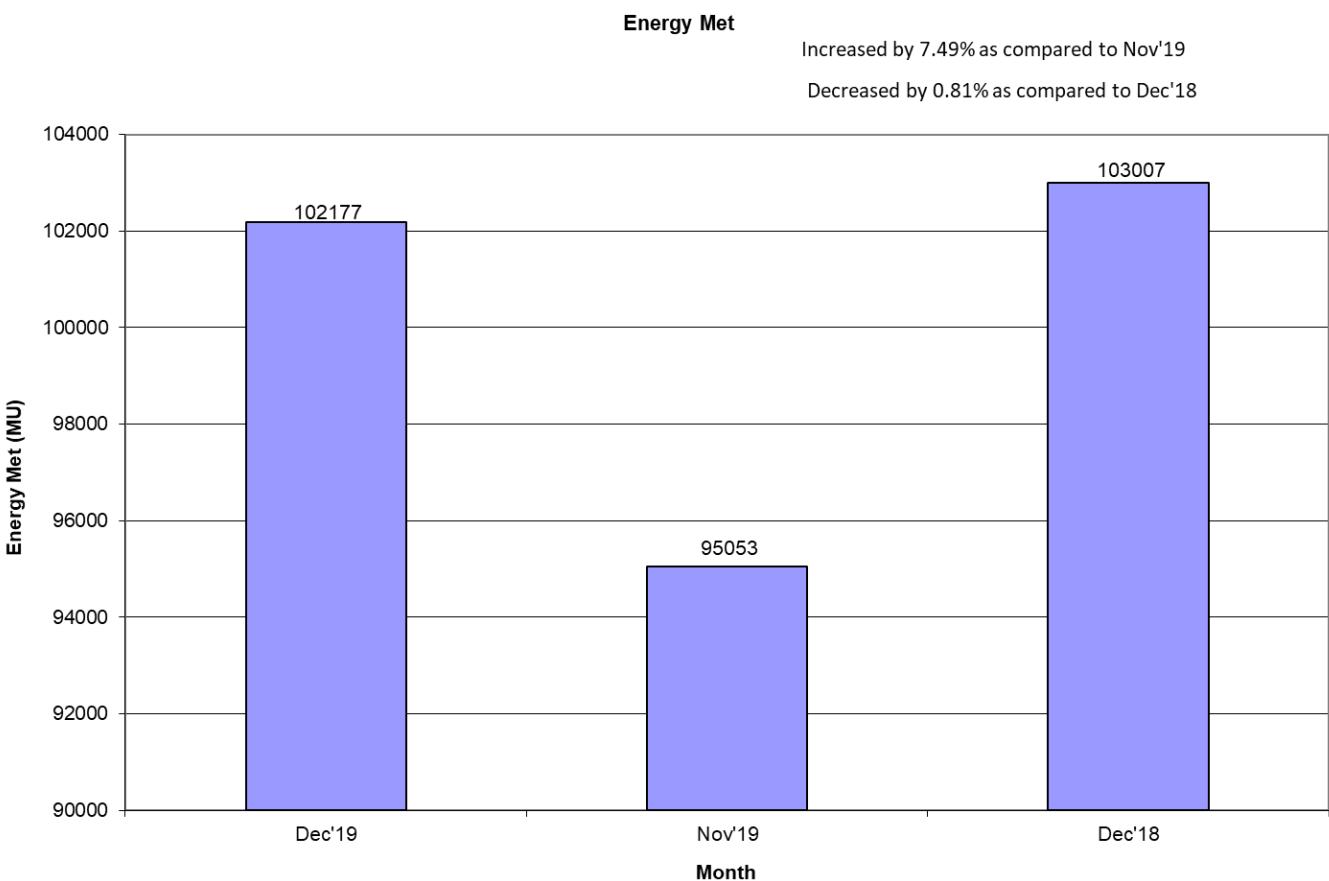
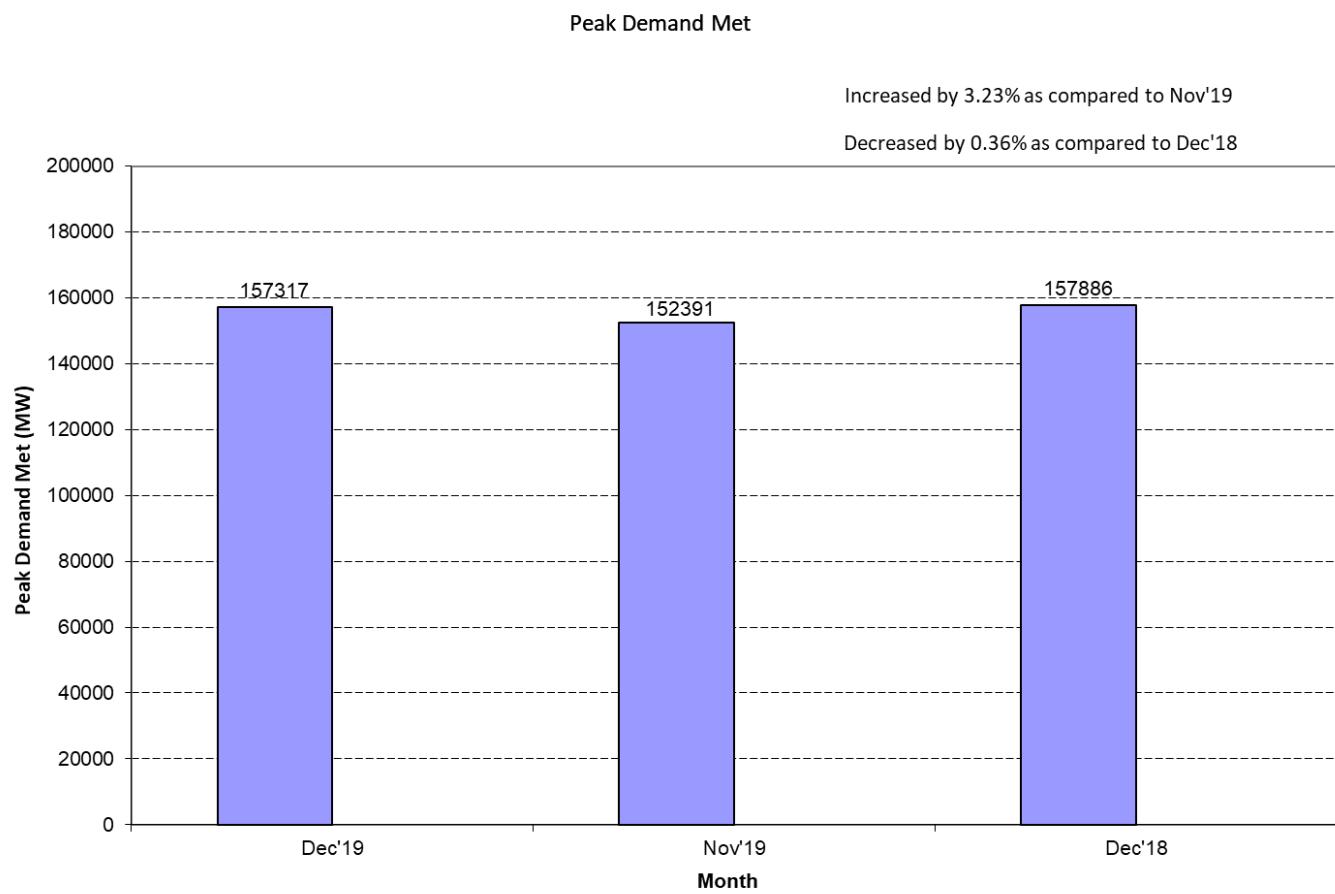
**OPERATIONAL PERFORMANCE REPORT FOR THE**  
**MONTH OF DECEMBER-2019**

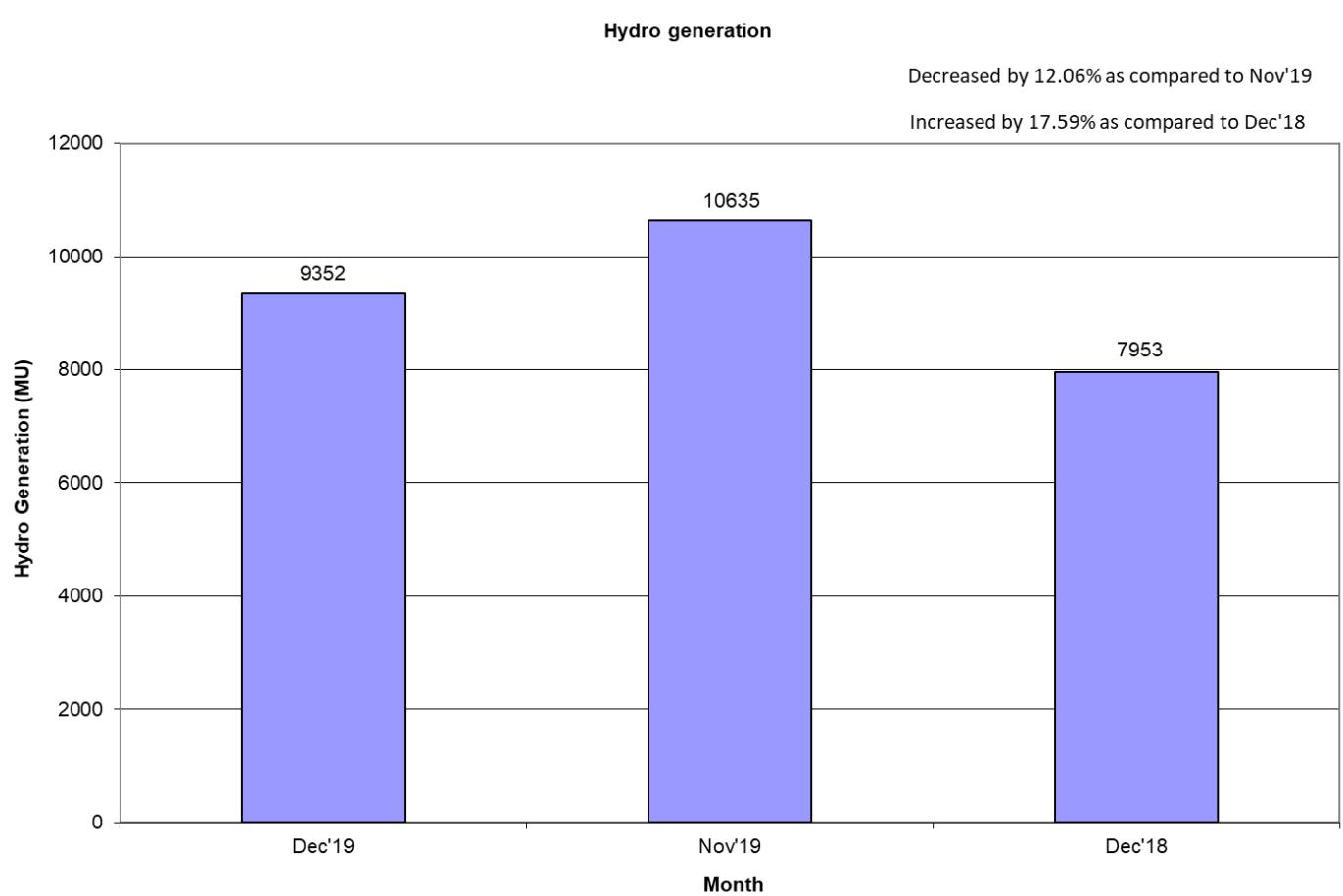
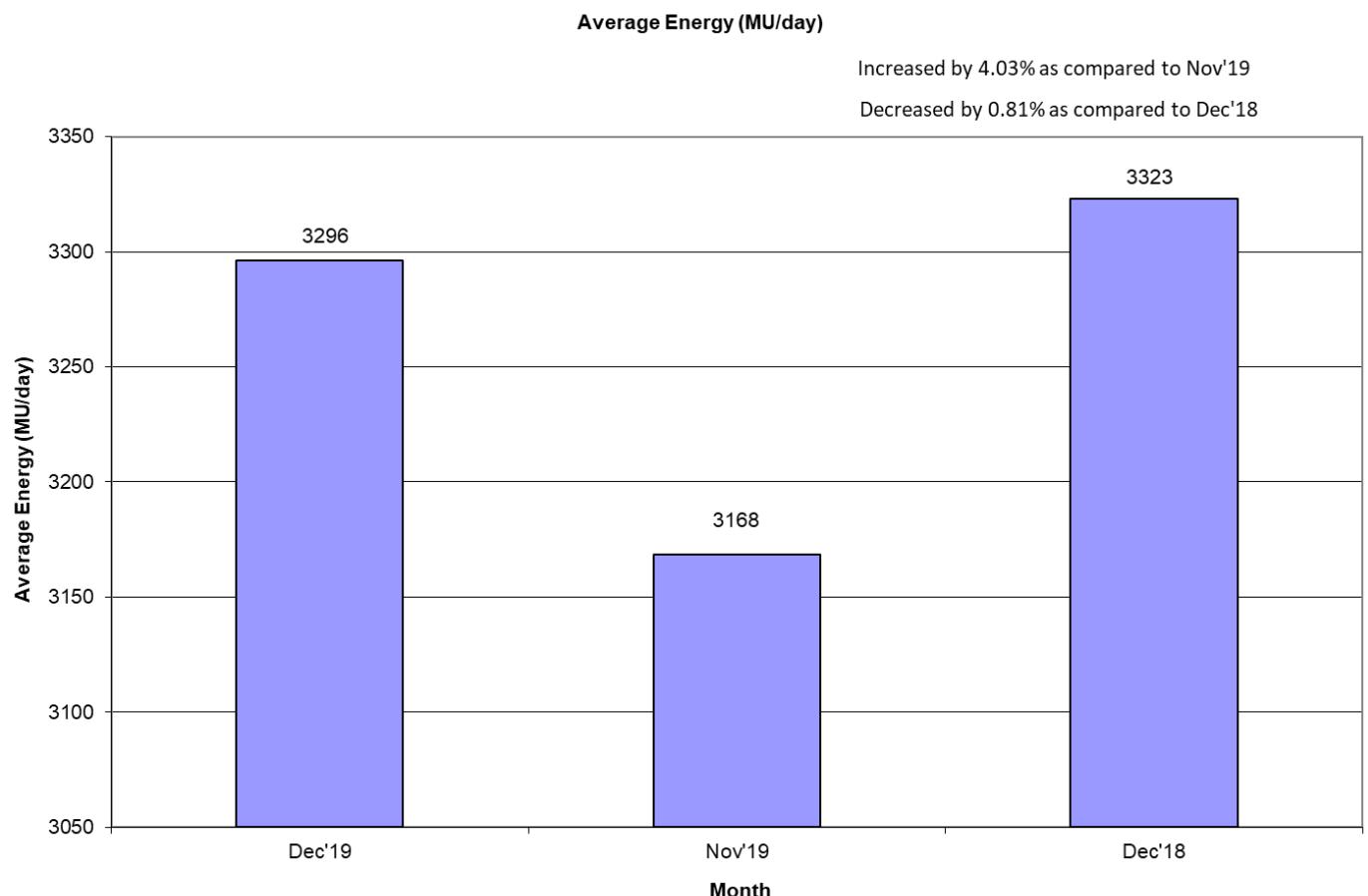
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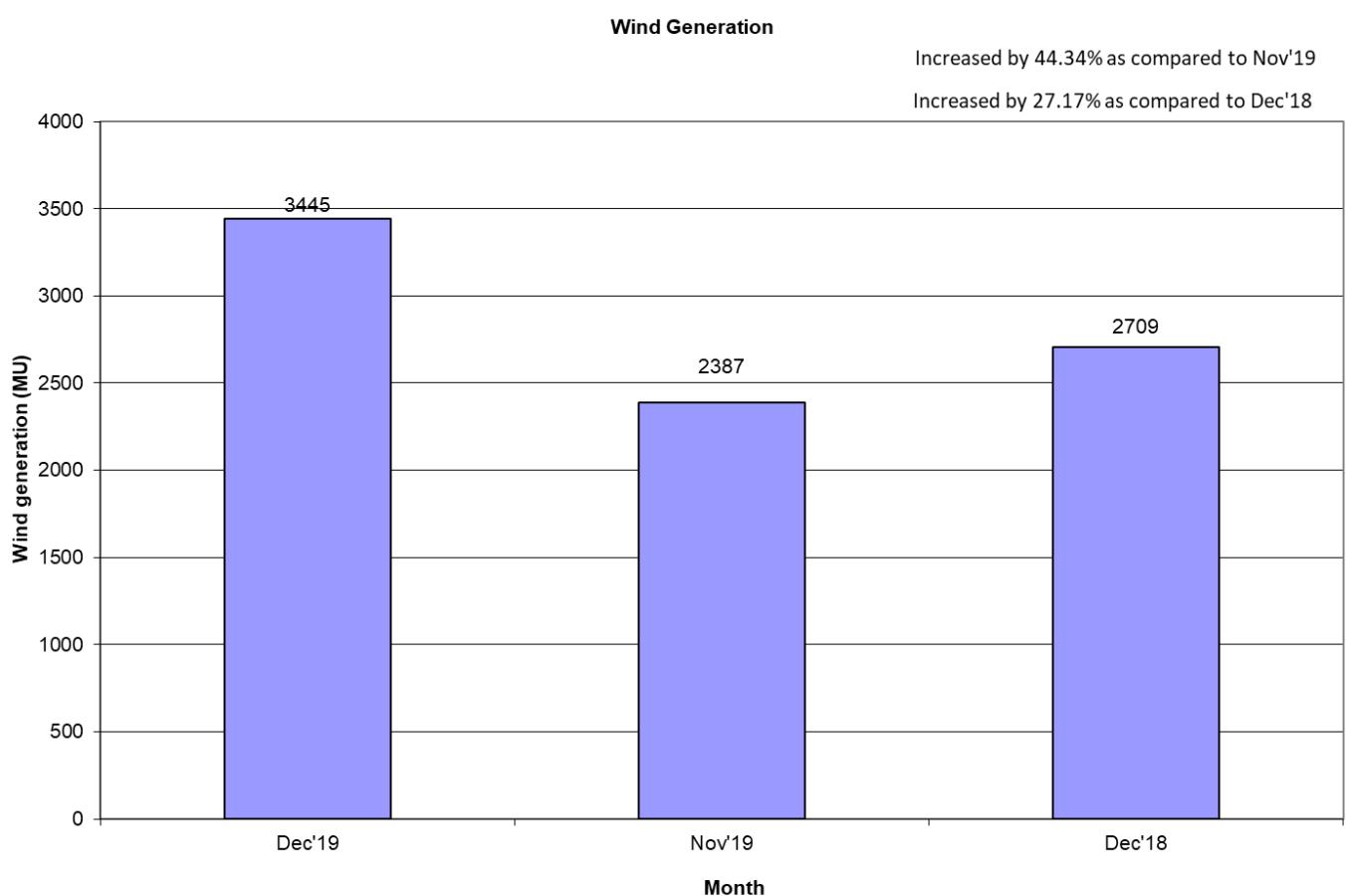
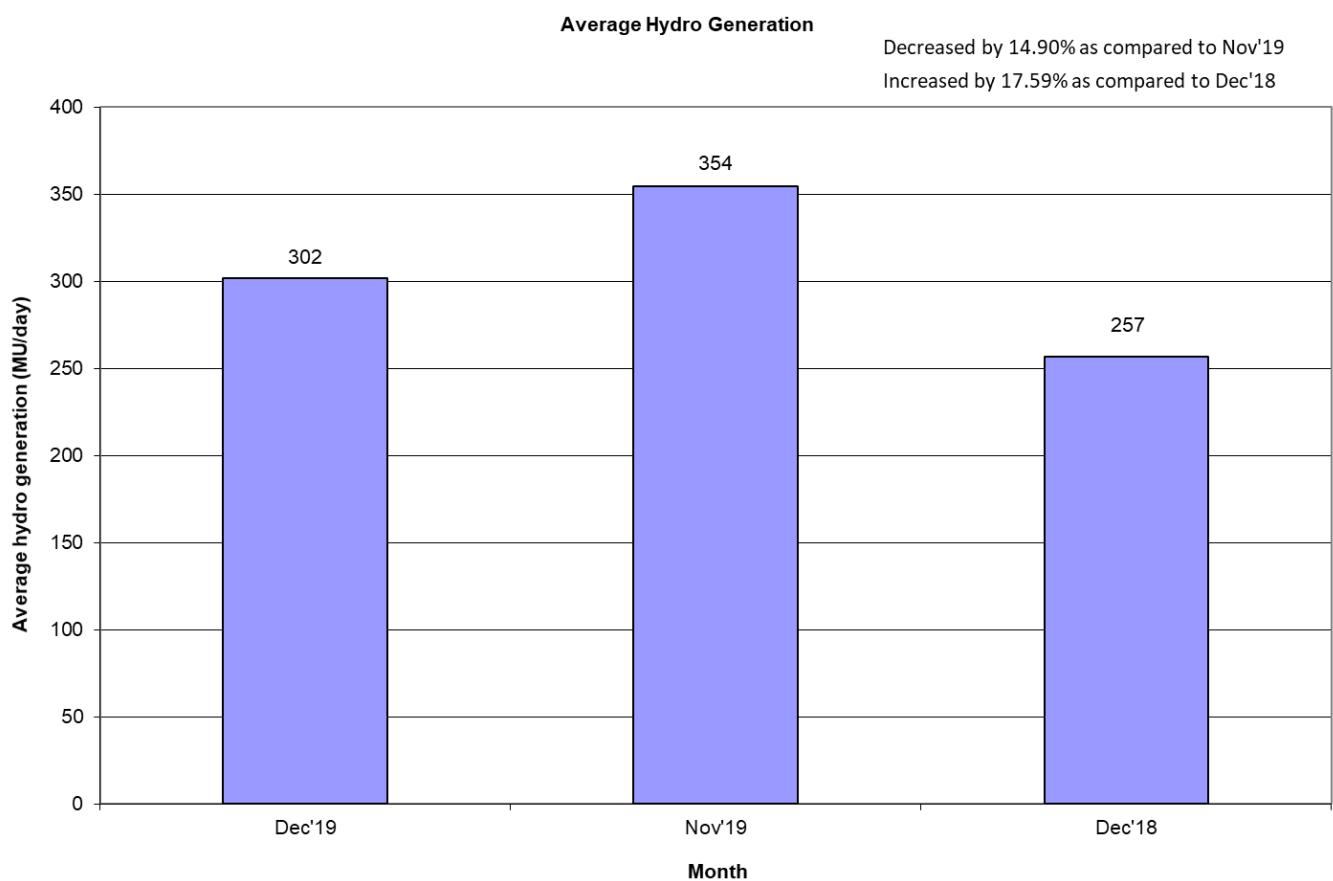
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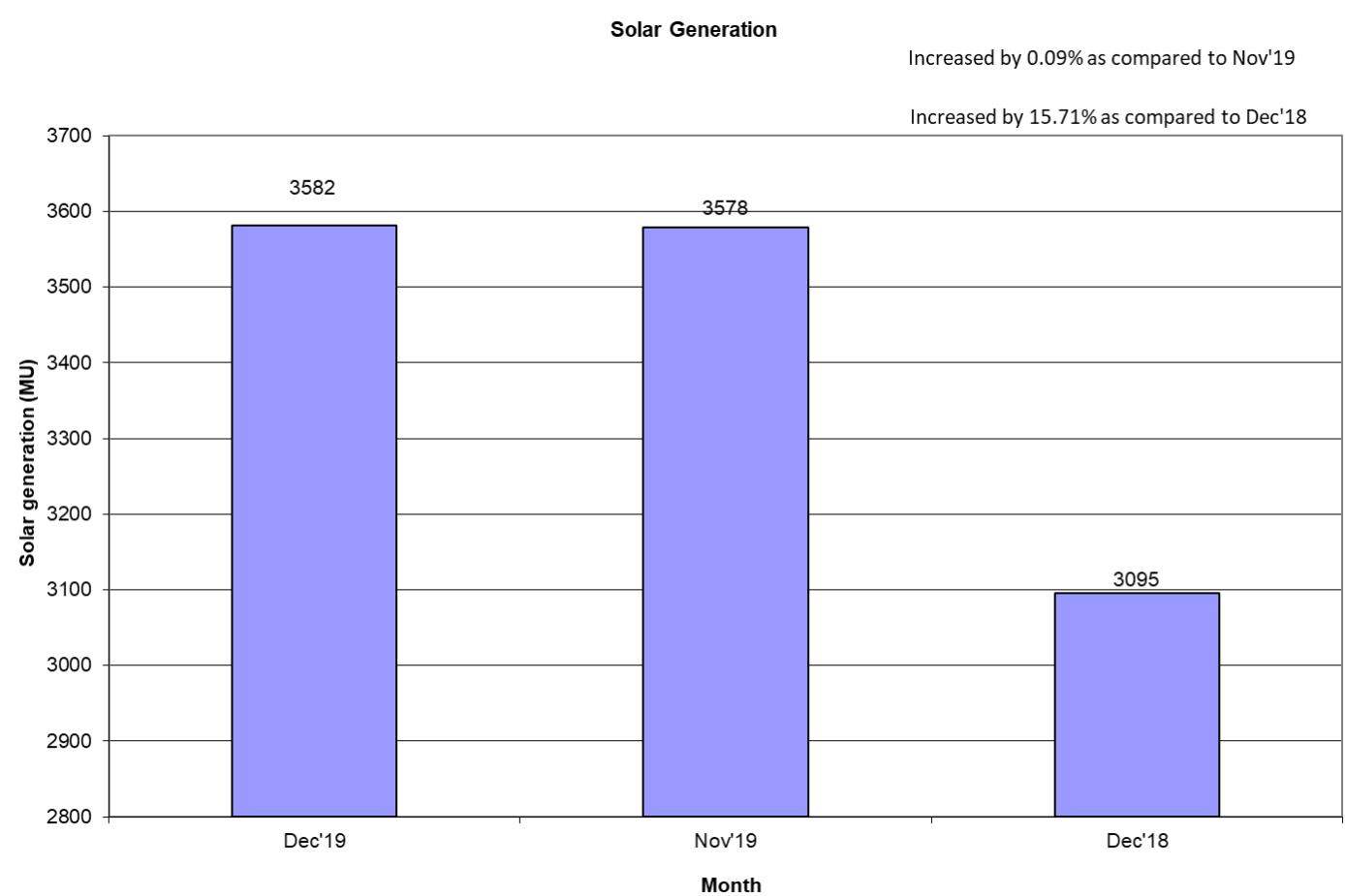
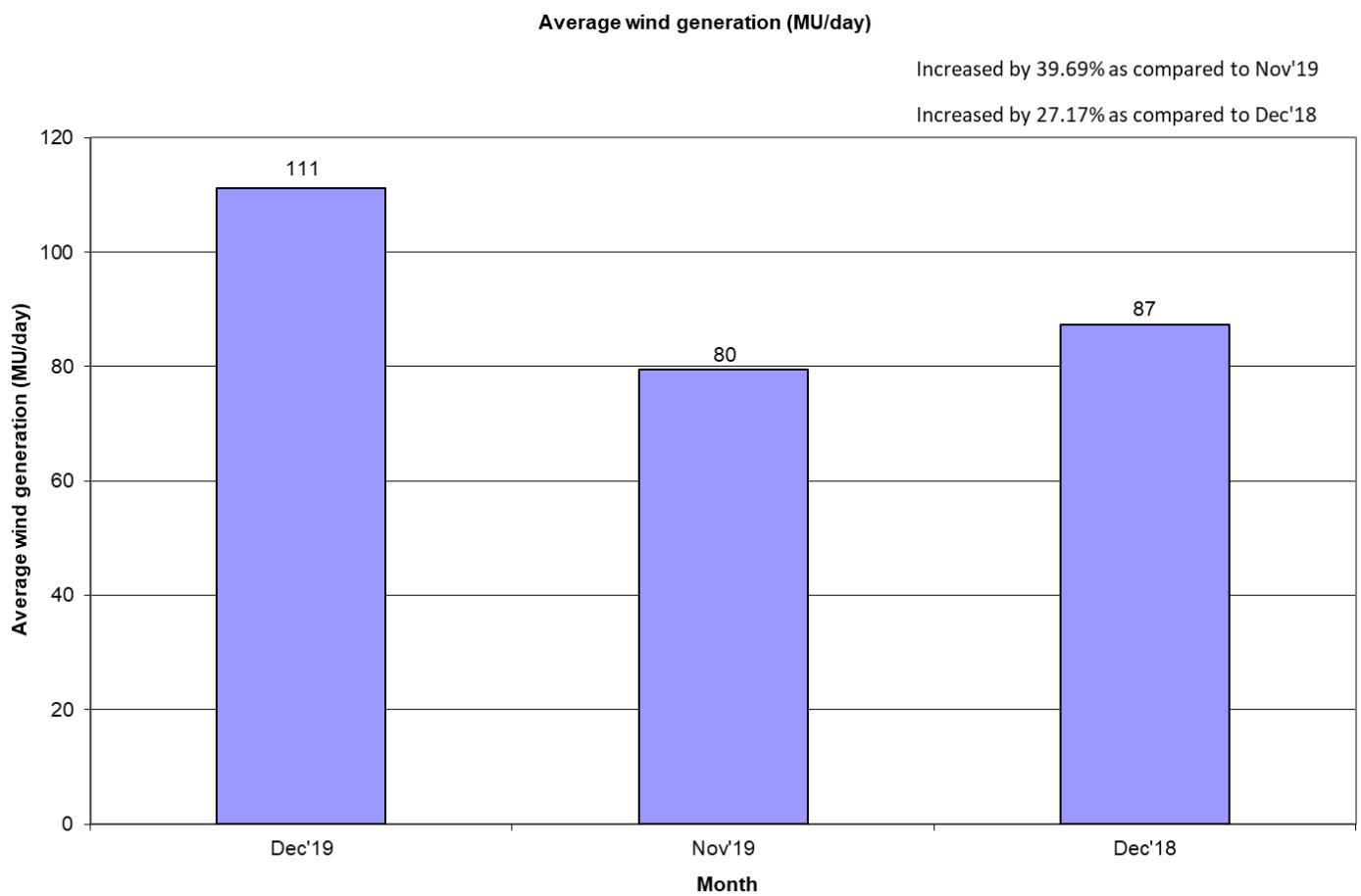
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## 1. SUMMARY OF REPORT FOR THE MONTH OF DECEMBER 2019





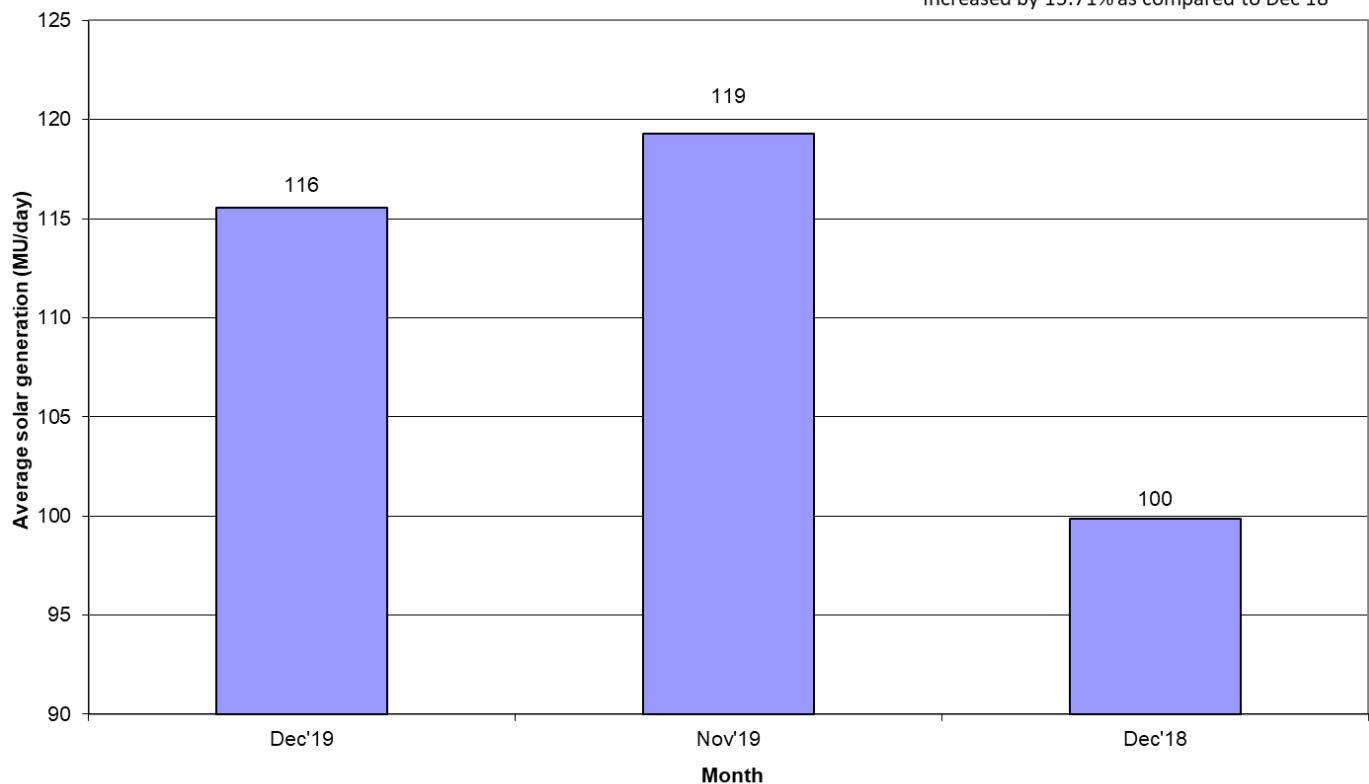




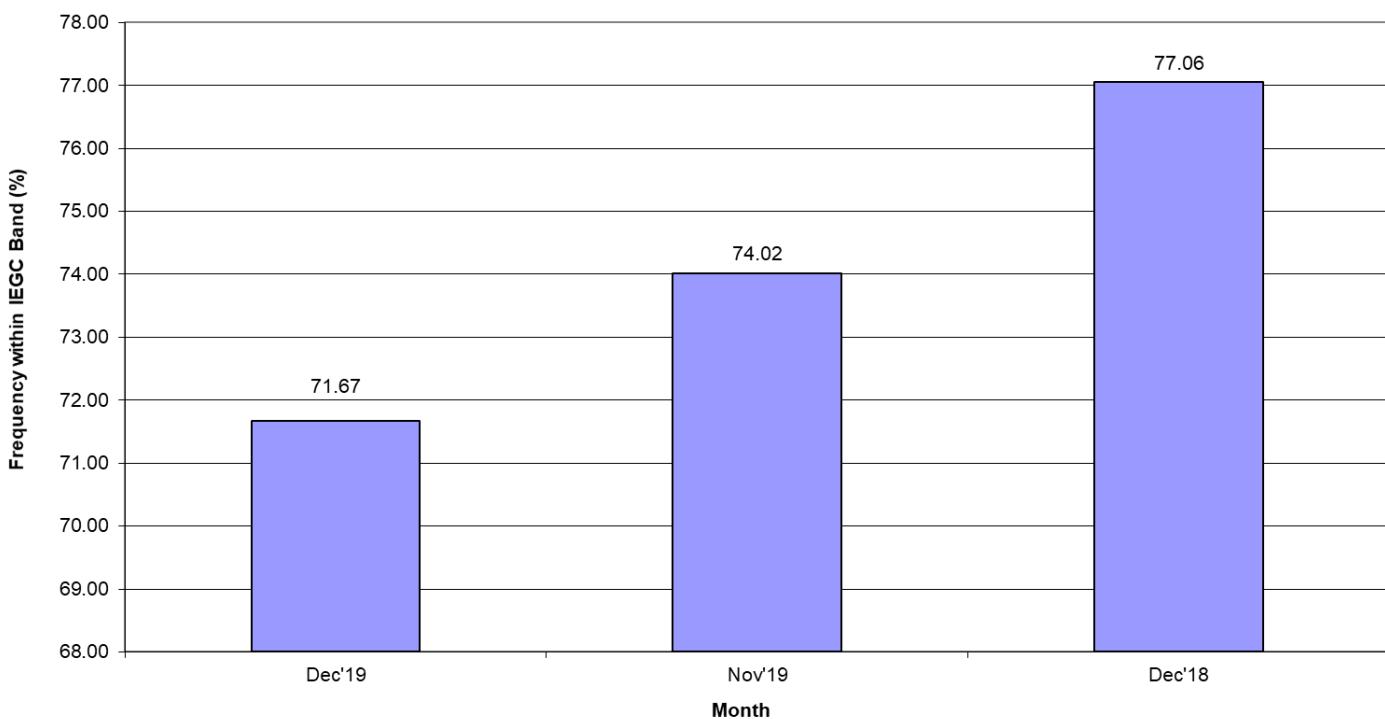
#### Average solar generation (MU/day)

Decreased by 3.14% as compared to Nov'19

Increased by 15.71% as compared to Dec'18



#### Frequency within IEGC Band



## 2. ALL INDIA REGIONWISE INSTALLED CAPACITY

As on 31.12.2019  
(All figures are in MW)

S No	Region	THERMAL					NUCLEAR	HYDRO	RES @ MNRE	GRAND TOTAL
		COAL	LIGNITE	GAS	DIESEL	TOTAL				
1	NR	52245	1580	5781	0	59606	1620	19708	16503	97437
2	WR	74079	1540	10806	0	86425	1840	7548	25373	121186
3	SR	43642	3640	6474	434	54189	3320	11775	42161	111445
4	ER	27734	0	100	0	27834	0	4942	1490	34266
5	NER	795	0	1776	36	2607	0	1427	363	4397
6	ISLANDS	0	0	0	40	40	0	0	18	58
	ALL INDIA	198495	6760	24937	510	230701	6780	45399	85908	368788

Remarks: Data from CEA website

**3. राष्ट्रीय स्तर पर संध्याकालीन शिखर विद्युत मांग पूर्ति**  
**EVENING PEAK HOUR DEMAND MET AT NATIONAL LEVEL**

माह: दिसंबर 2019      MONTH:- DECEMBER 2019

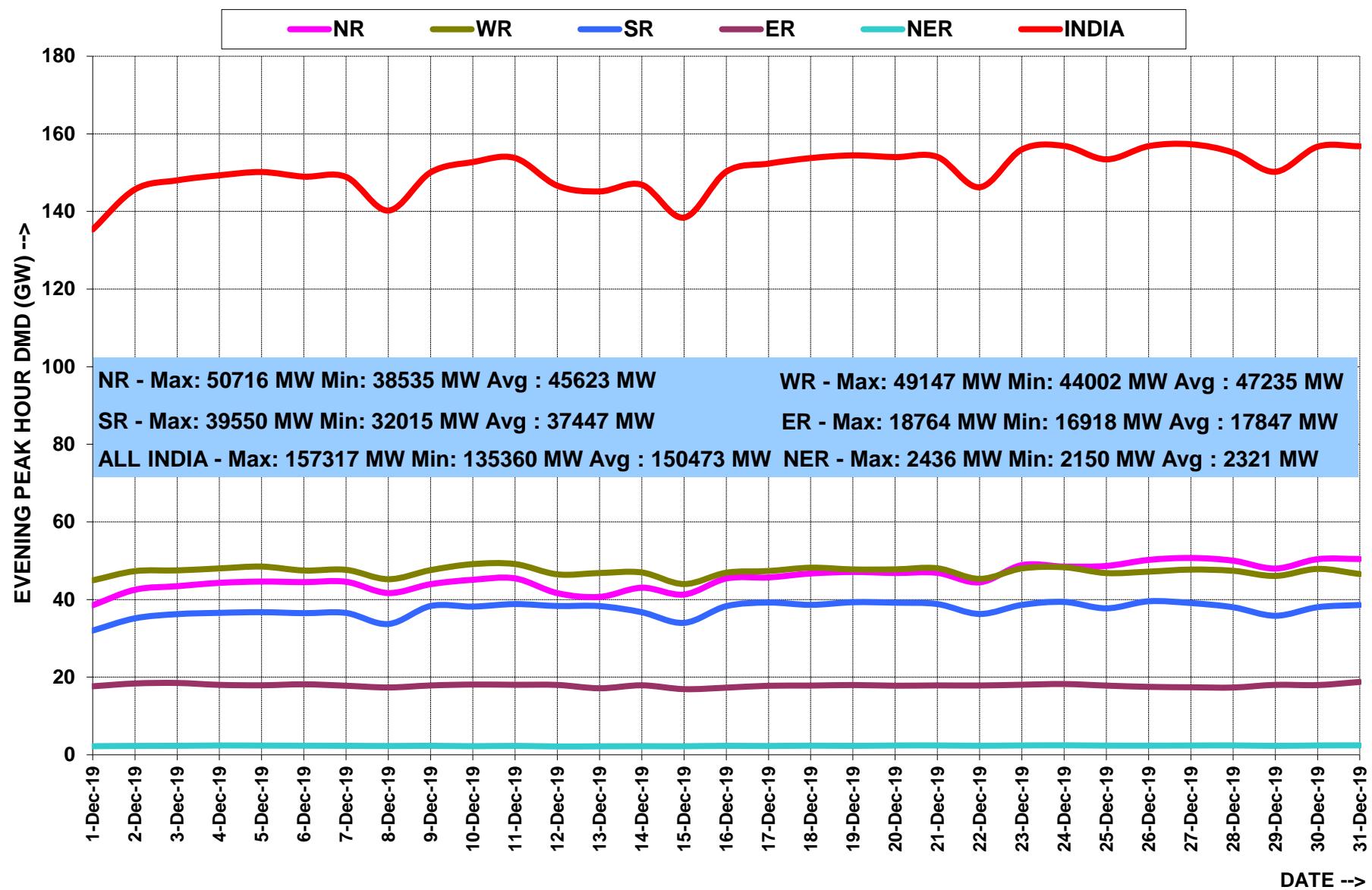
सभी आंकड़े मेगावाट मे All figures in MW

दिनांक Date	ऊतरी क्षे. NR	पश्चिमी क्षे. WR	दक्षिणी क्षे. SR	पूर्वी क्षे. ER	पूर्वोत्तर क्षे. NER	कुल TOTAL
1-Dec-19	38535	44946	32015	17649	2215	135360
2-Dec-19	42531	47325	35163	18377	2286	145682
3-Dec-19	43442	47512	36249	18506	2314	148023
4-Dec-19	44302	48022	36574	18018	2394	149310
5-Dec-19	44633	48497	36745	17909	2374	150158
6-Dec-19	44492	47480	36493	18163	2345	148973
7-Dec-19	44580	47660	36547	17794	2315	148896
8-Dec-19	41678	45239	33696	17346	2262	140221
9-Dec-19	43960	47584	38340	17867	2316	150067
10-Dec-19	45092	49133	38185	18102	2212	152724
11-Dec-19	45451	49147	38836	18038	2296	153768
12-Dec-19	41659	46496	38332	18002	2150	146639
13-Dec-19	40678	46838	38311	17140	2189	145156
14-Dec-19	43050	46982	36731	17903	2219	146885
15-Dec-19	41300	44002	33994	16918	2203	138417
16-Dec-19	45422	46915	38293	17296	2309	150235
17-Dec-19	45701	47350	39222	17787	2268	152328
18-Dec-19	46721	48209	38637	17834	2353	153754
19-Dec-19	47100	47763	39306	17976	2302	154447
20-Dec-19	46847	47777	39188	17799	2397	154008
21-Dec-19	46872	48058	38839	17878	2405	154052
22-Dec-19	44436	45325	36290	17852	2335	146238
23-Dec-19	48874	48017	38618	18055	2407	155971
24-Dec-19	48501	48324	39385	18234	2436	156880
25-Dec-19	48658	46824	37738	17828	2368	153416
26-Dec-19	50216	47192	39550	17507	2356	156821
27-Dec-19	50716	47726	39097	17393	2385	157317
28-Dec-19	50017	47409	38016	17331	2410	155183
29-Dec-19	47987	46085	35824	18017	2306	150219
30-Dec-19	50399	47898	38024	17962	2408	156691
31-Dec-19	50453	46564	38605	18764	2426	156812
उच्चतम MAXIMUM	50716	49147	39550	18764	2436	157317
निम्नतम MINIMUM	38535	44002	32015	16918	2150	135360
औसत AVERAGE	45623	47235	37447	17847	2321	150473
अब तक का उच्चतम All Time Max.	62627	54589	47984	23016	2944	176381
दिनांक Date	03.07.19	15.10.18	03.04.19	31.08.19	29.08.19	29.05.19

नोट : सभी आंकड़े 1900 बजे की मांगपूर्ति पर आधारित हैं।

Note: The above figures correspond to value at 1900 Hrs

### EVENING PEAK HOUR DEMAND MET DURING THE MONTH OF DECEMBER' 2019



4. राष्ट्रीय स्तर पर विद्युत ऊर्जा आपूर्ति ENERGY MET AT NATIONAL LEVEL

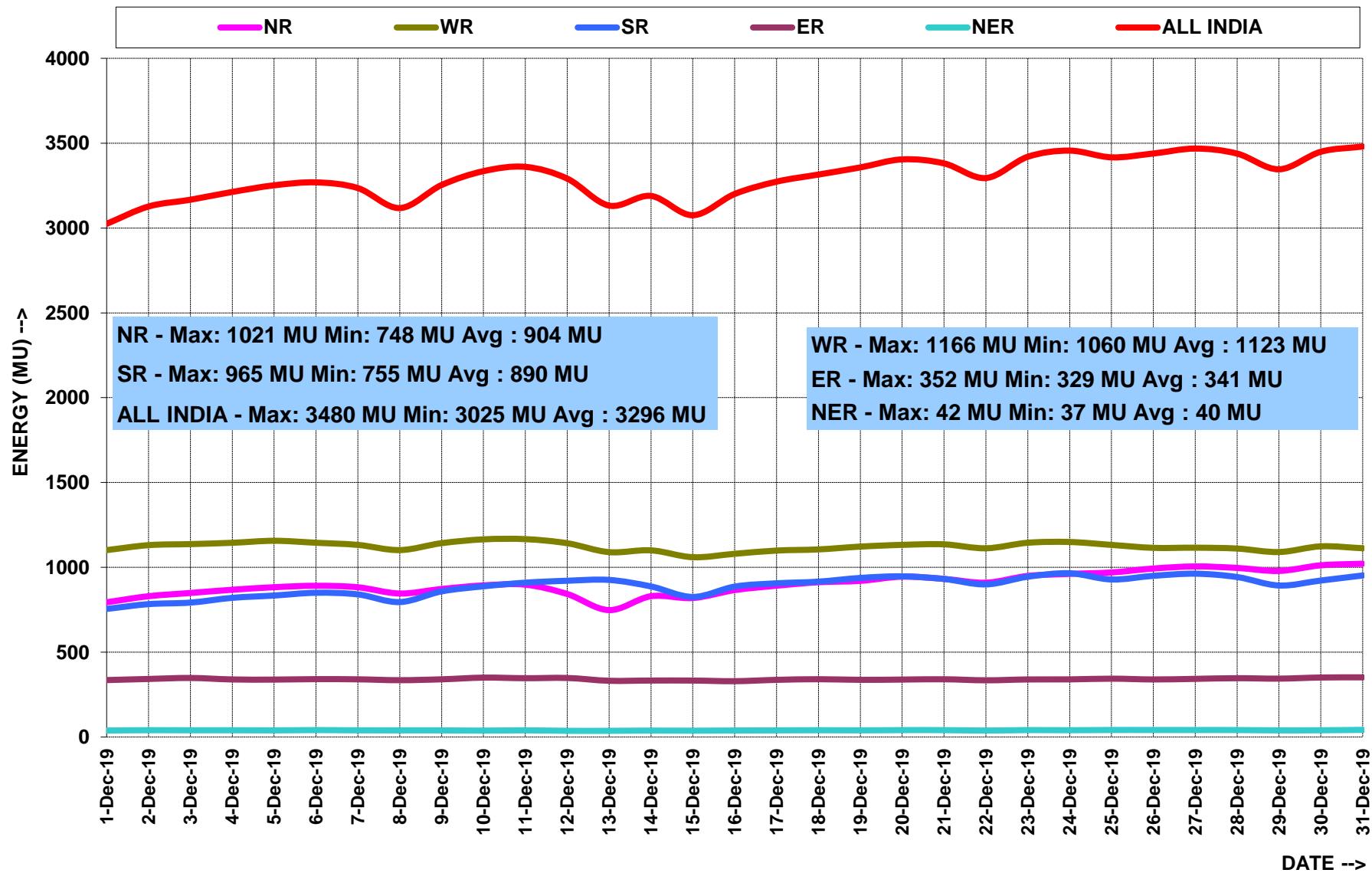
माह: दिसंबर 2019

MONTH:- DECEMBER 2019

सभी आंकड़े मिलियन यूनिट में All figures in MU

दिनांक Date	ऊतरी क्षे. NR	पश्चिमी क्षे. WR	दक्षिणी क्षे. SR	पूर्वी क्षे. ER	पूर्वोत्तर क्षे. NER	कुल TOTAL
01-Dec-19	794	1102	755	336	38	3025
02-Dec-19	830	1131	783	342	40	3127
03-Dec-19	849	1137	792	348	40	3167
04-Dec-19	868	1145	820	339	40	3212
05-Dec-19	883	1157	834	339	39	3252
06-Dec-19	891	1145	850	341	41	3269
07-Dec-19	883	1132	841	340	40	3235
08-Dec-19	846	1102	795	335	39	3118
09-Dec-19	873	1143	858	340	39	3253
10-Dec-19	894	1165	888	350	38	3335
11-Dec-19	898	1166	910	347	40	3360
12-Dec-19	843	1142	921	348	37	3291
13-Dec-19	748	1090	926	332	37	3132
14-Dec-19	830	1100	888	333	38	3189
15-Dec-19	819	1060	826	333	37	3075
16-Dec-19	866	1080	887	329	39	3200
17-Dec-19	892	1099	906	337	39	3273
18-Dec-19	912	1106	916	341	40	3315
19-Dec-19	920	1122	938	337	39	3357
20-Dec-19	945	1133	947	339	41	3404
21-Dec-19	932	1136	932	341	41	3381
22-Dec-19	910	1113	900	334	38	3294
23-Dec-19	949	1145	945	339	41	3420
24-Dec-19	961	1150	965	340	40	3456
25-Dec-19	970	1132	929	344	41	3416
26-Dec-19	993	1115	950	339	41	3439
27-Dec-19	1005	1116	963	343	41	3468
28-Dec-19	997	1111	943	347	41	3439
29-Dec-19	979	1090	893	344	39	3346
30-Dec-19	1012	1124	922	351	40	3449
31-Dec-19	1021	1113	952	352	42	3480
कुल TOTAL	28015	34800	27575	10560	1228	102177
उच्चतम MAXIMUM	1021	1166	965	352	42	3480
निम्नतम MINIMUM	748	1060	755	329	37	3025
औसत AVERAGE	904	1123	890	341	40	3296
संचयी 2019-20 Cumulative 2019-20	306105	300117	253086	114910	12670	986889
अब तक का उच्चतम All Time Max.	1493	1293	1137	496	58	4145
दिनांक Date	01.07.19	16.10.18	26.03.19	25.06.19	22.08.19	30.05.19

## ENERGY MET DURING THE MONTH OF DECEMBER' 2019



**5. वर्ष 2019-20 के लिए आवृति रूपरेखा FREQUENCY PROFILE FOR YEAR 2019-20**

**राष्ट्रीय ग्रिड NATIONAL GRID**

फ्रिक्वेंसी रूपरेखा (Hz)			<49.9	49.9-50.05	>50.05	उच्चतम फ्रिक्वेंसी	निम्नतम फ्रिक्वेंसी	औसत फ्रिक्वेंसी
% समय	Apr-19	All India Grid	7.33	73.11	19.56	50.32	49.65	50.00
	May-19	All India Grid	9.39	72.70	17.91	50.33	49.65	49.99
	Jun-19	All India Grid	9.49	70.01	20.51	50.31	49.63	50.00
	Jul-19	All India Grid	7.09	68.27	24.64	50.32	49.64	50.01
	Aug-19	All India Grid	7.28	72.68	20.04	50.32	49.55	50.00
	Sep-19	All India Grid	4.59	75.27	20.14	50.27	49.62	50.01
	Oct-19	All India Grid	3.19	77.04	19.77	50.31	49.67	50.01
	Nov-19	All India Grid	4.14	74.02	21.84	50.26	49.65	50.01
	Dec-19	All India Grid	6.48	71.67	21.85	50.34	49.65	50.00
	2019-20 (upto Dec)	All India Grid	6.55	72.75	20.70	50.34	49.55	50.00

5.1 दिसंबर 2019 के लिए आवृत्ति रूपरेखा FREQUENCY PROFILE FOR DECEMBER 2019

फ्रिक्वेंसी रूपरेखा (Hz)		<49.9	49.9-50.05	>50.05	उच्चतम फ्रिक्वेंसी	निम्नतम फ्रिक्वेंसी	औसत फ्रिक्वेंसी	एफ.वी.आई.
% समय	01-Dec-19	4.71	76.93	18.36	50.22	49.79	50.00	0.03
	02-Dec-19	3.07	79.36	17.57	50.17	49.82	50.00	0.03
	03-Dec-19	4.95	71.67	23.38	50.22	49.78	50.01	0.04
	04-Dec-19	3.06	65.30	31.64	50.21	49.85	50.02	0.04
	05-Dec-19	5.30	70.08	24.62	50.25	49.78	50.01	0.04
	06-Dec-19	3.98	77.87	18.15	50.16	49.83	50.00	0.03
	07-Dec-19	4.56	71.78	23.66	50.24	49.76	50.01	0.04
	08-Dec-19	3.90	66.26	29.84	50.23	49.73	50.02	0.04
	09-Dec-19	15.35	73.33	11.32	50.19	49.71	49.97	0.06
	10-Dec-19	8.68	80.75	10.57	50.18	49.75	49.98	0.04
	11-Dec-19	15.89	69.56	14.55	50.19	49.65	49.98	0.07
	12-Dec-19	7.21	69.19	23.60	50.25	49.74	50.00	0.04
	13-Dec-19	6.18	65.22	28.60	50.29	49.83	50.02	0.05
	14-Dec-19	1.37	75.31	23.32	50.25	49.85	50.02	0.03
	15-Dec-19	5.29	60.78	33.94	50.34	49.74	50.03	0.06
	16-Dec-19	8.78	55.37	35.84	50.32	49.66	50.01	0.08
	17-Dec-19	3.95	75.43	20.63	50.23	49.73	50.01	0.03
	18-Dec-19	4.93	73.53	21.54	50.18	49.71	50.00	0.04
	19-Dec-19	6.50	67.60	25.89	50.22	49.79	50.01	0.04
	20-Dec-19	14.77	69.58	15.65	50.21	49.76	49.98	0.05
	21-Dec-19	3.04	79.40	17.56	50.20	49.82	50.01	0.03
	22-Dec-19	4.94	78.37	16.69	50.20	49.83	50.00	0.03
	23-Dec-19	10.22	74.13	15.65	50.17	49.75	49.99	0.04
	24-Dec-19	6.69	80.49	12.82	50.20	49.67	49.99	0.04
	25-Dec-19	7.35	76.74	15.91	50.19	49.73	49.99	0.04
	26-Dec-19	1.10	61.12	37.78	50.26	49.69	50.04	0.05
	27-Dec-19	2.05	67.80	30.15	50.24	49.81	50.02	0.04
	28-Dec-19	2.09	71.75	26.16	50.18	49.82	50.01	0.03
	29-Dec-19	3.41	70.37	26.22	50.21	49.77	50.01	0.04
	30-Dec-19	14.73	73.51	11.76	50.17	49.72	49.97	0.06
	31-Dec-19	12.70	73.23	14.07	50.16	49.75	49.98	0.05

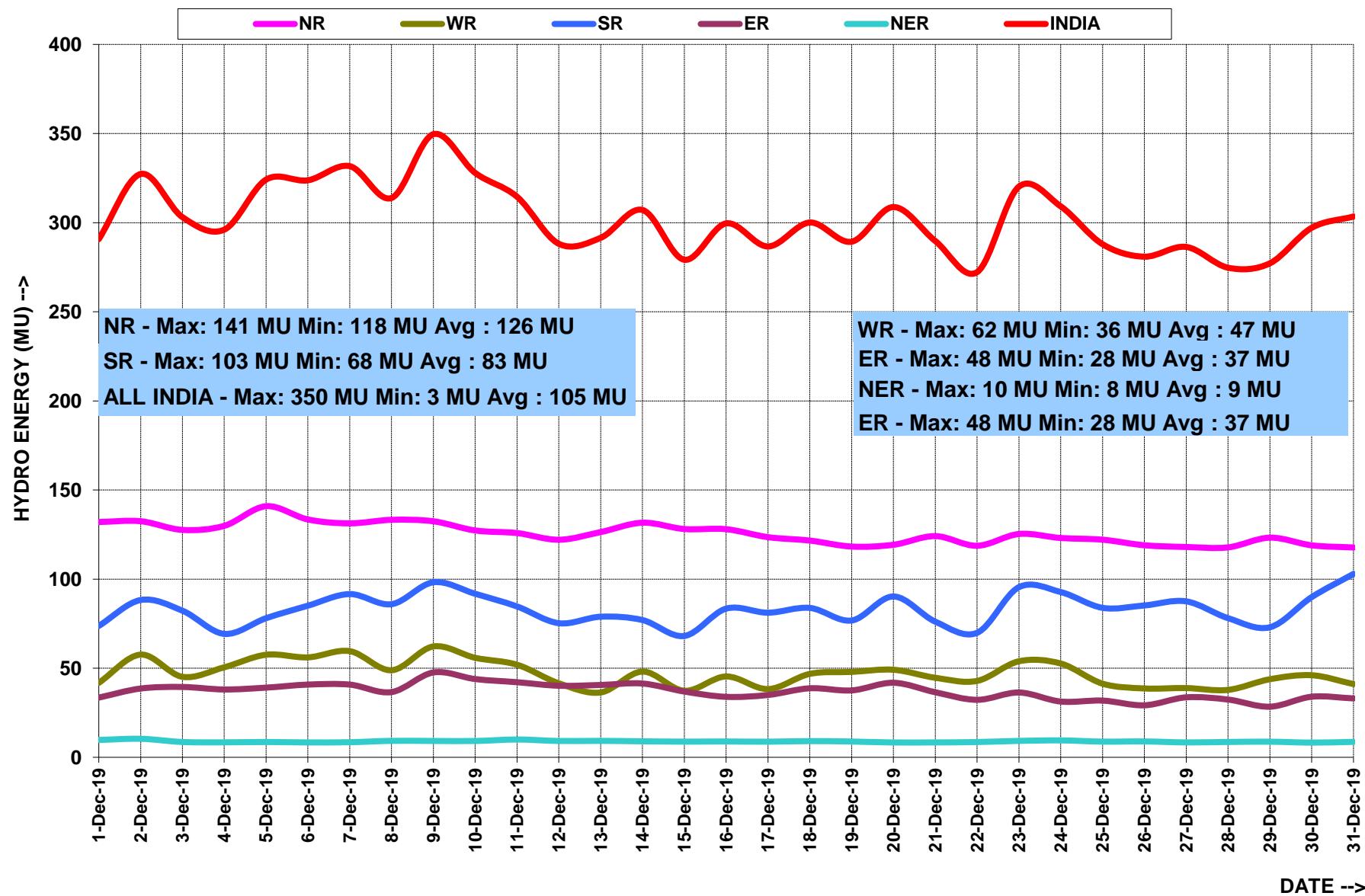
6. राष्ट्रीय स्तर पर जल विद्युत उत्पादन  
HYDRO GENERATION AT NATIONAL LEVEL

माह: दिसंबर 2019 MONTH:- DECEMBER 2019

सभी आंकड़े मिलियन यूनिट में All figures in MU

दिनांक Date	ऊतरी क्षे. NR	पश्चिमी क्षे. WR	दक्षिणी क्षे. SR	पूर्वी क्षे. ER	पूर्वोत्तर क्षे. NER	कुल TOTAL
01-Dec-19	132	42	74	34	10	291
02-Dec-19	132	58	88	39	10	327
03-Dec-19	128	45	82	39	9	303
04-Dec-19	130	51	69	38	8	296
05-Dec-19	141	58	78	39	9	324
06-Dec-19	133	56	85	41	8	324
07-Dec-19	131	60	92	41	8	332
08-Dec-19	133	49	86	37	9	314
09-Dec-19	132	62	98	48	9	350
10-Dec-19	127	56	92	44	9	328
11-Dec-19	126	52	85	42	10	315
12-Dec-19	122	42	75	40	9	288
13-Dec-19	126	36	79	41	9	291
14-Dec-19	132	48	77	41	9	307
15-Dec-19	128	37	68	37	9	279
16-Dec-19	128	45	83	34	9	300
17-Dec-19	124	38	81	35	9	287
18-Dec-19	122	47	84	39	9	300
19-Dec-19	118	48	77	38	9	289
20-Dec-19	119	49	90	42	8	309
21-Dec-19	124	45	76	37	8	290
22-Dec-19	119	43	70	32	9	272
23-Dec-19	125	54	95	36	9	320
24-Dec-19	123	53	93	31	9	309
25-Dec-19	122	41	84	32	9	288
26-Dec-19	119	39	85	29	9	281
27-Dec-19	118	39	87	34	8	286
28-Dec-19	118	38	78	32	9	275
29-Dec-19	123	44	73	28	9	277
30-Dec-19	119	46	90	34	8	297
31-Dec-19	118	41	103	33	9	303
कुल TOTAL	3893	1459	2578	1145	276	9352
उच्चतम MAXIMUM	141	62	103	48	10	350
निम्नतम MINIMUM	118	36	68	28	8	272
औसत AVERAGE	126	47	83	37	9	302
संचयी 2019-20 Cumulative 2019-20	68952	14249	25020	23897	4612	136730
अब तक का उच्चतम All Time Max.	389	167	208	145	37	816
दिनांक Date	18.08.15	18.12.14	31.08.18	15.09.19	03.07.19	09.09.19

## HYDRO ENERGY DURING THE MONTH OF DECEMBER' 2019



7. राष्ट्रीय स्तर पर पवन ऊर्जा उत्पादन  
WIND GENERATION AT NATIONAL LEVEL  
माह: दिसंबर 2019    MONTH:- DECEMBER 2019

सभी आंकड़े मिलियन यूनिट में All figures in MU

दिनांक Date	ऊतरी क्षे. NR	पश्चिमी क्षे. WR	दक्षिणी क्षे. SR	पूर्वी क्षे. ER	पूर्वोत्तर क्षे. NER	कुल TOTAL
01-Dec-19	17.3	56.3	32.7	-----	-----	106
02-Dec-19	12.9	70.8	38.5	-----	-----	122
03-Dec-19	12.3	80.0	52.0	-----	-----	144
04-Dec-19	10.4	67.0	62.8	-----	-----	140
05-Dec-19	19.2	60.5	47.7	-----	-----	127
06-Dec-19	23.5	55.7	61.5	-----	-----	141
07-Dec-19	20.3	72.0	40.8	-----	-----	133
08-Dec-19	15.0	62.2	36.7	-----	-----	114
09-Dec-19	6.1	46.6	44.9	-----	-----	98
10-Dec-19	3.9	22.7	36.8	-----	-----	63
11-Dec-19	5.4	10.5	24.5	-----	-----	40
12-Dec-19	12.3	25.4	31.2	-----	-----	69
13-Dec-19	2.6	25.3	35.7	-----	-----	64
14-Dec-19	7.6	33.2	37.3	-----	-----	78
15-Dec-19	17.0	79.3	39.6	-----	-----	136
16-Dec-19	14.1	96.0	41.3	-----	-----	151
17-Dec-19	15.5	103.4	57.4	-----	-----	176
18-Dec-19	8.3	64.3	55.2	-----	-----	128
19-Dec-19	5.3	33.5	62.8	-----	-----	102
20-Dec-19	3.7	17.5	32.1	-----	-----	53
21-Dec-19	20.2	38.5	48.3	-----	-----	107
22-Dec-19	22.4	84.5	47.2	-----	-----	154
23-Dec-19	17.5	64.6	44.0	-----	-----	126
24-Dec-19	20.1	53.2	37.6	-----	-----	111
25-Dec-19	16.3	58.4	37.0	-----	-----	112
26-Dec-19	3.9	51.0	18.5	-----	-----	73
27-Dec-19	4.0	73.4	22.4	-----	-----	100
28-Dec-19	10.6	82.7	41.0	-----	-----	134
29-Dec-19	18.7	68.3	38.3	-----	-----	125
30-Dec-19	15.8	58.4	40.0	-----	-----	114
31-Dec-19	23.4	49.5	28.8	-----	-----	102
कुल TOTAL	405.2	1764.7	1275.0	-----	-----	3445.0
उच्चतम MAXIMUM	23.5	103.4	62.8	-----	-----	176
निम्नतम MINIMUM	2.6	10.5	18.5	-----	-----	40
औसत AVERAGE	13.1	56.9	41.1	-----	-----	111
संचयी 2019-20 Cumulative 2019-20	5108.9	19512.1	24332.4	-----	-----	48953
अब तक का उच्चतम All Time Max.	71.3	199.3	245.5	...	...	467
दिनांक Date	14.07.19	27.07.19	20.07.18	...	...	12.06.18

\*Source: As reported by SLDCs. Limited visibility of embedded wind generator data.

8. राष्ट्रीय स्तर पर सौर ऊर्जा उत्पादन  
SOLAR GENERATION AT NATIONAL LEVEL

माह: दिसंबर 2019      MONTH:- DECEMBER 2019

सभी आंकड़े मिलियन यूनिट में All figures in MU

दिनांक Date	ऊतरी क्षे. NR	पश्चिमी क्षे. WR	दक्षिणी क्षे. SR	पूर्वी क्षे. ER	पूर्वोत्तर क्षे. NER	कुल TOTAL
01-Dec-19	28	16	37	2	0.0	83
02-Dec-19	31	18	35	2	0.0	86
03-Dec-19	32	20	39	2	0.0	93
04-Dec-19	29	19	62	2	0.0	112
05-Dec-19	27	18	63	2	0.1	109
06-Dec-19	25	15	61	2	0.0	103
07-Dec-19	28	21	68	2	0.0	119
08-Dec-19	29	21	56	2	0.0	108
09-Dec-19	28	19	75	2	0.0	124
10-Dec-19	28	20	74	2	0.0	123
11-Dec-19	20	21	77	2	0.0	119
12-Dec-19	8	17	80	2	0.0	107
13-Dec-19	19	21	82	1	0.0	123
14-Dec-19	28	22	65	2	0.0	116
15-Dec-19	22	21	72	2	0.0	116
16-Dec-19	24	20	83	2	0.0	128
17-Dec-19	25	20	73	2	0.0	120
18-Dec-19	28	20	65	2	0.0	116
19-Dec-19	24	21	76	2	0.0	122
20-Dec-19	26	21	70	2	0.0	118
21-Dec-19	28	21	74	2	0.0	125
22-Dec-19	31	19	77	2	0.0	129
23-Dec-19	31	18	71	2	0.0	121
24-Dec-19	26	18	77	2	0.0	122
25-Dec-19	23	18	73	1	0.0	116
26-Dec-19	25	19	65	1	0.0	110
27-Dec-19	30	24	76	2	0.0	131
28-Dec-19	27	24	75	2	0.0	128
29-Dec-19	26	20	77	2	0.0	124
30-Dec-19	25	20	77	2	0.0	124
31-Dec-19	15	19	68	2	0.1	105
कुल TOTAL	794	609	2123	54	1.0	3582
उच्चतम MAXIMUM	32	24	83	2	0.05	131
निम्नतम MINIMUM	8	15	35	1	0.01	83
औसत AVERAGE	26	20	68	2	0.03	116
संचयी 2019-20 Cumulative 2019-20	7104	5420	19478	519	10.0	32531
अब तक का उच्चतम All Time Max.	35	28	92	3	0.24	147
दिनांक Date	28.05.19	20.04.19	25.04.19	05.08.19	22.11.19	28.05.19

\*Source: RLDCs for solar connected to ISTS; SLDCs for embedded solar. Limited visibility of embedded solar data.

**9. राष्ट्रीय स्तर पर दैनिक अधिकतम विद्युत मांग पूर्ति**  
**DAILY MAXIMUM DEMAND MET AT NATIONAL LEVEL**

माह: दिसंबर 2019      MONTH:- DECEMBER 2019

सभी आंकड़े मेगावाट मे All figures in MW

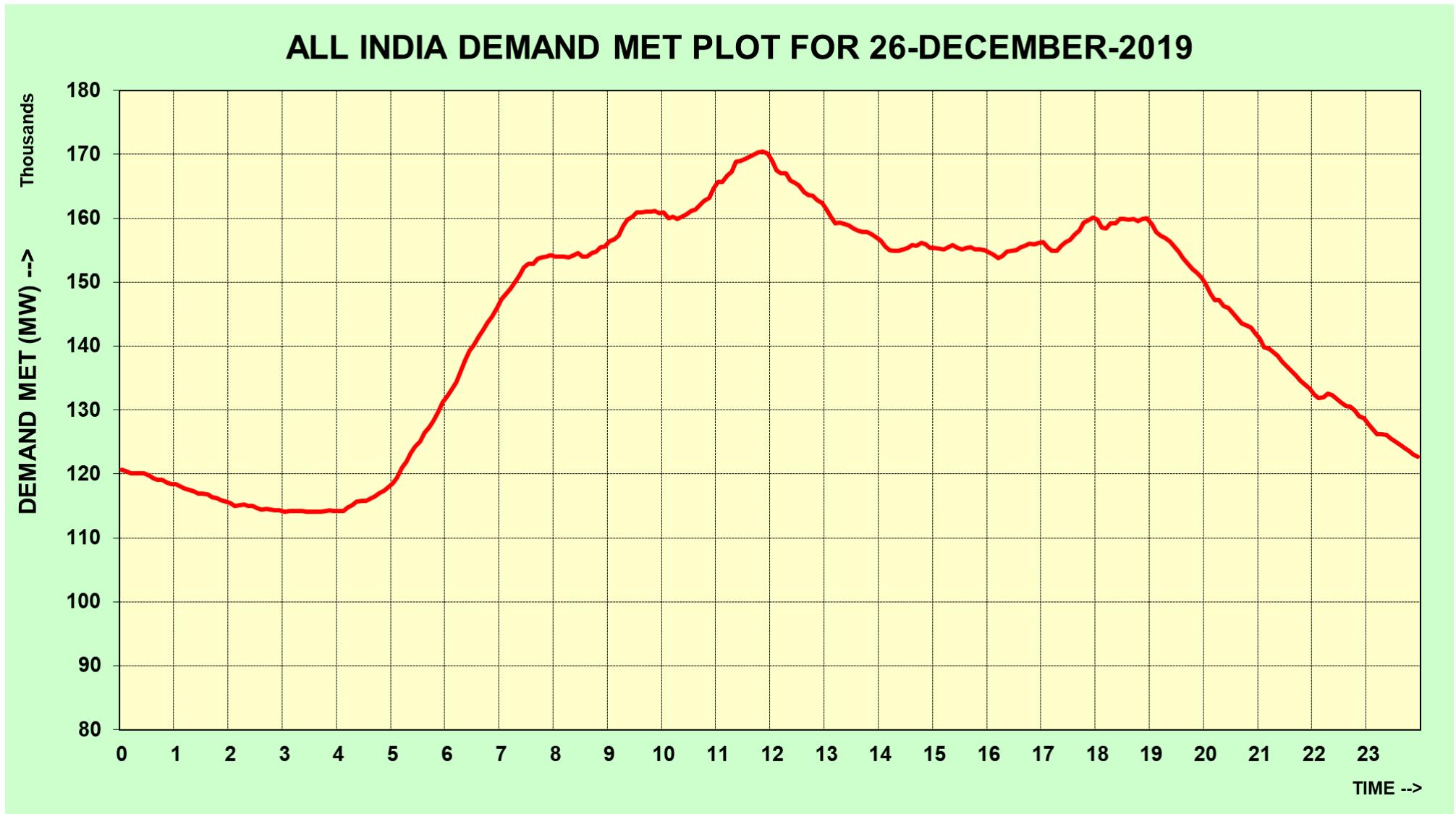
दिनांक Date	ऊतरी क्षे. NR	पश्चिमी क्षे. WR	दक्षिणी क्षे. SR	पूर्वी क्षे. ER	पूर्वोत्तर क्षे. NER	कुल TOTAL	विभिन्नता फैक्टर Diversity Factor*
01-Dec-19	39073	50397	34786	17879	2369	139317	1.037
02-Dec-19	42849	52276	37003	18485	2426	148420	1.031
03-Dec-19	42947	52507	38532	18542	2497	150537	1.030
04-Dec-19	44607	53763	39248	18100	2478	152488	1.037
05-Dec-19	45103	53904	39387	18007	2538	152508	1.042
06-Dec-19	45110	53785	40421	18402	2448	153033	1.047
07-Dec-19	44632	53818	39269	17770	2492	152491	1.036
08-Dec-19	41928	52446	35801	17337	2355	144911	1.034
09-Dec-19	45064	54172	39856	18120	2414	152932	1.044
10-Dec-19	46088	54747	40969	18280	2312	155854	1.042
11-Dec-19	45758	54119	41630	18455	2409	156472	1.038
12-Dec-19	43291	54179	42590	18261	2288	155121	1.035
13-Dec-19	41204	49850	44592	17548	2360	149581	1.040
14-Dec-19	43144	51602	42336	18337	2339	150446	1.049
15-Dec-19	41584	50817	38413	17248	2222	143873	1.045
16-Dec-19	45104	51698	42541	17472	2341	151942	1.047
17-Dec-19	46177	52276	43102	17920	2429	155445	1.042
18-Dec-19	46969	51553	44135	18074	2482	155993	1.046
19-Dec-19	47191	53601	43904	18300	2424	158769	1.042
20-Dec-19	47720	54180	45670	18151	2458	162824	1.033
21-Dec-19	47168	54736	45235	18112	2535	162031	1.036
22-Dec-19	46823	53950	41907	17586	2373	158388	1.027
23-Dec-19	49367	55629	45829	17853	2533	165904	1.032
24-Dec-19	49887	55241	46530	18309	2513	167931	1.027
25-Dec-19	49882	54934	44318	18158	2444	164688	1.031
26-Dec-19	50760	55184	48582	18139	2493	170493	1.027
27-Dec-19	51235	53642	46574	18650	2422	168917	1.021
28-Dec-19	50948	54216	44758	18812	2472	165643	1.034
29-Dec-19	48922	53146	42395	18422	2357	160081	1.032
30-Dec-19	51581	54947	44383	18752	2387	166508	1.033
31-Dec-19	51465	55086	46002	18823	2457	169360	1.026
उच्चतम MAXIMUM	51581	55629	48582	18823	2538	170493	1.049
निम्नतम MINIMUM	39073	49850	34786	17248	2222	139317	1.021
औसत AVERAGE	46245	53432	42281	18139	2422	156868	1.036
अब तक का उच्चतम All Time Max.	66687	58081	49648	23783	3145	182610	
दिनांक Date	03.07.19	16.10.18	29.03.19	14.06.19	07.09.19	30.05.19	

\* Diversity factor = (Sum of regional max demands) / All India max demand

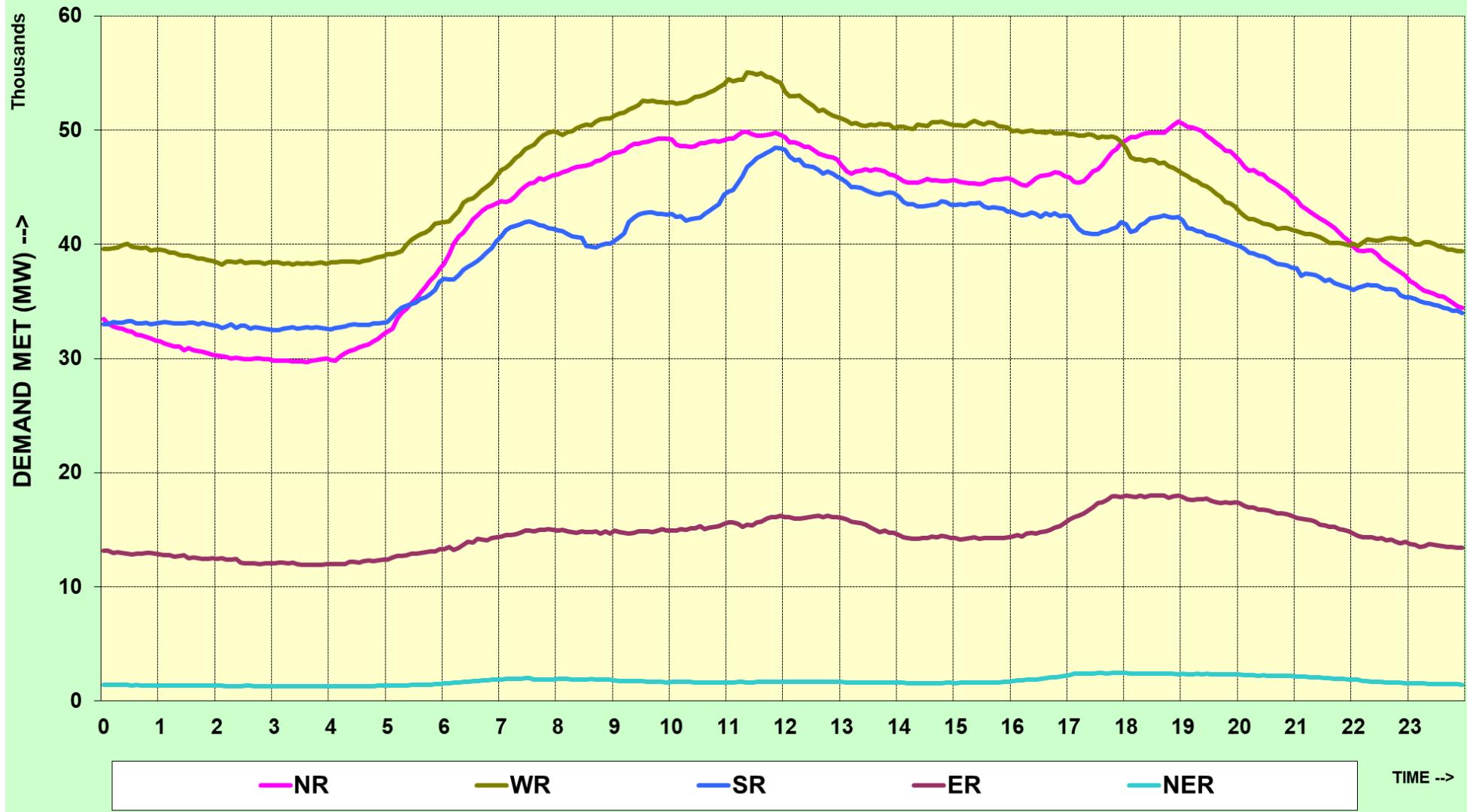
नोट : यह आंकड़े एनएलडीसी स्काडा प्रणाली में दर्ज दैनिक अधिकतम मांगपूर्ति दर्शाते हैं।

Note: The above figures denote daily maximum demand met recorded in NLDC SCADA.

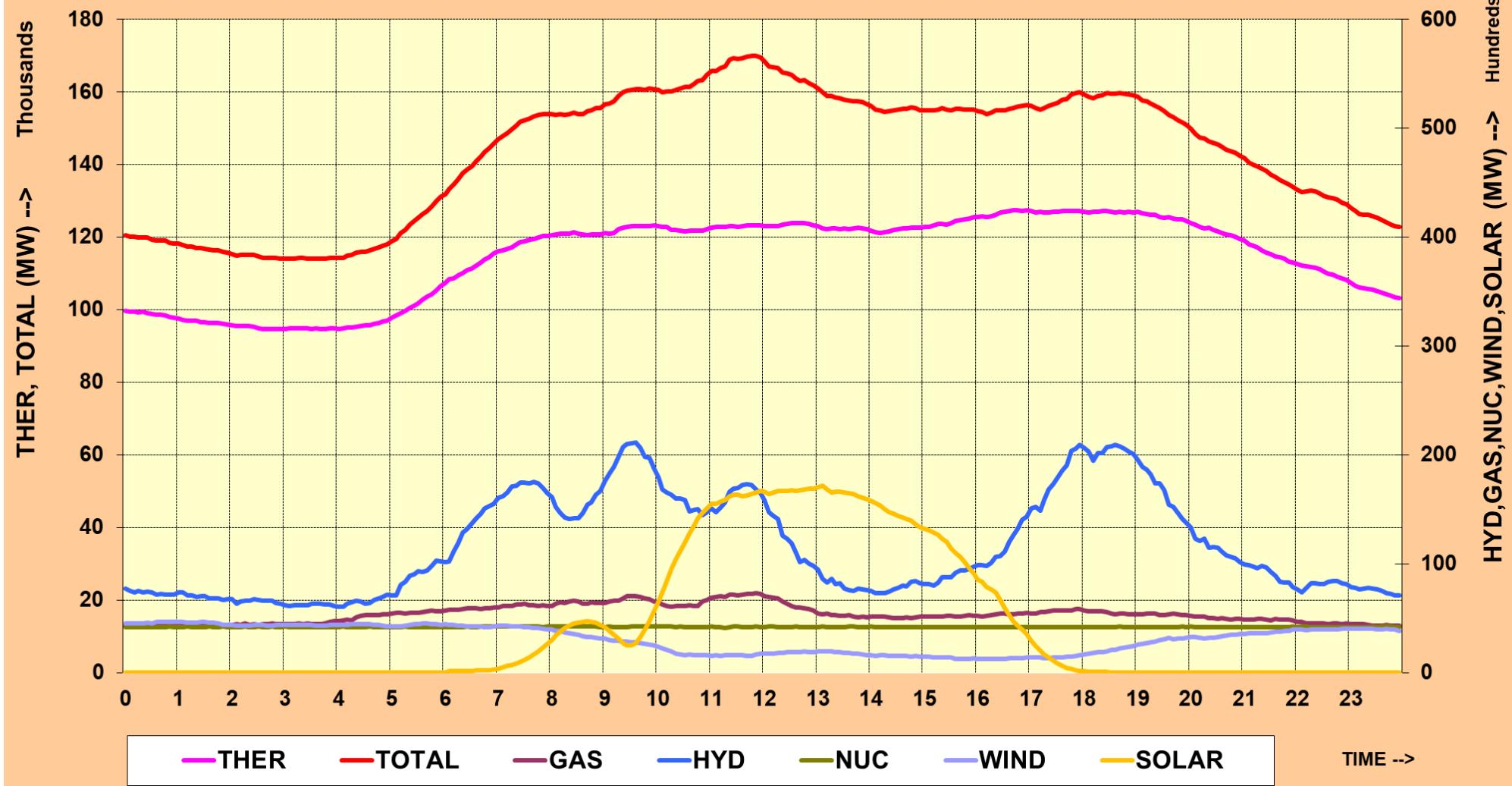
## 10. DEMAND AND GENERATION PLOTS FOR 26-DECEMBER (MAXIMUM DEMAND MET)



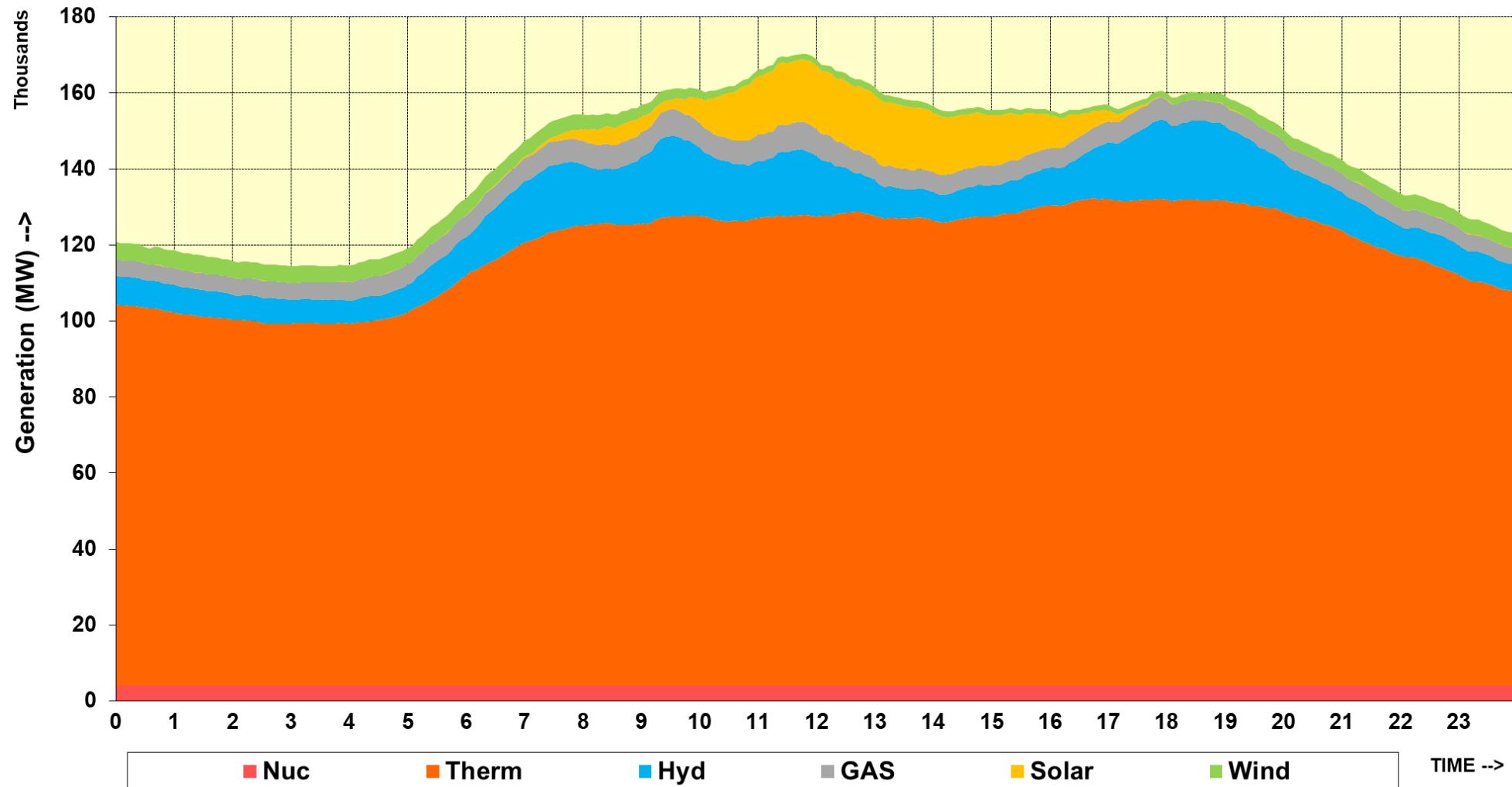
## REGIONAL DMD MET PLOT FOR 26-DECEMBER-2019



## ALL INDIA GENERATION PLOT FOR 26-DECEMBER-2019



## ALL INDIA FUEL-WISE GENERATION PATTERNS FOR 26-DECEMBER-2019



26 दिसंबर 2019 (अधिकतम माँग) की आल इंडिया माँग आपूर्ति  
ALL INDIA DEMAND MET FOR 26 DECEMBER-2019 (MAXIMUM DEMAND\*)

Time Block	All India Demand (MW)		Time Block	All India Demand (MW)
1	120400		49	167495
2	120076		50	165875
3	119268		51	164060
4	118592		52	162895
5	118118		53	160231
6	117295		54	159080
7	116765		55	158053
8	115943		56	157573
9	114995		57	155563
10	115051		58	154966
11	114399		59	155774
12	114290		60	155895
13	114176		61	155244
14	114183		62	155765
15	114097		63	155357
16	114334		64	155176
17	114209		65	154360
18	115636		66	154792
19	116191		67	155468
20	117377		68	155938
21	119433		69	155518
22	123272		70	155734
23	126423		71	157470
24	129769		72	159681
25	133163		73	158511
26	137827		74	159202
27	141480		75	159772
28	144627		76	159850
29	148141		77	157810
30	151011		78	156339
31	152862		79	153745
32	154059		80	151524
33	154036		81	148197
34	154200		82	146269
35	154004		83	144359
36	155437		84	142859
37	156728		85	139872
38	159732		86	138431
39	160900		87	136100
40	161196		88	133963
41	160068		89	131866
42	160278		90	132353
43	161330		91	130683
44	163198		92	129078
45	165657		93	127020
46	168804		94	126127
47	169631		95	124666
48	170492		96	123076

\* 15 minute interval SCADA DATA

**11. ACTUAL POWER SUPPLY POSITION - DECEMBER 2019**

REGION	STATE	Requirement/Availability in MU/DAY			Requirement/Availability in MU				Peak Demand/Peak Met in MW			
		Requirement	Energy met	Surplus(+)/Deficit(-)	Requirement	Energy met	Surplus(+)/Deficit(-)	% Shortage	Requirement	Peak Demand Met	Surplus(+)/Deficit(-)	% Shortage
NR	Chandigarh	4	4	0.0	125	125	0	0.0	306	306	0	0.0
	Delhi	70	70	0.0	2157	2157	0	0.0	5261	5245	-16	-0.3
	Haryana	120	120	-0.1	3715	3712	-2	-0.1	7049	7049	0	0.0
	Himachal Pradesh	30	30	-0.1	918	916	-2	-0.2	1729	1729	0	0.0
	J&K	60	48	-11.3	1845	1496	-349	-18.9	3104	2484	-620	-20.0
	Punjab	110	110	0.0	3420	3420	0	0.0	6720	6720	0	0.0
	Rajasthan	225	225	0.0	6965	6965	0	0.0	13464	13464	0	0.0
	Uttar Pradesh	261	260	-0.6	8093	8074	-19	-0.2	17712	17412	-300	-1.7
	Uttarakhand	37	37	-0.1	1144	1142	-2	-0.2	2233	2233	0	0.0
	NFF/Railway	2	2	0.0	73	73	0	0.0	131	131	0	0.0
WR	TOTAL	918	906	-12.1	28455	28080	-374	-1.3	52234	51159	-1075	-2.1
	Gujarat	322	322	0.0	9995	9995	0	0.0	16148	16097	-51	-0.3
	Madhya Pradesh	247	247	-0.1	7669	7666	-3	0.0	14667	14623	-44	-0.3
	Chhattisgarh	75	75	0.0	2335	2335	0	0.0	3805	3767	-38	-1.0
	Maharashtra	440	440	0.0	13653	13653	0	0.0	22411	22403	-8	0.0
	Goa	13	13	-0.4	399	388	-11	-2.8	625	625	0	0.0
	D&D	7	7	0.0	219	219	0	0.0	338	338	0	0.0
	DNH	19	19	0.0	578	578	0	0.0	821	821	0	0.0
	ESIL	6	6	0.0	186	186	0	0.0	908	908	0	0.0
SR	TOTAL	1130	1130	-0.5	35033	35018	-14	0.0	57019	56739	-279	-0.5
	Andhra Pradesh	163	155	-7.6	5049	4813	-236	-4.7	9118	9118	0	0.0
	Telangana	167	191	24.0	5182	5928	745	14.4	11182	11182	0	0.0
	Karnataka	168	185	17.9	5194	5750	555	10.7	12803	12803	0	0.0
	Kerala	68	68	0.0	2095	2094	-1	0.0	3716	3716	0	0.0
	Tamil Nadu	266	253	-13.4	8246	7831	-415	-5.0	13978	13978	0	0.0
	Pondicherry	7	6	-0.4	212	200	-12	-5.8	373	373	0	0.0
ER	TOTAL	838	859	20.5	25979	26615	636	2.4	48664	48664	0	0.0
	Bihar	70	70	-0.3	2165	2156	-9	-0.4	5101	4625	-476	-9.3
	Jharkhand	25	25	-0.1	785	783	-2	-0.3	1439	1355	-84	-5.8
	DVC	67	67	0.0	2077	2077	0	0.0	2936	2936	0	0.0
	Odisha	72	72	0.0	2227	2227	0	0.0	4217	4217	0	0.0
	West Bengal	116	116	-0.1	3605	3602	-3	-0.1	6247	6225	-22	-0.4
	Sikkim	2	2	0.0	54	54	0	0.0	133	133	0	0.0
NER	TOTAL	352	352	-0.4	10912	10898	-14	-0.1	18869	18869	0	0.0
	Arunachal Pradesh	2	2	0.0	67	66	0	-0.4	139	139	0	0.0
	Assam	21	21	-0.3	664	655	-9	-1.4	1380	1380	0	0.0
	Manipur	3	3	0.0	91	91	0	-0.5	216	216	0	0.0
	Meghalaya	6	6	-0.1	188	185	-3	-1.8	365	365	0	0.0
	Mizoram	2	2	0.0	58	58	0	-0.5	126	125	0	-0.2
	Nagaland	2	2	0.0	73	73	0	-0.4	167	153	-14	-8.4
	Tripura	5	5	0.0	163	163	0	0.0	224	224	0	0.0
	TOTAL	42	42	-0.5	1305	1291	-14	-1.1	2617	2602	-14	-0.5
	ALL INDIA	3280	3287	7.1	101684	101904	220	0.2	179402	178034	-1369	-0.8

12. ENERGY COMPARISON OF DECEMBER 2019 vs DECEMBER 2018											
REGION	STATE	Energy Requirement (MU)					Energy Met (MU)				
		Dec-18	Dec-19	Difference	% Change	Average MU/day for Dec-19	Dec-18	Dec-19	Difference	% Change	Average MU/day for Dec-19
NR	Chandigarh	105	125	20	19	4	105	125	20	19	4
	Delhi	2002	2157	156	8	70	2001	2157	156	8	70
	Haryana	3821	3715	-106	-3	120	3818	3712	-106	-3	120
	Himachal Pradesh	891	918	27	3	30	886	916	30	3	30
	J&K	1855	1845	-10	-1	60	1506	1496	-10	-1	48
	Punjab	3779	3420	-360	-10	110	3749	3420	-329	-9	110
	Rajasthan	7207	6965	-242	-3	225	7207	6965	-242	-3	225
	Uttar Pradesh	8441	8093	-348	-4	261	8383	8074	-309	-4	260
	Uttarakhand	1155	1144	-11	-1	37	1153	1142	-11	-1	37
	NFF/Railway	85	73	-11	-14	2	85	73	-11	-14	2
	TOTAL	29342	28455	-887	-3	918	28893	28080	-813	-3	906
WR	Gujarat	9963	9995	32	0	322	9953	9995	42	0	322
	Madhya Pradesh	8102	7669	-433	-5	247	8094	7666	-429	-5	247
	Chhattisgarh	2290	2335	45	2	75	2288	2335	47	2	75
	Maharashtra	12902	13653	751	6	440	12902	13653	751	6	440
	Goa	303	399	96	32	13	303	388	85	28	13
	D&D	210	219	9	4	7	210	219	9	4	7
	DNH	528	578	50	9	19	528	578	50	9	19
	ESIL	332	186	-146	-44	6	332	186	-146	-44	6
	TOTAL	34630	35033	403	1	1130	34610	35018	408	1	1130
SR	Andhra Pradesh	5098	5049	-48	-1	163	5096	4813	-282	-6	155
	Telangana	5297	5182	-115	-2	167	5295	5928	633	12	191
	Karnataka	6354	5194	-1160	-18	168	6351	5750	-601	-9	185
	Kerala	2170	2095	-75	-3	68	2163	2094	-69	-3	68
	Tamil Nadu	8807	8246	-561	-6	266	8803	7831	-972	-11	253
	Pondicherry	205	212	7	4	7	205	200	-5	-2	6
	TOTAL	27931	25979	-1952	-7	838	27912	26615	-1296	-5	859
ER	Bihar	2187	2165	-22	-1	70	2181	2156	-25	-1	70
	Jharkhand	776	785	9	1	25	738	783	45	6	25
	DVC	2097	2077	-20	-1	67	2097	2077	-20	-1	67
	Odisha	2181	2227	46	2	72	2181	2227	46	2	72
	West Bengal	3560	3605	45	1	116	3555	3602	47	1	116
	Sikkim	51	54	3	7	2	51	54	3	7	2
	TOTAL	10851	10912	61	1	352	10802	10898	96	1	352
NER	Arunachal Pradesh	75	67	-9	-12	2	75	66	-9	-12	2
	Assam	732	664	-68	-9	21	677	655	-23	-3	21
	Manipur	89	91	3	3	3	89	91	2	2	3
	Meghalaya	192	188	-3	-2	6	192	185	-7	-4	6
	Mizoram	55	58	4	7	2	53	58	5	9	2
	Nagaland	72	73	1	1	2	71	73	2	3	2
	Tripura	175	163	-12	-7	5	164	163	-1	0	5
	TOTAL	1390	1305	-85	-6	42	1321	1291	-30	-2	42
ALL INDIA		104143	101684	-2459	-2	3280	111974	101904	-1635	-1	3287

**13. DEMAND COMPARISON OF DECEMBER 2019 vs DECEMBER 2018**

REGION	STATE	Peak Requirement (MW)				Peak Met (MW)			
		Dec-18	Dec-19	Difference	% Change	Dec-18	Dec-19	Difference	% Change
NR	Chandigarh	251	306	55	21.9	251	306	55	21.9
	Delhi	4396	5261	865	19.7	4396	5245	849	19.3
	Haryana	6865	7049	184	2.7	6865	7049	184	2.7
	Himachal Pradesh	1700	1729	29	1.7	1700	1729	29	1.7
	J&K	3080	3104	24	0.8	2464	2484	20	0.8
	Punjab	6448	6720	272	4.2	6448	6720	272	4.2
	Rajasthan	13276	13464	188	1.4	13276	13464	188	1.4
	Uttar Pradesh	14706	17712	3006	20.4	14706	17412	2706	18.4
	Uttarakhand	2158	2233	75	3.5	2158	2233	75	3.5
	NFF/Railway	115	131	16	14.3	115	131	16	14.3
WR	Gujarat	15379	16148	769	5	15347	16097	750	4.9
	Madhya Pradesh	14019	14667	648	5	14019	14623	604	4.3
	Chhattisgarh	3640	3805	165	5	3627	3767	140	3.9
	Maharashtra	22063	22411	348	2	22001	22403	402	1.8
	Goa	513	625	113	22	512	625	114	22.2
	D&D	328	338	10	3.0	328	338	10	3.0
	DNH	803	821	18	2.2	803	821	18	2.2
	ESIL	898	908	10	1.1	898	908	10	1.1
SR	Andhra Pradesh	9439	9118	-321	-3.4	9416	9118	-298	-3.2
	Telangana	10829	11182	353	3.3	10818	11182	364	3.4
	Karnataka	10090	12803	2713	26.9	10090	12803	2713	26.9
	Kerala	3725	3716	-9	-0.2	3653	3716	64	1.7
	Tamil Nadu	14971	13978	-993	-6.6	14946	13978	-969	-6.5
	Pondicherry	359	373	14	3.8	359	373	14	3.9
ER	Bihar	4272	5101	829	19.4	4272	4625	353	8.3
	Jharkhand	1423	1439	16	1.1	1274	1355	81	6.4
	DVC	2889	2936	47	1.6	2889	2936	47	1.6
	Odisha	4045	4217	171	4.2	4045	4217	171	4.2
	West Bengal	6270	6247	-22	-0.4	6234	6225	-8	-0.1
	Sikkim	108	133	25	23.1	108	133	25	23.1
NER	Arunachal Pradesh	133	139	6	4.5	131	139	8	6.1
	Assam	1442	1380	-62	-4.3	1418	1380	-38	-2.7
	Manipur	214	216	2	0.9	211	216	5	2.4
	Meghalaya	366	365	-1	-0.2	366	365	-1	-0.2
	Mizoram	112	126	14	12.4	111	125	15	13.2
	Nagaland	135	167	32	23.5	133	153	20	14.9
	Tripura	240	224	-16	-6.6	228	224	-4	-1.7

**14. SCHEDULE AND DRAWAL OF CONSTITUENTS - DECEMBER 2019**

REGION	STATE	SCHEDULE (MU)	ACTUAL DRAWAL (MU)	Over drawal(+)/ Under Drawal(-) (MU)	% OD/UD	SCHEDULE (MU/DAY)	ACTUAL DRAWAL (MU/DAY)	Over drawal(+)/ Under Drawal(-) (MU/DAY)
NR	Chandigarh	119.30	127.09	7.79	6.53	3.85	4.10	0.25
	Delhi	1743.34	1731.09	-12.25	-0.70	56.24	55.84	-0.40
	Haryana	2739.48	2755.84	16.36	0.60	88.37	88.90	0.53
	Himachal Pradesh	685.04	685.93	0.89	0.13	22.10	22.13	0.03
	J&K	1270.83	1340.16	69.33	5.46	40.99	43.23	2.24
	Punjab	1660.31	1627.33	-32.97	-1.99	53.56	52.49	-1.06
	Rajasthan	1949.79	1971.43	21.64	1.11	62.90	63.59	0.70
	Uttar Pradesh	3345.75	3364.52	18.77	0.56	107.93	108.53	0.61
	Uttarakhand	670.32	675.70	5.38	0.80	21.62	21.80	0.17
	NFF/Railway	77.58	79.11	1.53	1.98	2.50	2.55	0.05
WR	Gujarat	2680.93	2670.39	-10.54	-0.39	86.48	86.14	-0.34
	Madhya Pradesh	4009.43	3906.65	-102.78	-2.56	129.34	126.02	-3.32
	Maharashtra	4341.40	4259.27	-82.13	-1.89	140.05	137.40	-2.65
	Chhattisgarh	589.44	576.85	-12.59	-2.14	19.01	18.61	-0.41
	Goa	360.88	371.42	10.54	2.92	11.64	11.98	0.34
	D&D	202.79	218.70	15.91	7.85	6.54	7.05	0.51
	D&NH	577.61	577.68	0.07	0.01	18.63	18.63	0.00
	ESIL	186.30	186.23	-0.07	-0.04	6.01	6.01	0.00
SR	Andhra Pradesh	2203.15	2198.00	-5.15	-0.23	71.07	70.90	-0.17
	Telangana	2977.46	2997.06	19.60	0.66	96.05	96.68	0.63
	Karnataka	1325.22	1337.34	12.12	0.91	42.75	43.14	0.39
	Kerala	1712.57	1749.40	36.83	2.15	55.24	56.43	1.19
	Tamil Nadu	4597.85	4599.01	1.16	0.03	148.32	148.36	0.04
	Pondicherry	220.67	206.89	-13.78	-6.24	7.12	6.67	-0.44
	Goa (SR)	4.12	4.19	0.07	1.70	0.13	0.14	0.00
ER	Bihar	2123.59	2111.46	-12.13	-0.57	68.50	68.11	-0.39
	Jharkhand	507.81	512.14	4.33	0.85	16.38	16.52	0.14
	DVC	-981.88	-972.83	9.05	-0.92	-31.67	-31.38	0.29
	Odisha	355.84	357.69	1.85	0.52	11.48	11.54	0.06
	West Bengal	785.52	800.92	15.41	1.96	25.34	25.84	0.50
	Sikkim	50.08	54.23	4.14	8.28	1.62	1.75	0.13
NER	Arunachal Pradesh	58.32	61.91	3.59	6.16	1.88	2.00	0.12
	Assam	523.56	532.07	8.51	1.63	16.89	17.16	0.27
	Manipur	89.79	90.64	0.85	0.95	2.90	2.92	0.03
	Meghalaya	86.31	103.10	16.79	19.46	2.78	3.33	0.54
	Mizoram	32.58	33.85	1.26	3.87	1.05	1.09	0.04
	Nagaland	68.07	67.02	-1.04	-1.53	2.20	2.16	-0.03
	Tripura	48.19	39.45	-8.74	-18.13	1.55	1.27	-0.28

15. INTER REGIONAL EXCHANGES 2019-20										
(All figures in MU)										
	Apr'19	May'19	June'19	July'19	Aug'19	Sep'19	Oct'19	Nov'19	Dec'19	Fin. Year 2019-20
<b>Name of Line</b>										
<b>Import of NR from WR (WR-NR)</b>										
WR - NR 765 kV Gwalior - Agra 2xS/C	1152.39	1244.91	1416.19	1297.61	1447.53	1311.86	1211.67	1090.46	1333.15	<b>11505.77</b>
WR-NR 765 kV Gwalior - Phagi 2xS/C	470.99	631.50	646.70	611.93	537.61	678.68	597.27	605.94	649.85	<b>5430.47</b>
WR-NR 765 kV Jabalpur-Orai D/C	656.16	897.10	1027.49	1072.40	1063.24	975.66	850.73	783.33	856.46	<b>8182.57</b>
WR-NR 765 kV Satna-Orai	815.18	906.34	895.23	862.62	866.64	892.99	891.91	813.80	889.42	<b>7834.13</b>
WR-NR 765 kV Gwalior-Orai	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.00</b>
WR - NR HVDC Champa - Kurukshtera	569.10	815.03	1194.11	1055.41	1242.77	1017.24	600.32	570.13	819.77	<b>7883.88</b>
WR - NR HVDC VindhyaChal	1.11	2.86	13.95	42.93	1.76	48.23	0.00	0.00	41.17	<b>152.01</b>
WR - NR 400 kV Zerda Kankroli	0.00	5.02	3.73	6.80	44.58	33.60	18.49	3.08	4.44	<b>119.74</b>
WR - NR 400 kV Zerda Bhinmal	5.65	16.43	5.33	11.37	50.94	69.01	74.84	31.47	54.25	<b>319.29</b>
WR - NR 400 kV RAPP C - Shujalpur D/C	59.58	41.48	91.68	100.54	105.67	147.75	79.35	13.79	29.46	<b>669.30</b>
WR - NR 220 kV Bhanpura - Ranpur	17.93	18.97	25.29	48.34	33.57	21.32	23.80	3.60	1.78	<b>194.60</b>
WR - NR 220 kV Bhanpura - Modak	34.44	39.16	47.10	62.86	44.21	39.69	36.58	10.66	38.31	<b>353.01</b>
WR - NR 220 kV Auraiya - Malanpur/Mehgaon	0.00	5.00	4.62	4.53	3.92	5.17	3.72	0.00	0.00	<b>26.96</b>
WR - NR 400 kV VindhyaChal-Rihand D/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.00</b>
WR - NR HVDC Mundra - Mohindergarh	925.79	1040.00	1160.33	1077.14	925.72	986.15	938.90	915.72	993.83	<b>8963.58</b>
WR-NR 765 kV Banaskata-Chittorgarh D/C	13.09	156.24	107.36	197.65	455.80	396.61	287.41	163.68	192.70	<b>1970.54</b>
<b>Total WR - NR</b>	<b>4721.41</b>	<b>5820.04</b>	<b>6639.11</b>	<b>6452.13</b>	<b>6823.96</b>	<b>6623.96</b>	<b>5614.99</b>	<b>5005.66</b>	<b>5904.59</b>	<b>53605.85</b>
<b>Export of NR to WR (NR-WR)</b>										
NR - WR 765 kV Gwalior - Agra 2xS/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.00</b>
NR - WR 765 kV Gwalior - Phagi 2xS/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.00</b>
NR - WR 765 kV Jabalpur-Orai D/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.00</b>
NR - WR 765 kV Satna-Orai	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>1.00</b>
NR - WR 765 kV Gwalior-Orai	280.55	254.42	262.28	238.53	217.80	187.37	223.43	299.41	320.93	<b>2284.72</b>
NR - WR HVDC Champa-Kurukshtera	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.00</b>
NR - WR HVDC VindhyaChal	173.15	215.47	300.88	193.16	267.98	196.37	307.93	271.11	227.86	<b>2153.91</b>
NR - WR 400 kV Zerda Kankroli	78.46	33.35	31.33	25.34	1.63	0.00	1.81	16.48	16.92	<b>205.32</b>
NR - WR 400 kV Zerda Bhinmal	19.25	13.28	55.90	81.72	11.56	1.37	0.74	8.20	1.71	<b>193.73</b>
NR - WR 400 kV RAPP C - Shujalpur D/C	4.59	7.94	3.53	0.02	0.12	0.00	0.00	14.87	0.71	<b>31.78</b>
NR - WR 220 kV Bhanpura - Ranpur	1.29	4.19	0.24	0.00	0.00	0.00	0.00	18.62	11.79	<b>36.13</b>
NR - WR 220 kV Bhanpura - Modak	1.33	0.26	0.26	0.00	0.00	0.00	0.00	0.88	0.48	<b>3.21</b>
NR - WR 220 kV Auraiya - Malanpur/Mehgaon	17.97	6.03	7.48	19.88	18.09	15.39	15.41	46.21	39.96	<b>186.42</b>
NR-WR 400 kV Rihand-VindhyaChal D/C	664.93	617.60	676.01	694.67	658.13	679.01	681.32	683.68	695.74	<b>6051.09</b>
NR - WR HVDC Mundra - Mohindergarh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.00</b>
NR - WR 765 kV Banaskata-Chittorgarh D/C	55.96	10.95	23.17	12.01	12.01	0.00	0.00	0.86	0.00	<b>114.96</b>
<b>Total NR - WR</b>	<b>1297.48</b>	<b>1164.49</b>	<b>1361.08</b>	<b>7439.22</b>	<b>1187.32</b>	<b>1079.51</b>	<b>1230.64</b>	<b>1360.32</b>	<b>1316.10</b>	<b>17436.16</b>
<b>Import of NR from ER (ER-NR)</b>										
ER - NR 765 kV Sasaram - Fatehpur	96.69	43.72	16.45	9.45	1.57	20.21	17.63	159.05	176.90	<b>541.67</b>
ER - NR 765 kV Gaya - Varanasi 2*S/C	173.75	63.31	139.42	147.90	32.23	173.58	119.93	302.64	386.85	<b>1539.61</b>
ER - NR 765 kV Gaya - Balia	134.05	128.29	243.21	211.82	168.52	183.08	162.52	200.17	212.15	<b>1643.81</b>
ER - NR HVDC Alipurduar - Agra	0.00	428.84	387.93	1109.50	799.07	802.30	472.84	44.92	26.14	<b>4071.54</b>
ER-NR 400 kV Patna - Balia 2xD/C	421.79	418.86	504.99	385.02	316.11	500.32	475.40	565.22	529.00	<b>4116.71</b>
ER - NR 400 kV Muzaffarpur - Gorakhpur D/C	335.11	345.54	273.69	254.56	222.87	381.38	291.54	388.41	386.12	<b>2879.22</b>
ER - NR 400 kV Biharshariff - Balia D/C	167.78	210.21	199.78	149.39	115.15	143.46	105.23	152.15	217.50	<b>1460.65</b>
ER - NR 400 kV Motihari - Gorakhpur D/C	154.73	177.28	99.63	106.95	52.72	7.47	0.00	0.00	0.00	<b>598.78</b>
ER - NR 400 kV Biharshariff - Varanasi D/C	7.75	31.63	19.22	16.22	3.26	30.27	6.64	85.75	131.47	<b>332.21</b>
ER - NR 400 kV Sasaram - Varanasi	45.60	53.96	144.07	163.55	162.58	131.51	131.90	118.49	109.92	<b>1061.58</b>
ER - NR 400 kV Sasaram - Allahabad	6.42	3.89	40.33	49.67	21.80	38.36	31.59	51.52	74.79	<b>318.37</b>
ER - NR 220 kV Pusauli - Sahupuri	85.65	115.19	103.22	97.06	100.60	91.35	67.94	25.68	37.06	<b>723.75</b>
ER - NR 132 kV Sahupuri - Karamnasa	8.16	12.82	10.30	6.72	7.68	13.90	10.02	9.12	7.53	<b>86.25</b>
ER - NR 132 kV Rihand - Son Nagar	0.00	0.00	0.00	0.42	0.00	1.74	0.00	0.00	0.63	<b>2.79</b>
ER - NR 132 kV Rihand - Garhwa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.00</b>
<b>Total ER-NR</b>	<b>1637.48</b>	<b>2033.54</b>	<b>2182.24</b>	<b>2708.23</b>	<b>2004.16</b>	<b>2518.93</b>	<b>1893.18</b>	<b>2103.12</b>	<b>2296.0</b>	

	Apr'19	May'19	June'19	July'19	Aug'19	Sep'19	Oct'19	Nov'19	Dec'19	Fin. Year 2019-20
<b>Name of Line</b>										
<b>Export of WR to ER (WR-ER)</b>										
WR - ER 765 kV Ranchi - Dharamjaygarh 2xS/C	143.47	414.49	531.34	620.37	693.60	430.36	351.97	113.62	96.73	<b>3395.94</b>
WR - ER 765 kV Dharamjaygarh - Jharsuguda 2xD/C	1109.79	917.88	710.31	855.54	1006.25	630.39	751.20	469.00	369.09	<b>6819.45</b>
WR - ER 765 kV Durg - Jharsuguda D/C	33.81	63.62	92.00	150.48	197.41	113.80	64.77	4.54	5.43	<b>725.86</b>
WR - ER 400 kV Sipat - Ranchi D/C	62.33	135.52	194.02	236.74	244.30	149.20	124.22	45.62	45.29	<b>1237.25</b>
WR - ER 400 kV Raigarh - Jharsuguda 2xD/C	44.08	128.90	265.46	220.92	227.94	99.10	52.04	46.86	70.87	<b>1156.16</b>
WR - ER 220 kV Korba - Budhipadar D/C	85.09	75.06	95.91	115.29	109.13	50.22	52.66	33.05	63.27	<b>679.67</b>
WR - ER 220 kV Raigarh - Budhipadar	0.00	0.44	3.75	2.71	0.88	0.01	0.04	0.05	0.05	<b>7.93</b>
<b>Total WR - ER</b>	<b>1478.57</b>	<b>1735.90</b>	<b>1892.80</b>	<b>2202.04</b>	<b>2479.51</b>	<b>1473.08</b>	<b>1396.91</b>	<b>712.73</b>	<b>650.73</b>	<b>14022.28</b>
<b>Import of WR from ER (ER - WR)</b>										
ER - WR 765 kV Ranchi - Dharamjaygarh 2xS/C	15.17	0.45	0.01	0.65	0.00	0.76	2.68	45.32	69.87	<b>134.91</b>
ER - WR 765 kV Dharamjaygarh - Jharsuguda 2xD/C	0.00	0.00	0.01	0.24	0.00	0.01	0.00	3.26	20.88	<b>24.40</b>
ER - WR 765 kV Durg - Jharsuguda D/C	4.46	5.95	3.64	0.61	0.00	0.16	2.25	58.20	77.84	<b>153.11</b>
ER - WR 400 kV Sipat - Ranchi D/C	3.13	0.48	0.02	0.04	0.00	0.37	1.60	11.79	17.15	<b>34.57</b>
ER - WR 400 kV Raigarh - Jharsuguda 2xD/C	12.99	15.50	0.00	5.28	0.26	4.82	15.09	43.60	20.88	<b>118.42</b>
ER - WR 220 kV Korba - Budhipadar D/C	0.00	0.00	0.00	0.00	0.00	0.12	0.17	2.22	0.12	<b>2.64</b>
ER - WR 220 kV Raigarh - Budhipadar	54.42	33.65	12.73	17.60	25.25	45.65	20.76	37.55	46.50	<b>294.10</b>
<b>Total ER - WR</b>	<b>90.17</b>	<b>56.03</b>	<b>16.40</b>	<b>24.42</b>	<b>25.51</b>	<b>51.90</b>	<b>42.55</b>	<b>201.94</b>	<b>253.23</b>	<b>762.16</b>
<b>Export of ER to NER (ER - NER)</b>										
ER - NER 400 kV Binaguri - Bongaigaon D/C	6.80	87.81	224.88	281.34	341.86	275.77	188.51	24.70	4.15	<b>1435.84</b>
ER - NER 400 kV Alipurduar - Bongaigaon D/C	3.63	2.09	52.15	6.83	129.06	107.81	114.35	15.63	0.77	<b>432.32</b>
ER - NER 220 kV Birpara - Salakati D/C	1.77	5.44	32.81	30.61	66.47	56.29	45.90	7.86	1.06	<b>248.21</b>
<b>Total ER - NER</b>	<b>12.20</b>	<b>95.34</b>	<b>309.84</b>	<b>318.79</b>	<b>537.39</b>	<b>439.87</b>	<b>348.76</b>	<b>48.20</b>	<b>5.97</b>	<b>2116.37</b>
<b>Import of ER from NER (NER - ER)</b>										
NER - ER 400 kV Binaguri - Bongaigaon D/C	151.73	36.29	0.00	0.00	0.00	0.15	0.93	101.48	114.73	<b>405.31</b>
NER - ER 400 kV Alipurduar - Bongaigaon D/C	185.50	187.26	18.21	140.88	16.67	24.71	13.63	103.79	133.88	<b>824.54</b>
NER - ER 220 kV Birpara - Salakati D/C	32.54	12.53	0.05	0.67	0.00	0.04	0.03	14.25	20.63	<b>80.74</b>
<b>Total NER - ER</b>	<b>369.77</b>	<b>236.08</b>	<b>18.26</b>	<b>141.55</b>	<b>16.67</b>	<b>24.90</b>	<b>14.59</b>	<b>219.53</b>	<b>269.24</b>	<b>1310.59</b>
<b>Export of ER to SR (ER - SR)</b>										
ER - SR HVDC Gazuwaka	438.03	420.15	332.54	286.92	48.45	0.00	298.60	376.35	390.42	<b>2591.46</b>
ER - SR HVDC Talchar - Kolar	1496.40	1275.81	947.36	1041.06	539.22	602.97	876.30	1164.91	1313.11	<b>9257.14</b>
ER - SR 765 kV Angul- Srikakulam D/C	1104.20	920.55	726.76	628.85	743.92	708.97	873.24	1024.74	1120.66	<b>7851.90</b>
<b>Total ER - SR</b>	<b>3038.63</b>	<b>2616.51</b>	<b>2006.67</b>	<b>1956.83</b>	<b>1331.59</b>	<b>1311.94</b>	<b>2048.14</b>	<b>2566.00</b>	<b>2824.20</b>	<b>19700.50</b>
<b>Import of ER from SR (SR - ER)</b>										
SR - ER HVDC Gazuwaka	0.00	0.00	0.00	0.00	213.51	224.91	33.60	0.00	0.00	<b>472.01</b>
SR - ER HVDC Talchar - Kolar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.00</b>
SR - ER 765 kV Angul- Srikakulam D/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.00</b>
<b>Total SR - ER</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>213.51</b>	<b>224.91</b>	<b>33.60</b>	<b>0.00</b>	<b>0.00</b>	<b>472.01</b>
<b>Export of WR to SR (WR-SR)</b>										
WR - SR HVDC Bhadravati	413.36	633.02	337.28	286.71	182.70	97.17	240.81	417.28	412.44	<b>3020.77</b>
WR - SR 765 kV Sholapur - Raichur 2xS/C	1242.88	696.61	196.70	247.43	78.48	120.46	323.88	480.43	739.23	<b>4126.11</b>
WR - SR 765 kV Wardha - Nizamabad D/C	1289.23	780.77	569.34	714.79	649.70	611.80	837.74	980.86	1254.52	<b>7688.73</b>
WR - SR 400KV Kolhapur-Kudgi D/C	5.33	5.79	1.85	4.73	0.00	0.00	0	0.37	0.05	<b>18.12</b>
<b>Total WR - SR</b>	<b>2950.79</b>	<b>2116.19</b>	<b>1105.16</b>	<b>1253.67</b>	<b>910.88</b>	<b>829.43</b>	<b>1402.42</b>	<b>1878.95</b>	<b>2406.24</b>	<b>14853.74</b>
<b>Import of WR from SR (SR - WR)</b>										
SR - WR HVDC Bhadravati	0.00	0.00	4.73	22.84	42.73	85.34	15.10	0.00	0.00	<b>170.75</b>
SR - WR 765 kV Raichur - Sholapur 2xS/C	0.39	6.50	136.76	137.07	315.69	209.29	62.06	55.52	15.89	<b>939.16</b>
SR - WR 765 kV Wardha - Nizamabad D/C	0.00	0.07	22.12	5.20	0.55	0.20	0.00	0.19	0.00	<b>28.32</b>
SR - WR 400KV Kolhapur-Kudgi D/C	159.61	241.80	364.59	387.21	531.75	425.94	328.62	312.32	322.13	<b>3073.97</b>
<b>Total SR - WR</b>	<b>160.00</b>	<b>248.37</b>	<b>528.20</b>	<b>552.31</b>	<b>890.71</b>	<b>720.78</b>	<b>405.79</b>	<b>368.03</b>	<b>338.02</b>	<b>4212.20</b>
<b>TOTAL ALL INDIA</b>	<b>16234</b>	<b>16427</b>	<b>16602</b>	<b>23814</b>	<b>17209</b>	<b>15780</b>	<b>14868</b>	<b>14711</b>	<b>16583</b>	<b>152228</b>

Date	15.1 Import-Export of NR with WR during December 2019																
	Import of NR from WR (WR-NR)																
	WR - NR 765 kV Gwalior - Agra 2xS/C	WR-NR 765 kV Gwalior-Phagi 2xS/C	WR-NR 765 kV Jabalpur- Orai D/C	WR-NR 765 kV Satna- Orai	WR-NR 765 kV Gwalior-Orai	WR - NR HVDC Champa- Kurukshetra	WR - NR HVDC VindhyaChal	WR - NR 400 kV Zerda- Bhinmal	WR-NR 400 kV RAPP C - Shujalpur D/C	WR - NR 220 kV Bhanpura Ranpur	WR - NR 220 kV Bhanpura - Modak	WR - NR 220 kV Auraiya - Malanpur / Mehgaon	WR-NR 400 KV Rihand VindhyaChal D/C	WR - NR HVDC Mundra - M'garh	NR - WR 765 kV Banaskata - Chittorgarh D/C	Total WR - NR	
1-Dec-19	32.75	19.88	23.67	26.10	0.00	10.50	0.00		0.74		0.00	0.97	0.00	0.00	29.16	5.38	149.15
2-Dec-19	34.92	19.73	24.26	25.37	0.00	14.82	0.00	0.00	1.10		0.00	1.22	0.00	0.00	29.80	6.04	157.26
3-Dec-19	37.29	20.50	23.40	26.64	0.00	15.66	0.00	0.42	2.82	0.03	0.00	1.55	0.00	0.00	26.75	10.38	165.44
4-Dec-19	36.46	21.47	25.73	26.34	0.00	21.32	0.00	0.54	3.07	0.83	0.00	1.70	0.00	0.00	31.08	10.48	179.02
5-Dec-19	37.60	20.20	25.07	27.48	0.00	21.24	0.00	0.00	1.56	0.98	0.00	1.69	0.00	0.00	38.73	6.70	181.25
6-Dec-19	40.90	21.67	27.50	27.90	0.00	25.46	0.00	0.30	1.46	0.00	0.00	1.79	0.00	0.00	29.08	9.19	185.25
7-Dec-19	43.51	21.10	29.29	27.57	0.00	14.69	0.00	0.46	1.59	0.64	0.21	2.23	0.00	0.00	32.21	10.06	183.56
8-Dec-19	36.89	19.78	21.78	27.50	0.00	11.29	0.00	0.00	1.55	0.24	0.20	2.17	0.00	0.00	38.12	8.33	167.85
9-Dec-19	39.35	23.08	21.85	29.66	0.00	15.43	0.00	0.35	2.80		0.00	2.10	0.00	0.00	36.69	7.24	178.55
10-Dec-19	35.23	24.92	26.45	28.61	0.00	15.31	0.00	0.00	3.04		0.00	1.37	0.00	0.00	33.85	6.70	175.48
11-Dec-19	38.12	25.15	25.39	28.07	0.00	9.80	0.00	0.00	2.93	0.62	0.00	1.37	0.00	0.00	33.90	4.55	169.90
12-Dec-19	35.66	23.17	24.61	28.44	0.00	11.02	0.00	0.00	0.90		0.00	1.37	0.00	0.00	29.80	2.93	157.90
13-Dec-19	33.46	21.93	18.94	25.50	0.00	11.87	0.00	0.00	2.65	0.32	0.00	1.57	0.00	0.00	14.04	2.45	132.73
14-Dec-19	42.43	22.05	26.76	28.73	0.00	12.94	0.00	0.02	2.60	1.61	0.00	1.89	0.00	0.00	19.38	6.63	165.04
15-Dec-19	43.48	18.69	26.76	27.79	0.00	18.73	0.00	0.89	2.73		0.00	1.61	0.00	0.00	17.10	12.31	170.09
16-Dec-19	43.37	16.59	25.72	25.93	0.00	33.63	0.00	1.04	3.54		0.00	1.65	0.00	0.00	20.81	13.89	186.17
17-Dec-19	47.46	21.58	27.50	28.27	0.00	36.64	1.41	0.42	2.44		0.00	1.22	0.00	0.00	21.29	12.50	200.73
18-Dec-19	45.16	23.31	29.59	29.98	0.00	26.09	5.74	0.00	1.99	2.00	0.00	1.53	0.00	0.00	26.49	7.17	199.05
19-Dec-19	47.76	21.91	28.57	29.63	0.00	31.04	0.00	0.00	1.24	1.61	0.00	0.86	0.00	0.00	33.04	3.03	198.69
20-Dec-19	46.33	19.58	29.08	30.73	0.00	42.22	0.00	0.00	1.65	1.03	0.00	0.73	0.00	0.00	31.60	1.48	204.43
21-Dec-19	46.35	17.07	27.51	30.69	0.00	23.47	1.27	0.00	0.00	3.44	0.00	0.54	0.00	0.00	31.88	1.51	183.73
22-Dec-19	45.29	15.43	28.44	30.63	0.00	36.32	0.00	0.00	0.13	1.42	0.00	0.38	0.00	0.00	32.28	4.50	194.82
23-Dec-19	50.50	18.47	31.63	28.58	0.00	30.37	0.00	0.00	0.40	0.48	0.66	0.00	0.00	0.00	31.85	5.06	198.00
24-Dec-19	47.37	19.78	27.48	30.80	0.00	37.28	0.93	0.00	0.00	0.07	0.00	0.33	0.00	0.00	33.88	2.80	200.72
25-Dec-19	42.66	18.25	25.45	27.46	0.00	45.08	5.38	0.00	0.15		0.00	0.29	0.00	0.00	38.73	3.16	206.61
26-Dec-19	46.40	22.17	30.33	29.61	0.00	42.95	3.50	0.00	1.95	1.30	0.00	0.54	0.00	0.00	41.95	2.86	223.56
27-Dec-19	52.36	20.40	33.51	32.50	0.00	38.75	2.01	0.00	2.57	2.89	0.00	0.94	0.00	0.00	42.92	3.18	232.03
28-Dec-19	51.32	21.35	33.93	30.89	0.00	49.85	6.55	0.00	2.45	2.30	0.00	1.05	0.00	0.00	39.51	6.66	245.86
29-Dec-19	53.00	25.47	36.13	30.10	0.00	39.76	1.46	0.00	1.37	2.75	0.22	1.24	0.00	0.00	39.94	5.29	236.73
30-Dec-19	51.06	20.92	35.16	30.71	0.00	36.70	7.02	0.00	1.60	2.25	0.27	1.27	0.00	0.00	43.08	3.79	233.83
31-Dec-19	48.71	24.25	34.97	31.21	0.00	39.54	5.90	0.00	1.23	2.65	0.22	1.14	0.00	0.00	44.89	6.45	241.16
<b>Total</b>	<b>1333.15</b>	<b>649.85</b>	<b>856.46</b>	<b>889.42</b>	<b>0.00</b>	<b>819.77</b>	<b>41.17</b>	<b>4.44</b>	<b>54.25</b>	<b>29.46</b>	<b>1.78</b>	<b>38.31</b>	<b>0.00</b>	<b>0.00</b>	<b>993.83</b>	<b>192.70</b>	<b>5904.59</b>

Date	15.1 Import-Export of NR with WR during December 2019																
	Export of NR to WR (NR- WR)																
	NR - WR 765 kV Gwalior - Agra 2xS/C	NR-WR 765 kV Gwalior- Phagi 2xS/C	NR-WR 765 kV Jabalpur- Orai D/C	NR-WR 765 kV Satna- Orai	NR-WR 765 kV Gwalior-Orai	NR - WR HVDC Champa- Kurukshtera	NR - WR HVDC VindhyaChal	NR - WR 400 kV Zerda- Kankroli	NR - WR 400 kV Zerda- Bhinmal	NR-WR 400 kV RAPP C Shujalpur D/C	WR - NR 220 kV Bhanpura - Ranpur	WR - NR 220 kV Bhanpura - Modak	NR - WR 220 kV Auraiya - Malanpur / Mehgaon	NR-WR 400 kV Rihand- VindhyaChal D/C	NR - WR HVDC Mundra - M'garh	NR - WR 765 kV Banaskata - Chittorgarh D/C	Total NR - WR
1-Dec-19	0.00	0.00	0.00	0.00	9.08	0.00	6.05	0.00			1.06	0.00	1.34	22.90	0.00	0.00	40.43
2-Dec-19	0.00	0.00	0.00	0.00	9.80	0.00	8.79	0.51	0.00		0.73	0.00	1.74	22.93	0.00	0.00	44.50
3-Dec-19	0.00	0.00	0.00	0.00	10.38	0.00	12.04	0.00	0.00	0.00	0.47	0.00	1.43	22.91	0.00	0.00	47.23
4-Dec-19	0.00	0.00	0.00	0.00	10.16	0.00	12.09	0.00	0.00	0.00	0.14	0.00	1.31	22.59	0.00	0.00	46.29
5-Dec-19	0.00	0.00	0.00	0.00	9.55	0.00	12.15	0.18	0.00	0.00	0.02	0.00	1.39	22.85	0.00	0.00	46.14
6-Dec-19	0.00	0.00	0.00	0.00	9.08	0.00	12.12	0.00	0.00	0.71	0.07	0.00	0.84	22.58	0.00	0.00	45.40
7-Dec-19	0.00	0.00	0.00	0.00	10.97	0.00	12.08	0.00	0.00	0.00	0.00	0.00	1.14	22.74	0.00	0.00	46.93
8-Dec-19	0.00	0.00	0.00	0.00	8.51	0.00	12.12	0.06	0.00	0.00	0.00	0.00	1.73	22.76	0.00	0.00	45.18
9-Dec-19	0.00	0.00	0.00	0.00	8.99	0.00	12.12	0.00	0.00		0.04	0.00	1.49	23.00	0.00	0.00	45.64
10-Dec-19	0.00	0.00	0.00	0.00	10.25	0.00	9.45	0.14	0.00		0.85	0.00	1.95	23.17	0.00	0.00	45.81
11-Dec-19	0.00	0.00	0.00	0.00	10.60	0.00	9.69	0.62	0.00	0.00	0.91	0.00	1.83	22.93	0.00	0.00	46.58
12-Dec-19	0.00	0.00	0.00	0.00	10.63	0.00	9.69	1.19	0.00		0.80	0.00	1.51	22.82	0.00	0.00	46.64
13-Dec-19	0.00	0.00	0.00	0.00	11.75	0.00	9.78	0.76	0.00	0.00	0.57	0.00	2.24	21.41	0.00	0.00	46.51
14-Dec-19	0.00	0.00	0.00	0.00	10.57	0.00	9.70	0.00	0.00	0.00	0.17	0.00	1.23	22.44	0.00	0.00	44.11
15-Dec-19	0.00	0.00	0.00	0.00	9.37	0.00	11.95	0.00	0.00		0.38	0.00	1.05	24.31	0.00	0.00	47.06
16-Dec-19	0.00	0.00	0.00	0.00	10.43	0.00	8.52	0.00	0.00		0.35	0.00	0.92	21.16	0.00	0.00	41.38
17-Dec-19	0.00	0.00	0.00	0.00	12.16	0.00	4.69	0.00	0.00		0.78	0.00	0.95	21.37	0.00	0.00	39.95
18-Dec-19	0.00	0.00	0.00	0.00	10.92	0.00	2.32	0.43	0.00	0.00	-0.46	0.00	1.04	22.56	0.00	0.00	36.81
19-Dec-19	0.00	0.00	0.00	0.00	10.26	0.00	1.58	1.21	0.00	0.00	0.67	0.00	1.00	22.61	0.00	0.00	37.33
20-Dec-19	0.00	0.00	0.00	0.00	10.21	0.00	6.11	1.13	0.00	0.00	0.43	0.00	1.17	22.96	0.00	0.00	42.01
21-Dec-19	0.00	0.00	0.00	0.00	9.80	0.00	3.08	1.75	1.44	0.00	0.38	0.00	1.06	22.41	0.00	0.00	39.92
22-Dec-19	0.00	0.00	0.00	0.00	9.58	0.00	8.07	1.05	0.00	0.00	0.85	0.00	1.35	21.41	0.00	0.00	42.31
23-Dec-19	0.00	0.00	0.00	0.00	10.45	0.00	8.79	0.85	0.00	0.00	0.00	0.48	1.09	21.16	0.00	0.00	42.82
24-Dec-19	0.00	0.00	0.00	0.00	12.21	0.00	5.09	1.43	0.27	0.00	0.85	0.00	1.23	22.66	0.00	0.00	43.74
25-Dec-19	0.00	0.00	0.00	0.00	11.05	0.00	0.30	1.47	0.00		0.98	0.00	1.44	22.11	0.00	0.00	37.35
26-Dec-19	0.00	0.00	0.00	0.00	10.92	0.00	4.75	1.16	0.00	0.00	0.61	0.00	1.57	22.52	0.00	0.00	41.53
27-Dec-19	0.00	0.00	0.00	0.00	11.80	0.00	2.97	0.73	0.00	0.00	0.12	0.00	1.04	22.63	0.00	0.00	39.29
28-Dec-19	0.00	0.00	0.00	0.00	10.62	0.00	0.00	0.45	0.00	0.00	0.02	0.00	0.70	21.97	0.00	0.00	33.76
29-Dec-19	0.00	0.00	0.00	0.00	11.50	0.00	4.31	0.64	0.00	0.00	0.00	0.00	0.78	22.16	0.00	0.00	39.39
30-Dec-19	0.00	0.00	0.00	0.00	11.18	0.00	4.75	0.77	0.00	0.00	0.00	0.00	0.98	21.12	0.00	0.00	38.80
31-Dec-19	0.00	0.00	0.00	0.00	8.15	0.00	2.71	0.39	0.00	0.00	0.00	0.00	1.42	22.59	0.00	0.00	35.26
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>320.93</b>	<b>0.00</b>	<b>227.86</b>	<b>16.92</b>	<b>1.71</b>	<b>0.71</b>	<b>11.79</b>	<b>0.48</b>	<b>39.96</b>	<b>695.74</b>	<b>0.00</b>	<b>0.00</b>	<b>1316.10</b>

Date	15.2 Import-Export of NR with ER & NER during December 2019																	
	Import of NR from ER (ER-NR)														Import of NR from NER (NER-NR)			
	ER - NR 765 kV Sasaram - Fatehpur	ER - NR 765 kV Gaya - Varanasi 2*S/C	ER - NR 765 kV Gaya Balia	ER - NR HVDC Alipurduar - Agra	ER-NR 400 kV Patna - Balia 2xD/C	ER - NR 400 kV Muzaffarpur - Gorakhpur D/C	ER - NR 400 kV Biharshariff - Balia D/C	ER - NR 400 kV Motihari - Gorakhpur D/C	ER - NR 400 kV Biharshariff - Varanasi D/C	ER-NR 400 kV Sasaram - Varanasi	ER-NR 400 kV Sasaram - Allahabad	ER - NR 220 kV Pusauli - Sahupuri	ER - NR 132 kV Sahupuri - Karamnasa	ER - NR 132 kV Rihand - Son Nagar	NR - ER 132 kV Rihand - Garhwa	Total ER - NR	NER-NR HVDC Biswanath Chariali - Agra	Total NER - NR
1-Dec-19	5.71	10.89	5.93		14.83	13.61	5.43		3.84	3.98	1.98	0.79		0.00		66.99	0.00	0.00
2-Dec-19	6.63	10.58	6.57		16.92	14.62	5.39		4.02	3.64	2.11	0.81				71.29	0.00	0.00
3-Dec-19	7.02	13.78	7.01		16.42	15.66	6.91		5.10	4.18	1.96	0.91				78.95	0.00	0.00
4-Dec-19	5.56	10.40	7.29		15.42	14.05	7.53		4.05	3.85	2.06	1.34		0.30		71.85	0.00	0.00
5-Dec-19	5.61	11.06	7.90	0.00	17.68	13.30	7.71		3.92	3.72	1.03	1.42	0.48	0.00		73.83	0.00	0.00
6-Dec-19	6.20	13.34	8.22	0.00	18.41	14.80	7.65		4.64	2.88	1.86	1.75		0.00		79.75	0.00	0.00
7-Dec-19	2.11	14.46	7.78		18.36	15.17	8.03		5.62	2.88	1.88	2.22		0.00		78.51	0.00	0.00
8-Dec-19	6.12	12.06	7.40		17.11	13.23	7.11		4.36	2.30	2.32	0.57		0.00		72.58	0.00	0.00
9-Dec-19	6.64	12.29	8.05		17.39	14.90	8.28		4.80	2.43	2.10	0.89	0.48	0.00		78.25	0.00	0.00
10-Dec-19	6.61	13.11	6.91	8.81	16.74	12.05	5.86		4.37	2.46	2.24	0.90	0.48	0.00		80.54		0.00
11-Dec-19	5.56	12.55	7.43	12.26	17.33	11.36	5.64		3.56	2.60	2.17	0.39	0.48	0.00		81.33		0.00
12-Dec-19	6.66	14.27	3.94	5.07	17.52	11.35	6.54		4.09	2.55	1.43	1.17		0.00		74.59	0.00	0.00
13-Dec-19	6.69	12.71	2.57	0.00	14.88	11.37	7.33		4.20	2.52	2.15	0.48		0.00		64.90	0.00	0.00
14-Dec-19	7.67	13.44	6.73	0.00	16.87	13.76	6.58		5.16	3.46	2.22	0.83		0.00		76.72	0.00	0.00
15-Dec-19	6.09	13.13	7.25		17.20	13.63	6.37		4.74	3.29	2.41	1.03	0.96	0.00		76.10	0.00	0.00
16-Dec-19	6.29	15.39	4.02		18.25	12.52	7.57		5.07	3.60	2.30	2.38	0.48	0.00		77.87	0.00	0.00
17-Dec-19	5.45	13.97	3.87		18.58	11.42	7.55		3.67	2.60	2.02	0.83	0.33			70.29	0.00	0.00
18-Dec-19	5.90	14.58	4.09		18.26	12.32	7.02		3.75	2.51	2.11	0.54		0.00		71.08	0.00	0.00
19-Dec-19	6.09	14.79	4.37		19.01	12.63	7.29		4.28	2.44	2.23	0.73		0.00		73.86	0.00	0.00
20-Dec-19	6.42	14.05	8.26		19.50	12.02	7.75		4.82	1.51	3.04	1.04		0.00		78.41	0.00	0.00
21-Dec-19	6.01	14.15	8.71		19.66	11.22	8.01		4.34	3.72	3.44	0.95	0.48	0.00	0.00	80.69	0.00	0.00
22-Dec-19	4.75	13.02	3.62		15.65	11.50	6.84		3.39	4.21	3.01	0.56	0.48	0.00		67.03	0.00	0.00
23-Dec-19	5.06	11.43	6.72		13.95	10.36	6.31		3.57	6.05	2.84	0.78	0.96		0.00	68.03	0.00	0.00
24-Dec-19	4.84	11.10	7.02		17.79	10.47	7.18		3.57	4.22	2.94	0.79		0.00		69.92	0.00	0.00
25-Dec-19	4.60	8.96	6.84		14.94	10.65	7.24	0.00	2.66	4.19	2.69	1.30		0.00		64.07	0.00	0.00
26-Dec-19	5.33	11.38	7.37		14.63	11.23	5.34		3.51	6.21	3.06	1.96		0.00		70.02	0.00	0.00
27-Dec-19	5.76	11.25	8.83		15.35	12.49	7.46		5.14	3.77	3.19	2.56	0.96	0.33		77.09	0.00	0.00
28-Dec-19	4.94	10.85	9.26	0.00	16.10	11.98	7.99		4.80	5.71	3.10	2.41	0.48	0.00		77.62	0.00	0.00
29-Dec-19	4.83	11.04	9.33	0.00	17.76	11.57	6.83		4.35	4.16	3.04	2.41	0.48	0.00		75.80	0.00	0.00
30-Dec-19	4.71	10.74	10.09	0.00	19.33	10.87	8.31		3.85	4.34	2.75	1.24		0.00		76.23	0.00	0.00
31-Dec-19	5.04	12.08	8.77		17.16	10.01	6.45		4.23	3.94	3.11	1.08		0.00		71.87	0.00	0.00
Total	176.90	386.85	212.15	26.14	529.00	386.12	217.50	0.00	131.47	109.92	74.79	37.06	7.53	0.63	0.00	2296.06	0.00	0.00

Date	15.2 Import-Export of NR with ER & NER during November 2019																
	Export of NR to ER (NR- ER)														Export of NR to NER (NR-NER)		
	NR - ER 765 kV Sasaram - Fatehpur	NR - ER 765 kV Gaya - Varanasi 2*S/C	NR - ER 765 kV Gaya Balia	NR - ER HVDC Alipurduar - Agra	NR-ER 400 kV Patna - Balia 2xD/C	NR - ER 400 kV Muzaffarpur - Gorakhpur D/C	NR - ER 400 kV Biharshariff - Balia D/C	NR - ER 400 kV Motihari - Gorakhpur D/C	NR - ER 400 kV Biharshariff - Varanasi D/C	NR-ER 400 kV Sasaram - Varanasi	NR-ER 400 kV Sasaram - Allahabad	NR - ER 220 kV Pusauli - Sahupuri	NR - ER 132 kV Sahupuri Karamnasa	NR - ER 132 kV Rihand - Son Nagar	NR - ER 132 kV Rihand - Garhwa	Total NR -ER	NR-NER HVDC Biswanath Chariali - Agra
1-Dec-19	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.43		0.43	8.95	8.95
2-Dec-19	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00			0.00	8.43	8.43
3-Dec-19	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00			0.00	11.52	11.52
4-Dec-19	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00		0.00	10.49	10.49
5-Dec-19	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.33		0.33	7.86	7.86
6-Dec-19	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.45		0.45	9.86	9.86
7-Dec-19	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.36		0.36	12.32	12.32
8-Dec-19	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.40		0.40	11.95	11.95
9-Dec-19	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.38		0.38	11.72	11.72
10-Dec-19	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.35		0.35		
11-Dec-19	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.48	0.36		0.84		
12-Dec-19	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.37		0.37	0.90	0.90
13-Dec-19	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.27		0.27	10.88	10.88
14-Dec-19	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.24		0.24	12.14	12.14
15-Dec-19	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.26		0.26	11.95	11.95
16-Dec-19	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.30		0.30	11.75	11.75
17-Dec-19	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00				10.70	10.70
18-Dec-19	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.34		0.34	10.21	10.21
19-Dec-19	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.30		0.30	10.01	10.01
20-Dec-19	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.28		0.28	8.46	8.46
21-Dec-19	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.36		0.72	10.08	10.08
22-Dec-19	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.36		0.36	11.75	11.75
23-Dec-19	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.36		0.36	11.89	11.89
24-Dec-19	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.36		0.36	12.02	12.02
25-Dec-19	0.00	0.00	0.00		0.00	0.00	0.84		0.00	0.00	0.00	0.00	0.41		1.25	11.79	11.79
26-Dec-19	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.38		0.38	12.10	12.10
27-Dec-19	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00		0.00	11.83	11.83
28-Dec-19	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.38		0.38	11.63	11.63
29-Dec-19	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.62		0.62	11.78	11.78
30-Dec-19	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.60		0.60	10.67	10.67
31-Dec-19	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.65		0.65	11.46	11.46
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.84</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.48</b>	<b>6.16</b>	<b>4.10</b>	<b>11.58</b>	<b>307.10</b>	<b>307.10</b>

Date	15.3 Import and Export of ER with WR & NER during December 2019																							
	Export of WR to ER (WR-ER)							Import of WR from ER (ER - WR)							Export of ER to NER (ER-NER)				Import of ER from NER (NER-ER)					
	WR - ER 765 kV Dharamjaya rh - Ranchi 2xS/C	WR - ER 765 kV Dharamjaya rh - Jharsuguda Q/C	WR - ER 765 kV Durg - Jharsuguda D/C	WR - ER 400 kV Sipat - Ranchi D/C	WR - ER 400 kV Raigarh - Jharsuguda 2xD/C	WR - ER 220 kV Korba - Budhipadar D/C	Total WR - ER	ER - WR 765 kV Dharamjaya rh - Jharsuguda 2xS/C	ER-WR 765 kV Dharamjaya rh - Jharsuguda D/C	ER-WR 765 kV Durg - Jharsuguda D/C	ER - WR 400 kV Sipat - Ranchi D/C	ER - WR 400 kV Raigarh - Jharsuguda 2xD/C	ER - WR 220 kV Korba - Budhipadar D/C	ER - WR 220 kV Raigarh - Jharsuguda D/C	Total ER - WR	ER - NER 400 kV Binaguri - Bongaigaon D/C	ER - NER 400 kV Alipurduar - Bongaigaon D/C	ER - NER 220 kV Birpara - Salakati D/C	Total ER - NER	NER - ER 400 kV Binaguri - Bongaigaon D/C	NER - ER 400 kV Alipurduar - Bongaigaon 2xD/C	NER - ER 220 kV Birpara - Salakati D/C	Total NER - ER	
1-Dec-19	2.7	20.9	0.1	1.4	2.3	1.8	0.0	29.20	2.1	0.0	2.0	0.4	0.4	0.0	1.7	6.58	0.01	0.02	0.02	0.06	4.74	4.94	0.78	10.46
2-Dec-19	1.7	12.0	0.0	1.0	2.7	1.4	0.0	18.70	5.1	0.1	4.0	1.2	0.6	0.0	1.8	12.75	0.00	0.00	0.02	0.02	4.85	5.18	0.78	10.81
3-Dec-19	1.4	10.8	0.0	0.9	4.0	1.4	0.0	18.58	5.4	0.0	4.9	1.4	0.4	0.0	1.7	13.78	0.00	0.00	0.01	0.01	5.05	5.46	0.86	11.37
4-Dec-19	2.1	12.5	0.0	1.4	6.5	1.4	0.0	23.96	3.0	0.0	3.1	0.7	0.1	0.0	1.2	8.18	0.00	0.00	0.01	0.01	4.07	4.61	0.64	9.32
5-Dec-19	2.3	10.1	0.0	1.3	1.4	1.6	0.0	16.67	2.4	0.2	3.1	0.6	1.1	0.0	1.4	8.82	0.07	0.00	0.02	0.09	3.18	3.07	0.38	6.64
6-Dec-19	2.2	5.2	0.0	1.2	1.3	1.3	0.0	11.21	2.3	1.6	4.1	0.6	1.7	0.0	1.3	11.72	0.00	0.00	0.02	0.02	4.47	4.88	0.67	10.02
7-Dec-19	2.9	1.7	0.0	1.2	0.5	1.1	0.0	7.41	2.8	6.1	5.8	0.8	2.8	0.0	1.9	20.30	0.00	0.00	0.00	0.00	5.11	5.54	0.98	11.63
8-Dec-19	3.4	2.0	0.0	1.4	0.7	1.3	0.0	8.79	2.1	5.5	4.6	0.6	2.8	0.1	2.1	17.82	0.00	0.00	0.01	0.01	4.60	5.34	0.84	10.77
9-Dec-19	3.6	8.6	0.0	1.6	1.9	1.1	0.0	16.96	2.0	0.6	2.6	0.6	1.1	0.0	1.9	8.82	0.00	0.00	0.00	0.00	6.01	6.70	1.09	13.80
10-Dec-19	2.4	11.8	0.0	1.3	2.1	1.3	0.0	19.03	1.8	0.0	2.1	0.3	0.2	0.0	2.0	6.40	0.54	0.00	0.03	0.57	2.26	5.59	0.67	8.52
11-Dec-19	1.3	10.6	0.0	0.7	2.1	1.9	0.0	16.63	3.3	0.0	3.0	0.8	0.4	0.0	2.1	9.61	1.70	0.02	0.15	1.87	0.11	3.46	0.17	3.74
12-Dec-19	1.1	12.7	0.0	0.7	2.2	2.2	0.0	18.93	4.3	0.3	4.9	1.0	0.7	0.0	2.2	13.55	1.22	0.16	0.13	1.52	0.43	1.53	0.16	2.12
13-Dec-19	0.3	16.1	0.0	0.3	1.7	2.1	0.0	20.58	7.0	0.0	3.3	1.4	0.7	0.0	2.2	14.78	0.00	0.00	0.03	0.03	3.42	2.58	0.51	6.52
14-Dec-19	0.8	17.9	0.1	0.7	2.3	2.0	0.0	23.84	5.1	0.0	2.5	1.1	0.5	0.0	1.7	10.95	0.00	0.00	0.00	0.00	3.87	2.88	0.56	7.31
15-Dec-19	3.0	12.9	0.4	1.4	2.7	1.6	0.0	21.98	3.1	0.2	1.5	0.7	0.6	0.0	1.4	7.39	0.03	0.03	0.04	0.10	2.94	2.36	0.37	5.67
16-Dec-19	2.7	13.4	0.6	1.3	3.0	2.7	0.0	23.83	4.0	0.1	1.2	1.1	0.2	0.0	0.9	7.51	0.11	0.10	0.10	0.31	2.26	2.38	0.36	5.01
17-Dec-19	2.6	12.8	0.3	1.5	2.8	2.9	0.0	22.95	2.3	0.3	1.0	0.3	0.1	0.0	1.0	5.09	0.21	0.22	0.13	0.57	2.18	2.25	0.41	4.84
18-Dec-19	2.6	12.0	0.4	1.3	2.8	2.1	0.0	21.32	3.1	0.8	2.5	1.3	0.1	0.0	0.9	8.64	0.00	0.00	0.05	0.06	3.42	3.90	0.47	7.79
19-Dec-19	1.5	9.4	0.1	0.8	2.5	2.1	0.0	16.34	2.4	0.6	1.5	0.7	0.3	0.0	1.5	6.90	0.00	0.00	0.01	0.01	3.14	3.71	0.49	7.35
20-Dec-19	1.6	7.9	0.0	0.9	2.5	2.8	0.0	15.79	2.7	0.7	2.4	0.8	0.4	0.0	1.1	8.00	0.00	0.00	0.01	0.01	3.71	4.25	0.63	8.60
21-Dec-19	4.1	18.6	0.3	1.7	2.1	2.4	0.0	29.27	0.2	0.0	0.9	0.0	0.4	0.0	1.3	2.86	0.01	0.01	0.05	0.07	2.98	3.43	0.46	6.87
22-Dec-19	5.0	19.4	0.8	2.3	2.4	2.5	0.0	32.49	0.7	0.0	0.6	0.1	0.7	0.0	1.2	3.42	0.00	0.00	0.00	0.00	4.53	5.25	0.80	10.57
23-Dec-19	4.2	19.8	0.9	2.3	3.3	2.4	0.0	32.88	0.4	0.0	0.8	0.0	0.1	0.0	1.0	2.33	0.16	0.16	0.14	0.46	2.68	3.13	0.41	6.22
24-Dec-19	4.2	20.9	0.4	2.1	3.2	2.5	0.0	33.42	0.5	0.0	1.2	0.1	0.3	0.0	0.7	2.73	0.06	0.04	0.04	0.14	2.85	3.34	0.48	6.67
25-Dec-19	2.9	17.0	0.2	1.5	2.4	2.5	0.0	26.50	0.9	0.0	1.6	0.2	0.3	0.0	0.7	3.60	0.01	0.00	0.02	0.03	4.47	5.27	0.88	10.62
26-Dec-19	3.0	9.5	0.0	1.5	1.4	3.0	0.0	18.38	0.5	0.2	2.5	0.1	0.5	0.0	1.0	4.79	0.00	0.00	0.00	0.00	4.48	5.34	0.88	10.69
27-Dec-19	3.8	7.4	0.0	1.9	1.7	2.8	0.0	17.60	0.3	0.3	3.4	0.0	0.5	0.0	1.1	5.46	0.00	0.00	0.00	0.00	4.53	5.24	1.07	10.84
28-Dec-19</td																								

Date	15.4 Import and Export of SR with ER & WR during November 2019																	
	Export of ER to SR (ER - SR)				Import of ER from SR (SR - ER)				Export of WR to SR (WR-SR)				Import of WR from SR (SR - WR)					
	ER - SR HVDC Gazuwaka	ER - SR HVDC Talchar - Kolar	ER-SR 765 kV Angul- Srikakulam D/C	Total ER - SR	SR - ER HVDC Gazuwaka	SR - ER HVDC Talchar -	SR-ER 765 kV Angul- Srikakulam D/C	Total SR - ER	WR - SR HVDC Bhadravati	WR - SR 765 kV Sholapur - Raichur 2xS/C	WR-SR 765 kV Wardha - Nizamabad D/C	WR-SR 400KV Kolhapur-Kudgi D/C	Total WR - SR	SR - WR HVDC Bhadravati	SR - WR 765 kV Raichur - Sholapur 2xS/C	SR-WR 765 kV Wardha - Nizamabad D/C	SR-WR 400KV Kolhapur-Kudgi D/C	Total SR - WR
1-Dec-19	12.38	44.45	32.43	89.26	0.00	0.00	0.00	0.00	17.26	16.38	31.93	0.00	65.57	0.00	0.07	0.00	11.55	11.63
2-Dec-19	12.38	38.29	31.78	82.44	0.00	0.00	0.00	0.00	12.12	19.20	32.86	0.00	64.18	0.00	0.00	0.00	8.63	8.63
3-Dec-19	12.38	34.33	35.63	82.34	0.00	0.00	0.00	0.00	16.78	20.80	36.91	0.00	74.48	0.00	0.01	0.00	10.68	10.70
4-Dec-19	12.39	47.39	30.58	90.36	0.00	0.00	0.00	0.00	18.16	15.47	30.97	0.00	64.61	0.00	1.56	0.00	13.27	14.84
5-Dec-19	12.50	41.87	31.34	85.71	0.00	0.00	0.00	0.00	15.53	18.17	34.27	0.00	67.98	0.00	0.12	0.00	11.35	11.47
6-Dec-19	12.22	29.78	30.27	72.27	0.00	0.00	0.00	0.00	10.35	18.43	35.87	0.00	64.65	0.00	0.54	0.00	12.60	13.14
7-Dec-19	12.16	30.41	36.55	79.11	0.00	0.00	0.00	0.00	9.29	22.04	41.91	0.00	73.24	0.00	0.73	0.00	10.17	10.90
8-Dec-19	12.31	27.38	38.37	78.05	0.00	0.00	0.00	0.00	15.59	20.12	34.62	0.00	70.33	0.00	0.22	0.00	9.84	10.05
9-Dec-19	12.30	33.47	29.61	75.39	0.00	0.00	0.00	0.00	18.53	16.21	28.98	0.00	63.73	0.00	1.86	0.00	11.01	12.87
10-Dec-19	12.30	37.19	34.29	83.78	0.00	0.00	0.00	0.00	13.27	20.43	33.28	0.01	67.00	0.00	0.94	0.00	8.56	9.51
11-Dec-19	13.22	44.73	34.48	92.43	0.00	0.00	0.00	0.00	17.49	22.61	35.70	0.03	75.83	0.00	0.45	0.00	7.31	7.77
12-Dec-19	11.63	42.20	37.70	91.53	0.00	0.00	0.00	0.00	19.11	26.79	39.15	0.00	85.05	0.00	0.10	0.00	8.13	8.23
13-Dec-19	16.08	36.61	40.51	93.20	0.00	0.00	0.00	0.00	16.15	30.98	44.79	0.00	91.92	0.00	0.00	0.00	7.89	7.89
14-Dec-19	16.08	45.16	35.87	97.11	0.00	0.00	0.00	0.00	15.48	26.06	40.60	0.00	82.14	0.00	0.00	0.00	7.92	7.92
15-Dec-19	12.63	36.02	32.70	81.35	0.00	0.00	0.00	0.00	11.53	18.48	35.07	0.00	65.08	0.00	2.03	0.00	11.31	13.34
16-Dec-19	12.43	49.81	36.69	98.93	0.00	0.00	0.00	0.00	11.68	23.88	44.26	0.00	79.82	0.00	0.65	0.00	8.98	9.63
17-Dec-19	15.88	49.44	33.49	98.82	0.00	0.00	0.00	0.00	11.67	22.01	43.85	0.00	77.53	0.00	0.55	0.00	9.81	10.36
18-Dec-19	14.70	44.92	34.11	93.73	0.00	0.00	0.00	0.00	11.68	24.05	42.27	0.00	77.99	0.00	0.75	0.00	9.37	10.12
19-Dec-19	15.09	41.22	34.85	91.17	0.00	0.00	0.00	0.00	11.71	23.10	41.16	0.00	75.98	0.00	0.79	0.00	13.14	13.93
20-Dec-19	15.96	45.57	36.59	98.12	0.00	0.00	0.00	0.00	11.93	29.34	44.92	0.00	86.20	0.00	0.00	0.00	10.23	10.23
21-Dec-19	11.79	51.23	43.10	106.12	0.00	0.00	0.00	0.00	12.02	29.13	47.53	0.00	88.68	0.00	0.06	0.00	9.48	9.54
22-Dec-19	9.78	47.56	40.82	98.15	0.00	0.00	0.00	0.00	11.97	25.31	44.71	0.00	81.98	0.00	1.09	0.00	11.78	12.87
23-Dec-19	11.86	48.85	35.31	96.02	0.00	0.00	0.00	0.00	12.02	24.25	42.25	0.00	78.51	0.00	0.74	0.00	12.68	13.42
24-Dec-19	12.39	49.18	38.11	99.68	0.00	0.00	0.00	0.00	12.04	27.04	46.26	0.00	85.34	0.00	0.06	0.00	12.34	12.40
25-Dec-19	10.94	47.31	39.37	97.62	0.00	0.00	0.00	0.00	10.69	27.18	47.89	0.00	85.75	0.00	0.11	0.00	11.26	11.37
26-Dec-19	13.67	43.19	40.17	97.04	0.00	0.00	0.00	0.00	11.63	29.99	49.42	0.00	91.05	0.00	0.09	0.00	16.36	16.45
27-Dec-19	11.29	48.59	42.77	102.65	0.00	0.00	0.00	0.00	11.62	28.42	50.74	0.00	90.77	0.00	0.00	0.00	11.09	11.09
28-Dec-19	8.75	44.84	41.29	94.87	0.00	0.00	0.00	0.00	10.88	29.61	47.15	0.00	87.64	0.00	0.00	0.00	9.34	9.34
29-Dec-19	9.10	46.45	37.13	92.68	0.00	0.00	0.00	0.00	11.63	24.70	39.87	0.00	76.20	0.00	1.90	0.00	9.72	11.62
30-Dec-19	12.30	39.39	36.54	88.23	0.00	0.00	0.00	0.00	11.63	26.62	40.68	0.00	78.93	0.00	0.38	0.00	9.02	9.40
31-Dec-19	11.52	46.27	38.22	96.02	0.00	0.00	0.00	0.00	11.00	32.43	44.64	0.00	88.08	0.00	0.09	0.00	7.30	7.38
TOTAL	390.42	1313.11	1120.66	2824.20	0.00	0.00	0.00	0.00	412.44	739.23	1254.52	0.05	2406.24	0.00	15.89	0.00	322.13	338.02

**16. भूटान , नेपाल, बांग्लादेश एवं म्यान्मार के साथ अंतर्राष्ट्रीय विद्युत विनिमय**  
**INTERNATIONAL EXCHANGE WITH BHUTAN, NEPAL BANGLADESH AND MYANMAR**

**अप्रैल 2019 से मार्च 2020 April 2019 to March 2020**

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

माह MONTH	भूटान BHUTAN	नेपाल NEPAL	बांग्लादेश BANGLADESH	म्यान्मार MYANMAR
	Energy Exchange (In MU)	Energy Exchange (In MU)	Energy Exchange (In MU)	Energy Exchange (In MU)
अप्रैल 2019 APR'19	251.97	-245.98	-653.05	-0.55
मई 2019 MAY'19	359.06	-290.40	-773.73	-0.80
जून 2019 JUN'19	344.77	-268.05	-708.18	-0.77
जुलाई 2019 JUL'19	1133.10	-154.16	-770.87	-0.81
अगस्त 2019 AUG'19	1254.50	-182.20	-749.10	-0.82
सितंबर 2019 SEP'19	1271.03	-146.51	-750.18	-0.77
अक्टूबर 2019 OCT'19	896.60	-30.16	-725.53	-0.72
नवंबर 2019 NOV'19	345.26	-37.27	-469.52	-0.66
दिसम्बर 2019 DEC'19	185.79	-194.65	-275.21	0.73
<b>कुल Total</b>	<b>6042.08</b>	<b>-1549.37</b>	<b>-5875.36</b>	<b>-5.17</b>

\* Based on daily operational data

Date	16.1 Import from neighbouring countries during December 2019 (All figures in MU)												
	Import from Bhutan							Import from Bangladesh		Import from Nepal			
	400 kV Tala-Binaguri I,II & IV	400 kV Binaguri-Malbase	220 kV Birpara-Chuka D/C	220 kV Birpara-Malbase	400 kV Jigmeling-Alipurduar D/C	132 kV Rangia-Motanga	132 kV Salakati-Gelephu	400 kV Behrampur-Bheramara D/C	132 kV Surjyamaninagar-Comilla D/C	132 kV Tanakpur-Mahendranagar	220 kV Muzaffarpur-Dhalkebar	From BIHAR Source	11 kV Moreh-Tamu
1-Dec-19	3.42	1.37	0.70	0.00	3.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-Dec-19	3.22	1.25	0.59	0.00	3.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3-Dec-19	3.16	1.23	0.58	0.00	3.66	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4-Dec-19	3.19	1.25	0.60	0.00	2.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5-Dec-19	3.08	1.20	0.55	0.00	3.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6-Dec-19	2.89	1.11	0.49	0.00	3.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7-Dec-19	3.02	1.18	0.46	0.00	3.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8-Dec-19	2.96	1.16	0.40	0.00	2.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9-Dec-19	2.91	1.10	0.26	0.00	3.37	0.00	0.00	0.00	0.00	0.00	0.00	0.99	0.00
10-Dec-19	2.63	0.95	0.49	0.00	2.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11-Dec-19	3.08	0.71	0.40	0.00	3.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12-Dec-19	2.30	0.76	0.41	0.00	3.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13-Dec-19	2.77	1.04	0.35	0.00	3.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14-Dec-19	2.78	1.05	0.30	0.00	3.29	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
15-Dec-19	2.81	1.05	0.34	0.00	3.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16-Dec-19	2.71	0.98	0.24	0.00	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17-Dec-19	2.42	0.84	0.24	0.00	3.14	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00
18-Dec-19	2.56	0.92	0.18	0.00	3.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19-Dec-19	2.31	0.80	0.10	0.00	2.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20-Dec-19	2.44	0.86	0.12	0.00	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21-Dec-19	2.39	0.83	0.13	0.00	3.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22-Dec-19	2.59	0.95	0.14	0.00	2.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23-Dec-19	2.31	0.78	0.06	0.00	2.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24-Dec-19	2.19	0.73	0.01	0.00	2.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25-Dec-19	2.38	0.80	0.02	0.00	2.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26-Dec-19	2.18	0.73	0.00	0.00	2.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27-Dec-19	2.09	0.68	0.00	0.00	2.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28-Dec-19	2.00	0.64	0.00	0.00	2.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29-Dec-19	1.88	0.61	0.00	0.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30-Dec-19	1.90	0.61	0.00	0.00	2.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31-Dec-19	2.11	0.70	0.00	0.00	2.59	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
<b>Total</b>	<b>80.68</b>	<b>28.90</b>	<b>8.14</b>	<b>0.00</b>	<b>95.71</b>	<b>0.03</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>1.00</b>	<b>1.66</b>	<b>0.00</b>

\*Based on SEM/Energy meter data for links where available

Date	16.2 Export to neighbouring countries during December 2019 (All figures in MU)												
	Export to Bhutan							Export to Bangladesh		Export to Nepal			
	400 kV Tala-Binaguri I,II & IV	400 kV Binaguri-Malbase	220 kV Birpara-Chuka D/C	220 kV Birpara-Malbase	400 kV Jigmeling-Alipurduar D/C	132 kV Rangia-Motanga	132 kV Salakati-Gelephu	400 kV Behrampur-Bheramara D/C	132 kV Surjyamaninagar-Comilla D/C	132 kV Tanakpur-Mahendranagar	220 kV Muzaffarpur-Dhalkebar	From BIHAR Source	11 kV Moreh-Tamu
1-Dec-19	0.00	0.00	0.00	0.74	0.00	0.15	0.23	6.54	2.32	0.00	2.95	0.65	0.02
2-Dec-19	0.00	0.00	0.00	0.87	0.00	0.13	0.27	6.57	2.20	0.00	2.78	0.78	0.02
3-Dec-19	0.00	0.00	0.00	0.85	0.00	0.00	0.23	6.58	2.15	0.00	3.86	0.44	0.02
4-Dec-19	0.00	0.00	0.00	0.80	0.00	0.02	0.26	6.63	2.05	0.00	3.88	0.29	0.02
5-Dec-19	0.00	0.00	0.00	0.74	0.00	0.07	0.28	9.49	2.10	0.00	4.11	0.52	0.02
6-Dec-19	0.00	0.00	0.00	0.86	0.00	0.14	0.33	4.92	1.88	0.00	4.21	0.83	0.03
7-Dec-19	0.00	0.00	0.00	0.86	0.00	0.12	0.35	5.86	2.08	0.00	3.91	0.06	0.02
8-Dec-19	0.00	0.00	0.00	0.94	0.00	0.23	0.28	7.61	2.15	0.00	3.94	0.78	0.02
9-Dec-19	0.00	0.00	0.00	1.01	0.00	0.29	0.36	7.48	2.14	0.00	4.09	0.00	0.02
10-Dec-19	0.00	0.00	0.00	0.68	0.00	0.18	0.26	7.61	2.08	0.00	3.76	1.53	0.02
11-Dec-19	0.00	0.00	0.00	0.67	0.00	0.12	-0.23	7.47	1.97	0.00	4.73	0.98	0.02
12-Dec-19	0.00	0.00	0.00	0.72	0.00	0.10	0.20	7.50	1.97	0.35	5.06	0.76	0.02
13-Dec-19	0.00	0.00	0.00	0.81	0.00	0.28	0.31	5.50	1.59	0.38	4.72	0.14	0.02
14-Dec-19	0.00	0.00	0.00	0.96	0.00	0.21	0.33	6.16	1.89	0.18	3.52	0.00	0.02
15-Dec-19	0.00	0.00	0.00	0.96	0.00	0.11	0.27	7.45	1.72	0.41	3.77	0.48	0.02
16-Dec-19	0.00	0.00	0.00	0.90	0.00	0.18	0.34	5.13	1.77	0.50	5.06	0.36	0.02
17-Dec-19	0.00	0.00	0.00	0.94	0.00	0.18	0.29	7.76	1.95	0.50	5.62	0.00	0.02
18-Dec-19	0.00	0.00	0.00	0.87	0.00	0.16	0.34	7.68	1.93	0.48	5.71	0.69	0.02
19-Dec-19	0.00	0.00	0.00	1.01	0.00	0.18	0.35	7.80	1.93	0.73	5.67	0.51	0.02
20-Dec-19	0.00	0.00	0.00	0.99	0.00	0.18	0.34	5.28	1.70	1.19	5.53	0.61	0.02
21-Dec-19	0.00	0.00	0.00	0.94	0.00	0.12	0.28	6.73	1.85	1.03	5.42	0.48	0.02
22-Dec-19	0.00	0.00	0.00	0.99	0.00	0.13	0.60	7.87	1.82	0.99	5.50	0.74	0.02
23-Dec-19	0.00	0.00	0.00	1.00	0.00	0.12	0.30	7.98	1.99	1.28	5.74	0.67	0.02
24-Dec-19	0.00	0.00	0.00	1.04	0.00	0.14	0.31	7.97	1.99	1.28	5.81	1.59	0.02
25-Dec-19	0.00	0.00	0.00	1.02	0.00	0.27	0.38	5.45	1.99	1.30	5.81	1.52	0.02
26-Dec-19	0.00	0.00	0.06	1.12	0.00	0.31	0.43	7.90	2.00	0.86	5.81	1.74	0.02
27-Dec-19	0.00	0.00	0.06	1.11	0.00	0.24	0.40	5.23	1.74	1.31	5.81	1.64	0.02
28-Dec-19	0.00	0.00	0.14	1.19	0.00	0.29	0.41	6.62	1.91	1.30	5.77	0.81	0.02
29-Dec-19	0.00	0.00	0.12	1.19	0.00	0.22	0.40	7.79	1.97	1.25	5.92	1.95	0.03
30-Dec-19	0.00	0.00	0.10	1.12	0.00	0.34	0.45	5.83	1.93	1.30	6.07	2.41	0.02
31-Dec-19	0.00	0.00	0.10	1.14	0.00	0.02	0.41	7.83	1.98	1.30	6.00	2.52	0.02
<b>Total</b>	0.00	0.00	0.58	29.05	0.00	5.23	9.76	214.20	60.72	17.93	150.54	26.47	0.73

\*Based on SEM/Energy meter data for links where available

**17. एसटीओए (द्विपक्षीय एवं सामूहिक) एवं डी ईस एम बिलिंग का व्योरा – माह दिसंबर 2019**

**STOA (BILATERAL AND COLLECTIVE) & DSM BILLING DETAILS - DECEMBER 2019**

**द्विपक्षीय एसटीओए BILATERAL SHORT TERM OPEN ACCESS**

दिसंबर 2019 DECEMBER 2019			Apr-Mar'20	
क्षे.भा.प्रे.के. का नाम Name of RLDC	लेन – देनों की संख्या No. of Transactions	अनुमोदित ऊर्जा (मि.यु.) Energy Units Approved(MU)	लेन – देनों की संख्या No. of Transactions	अनुमोदित ऊर्जा (मि.यु.) Energy Approved (MU)
ऊ. क्षे. NR	537	927	9747	22422
प.क्षे. WR	207	1937	2076	11314
द.क्षे. SR	168	894	1742	11434
पू.क्षे. ER	206	649	2346	10560
पूर्वोत्तर क्षे. NER	11	98	245	574
<b>कुल TOTAL</b>	<b>1129</b>	<b>4505</b>	<b>16156</b>	<b>56305</b>

**एसटीओए SHORT TERM OPEN ACCESS**

	सामूहिक एसटीओए Collective STOA	द्विपक्षीय एसटीओए Bilateral STOA		
माह MONTH	क्रेताओं / विक्रेताओं की स. NO. of Buyers/Sellers	अनुमोदित ऊर्जा (मि.यु.) Approved Energy (MU)	क्रेताओं / विक्रेताओं की स. NO. of Buyers/Sellers	अनुमोदित ऊर्जा (मि.यु.) Approved Energy (MU)
अप्रैल 2019 Apr'19	2777	4037	1415	6401
मई 2019 May'19	2961	3774	1614	5827
जून 2019 Jun'19	2892	4207	1724	5941
जुलाई 2019 Jul'19	2907	4801	2797	7781
अगस्त 2019 Aug'19	2838	4675	2336	8486
सितंबर 2019 Sep'19	2768	3489	2282	8028
अक्टूबर 2019 Oct'19	2791	3401	1623	4749
नवंबर 2019 Nov'19	2705	3389	1236	4587
दिसम्बर 2019 Dec'19	3052	4334	1129	4505
<b>कुल TOTAL</b>	<b>25691</b>	<b>36107</b>	<b>16156</b>	<b>56305</b>

मासिक डी ईस एम बिलिंग का व्योरा 2019-20  
MONTHLY DSM BILLING DETAILS 2019-20

अनंतिम आँकड़े  
Provisional data  
subject to change

करोड़ रु. मे (RS. IN CRORES)

क्षेत्र REGION	उत्तरी क्षेत्र NORTH	पश्चिमी क्षेत्र WEST	दक्षिणी क्षेत्र SOUTH	पूर्वी क्षेत्र EAST	पूर्वोत्तर क्षेत्र NORTH EAST
02.12.19 to 08.12.19	33.18	35.33	18.27	29.69	19.13
09.12.19 to 15.12.19	44.96	36.85	36.15	33.33	14.66
16.12.19 to 22.12.19	44.88	40.00	21.16	18.38	20.78
23.12.19 to 29.12.19	48.33	41.47	18.41	26.94	21.45
30.12.19 to 05.01.20	32.52	--	22.97	--	--

18. पावर मार्केट की सूचना ( स्रोत : आई.ई.एक्स. एवं पी.एक्स.आई.एल.)

POWER MARKET INFORMATION ( Source IEX & PXIL)

पावर एक्सचेंज के माध्यम से विनिमय – माह दिसंबर 2019

EXCHANGES THROUGH POWER EXCHANGES -DECEMBER 2019

क्र. स. S. No.	क्षेत्रीय इकाई Regional Entity	क्षेत्र Region	पावर एक्सचेंज के माध्यम से ( मि.यु.मे )	
			विक्रय Sale	क्रय Purchase
1	पंजाब Punjab	उत्तरी क्षेत्र NR	0.40	92.16
2	हरियाणा Haryana		15.76	143.29
3	राजस्थान Rajasthan		251.16	254.45
4	दिल्ली Delhi		66.96	319.40
5	उत्तर प्रदेश Uttar Pradesh		126.62	96.96
6	उत्तराखण्ड Uttarakhand		18.29	103.45
7	हिमाचल प्रदेश Himachal Pradesh		93.48	44.19
8	जम्मू और कश्मीर J & K		0.52	361.88
9	केंद्र शासित चंडीगढ़ UT Chandigarh		10.52	10.01
10	ए डी हाइड्रो AD Hydro		15.08	0.00
11	करचम वांगतू KW		15.53	0.00
12	श्री सीमेंट Shree Cement		6.00	0.00
13	नाथ्या झाकरी Nathpa Jhakri		0.00	0.00
14	बैरासूल Baira Siul HEP(BSO)		0.00	0.00
15	चमेरा -1 Chamera-I HEP(CM1)		0.00	0.00
16	चमेरा -2 Chamera-II HEP(CM2)		0.00	0.00
17	धौलीगंगा Dhauliganga HEP(DGO)		0.00	0.00
18	दुलहस्ती Dulahasti HEP(DUO)		0.00	0.00
19	सलाल Salal HEP(SLO)		0.00	0.00
20	सेवा -2 Sewa-II NHPC(SW2)		0.00	0.00
21	टनकपुर Tanakpur HEP(TPO)		0.00	0.00
22	उरी Uri HEP(URO)		0.00	0.00
23	लांको बुधिल LANCO Budhil		0.77	0.00
24	चमेरा-3 chamera 3		0.00	0.00
25	अदानी एचवीडीसी ADANI HVDC(NORGU0)		0.00	0.00
26	मलाना MALANA		0.11	0.00
27	उरी-II Uri-II HEP(UR2)		0.00	0.00
28	पार्बति-III Parbati-III		0.00	0.00
29	सिंगरौली Singrauli		7.79	0.00
30	दादरी-I Dadri stage-I		0.00	0.00
31	दादरी-II Dadri stage-II		0.00	0.00
32	ऊंचाहार -I Unchahar-I TPS		0.00	0.00
33	ऊंचाहार -II Unchahar-II TPS		0.00	0.00
34	ऊंचाहार -III Unchahar-III TPS		0.00	0.00
35	रिहंद -I Rihand STPS-I		0.08	0.00
36	रिहंद -II Rihand STPS-II		0.21	0.00
37	रिहंद -III Rihand STPS-III		0.00	0.00
38	एपीसीपीएल झज्जर APCPL Jhajjar		0.00	0.00
39	सैंज Sainj HEP		13.59	0.00
40	दादरी गैस Dadri GPP		0.00	0.00
41	ओरेया गैस NTPC Auraiya		0.00	0.00
42	किशनगंगा Kishanganga HEP		0.00	0.00
43	अंता गैस NTPC Anta		0.00	0.00
44	रामपुर एचईपी RAMPUR HEP		0.00	0.00
45	ऊंचाहार -IV UNCHAHAR-IV		0.00	0.00
46	एनटीपीसी कोलडाम NTPC KOLDAM		0.00	0.00
47	कोटेश्वर		0.00	0.00

18. पावर मार्केट की सूचना ( स्रोत : आई.ई.एक्स. एवं पी.एक्स.आई.एल.)  
 POWER MARKET INFORMATION ( Source IEX & PXIL)  
 पावर एक्सचेंज के माध्यम से विनियम - माह दिसंबर 2019  
 EXCHANGES THROUGH POWER EXCHANGES -DECEMBER 2019

क्र. स. S. No.	क्षेत्रीय इकाई Regional Entity	क्षेत्र Region	पावर एक्सचेंज के माध्यम से ( मि.यु.मे ) Through Power Exchange in MU	
			विक्रय Sale	क्रय Purchase
48	मध्य प्रदेश MP	पश्चिमी क्षेत्र WR	448.23	6.65
49	महाराष्ट्र Maharashtra		21.07	483.65
50	गुजरात Gujarat		10.06	417.50
51	छत्तीसगढ़ Chhattisgarh		159.71	102.18
52	गोवा Goa		16.50	17.74
53	दमन और दीव Daman and Diu		0.00	46.40
54	दादरा और नगर हवेली Dadra & Nagar Haveli		0.00	104.54
55	जिंदल Jindal		35.70	0.00
56	लांको अमरकंटक LANCO AMK		0.00	0.00
57	आर्यन कोल ACB India Limited		36.03	0.00
58	जिंदल स्टील एंड पावर Jindal Steel and Power Ltd		8.64	0.00
59	बालको -2 Balco-II		0.10	0.00
60	स्टरलाइट Sterlite(w3rse0)		0.00	0.00
61	एमको EMCO		0.00	0.00
62	वन्दना विद्युत VANDANA VIDYUT		0.00	0.00
63	एस्सार पावर ESSAR POWER		44.52	0.00
64	एस्सार स्टील ESSAR STEEL		0.00	6.77
65	के एस के महानदी KSK Mahanadi		0.00	0.00
66	जिंदल स्टेज -II Jindal Stg-II		61.45	0.00
67	कोरबा (प.) Korba(W) Comp. Ltd.		54.09	0.00
68	डी बी पावर D B Power		52.11	0.00
69	धारीवाल Dhariwal		0.21	0.00
70	जे पी निग्री Jaypee Nigire		226.71	0.00
71	जी एम आर छत्तीसगढ़ GMR Chhattisgarh		176.36	0.00
72	डी जीईएन मेगा पावर DGEN Mega Power		0.00	0.00
73	एम बी मेगा पावर MB Power		74.39	0.00
74	एपीएल मुंद्रा स्टेज-I APL Mundra Stg-I		0.00	0.00
75	एपीएल मुंद्रा स्टेज-II APL Mundra Stg-II		120.38	0.00
76	एपीएल मुंद्रा स्टेज-III APL Mundra Stg-III		95.69	0.00
77	टोरेंट सुगेन Torrent Sugen		0.00	0.00
78	मारुति कोल Maruti Coal		48.34	0.00
79	स्पेक्ट्रम Spectrum		56.24	0.00
80	झाबुआ पावर Jhabua Power		33.58	0.00
81	विंध्याचल -I VindhyaChal Stg-I		0.00	0.00
82	विंध्याचल -II VindhyaChal Stg-II		0.00	0.00
83	विंध्याचल -III VindhyaChal Stg-III		1.60	0.00
84	विंध्याचल -IV VindhyaChal Stg-IV		5.47	0.00
85	विंध्याचल -V VindhyaChal Stg-V		1.02	0.00
86	मौदा-I Mouda STPS Stg-I		0.02	0.00
87	सीपत- I Sipat Stg-I		0.00	0.00
88	सीपत- II Sipat Stg-II		0.59	0.00
89	सासन Sasan UMPP		0.00	0.00
90	एनएसपीसीएल NSPCL		0.00	0.00
91	कोरबा-III Korba-III		17.09	0.00
92	टीआरएन इनर्जी TRN Energy		0.00	0.00
93	गंधार Gandhar		0.00	0.00
94	कोरबा I & II Korba Stage I & II		9.46	0.00
95	आरकेएम पावरजेन RKM Power Gen		0.00	0.00
96	कवास Kawas		0.08	0.00
97	मौदा-II Mouda STPS Stg-II		0.00	0.00
98	एसकेएस पावरजेन SKS Powergen		41.55	0.00
99	शोलापुर एसटीपीपी Sholapur STPP		0.00	0.00
100	रत्नागिरी गेस पावर प्राइवेट लिमिटेड RGPPL		0.03	0.00
101	गदरवाड़ा Gadarwara		0.00	0.00

## 18. पावर मार्केट की सूचना ( स्रोत : आई.ई.एक्स. एवं पी.एक्स.आई.एल.)

POWER MARKET INFORMATION ( Source IEX &amp; PXIL)

पावर एक्सचेंज के माध्यम से विनिमय – माह दिसंबर 2019

EXCHANGES THROUGH POWER EXCHANGES -DECEMBER 2019

क्र. स. S. No.	क्षेत्रीय इकाई Regional Entity	क्षेत्र Region	पावर एक्सचेंज के माध्यम से ( मि.यु.मे )	
			विक्रय Sale	क्रय Purchase
102	आंध्र प्रदेश Andhra Pradesh	दक्षिणी क्षेत्र SR	19.01	147.53
103	कर्नाटक Karnataka		132.86	103.95
104	केरल Kerala		1.07	102.16
105	तमिलनाडु Tamilnadu		9.10	433.30
106	पॉण्डिचेरी Pondicherry		0.00	0.00
107	गोवा Goa		0.00	0.00
108	लांको कॉडापल्ली LANCO_KONDPLY		0.00	0.00
109	सिम्हापुरी SIMHAPURI		0.00	0.00
110	मीनाक्षी MINAXI		0.00	0.00
111	तेलंगाना TELANGANA		20.07	683.78
112	थर्मल पॉवर टेक Thermal Power Tech		100.53	0.00
113	कोस्टल इनरजेन Coastal Energen		0.00	0.00
114	आई एल & एफ एस IL&FS		7.23	0.00
115	सिम्हाद्री-II Simhadri Stg-II		1.78	0.00
116	एनएलसी-I विस्तार NLC TPS-I (Exp)		27.86	0.00
117	एनएलसी-II स्टेज-I NLC TPS-II Stg-I		28.58	0.00
118	एनएलसी-II स्टेज-II NLC TPS-II Stg-II		46.77	0.00
119	लांको कॉडापल्ली स्टेज-III LANCO_KONDPLY STG III		0.00	0.00
120	रामगुण्डम- I Ramagundam Stg-I		13.84	0.00
121	तालचर- II Talcher Stg-II		16.58	0.00
122	रामगुण्डम- III Ramagundam Stg-III		4.76	0.00
123	एसजीपीएल Sembcorp Gayatri Pvt. Ltd.		329.82	0.00
124	एनटीईसीएल वल्लूर NTECL Vallur		0.00	0.00
125	कुडगी Kudgi		0.00	0.00
126	सिम्हाद्री-I Simhadri Stg-I		0.00	0.00
127	एनएलसी टीपीएस-II एक्स्प NLC TPS-II EXP		8.78	0.00
128	एन टी पी एल NTPL		0.00	0.00
129	एस बी जी क्लीनटेक SBG Cleantech		14.20	0.00
130	पश्चिम बंगल West Bengal	पूर्वी क्षेत्र ER	88.67	47.04
131	ओडिशा Odisha		202.91	55.32
132	बिहार Bihar		170.93	78.70
133	झारखण्ड Jharkhand		62.44	6.32
134	सिक्किम Sikkim		17.72	0.00
135	दामोदर घाटी परियोजना DVC		0.40	1.64
136	स्टरलाइट STERLITE		0.00	0.00
137	मैथन पावर लिमिटेड Maithon P. Ltd		0.00	0.00
138	आधुनिक पा. लिमिटेड Adhunik P.Ltd		2.46	0.00
139	चुजाचेन Chuzachen HEP		1.56	0.00
140	रंगित Rangit HEP		0.00	0.00
141	तीस्ता Teesta HEP		0.00	0.00
142	जीएमआर कमलंग GMR Kamalanga		2.32	0.00
143	जिंदल आई पी टी एल JIPTL		7.80	0.00
144	जोरथांग Jorethang		16.83	0.00
145	फरक्का-III Farakka-III		10.84	0.00
146	बाढ़-II Barh Stage-II		0.00	0.00
147	कहलगाँव-II Kahalgaon Stage-II		0.00	0.00
148	फरक्का Farakka		0.00	0.00
149	कहलगाँव Kahalgaon		0.00	0.00
150	तालचर Talcher		0.00	0.00
151	तीस्ता-III Teesta-III		143.18	0.00
152	दिक्चु Dikchu HEP		10.07	0.00
153	ताशिदिंग Tashidiling HEP		14.85	0.00
154	बीआरबीसीएल BRBCL		0.00	0.00
155	केबीयूएनएल KBUNL		0.00	0.00
156	ओपीजीसी यूनिट-IV OPGC UNIT-IV		0.00	0.00
157	अरुणाचल प्रदेश Arunachal Pradesh	पूर्वोत्तर क्षेत्र NER	2.31	0.85
158	असम Assam		202.50	27.43
159	मणिपुर Manipur		15.10	1.51
160	मेघालय Meghalaya		0.00	26.48
161	मिजोरम Mizoram		14.03	0.00
162	नागालैंड Nagaland		0.02	6.56
163	त्रिपुरा Tripura		54.98	0.00
164	अगरतला जीटीपीपी Agartala GTPP_AGO		0.00	0.00
165	कोपिली KOPILI_KP1		0.00	0.00
166	असम जीबीपीपी Assam GBPP_KT0		0.00	0.00
167	लोकटक LOKTAK		0.00	0.00
168	रंगानदी Ranganadi		0.00	0.00
169	दोयांग Doyang		0.00	0.00
170	पलाताना Palatana		1.04	0.00
171	कोपिली-II Kopili-II		0.00	0.00
172	खड़ोंग Khandong		0.00	0.00
173	बोंगाइंगाँव Bongaigaon TPP		8.13	0.00
174	पारे PARE		0.00	0.00
कुल Total			4334	4334

**19. RENEWABLE ENERGY CERTIFICATE MECHANISM**  
**MONTH : DECEMBER 2019**

**RE Source & Unit wise break up (01.12.2019-31.12.2019)**

Sr.No	Source Wise	Accreditation		Registration	
		Capacity (MW)	Unit	Capacity (MW)	Unit
1	Wind	5	4	18	4
2	Urban or Municipal Waste	0	0	0	0
3	Solar Thermal	0	0	0	0
4	Solar PV	70	24	1	1
5	Small Hydro	3	1	12	1
6	Others	0	0	0	0
7	Geothermal	0	0	0	0
8	Biomass	4	1	6	1
9	Bio-fuel cogeneration	20	2	0	0
	<b>Total</b>	<b>102</b>	<b>32</b>	<b>37</b>	<b>7</b>

**RECs Issued (01.12.2019-31.12.2019)**

Sr.No.	Non Solar	Solar	Total
1	477020	64651	541671

**Redemption of REC (01.12.2019-31.12.2019)**

Sr.No.	Non Solar	Solar	Total
1	568540	62312	630852

**19. RENEWABLE ENERGY CERTIFICATE MECHANISM**  
**MONTH : DECEMBER 2019**

**RE Source & Unit wise break up (Apr-Mar'20)**

Sr.No	Source Wise	Accreditation		Registration	
		Capacity (MW)	Unit	Capacity (MW)	Unit
1	Wind	512	52	528	59
2	Urban or Municipal Waste	0	0	0	0
3	Solar Thermal	0	0	0	0
4	Solar PV	154	64	123	56
5	Small Hydro	30	3	51	5
6	Others	3	1	3	1
7	Geothermal	0	0	0	0
8	Biomass	28	4	24	3
9	Bio-fuel cogeneration	62	8	49	7
	<b>Total</b>	<b>789</b>	<b>132</b>	<b>778</b>	<b>131</b>

**RECs Issued (Apr-Mar'20)**

Sr.No.	Non Solar	Solar	Total
1	4113278	673714	4786992

**Redemption of REC (Apr- Mar'20)**

Sr.No.	Non Solar	Solar	Total
1	4720512	896191	5616703

**19. RENEWABLE ENERGY CERTIFICATE MECHANISM**  
**MONTH : DECEMBER 2019**

**RE Source & Unit wise break up Since Inception to December'19**

Sr.No	Source Wise	Accreditation		Registration	
		Capacity (MW)	Unit	Capacity (MW)	Unit
1	Wind	2599	466	2603	468
2	Urban or Municipal Waste	0	0	0	0
3	Solar Thermal	0	0	0	0
4	Solar PV	813	380	763	371
5	Small Hydro	250	37	247	36
6	Others	4	2	3	1
7	Geothermal	0	0	0	0
8	Biomass	480	44	416	39
9	Bio-fuel cogeneration	804	90	351	51
	Total	<b>4950</b>	<b>1019</b>	<b>4383</b>	<b>966</b>

**RECs Issued since Inception to December'19**

Sr.No.	Non Solar	Solar	Total
1	49256399	9405936	58662335

**Redemption of REC since Inception to December'19**

Sr.No.	Non Solar	Solar	Total
1	47914560	9369503	57284063

**REC Closing balance as on 31.12.2019**

Sr.No.	Non Solar	Solar	Total
1	1341839	36433	1378272

## 20. IMPORTANT GRID EVENTS / DISTURBANCES

Northern Region-Grid Event Report for December 2019															
S.No.	Region	Name of Elements (Tripped/Manually opened)	Affected Area	Owner/ Agency	Outage		Revival		Duration	Event (As reported)	Generation Loss(MW)	Load Loss(MW)	Category as per CEA Grid Standards	Energy Unserved (in MU)	
					Date	Time	Date	Time							
1	NR	1) 400 kv koteswar(th)-koteswar(pg) (pg) ckt-2 2) 400kv bus 2 at koteswar(th) 3) 400kv bus 1 at koteswar(th) 4) 100 mw koteswar hps - unit 2 5) 400 kv koteswar(th)-koteswar(pg) (pg) ckt-1 6) 125 mvar bus reactor no 1 at 400kv koteswar(th)	UTTRAKHAND	POWERGRID, THDC	01-12-2019	14:58	01-12-2019	17:13	02:15	Due to failure of B-phase insulator string of 400KV Bus II at KHEP, Bus bar protection of Bus -II of 400KV Koteswar Power House operated at about 14:58Hrs. It resulted in tripping of following elements: (a) Unit 2 of 100MW capacity resulting in generation loss of 90MW. (b) Tripping of 400 KV KOTESWAR(TH)-KOTESWAR(PG) (PG) CKT-1 & 2 (c) 400KV Bus 1 and BUS 2 AT KOTESWAR(TH) (d) 125 MVAR BUS REACTOR NO 1 AT 400KV KOTESWAR(TH)	90	0	GD-1	0	
2	NR	1) 400 kv barely_2(pg)-kashipur(uk) (pg) ckt-2 2) 400 kv barely_2(pg)-kashipur(uk) (pg) ckt-1	UTTRAKHAND	POWERGRID	03-12-2019	09:21	03-12-2019	09:44	00:23	400 kv Barely (PG) - Kashipur(UK) (PG) both circuit tripped at Barely end. DT received at Kashipur(uk) end.	0	0	GI-2	0	
3	NR	1) 220 kv mogal(pg)-mehal-kalan(ps) (pstcl) ckt-2 2) 220 kv mogal(pg)-mehal-kalan(ps) (pstcl) ckt-1 3) 220 KV MEHAL-KALAN(PS) - Bus 1 4) 220 KV MEHAL-KALAN(PS) - Bus 2	PUNJAB	PUNJAB	03-12-2019	16:02	03-12-2019	17:32	01:30	Due to mal-operation of 220kV Bus bar protection at 220 kV Mehal Kalan (PS). 220kV Bus 1 at Mehal Kalan and 220 kV Moga(PG) - Mehal Kalan(PS) (PSTCL) circuit 1 & 2 got tripped.	0	32	GD-1	0.05	
4	NR	1) 400 kv panki-aligarh (up) ckt-1 2) 400 kv rewa road-panki (up) ckt-1	UTTAR PRADESH	UP	05-12-2019	06:03	05-12-2019	08:01	01:58	During fault in 400 kV Aligarh-Panki ckt, 400 kV Rewa Road-Panki ckt also tripped from Rewa Road end. As per PMU data, it seems fault was transient in nature and 400 kV Aligarh-Panki line A/R from Panki end. Further it also seems A/R function is not working at 400 kV Aligarh end.	0	0	GI-2	0	
5	NR	1) 125 mvar bus reactor no 1 at 400kv manesar(pg) 2) 400 kv gurgaon-manesar (pg) ckt-1 3) 220 kv manesar(pg)-badshahpur(hv) (hvnpn) ckt-1 4) 220 kv manesar(pg)-mau(hv) (hvnpn) ckt-2 5) 400 kv neemrana-manesar (pg) ckt-1 6) 125 mvar bus reactor no 2 at 400kv manesar(pg) 7) 220 kv manesar(pg)-mau(hv) (hvnpn) ckt-1 8) 400 kv neemrana-manesar (pg) ckt-2 9) 400 kv gurgaon-manesar (pg) ckt-2 10) 400/220 kv 500 mva ict 1 at manesar(pg) 11) 400/220 kv 500 mva ict 2 at manesar(pg) 12) 220 kv manesar(pg)-badshahpur(hv) (hvnpn) ckt-2 13) 220 kv manesar(pg)-mau(hv) (hvnpn) ckt-2 14) 220 kv manesar(pg)-badshahpur(hv) (hvnpn) ckt-1 15) 220 kv manesar(pg)-mau(hv) (hvnpn) ckt-1	HARYANA	HVPNL, POWERGRID	05-12-2019	12:34	05-12-2019	13:13	00:39	At 12:29hrs all 400kV lines tripped at Manesar(PG) due to mal-operation of contactor of SF6 gas zone trip of bus isolator of 400 kV Neemrana-Manesar (pg) ckt 1. Consequently at 12:34hrs, all 220 kV lines also tripped at Manesar(PG)	0	200	GD-1	0.07	
6	NR	1) 400kv bus 1 at manesar(pg) 2) 400 kv gurgaon-manesar (pg) ckt-1 3) 125 mvar bus reactor no 2 at 400kv manesar(pg) 4) 400/220 kv 500 mva ict 2 at manesar(pg) 5) 400KV Neemrana-Manesar (PG) Ckt-1	HARYANA	POWERGRID	06-12-2019	17:44	06-12-2019	18:59	01:15	400kV Bus bar -1 at 400/220kV Manesar (PG) hand tripped due to sudden SF6 gas leakage observed in bus bar-1 VT compartment leading to tripping of 400kV Gurgaon-Manesar(pg) ckt-1, 400KV Neemrana-Manesar (PG) Ckt-1, 500 MVA ICT 2 at Manesar(pg) & 125 MVAR bus reactor no 2 at 400kv Manesar(pg. As per PMU, No fault is observed in the system. In antecedent conditions, 500 MVA ICT 2 carrying 94MW.	0	0	GI-2	0	
7	NR	1) 220 kv bairasul(nh)-jessore(hp) (pg) ckt-1 2) 220 kv bairasul(nh)-pong(bb) (pg) ckt-1	HIMACHAL PRADESH	POWERGRID	12-12-2019	15:00	12-12-2019	15:39	00:39	220 kv bairasul(nh)-jessore(hp) (pg) & 220 kv bairasul(nh)-pong(bb) (pg) tripped on overvoltage. As per PMU, No fault is observed in the system. In antecedent conditions, 220 kv bairasul(nh)-jessore(hp) (pg) & 220 kv bairasul(nh)-pong(bb) carrying 8MW & 11MW respectively. Generation at 220kV Bairasul(NHPC) was zero at the time of tripping.	0	0	GI-2	0	
8	NR	1) 400 kv kishenpur-newwanpoh (pg) ckt-1 2) 400 kv kishenpur-newwanpoh (pg) ckt-2	J & K	POWERGRID	13-12-2019	11:00	13-12-2019	11:07	00:07	400 kv kishenpur-newwanpoh (pg) ckt-1 tripped on R-N fault & 400 kv kishenpur-newwanpoh (pg) ckt-2 tripped on B-N fault. As per PMU, R-N & B-N fault with unsuccessful autoreclosing is observed in the system. In antecedent conditions, 400 kv kishenpur-newwanpoh (pg) ckt-1 & 2 carrying 18MW & 9MW respectively.	0	0	GI-2	0	
9	NR	1) 220 kv unchahar(nt)-fatehpur(up) (up) ckt-1 2) 220 kv unchahar(nt)-fatehpur(up) (up) ckt-2 3) 220 kv fatehpur(pg)-fatehpur(up) (up) ckt-1 4) 220 kv fatehpur(pg)-fatehpur(up) (up) ckt-2	UTTAR PRADESH	UP	16-12-2019	12:30	16-12-2019	12:42	00:12	220kv unchahar(nt)-fatehpur(up) (up) ckt-2 tripped on 21 distance protection. Along with aforesaid line, all 220kV lines at Fatehpur(UP) tripped. As per PMU, R-Y fault with delayed clearance of 760ms is observed in the system. In antecedent conditions, 220kV fatehpur(pg)-fatehpur(up) (up) ckt-1 & 2, 220kV unchahar(nt)-fatehpur(up) (up) ckt-1 & 2 carrying 27MW, 27MW, 80MW & 80MW respectively.	0	140	GD-1	0.03	
10	NR	1) 400kv bus 1 at chhabra(run) 2) 400 kv chhabra-chhabra sctps (rs) ckt-1 3) 660 mw chhabra sctps - unit 5 4) 660 mw chhabra sctps - unit 6	RAJASTHAN	RRVPNLL	17-12-2019	18:14	17-12-2019	19:34	01:20	Y-phase jumper of 400kV Chhabra-Chhabra SCTPS inter connector [between bus-1 at Chhabra & bus-3 at Chhabra SCTPS] snapped and created bus fault of Bus-1 at Chhabra TPS. This resulted in tripping of all CBs connected to Bus-1. As, Chhabra SCTPS-Anta D/C was already out, running generation at Chhabra SCTPS (Unit #5, #6) tripped due to loss of evacuation. As per PMU, Y-N fault is observed in the system. In antecedent conditions, Chhabra SCTPS Units 5 & Unit6 carrying 322MW & 303MW respectively.	625	0	GD-1	0	
11	NR	1) 220 kv tanakpur(nh)-sitarganj(pg) (pg) ckt-1 2) 220 kv tanakpur(nh)-cbganj(up) (pg) ckt-1	UTTAR PRADESH	POWERGRID	18-12-2019	04:00	18-12-2019	04:37	00:37	220kv Tanakpur(NHPC)-Sitarganj(PG) (pg) ckt-1 & 220kv Tanakpur(NHPC)-Cbganj(PG) (pg) ckt-1 tripped on heavy jerk. Unit#2 and Unit#3 at 220kv Tanakpur(NHPC) also tripped due to loss of evacuation path. As per PMU, Fluctuations in Y-phase voltages is observed. In antecedent conditions, Unit#2 and Unit#3 at 220kv Tanakpur(NHPC) generating 10MW & 32MW respectively.	40	0	GD-1	0	
12	NR	1) 400/220 kv 315 mva ict 2 at muradnagar_2(up) 2) 400/220 kv 240 mva ict 1 at muradnagar_2(up)	UTTAR PRADESH	UP	18-12-2019	17:47	18-12-2019	20:15	02:28	240MVA ICT 1 & 315MVA ICT 2 at 400/220kV Muradnagar New(UP) tripped due to earth fault. As per PMU, B-N fault followed by R-N fault is observed in the system. In antecedent conditions, 240MVA ICT 1 & 315MVA ICT 2 carrying 7MW & 10MW respectively.	0	0	GI-2	0	
13	NR	1) 400 kv banda-orai (up) ckt-2 2) 400 kv orai-mainpuri (up) ckt-1	UTTAR PRADESH	UP	20-12-2019	06:37	20-12-2019	09:10	02:33	400kv Orai-Mainpuri (up) ckt-1 tripped on Y-N fault,fault current -18.26 kA. At the same time, 400kv Banda-Orai (up) ckt-2 tripped on Y-N fault from orai end only. As per PMU, Y-N fault with unsuccessful autoreclosing is observed in the system. In antecedent conditions, 400kV Orai-Mainpuri (up) ckt-1 & 400kv Banda-Orai (up) ckt-2 carrying 163MW & 18MW respectively.	0	0	GI-2	0	
14	NR	1) 400/220 kv 315 mva ict 3 at sultانpur(up) 2) 400 kv sultانpur(up)-lucknow_1(pg) (up) ckt-1 3) 400 kv tandat(nt)-sultانpur(up) (up) ckt-1 4) 400kv bus 1 at sultانpur(up) 5) 400/220 kv 315 mva ict 2 at sultانpur(up) 6) 400kv Orai_B-Sultانpur (UP) Ckt-1 7) 400/220 kv 315 MVA ICT 1 at Sultانpur(UP)	UTTAR PRADESH	UP	22-12-2019	02:54	22-12-2019	04:19	01:25	Bus bar protection of 400kV Bus 1 at 400/220kV Sultanpur(UP) operated resulting in tripping of all connected elements. As per PMU, Multiple R-N faults are observed in the system. In antecedent conditions, 315MVA ICT 1, 240MVA ICT 2 & 315MVA ICT 3 at 400/220kV Sultanpur(UP) carrying 60MW, 40MW & 55MW respectively.	0	40	GD-1	0.06	
15	NR	1) 400 KV Bawana CGGTB(DTL) - Bus 2 2) 400 KV Bawana-Mundka (DV) Ckt-1 3) 400 KV Bawana-Mundka (DV) Ckt-2	DELHI	DTL	28-12-2019	00:24	28-12-2019	18:58	18:34	During charging of STG1 at 00.24Hrs. Bus sectionalizer-2 at Bawana tripped due to snapping of jumper resulted 400kV Bawana-Mundka 1 and 2 tripped. No load loss occurred at Delhi. As per PMU, Y-N fault is observed in the system.In antecedent conditions, 400KV Bawana-Mundka 1 and 2 carrying 219MW & 212MW respectively.	0	0	GI-2	0	

S.No.	Region	Name of Elements (Tripped/Manually opened)	Affected Area	Owner/ Agency	Outage		Revival		Duration	Event (As reported)	Generation Loss(MW)	Load Loss(MW)	Category as per CEA Grid Standards	Energy Unserved (in MU)
					Date	Time	Date	Time						
16	NR	1) 660 MW Chhabra SCTPS - UNIT 6 2) 660 MW Chhabra SCTPS - UNIT 5 3) 400 KV Antai(RS)-Kawai SCTPS(APR) (RS) Ckt-2	RAJASTHAN	RRVPL	29-12-2019	07:53	29-12-2019	10:42	02:49	400 KV Antai(RS)-Kawai SCTPS(APR) (RS) Ckt-2 tripped on R-N fault. At the same time, 660 MW Chhabra SCTPS - UNIT 5 & UNIT 6 tripped due to operation of Generator differential Protection. As per PMU, R-N fault with unsuccessful autoreclosing is observed. In antecedent conditions, Chhabra SCTPS - UNIT 5 & UNIT 6 generating 408MW & 361MW respectively.	780	0	GD-1	0
17	NR	1) 800 KV HVDC Champa(PG)- Kurukshetra(PG) Pole-1 2) 800 KV HVDC Champa(PG)- Kurukshetra(PG) Pole-2 3) 800 KV HVDC Champa(PG)- Kurukshetra(PG) Pole-3	HARYANA	POWERGRID	30-12-2019	10:26	30-12-2019	12:17	01:51	800KV HVDC Champa-Kurukshetra pole 1, pole 2 & pole 3 tripped at 1026hrs due to CNAP(Common Neutral Area Protection) protection alarm present at champa end. 800KV HVDC Champa-Kurukshetra pole 2 & pole 3 charged at 1132hrs & 1145hrs respectively and again got tripped at 1151hrs due to same reason. As per PMU, Fluctuations observed in the phase voltages. In antecedent conditions, 800KV HVDC Champa-Kurukshetra pole 1, pole 2 & pole 3 carrying 1050MW, 250MW & 200MW respectively.	0	0	GI-2	0

**Western Region-Event Report for December 2019**

S.No	Region	Name of Elements	Owner/Agency	Outage		Revival		Outage Duration	Event	Generation Loss (MW)	Load Loss (MW)	Category as per CEA standards	Energy Unserved (MU)
				Date	Time	Date	Time						
1	WR	Tripping of 1.400 KV Kolhapur(MH)-Kolhapur(PG) 2 2.400 KV Kolhapur(MH)- Karad 2 3.400 KV Kolhapur(MH)- Alkud 4.400/220 KV Kolhapur(MH) 500 MVA ICT 3 5.400 KV Kolhapur(MH) 125 MVAR BR	MSETCL	9-Dec-19	10:25	9-Dec-19	10:50	00:25	At 400/220 KV Kolhapur(MH) s/s, while opening 400 KV 125 MVAR reactor at Kolhapur(MH) for Voltage regulation, Y phase CB of the reactor got blasted and created fault in 400 KV Bus 2. This resulted in tripping of all the elements connected to 400 KV Bus 2 along with the bus coupler on BB operation.	Nil	Nil	GI-2	Nil
2	WR	Tripping of 1.400KV MB Power-Jabalpur PS-1 2.400KV MB Power-Jabalpur PS-2 3.600 MW MB Power Unit 2	PGCIL/MB Power	17-Dec-19	16:53	17-Dec-19	17:27	00:34	At 400 KV MB Power Power station, 400 KV MB Power-Jabalpur(PS) 1&2 tripped due to the receipt of DT from Jabalpur(PS). 600 MW MB Power Unit 2 tripped due to the loss of evacuation path. At the time of the tripping 400KV Bus 1 at Jabalpur(PS) was under planned outage.	510	Nil	GD-1	Nil
3	WR	Tripping of 1.400 KV Indore- Nada 2.400 KV Indore- ISP 1 3.400 KV Indore- Indore(PG) 1 4.400 KV Indore- Itarsi 1 5.400 KV Indore- Asoj 1 6.400/220 KV 315 MVA Indore(MP) ICTs 1&2 7.ISP Unit 1	MPPTCL	28-Dec-19	13:20	28-Dec-19	13:50	00:30	At 400/220 KV Indore(MP) s/s, B-phase CT of 400KV Nagda blasted and resulted in tripping of all the elements connected to 400 kv bus 1 on Bus bar protection operation. ISP Unit 1 tripped on overall GT Differential protection operation.	123.75	Nil	GI-2	Nil
4	WR	Tripping of 1.800 KV HVDC Champa - Kurukshetra Pole 1 2.800 KV HVDC Champa - Kurukshetra Pole 3	PGCIL	14-Dec-19	10:37	14-Dec-19	11:48	01:11	At 800 KV HVDC Champa s/s, Pole 1 blocked due to the DC Undercurrent on CAT-B protection operation and Pole 3 blocked due to the failure of O/C relay (Delcon-make)at Kurukshetra end. After the relay replacement and resetting pole protections,the poles got deblocked.	Nil	Nil	GI-2	Nil
5	WR	Tripping of 1.800 KV HVDC Champa - Kurukshetra Pole 1 2.800 KV HVDC Champa - Kurukshetra Pole 2 3.800 KV HVDC Champa - Kurukshetra Pole 3	PGCIL	30-Dec-19	10:26	30-Dec-19	11:32	01:06	At 800 KV HVDC Champa s/s, Pole 1&2 blocked on Common Neutral Area Protection at Champa end and at the same time pole 3 blocked on CAT-B protection operation.	Nil	Nil	GI-2	Nil
6	WR	Tripping of 1.800 KV HVDC Champa - Kurukshetra Pole 2 2.800 KV HVDC Champa - Kurukshetra Pole 3	PGCIL	30-Dec-19	11:51	30-Dec-19	12:44	00:53	At 800 KV HVDC Champa s/s, Pole 2 blocked due to Earth overcurrent protection operation and pole 3 blocked on CAT-B protection operation.	Nil	Nil	GI-2	Nil

*Disclaimer : The Above details are based on the preliminary/flash report of the event and may change after finalisation of the detailed report.The quantum of load/generation loss is based on details given by SLDC and utility and may vary later with updated details.*

Southern Region-Grid Event Report for December 2019															
Sl. No.	Region	Name of Elements (Tripped/Manually opened)	Owner / Agency	Outage		Revival		Outage Duration	Event (As reported)	Generation Loss (MW)	Load Loss (MW)	Category as per CEA Grid Standards	Energy Unserved (MU)		
				Date	Time (Hrs)	Date	Time (Hrs)								
1	SR	i. 220kV Hubli - Narendra line-1&2 ii. 220kV Hubli - Nagjheri Line-1,2&3 iii. 220kV Hubli - Bidnal Line-1&2 iv. 220kV Nagjheri - Bidnal	KPTCL	14-Dec-19	10:56	14-Dec-19	11:17	21 mins	Complete loss of supply at 220kV Hubli SS, 220kV Bidnal SS of KPTCL and 220kV Nagjheri GS of KPCL: Triggering incident was fault in 220kV Hubli-Narendra Line-2. Due to cascaded tripping of connected lines and loss of evacuation, there was complete loss of supply at 220kV Hubli SS, 220kV Bidnal SS of KPTCL and 220kV Nagjheri GS of KPCL	550 MW	110 MW	GD-1	0.04		
2	SR	i. 220kV Shimoga - Sharavathy Line-4 ii. All 220kV connected lines tripped.	KPTCL	25-Dec-19	17:44	25-Dec-19	18:09	25 mins	Complete loss of supply at 220kV Shimoga SS of KPTCL: Triggering incident was line to line fault in 220kV Shimoga-Sharavathi line -4. Bus-I Bus bar protection operated at 220kV Shimoga resulting in complete loss of supply since all the elements were connected to Bus-1 during antecedent conditions.	-----	80 MW	GD-1	0.03		
3	SR	i. 220kV KTPS - Lower Sileru ii. 220kV KTPS V - Lower Sileru	APGENCO	2-Dec-19	02:30	2-Dec-19	05:57	3 hrs 27 mins	Tripping of Bus-2 at 220kV Lower Sileru station: During deparallelizing of Unit -1 (connected to 220kV Bus-2) at Lower Sileru, R-phase circuit breaker of Unit-1 did not open. This led to operation of LBB protection of 220kV Bus-2 resulting in tripping of all elements connected to 220kV Bus-2.	NIL	80 MW	GI-1	-----		
4	SR	i. 220kV Kudgi-NTPC - Kudgi PG Line-3 ii. 220kV Kudgi-NTPC - Kudgi PG Line-5	NTPC-Kudgi	20-Dec-19	06:40	20-Dec-19	17:00	10 hrs 20 mins	Tripping of 220kV Bus-1 at 400/220kV Kudgi GS: Triggering incident was 220kV Bus-1 R-phase suspension insulator flashover. Bus bar protection of 220kV Bus-1 operated resulting in tripping of all elements connected to 220kV bus-1.	NIL	NIL	GI-1	-----		
5	SR	i.220kV Malyalappali - Ramapur ii. 400/220kV ICT-2 at Ramagungam iii. 400/220kV ICT-4 at Ramagungam	TSTRANSCO	21-Dec-19	03:10	21-Dec-19	03:59	49 mins	Tripping of Bus-2 at 220kV Malyalappali (Ramagundam) station: Triggering incident was B-N fault in 220kV Malyalappali-Rampur line. LBB of Bus-2 operated since B-phase CB of 220kV Malyalappali-Rampur line did not open due to damage in trip coil.	NIL	NIL	GI-1	-----		
6	SR	i. 400/230kV ICT-5 at Anaikadavu ii. 230kV Anaikadavu - Periyapatty line	TANTRANSCO	25-Dec-19	16:07	25-Dec-19	16:59	52 mins	Tripping of 230kV Bus-2 at 400/230kV Anaikadavu station: Triggering incident was B-phase bus fault. Bus bar protection of 230kV Bus-2 operated resulting in tripping of all elements connected to 230kV bus-2.	NIL	NIL	GI-1	-----		

**Eastern Region-Grid Event Report for December 2019**

Sl. No.	Region	Name of major elements tripped	Owner / Agency	Outage		Revival		Outage Duration	Event	Generation Loss (MW)	Load Loss (MW)	Category as per CEA Grid Standards	Loss of Energy(in MU)
				Date	Time	Date	Time						
1	ERLDC	400/200 ICT -2 at Gokarna 160 MVA 220/132 KV ICT 2&4 at Gokarna 220 KV Gokarna Sagardighi 2 220 KV Gokarna - Krishnanagar D/C	WBSETCL	6-Dec-19	10:58	6-Dec-19	11:50	00:52	220 KV sagardighi Gokaran 1 was under planned shutdown. At 10:58 hrs B phase CT-blast of 220 KV Gokarna - Sadaipur - 2 resulted bus fault at Gokarna which led to tripping of all lines connected to bus 2 at Gokarna end. 400 KV Farakka Gokarna S/C also tripped at same time sensing the same fault in Z-III. Line was in charged condition from Gokarna end. As per verbal information received, there is no bus bar protection at 220 KV level at Gokarna. As per PMU, fault clearance was around 1 second (Z-III time)	0	0	GI-II	0.0000
2	ERLDC	132kV Dumka-Lalmatia D/C	JUSNL	9-Dec-19	11:35	9-Dec-19	11:50	00:15	132 KV KhSTPP - Lalmatia S/C under shutdown. At 10:26 Hrs, 220 KV FSTPP -Lalmatia S/C tripped from Lalmatia end only due to pole discrepancy. Consequently, 38 MW load loss occurred at Lalmatia. Lalmatia availed power from Dumka through 132 KV Dumka-Lalmatia D/C at 11:25 Hrs. At 11:35 hrs this D/C lines tripped resulting power failure at Lalmatia.	0	38	GD-I	0.0095
3	ERLDC	220 KV Gaya Sonenagar - I	BSPTCL	12-Dec-19	11:18	12-Dec-19	11:34	00:16	Planned shutdown of 220 KV Gaya-Sonenagar 1 was availed at 11:12 Hrs. At 11:18 Hrs 220 KV Gaya-Sonenagar 2 tripped from Sonenagar on R-N fault leading to a load loss of 90 MW in downstream at Sonenagar and Japla (Traction loss- 20 MW at Japla). Auto-reclose was successful at Gaya.	0	90	GD-I	0.0240
4	ERLDC	220 KV Darbhanga(DMTCL) – Motipur I 220 KV MTPS – Motipur S/C	BSPTCL	14-Dec-19	02:50	14-Dec-19	04:51	02:01	220 KV Darbhanga(DMTCL)-Motipur II was kept open on voltage regulation from 14:35 hrs on 13.12.19. At around 02:50 hrs on 14-12-19, 220 KV Darbhanga(DMTCL) – Motipur I and 220 KV MTPS – Motipur tripped on E/F causing load loss of around 45 MW at Motipur / Sitamar/Musari area of BSPTCL system. 220 KV Darbhanga(DMTCL) – Motipur I was taken in to service at 03:25 hrs and tripped again on E/F at 03:37 hrs.	0	45	GD-I	0.0908
5	ERLDC	220 KV Gaya- Khizersarai I	BSPTCL	19-Dec-19	17:09	19-Dec-19	17:52	00:43	220 KV Bharsariff- Khizersarai S/C , 132 KV Bus at Lakhisarai & 132 KV Banka-Sultanganj D/c were out of service. 220 KV Gaya-Khizersarai I tripped at 17.09 hrs on B-N fault. 220KV Gaya-Khizersarai II tripped on overload interrupting power supply to Khizersarai S/S. In absence of feed from other sources like Biharshariff, Lakhisarai and Banka due to shutdown, total power failure occurred at Khizersarai and its surrounding areas.	0	266	GD-I	0.1906
6	ERLDC	220kV CTPS A - CTPS B D/C	DVC	28-Dec-19	05:26	28-Dec-19	08:51	03:25	At 05:26 hrs 220KV CTPS A-CTPS B D/C tie lines tripped on differential protection resulting tripping of all 220 KV feeders at CTPS A and all 220/132 KV at CTPS A. At the same time, U#8 of CTPS B also tripped.	193	300	GD-I	1.0250

North Eastern Region-Grid Disturbances Report for December 2019												
Sl. No.	Region	Name of Element	Owner / Agency	Date and Time of Tripping	Date and Time of Revival	Outage Duration	Event	Generation Loss (MW)	Load Loss (MW)	Generation Loss in MU	Load Loss in MU	Category as per CEA Grid Standards
1	NER	400 KV Imphal-Silchar Line 1 &2, 132 KV Imphal-Loktak & 132 KV Imphal-kohima line	PGCIL	01-Dec-19 09:06	01-Dec-19 09:48	42 mins	Imphal area of Manipur Power System was connected with the rest of the NER grid through 400 KV Imphal-Silchar Line 1 &2 lines, 132 KV Imphal -Loktak line & 132 KV Imphal-Kohima line (132 KV Karong-Kohima line was under shutdown wef 22 November 19 for HTLS Conductor Stringing & 132 KV Kakching-Kongba line & 132 KV Imphal - Ningthoukhong line kept open to avoid overloading of 132 KV Loktak-Ningthoukhong line ) At 09:06 Hrs on 01.12.2019, 400 KV Imphal-Silchar Line 1 & Lines, 132 KV Imphal -Loktak Line & 132 KV Imphal-Kohima line tripped . Due to tripping of these elements, imphal area of Manipur Power System was separated from the rest of NER Grid and subsequently collapsed due to no source in this area.	00:00	108	0	0.076	GD 1
2	NER	132 KV Loktak- Ningthoukhong line	MSPCL	02-Dec-19 07:00	02-Dec-19 07:28	28 mins	Ningthoukhong area of Manipur Power System was connected with rest of NER Grid through 132 KV Loktak-Ningthoukhong line. 132 KV Imphal - Ningthoukhong line and 132 KV Kakching - Kongba line kept open for over-loading of 132 KV Loktak- Ningthoukhong line. At 07:00 Hrs on 02.12.19, 132 KV Loktak- Ningthoukhong line tripped. Due to tripping of this element, Ningthoukhong area of Manipur Power System was separated from rest of NER Grid and subsequently collapsed due to no source in this area.	00:00	47	0	0.022	GD 1
3	NER	132 KV Daporijo- Ziro line	DOP , AP	08-Dec-19 15:55	08-Dec-19 16:38	43 mins	Daporijo area of Arunachal Pradesh Power System was connected with the rest of NER Grid through 132 KV Daporijo- Ziro line. At 15:55 Hrs on 08.12.19, 132 KV Daporijo- Ziro line tripped. Due to tripping of this element, Daporijo area was separated from the rest of NER Grid and subsequently collapsed due to no source in this area.	00:00	11	0	0.008	GD 1
4	NER	132 KV Loktak- Ningthoukhong line	MSPCL	17-Dec-19 18:43	17-Dec-19 18:55	12 mins	Ningthoukhong area of Manipur Power System was connected with rest of NER Grid through 132 KV Loktak-Ningthoukhong line. 132 KV Imphal - Ningthoukhong line and 132 KV Kakching - Kongba line kept open for over-loading of 132 KV Loktak- Ningthoukhong line. At 18:43 Hrs on 17.12.19, 132 KV Loktak- Ningthoukhong line tripped. Due to tripping of this element, Ningthoukhong area of Manipur Power System was separated from rest of NER Grid and subsequently collapsed due to no source in this area.	00:00	47	0	0.009	GD 1
5	NER	132 KV Loktak- Ningthoukhong line	MSPCL	17-Dec-19 19:25	17-Dec-19 19:33	8 mins	Ningthoukhong area of Manipur Power System was connected with rest of NER Grid through 132 KV Loktak-Ningthoukhong line. 132 KV Imphal - Ningthoukhong line and 132 KV Kakching - Kongba line kept open for over-loading of 132 KV Loktak- Ningthoukhong line. At 19:25 Hrs on 17.12.19, 132 KV Loktak- Ningthoukhong line tripped. Due to tripping of this element, Ningthoukhong area of Manipur Power System was separated from rest of NER Grid and subsequently collapsed due to no source in this area.	00:00	21	0	0.003	GD 1
6	NER	132 KV Lumshong-Panchgram line	MEPTCL & AEGCL	19-Dec-19 14:33	19-Dec-19 15:25	52 mins	Panchgram area of Assam Power System was connected with the rest of NER Grid through 132 KV Lumshong-Panchgram line. 132 KV Hailakandi - Panchgram line tripped at 14:22 Hrs on 19.12.2019,132 KV Badarpur - Panchgram line was under shutdown due to 132 KV Badarpur bus P/S/D and 132 KV Srikona-Panchgram was under shutdown due to tower collapse. At 14:33 Hrs on 19.12.2019, 132 KV Lumshong - Panchgram tripped .Due to tripping of this element, Panchgram area was separated from the rest of NER Grid and subsequently collapsed due to no source in this area."	00:00	20	0	0.017	GD 1
7	NER	132 KV Aizawl-Luangmual line	P&ED, Mizoram	24-Dec-19 06:54	24-Dec-19 07:39	45 mins	Luangmual area of Mizoram Power System was connected with the rest of NER Grid through 132 KV Aizawl-Luangmual line. At 06:54 Hrs on 24.12.2019 ,132 KV Aizawl-Luangmual line tripped, Due to tripping of this element, Luangmual area was separated from the rest of NER Grid and subsequently collapsed due to no source in this area.	00:00	31	0	0.023	GD 1
8	NER	132 KV Silchar- Hailakandi-1 & 2 Lines, 132 KV Hailakandi- Dullavchera Line and 132 KV Hailakandi-Panchgram Line	AEGCL	27-Dec-19 05:08	27-Dec-19 05:24	16 mins	Hailakandi area of Assam Power System was connected with the rest of NER Grid through 132 KV Silchar-Hailakandi-1 & 2 Lines, 132 KV Hailakandi - Dullavchera Line and 132 KV Hailakandi - Panchgram Line. At 05:08 Hrs on 27.12.19, 132 KV Silchar- Hailakandi-1 & 2 Lines, 132 KV Hailakandi- Dullavchera Line and 132 KV Hailakandi - Panchgram Line tripped. Due to tripping of these elements, Hailakandi area was separated from the rest of NER Grid and subsequently collapsed due to no source in this area.	00:00	12	0	0.0032	GD 1
9	NER	132 KV Ziro - Daporijo line	POWERGRID	30-Dec-19 07:23	30-Dec-19 07:40	17 mins	Daporijo area of Arunachal Pradesh Power System was connected with the rest of NER Grid through 132 KV Ziro - Daporijo line. At 07:23 Hrs on 30.12.19, 132 KV Ziro - Daporijo line tripped. Due to tripping of this element, Daporijo area was separated from the rest of NER Grid and subsequently collapsed due to no source in this area.	00:00	12	0	0.003	GD 1

**North Eastern Region-Grid Incidences Report for December 2019**

<b>Sl. No.</b>	<b>Region</b>	<b>Name of Element</b>	<b>Owner / Agency</b>	<b>Date and Time of Tripping</b>	<b>Date and Time of Revival</b>	<b>Outage Duration</b>	<b>Event</b>	<b>Generation Loss (MW)</b>	<b>Load Loss (MW)</b>	<b>Generation Loss in MU</b>	<b>Load Loss in MU</b>	<b>Category as per CEA Grid Standards</b>
1	NER	AGBPP Unit -6	NEEPCO	03-Dec-19 16:44	03-Dec-19 17:30	46 mins	AGBPP Unit-6 tripped at 16:44 Hrs on 03-12-19 . Revision done from Block No.71 on 03-12-19	19:12	0	0.020	0	GI 2
2	NER	AGTCCPP Unit -2	Neepco	05-Dec-19 05:02	05-Dec-19 05:45	43 mins	AGTCCPP Unit-2 tripped at 05:02 Hrs on 05-12-19 . Revision done from Block No.24 on 05-12-19	00:00	0	0.020	0	GI 1
3	NER	BgTPP Unit -3	NTPC	05-Dec-19 21:40	05-Dec-19 22:15	35 mins	BgTPP Unit-3 tripped at 21:40 Hrs on 05-12-19 . Revision done from Block No.90 on 05-12-19	00:00	0	0.090	0	GI 2
4	NER	Kopili II -Unit 1	NEEPCO	07-Dec-19 09:04	07-Dec-19 10:30	1 hrs 26 mins	Kopili II -Unit 1 tripped at 09:04 Hrs on 07-12-19 . Revision done from Block No.43 on 07-12-19	12:00	0	0.040	0	GI 1
5	NER	AGBPP Unit -2 & 4	NEEPCO	07-Dec-19 10:11	07-Dec-19 11:15	1 hrs 4 mins	AGBPP Unit-2 & 4 tripped at 10:11 Hrs on 07-12-19 . Revision done from Block No.46 on 07-12-19	14:24	0	0.060	0	GI 2
6	NER	AGTCCPP unit -5	NEEPCO	43808.49444	09-Dec-19 12:30	38 mins	AGTCCPP Unit 5 tripped at 11:52 Hrs on 09-12-19 . Revision done from Block No.51 on 09-12-19	12:00	0	0.020	0	GI 1
7	NER	AGBPP 1,3 & 4	NEEPCO	11-Dec-19 16:12	11-Dec-19 17:30	1 hrs 18 mins	AGBPP Unit 1,3 & 4 tripped at 16:12 Hrs on 11-12-19 . Revision done from Block No.71 on 11-12-19	00:00	0	0.080	0	GI 2
8	NER	AGBPP Unit 5 &7	NEEPCO	11-Dec-19 16:13	11-Dec-19 17:30	1 hrs 17 mins	AGBPP Unit 5 & 7 tripped at 16:13 Hrs on 11-12-19 . Revision done from Block No.71 on 11-12-19	00:00	0	0.050	0	GI 2
9	NER	AGBPP Unit 6 & 8	NEEPCO	11-Dec-19 16:19	11-Dec-19 17:30	1 hrs 11 mins	AGBPP Unit 6 & 8 tripped at 16:19 Hrs on 11-12-19 . Revision done from Block No.71 on 11-12-19	00:00	0	0.050	0	GI 2
10	NER	AGBPP Unit 9	NEEPCO	11-Dec-19 16:26	11-Dec-19 17:30	1 hrs 4 mins	AGBPP Unit 9 tripped at 16:19 Hrs on 11-12-19 due to interruption of gas supply. Revision done from Block No.71 on 11-12-19.	00:00	0	0.030	0	GI 2
11	NER	AGTCCPP Unit 3 & 6	NEEPCO	11-Dec-19 19:50	11-Dec-19 20:45	55 mins	AGTCCPP Unit 3 & 6 tripped at 19:50 Hrs on 11-12-19 . Revision done from Block No.84 on 11-12-19	00:00	0	0.030	0	GI 1
12	NER	BGTPP UNIT -2	NTPC	16-Dec-19 11:03	16-Dec-19 11:45	42 mins	BGTPP Unit-2 tripped at 11:03 Hrs on 16-12-19 due to Problem in ID fan . Revision done from Block No.48 on 16-12-19	00:00	0	0.160	0	GI 2
13	NER	AGTCCPP UNIT -2	NEEPCO	18-Dec-19 06:13	18-Dec-19 07:00	47 mins	AGTCCPP UNIT -2 tripped at 06:13 Hrs on 18-12-19 due to Air filter differential pressure high . Revision done from Block No.29 on 18-12-19	00:00	0	0.010	0	GI 1
14	NER	AGBPP UNIT -1	NEEPCO	23-Dec-19 12:33	23-Dec-19 13:15	42 mins	AGBPP Unit-1 tripped at 12:33 Hrs on 23-12-19 due to High vibration in Thrust Bearing . Revision done from Block No.54 on 23-12-19	00:00	0	0.020	0	GI 2
15	NER	AGBPP UNIT -1,2,3,4,5,7,8 & 9	Neepco	25-Dec-19 14:31	25-Dec-19 15:15	44 mins	AGBPP Unit-1,2,3,4,5,7,8 & 9 tripped at 14:31 Hrs on 25-12-19 due to Tripping of gas compressor . Revision done from Block No.62 on 25-12-19	00:00	0	0.150	0	GI 2
16	NER	Palatana GTG 2 & STG 2	OTPC	31-Dec-19 0:09	31-Dec-19 0:45	36 mins	Palatana GTG 2 & STG 2 tripped at 00:09 Hrs on 31.12.19 due to Low Gas Pressure. (Revision of schedule from Block No 4 on 31.12.19).	00:00	0	0.220	0	GI 2

21. NEW ELEMENTS COMMISSIONED* IN DECEMBER 2019						
COMMISSIONING OF NEW GENERATING UNITS						
REGION	S.NO.	CONSTITUENT	UNIT NAME / LOCATION		UNIT NO	CAPACITY (MW)
NR	1	CLEAN SOLAR POWER	Clean Solar Energy Power Ltd. / Bhadla (Rajasthan)			300*
	2	ACME	ACME Chittorgarh Solar Energy Pvt Ltd. / Bhadla (Rajasthan)			250**
WR	1	NTPC	Khargone / MP	2	660	31-12-2019
	2	AGEMPL	AGEMPL(Wind) / Gujarat	1	50+75.6***	27-12-2019
ER	1	NTPC	Darlipali / Odisha	1	800	30-12-2019
* COD of 100MW capacity ** COD of additional 15MW capacity ***COD for additional 75.6MW capacity						
COMMISSIONING OF NEW ICTs						
REGION	S.NO.	CONSTITUENT	VOLTAGE LEVEL	SUB-STATION	ICT NO	CAPACITY (MVA)
NR	1	GTPL	400/220	Kadarpur	1 & 2	500 (each)
	2	PGCIL	765/400	Aligarh	1	1500
	3	PGCIL	220/132	Tanakpur		100#
ER	1	PGCIL	400/132	Lakhisarai	3	315
	2	PGCIL	400/132	Banka	3	315
NER	1	MePTCL	132/33	Mawlyndep	1 & 2	20
	2	AEGCL	132/33	Dhemaji	50	50
# Replacement of 50MVA ICT						
COMMISSIONING OF NEW TRANSMISSION LINES						
REGION	S.NO.	CONSTITUENT	LINE NAME		CKT NO	VOLTAGE (kV)
NR	1	GPTL	400kV Prithala-Kadarpur D/C		1 & 2	400
SR	1	PGCIL	400kV Tumkur - Yelahanka		2	400
	2	TS	400 kV Nirmal - Dichpally D/C		1 & 2	400
LILO OF TRANSMISSION LINES						
REGION	SL. NO.	CONSTITUENT	LINE NAME		LILO AT	VOLTAGE (kV)
COMMISSIONING OF BUS/LINE REACTORS						
REGION	SL. NO.	CONSTITUENT	SUB-STATION		VOLTAGE LEVEL	CAPACITY (MVAR)
NR	1	GTPL	Kadarpur		400	125
	2	PGCIL	Bikaner		765	330
ER	1	WBSETCL	Arambagh		400	125
SR	2	PGCIL	Yelahanka		400	63
COMMISSIONING OF FACTS DEVICE/SYSTEM						
REGION	SL. NO.	NAME	SUB-STATION/CONSTITUENT		RATINGS	VOLTAGE (kV)

\*Includes first time charging (FTC) as well

## 22. Voltage Profile

**विद्युत विभव रूपरेखा माह - दिसम्बर 2019**

**VOLTAGE PROFILE - December 2019**

Date of reporting: 03-Jan-20

क्र.सं. सि. No.	क्षेत्र REGION	उपकेंद्र SUBSTATION	VOLTAGE < V(lower)* (V=380,728 kV)	V(lower) < VOLTAGE < V(upper)*	VOLTAGE > V(upper)* (V=420,800 kV)	Voltage Deviation Index (%age of time voltage is outside range)	Number of hours voltage was outside IEGC band during month	उच्चतम (कि.वो.) Maximum(kV)	निम्नतम(कि.वो.) Minimum(kV)	औसत (कि.वो.) Average(kV)
1	पूर्वी क्षेत्र ER	अंगल ANGUL	0%	100%	0%	0%	0	799	765	781
2		गया GAYA	0%	100%	0%	0%	0	800	753	777
3		झारसुगड़ा JHARSUGUDA	0%	96%	4%	4%	30	805	775	791
4		रांची RANCHI	0%	100%	0%	0%	0	794	762	782
5		सासाराम SASARAM	0%	100%	0%	0%	0	792	726	767
1	उत्तरी क्षेत्र NR	आग्रा AGRA	0%	100%	0%	0%	0	800	748	783
2		आगरा (फतेहबाद) AGRA (FATEHABAD)	0%	93%	7%	7%	49	813	733	787
3		अनपरा सी ANPARA-C	0%	100%	0%	0%	0	785	755	769
4		अनपरा डी ANPARA-D	0%	100%	0%	0%	0	774	743	759
5		जता ANTA	0%	100%	0%	0%	0	799	755	782
6		बांसपां �BALLIA	0%	100%	0%	0%	0	798	752	778
7		भिवानी BIHWANI	0%	99%	1%	1%	11	804	748	785
8		बरताली BAREILLY	0%	83%	17%	17%	128	816	751	785
9		फतेहपुर FATEHPUR	0%	100%	0%	0%	0	795	737	770
10		ग्रेटर नोडा GREATER NOIDA	0%	84%	16%	16%	117	810	751	791
11		झाटिकरा JHATIKARA	0%	99%	1%	1%	8	804	744	784
12		कानपुर जोड़ाइएस KANPUR GIS	0%	100%	0%	0%	0	799	752	780
13		लखनऊ LUCKNOW	0%	90%	10%	10%	78	812	753	787
14		लालितपुर LALITPUR	0%	100%	0%	0%	4	813	716	772
15		मेरठ MEERUT	0%	98%	2%	2%	13	809	739	783
16		मोगा MOGA	0%	100%	0%	0%	0	880	743	775
17		फागी PHAGI	0%	99%	1%	1%	8	804	747	783
18		वाराणसी VARANASI	0%	100%	0%	0%	1	802	756	783
19		उत्त्राव UNNAO	0%	100%	0%	0%	0	793	739	769
1	पश्चिमी क्षेत्र WR	अकोला AKOLA	0%	100%	0%	0%	0	796	748	774
2		ओरंगाबाद AURANGABAD	0%	100%	0%	0%	1	803	756	782
3		भावाल बांडाटोसाएल भोपाल (BDTCL)	0%	100%	0%	0%	0	793	745	772
4		बिलासपुर BILASPUR	0%	100%	0%	0%	0	789	761	776
5		बोना BINA	0%	100%	0%	0%	0	799	753	781
6		चापा CHAMPA	0%	100%	0%	0%	1	801	771	788
7		धर्मजयगढ़ DHARAMJAIGARH	0%	100%	0%	0%	0	789	753	774
8		धुले (बांडाटोसाएल) DHULE (BDTCL)	0%	100%	0%	0%	0	791	751	773
9		एकटनी EKTUNI	0%	100%	0%	0%	0	794	744	774
10		ग्वालियर GWALIOR	0%	100%	0%	0%	1	802	749	783
11		इंदौर INDORE	0%	100%	0%	0%	0	792	740	770
12		जबलपुर JABALPUR	0%	99%	1%	1%	4	805	758	784
13		कारडों KORADI	0%	100%	0%	0%	0	782	745	765
14		पुणे PUNE	0%	100%	0%	0%	0	800	746	782
15		रायगढ़ चांपा RAIGARH POOLING	0%	100%	0%	0%	0	801	769	786
16		रायपुर चांपा RAIPUR POOLING	0%	100%	0%	0%	0	794	759	780
17		सासान SASAN	0%	100%	0%	0%	0	782	755	770
18		सतना SATNA	0%	100%	0%	0%	0	791	751	775
19		सेसनी SEONI	0%	100%	0%	0%	0	801	761	783
20		सोपात SIPAT	0%	100%	0%	0%	0	789	763	776
21		सोलापुर SOLAPUR	0%	93%	7%	7%	52	809	759	789
22		तामनार TAMNAR	0%	100%	0%	0%	0	799	770	786
23		तिरडा TIRORA	0%	100%	0%	0%	0	776	749	762
24		वडोदरा VADODARA	0%	100%	0%	0%	0	798	763	782
25		विध्याचल प्रौद्योगिकी VINDHYACHAL PS	0%	100%	0%	0%	0	783	757	771
26		वर्धा WARDHA	0%	100%	0%	0%	3	803	757	784
1	दक्षिणी क्षेत्र SR	कन्नूर KURNool	0%	100%	0%	0%	0	799	743	778
2		नेल्लूर पुलेंग नेल्लूर PS	0%	100%	0%	0%	1	805	744	775
3		रायचुर RAICHUR	0%	100%	0%	0%	0	799	749	781
4		निजामाबाद NIZAMABAD	0%	91%	9%	9%	63	808	752	789
5		श्रीकाकुलम SRIKAKULAM	0%	91%	9%	9%	66	811	752	789
6		तिरुवलाम THIRUVALEM	0%	100%	0%	0%	2	801	723	779
1	पूर्वोत्तर क्षेत्र NER	अजारा AZARA (400 kV)	0%	100%	0%	0%	0	414	402	409
2		बालिपारा BALIPARA (400 kV)	0%	100%	0%	0%	1	424	392	408
3		बिलापारा चारांगाली BISWANATH CHARIALI (400 kV)	0%	100%	0%	0%	0	422	390	407
4		बोंगाईगांव BONGAIGAON (400 kV)	0%	100%	0%	0%	0	416	398	407
5		बोंगाईगांव टोपीगांव बोंगाईगांव TPS (400 kV)	0%	100%	0%	0%	0	419	398	409
6		बानहाट BYRNihat (400 kV)	0%	100%	0%	0%	0	414	402	409
7		पालाटाना PALATANA (400 kV)	0%	100%	0%	0%	3	421	399	414
8		रागानदी RANGANADI (400 kV)	0%	68%	32%	32%	235	433	400	417
9		मारा MISA (400 kV)	0%	99%	1%	1%	6	424	393	410
10		सिलचर SILCHAR (400 kV)	0%	100%	0%	0%	0	419	398	410

All listed stations are 765 kV stations unless otherwise mentioned

\*Percentage is calculated w.r.t. Time of one month.

### **23. List of Outages of Elements monitored by NLDC for the month of December-2019**

S. No.	Name of Transmission Element	Type of the element	Region Involved	Category	Tripping Date and Time	Brief Reason/Relay Indication	Restoration Date and Time	Outage Duration	Number of Cumulative tripping in the month
<b>Inter Regional Elements</b>									
1	Bhadrawati Pole-I	HVDC	WR/SR	TS	15-12-2019 09:58	Tripped due to hvdc pole-1 west side y-phase 234mva converter transformer failure	01-01-2020 00:00	398:02:00	1
2	Bhadrawati Pole-II	HVDC	WR/SR	TS	25-12-2019 11:32	Fire in cable trench	25-12-2019 13:43	2:11:00	1
3	Biswanath Chariali-Agra Line-I	HVDC	NER/NR	MO	03-12-2019 23:27	Manually opened due to high voltage.	10-12-2019 06:26	150:59:00	0
4	Biswanath Chariali-Agra Line-I	HVDC	NER/NR	SC	10-12-2019 06:26	For stringing work in between location no. 22-23 under construction of 400kV D/C Jigmeling-Alipurduar TL	10-12-2019 19:24	12:58:00	0
5	Biswanath Chariali-Agra Line-I	HVDC	NER/NR	MO	10-12-2019 19:24	Manually opened due to High Voltage.	11-12-2019 06:19	10:55:00	0
6	Biswanath Chariali-Agra Line-I	HVDC	NER/NR	SC	11-12-2019 06:19	For stringing work in between location no. 22-23 under construction of 400kV D/C Jigmeling-Alipurduar TL	11-12-2019 20:38	14:19:00	0
7	Biswanath Chariali-Agra Line-I	HVDC	NER/NR	MO	11-12-2019 20:38	Manually opened due to High Voltage.	12-12-2019 06:07	9:29:00	0
8	Biswanath Chariali-Agra Line-I	HVDC	NER/NR	SC	12-12-2019 06:07	For stringing work in between location no. 22-23 under construction of 400kV D/C Jigmeling-Alipurduar TL	12-12-2019 13:15	7:08:00	0
9	Biswanath Chariali-Agra Line-I	HVDC	NER/NR	MO	12-12-2019 13:15	Kept out under system constraint	01-01-2020 00:00	466:45:00	0
10	Biswanath Chariali-Agra Line-II	HVDC	NER/NR	MO	01-12-2019 00:00	Manually opened due to High Voltage.	03-12-2019 23:17	71:17:00	0
11	Biswanath Chariali-Agra Line-II	HVDC	NER/NR	SC	10-12-2019 06:20	For stringing work in between location no. 22-23 under construction of 400kV D/C Jigmeling-Alipurduar TL	10-12-2019 19:24	13:04:00	0
12	Biswanath Chariali-Agra Line-II	HVDC	NER/NR	MO	10-12-2019 19:24	Manually opened due to High Voltage.	11-12-2019 06:19	10:55:00	0
13	Biswanath Chariali-Agra Line-II	HVDC	NER/NR	SC	11-12-2019 06:19	For stringing work in between location no. 22-23 under construction of 400kV D/C Jigmeling-Alipurduar TL	11-12-2019 20:38	14:19:00	0
14	Biswanath Chariali-Agra Line-II	HVDC	NER/NR	MO	11-12-2019 20:38	Manually opened due to High Voltage.	12-12-2019 06:07	9:29:00	0
15	Biswanath Chariali-Agra Line-II	HVDC	NER/NR	SC	12-12-2019 06:07	For stringing work in between location no. 22-23 under construction of 400kV D/C Jigmeling-Alipurduar TL	12-12-2019 13:15	7:08:00	0
16	Biswanath Chariali-Agra Line-II	HVDC	NER/NR	MO	12-12-2019 13:15	Kept out under system constraint	12-12-2019 21:34	8:19:00	0
17	Champa-Kurushetra pole-I	HVDC	WR/NR	TS	06-11-2019 15:16	At 15:16 Hrs champa-kurukshetra Pole-1 and Pole-3 blocked during Pole-3 deblocking. Pole-3 blocked on DC undercurrent from champa end and Pole-1 Blocked on CAT- B fault generated in Pole-3 due to issue in Pole-3 isolate sequence timing.	06-11-2019 15:50	0:34:00	1
18	Champa-Kurushetra pole-I	HVDC	WR/NR	TS	06-12-2019 09:18	While deblocking of pole-3 at 09:18hrs, Pole-3 got blocked on DCUC and Pole-1 also blocked due to Mal operation of protection.	06-12-2019 10:35	1:17:00	2
19	Champa-Kurushetra pole-I	HVDC	WR/NR	TS	14-12-2019 10:37	Due to CAT B generated at kurukshetra end	14-12-2019 11:48	1:11:00	3
20	Champa-Kurushetra pole-I	HVDC	WR/NR	TS	14-12-2019 13:53	Due to dc undercurrent at champa	14-12-2019 16:32	2:39:00	4
21	Champa-Kurushetra pole-I	HVDC	WR/NR	SE	21-12-2019 09:51	At kurukshetra end common ais area near plc yard pole-2 got some fire so pole 1 was manually tripped	21-12-2019 10:23	0:32:00	4
22	Champa-Kurushetra pole-I	HVDC	WR/NR	TS	30-12-2019 10:26	Due to cnap(common neutral area protection) protection	30-12-2019 12:17	1:51:00	5
23	Champa-Kurushetra pole-II	HVDC	WR/NR	SE	21-12-2019 09:57	At kurukshetra end common ais area near plc yard pole-2 got some fire so pole 2 was manually tripped	21-12-2019 13:05	3:08:00	0
24	Champa-Kurushetra pole-II	HVDC	WR/NR	TS	30-12-2019 10:26	Cnap (common neutral area protection) at champa end. pole 3 blocked on cat b protection at both ends at the time of tripping cumulative power order on poles was 2500 mw (wr->nrl) pole	30-12-2019 11:32	1:06:00	1
25	Champa-Kurushetra pole-II	HVDC	WR/NR	TS	30-12-2019 11:51	Due to cnap protection	30-12-2019 12:50	0:59:00	2
26	Champa-Kurushetra pole-II	HVDC	WR/NR	TS	30-12-2019 21:53	Blocked due to cnap protection	31-12-2019 01:30	3:37:00	3
27	Champa-Kurushetra pole-III	HVDC	WR/NR	SE	21-12-2019 09:51	At kurukshetra end common ais area near plc yard pole-2 got some fire so pole 1 was manually tripped	21-12-2019 10:34	0:43:00	0
28	Champa-Kurushetra pole-III	HVDC	WR/NR	TS	30-12-2019 11:51	Due to cnap protection	30-12-2019 12:44	0:53:00	1
29	HVDC Agra-Alipurduar Line-3	HVDC	NR/ER	MO	01-12-2019 00:00	HVDC pole-3 blocked at APD & Agra to facilitate power reversal from Agra to BNC	10-12-2019 07:29	223:29:00	0
30	HVDC Agra-Alipurduar Line-3	HVDC	NR/ER	MO	12-12-2019 20:55	Hvdc pole-3 blocked at apd & agra to facilitate power reversal from agra to bnc	01-01-2020 00:00	459:05:00	0
31	HVDC Agra-Alipurduar Line-4	HVDC	NR/ER	MO	01-12-2019 00:00	Pole 4 blocked at APD & Agra to facilitate power reversal from Agra to BNC	01-01-2020 00:00	744:00:00	0
32	Mundra-Mahendragarh Pole-II	HVDC	WR/NR	SO	12-12-2019 19:12	RVO mode from 500kV to 350 kV	13-12-2019 05:40	3:08:24	0
33	Mundra-Mahendragarh Pole-II	HVDC	WR/NR	SO	13-12-2019 05:40	To operate at 400 from 350 kv (Rvo mode)	13-12-2019 06:02	0:04:24	0
34	Mundra-Mahendragarh Pole-II	HVDC	WR/NR	SO	13-12-2019 06:02	To operate at 450kV from 400 kv (Rvo mode)	13-12-2019 06:41	0:03:54	0
35	Mundra-Mahendragarh Pole-II	HVDC	WR/NR	SO	13-12-2019 08:38	Insulator replacement as well as maintenance work	13-12-2019 20:03	11:25:00	0
36	Mundra-Mahendragarh Pole-II	HVDC	WR/NR	SO	14-12-2019 08:33	Insulator replacement as well as maintenance work	14-12-2019 20:32	11:59:00	0
37	Mundra-Mahendragarh Pole-II	HVDC	WR/NR	SO	15-12-2019 08:30	Insulator replacement as well as maintenance work	15-12-2019 20:34	12:04:00	0
38	Mundra-Mahendragarh Pole-II	HVDC	WR/NR	SE	22-12-2019 10:44	For attending water leakage in valve hall	22-12-2019 12:07	1:23:00	0
39	Mundra-Mahendragarh-Pole-I	HVDC	WR/NR	TS	06-12-2019 12:32	DC filter tripping at mahendragarh end	06-12-2019 13:01	0:29:00	1
40	Mundra-Mahendragarh-Pole-I	HVDC	WR/NR	SO	12-12-2019 19:12	RVO mode from 500kV to 350 kV	13-12-2019 05:38	3:07:48	1
41	Mundra-Mahendragarh-Pole-I	HVDC	WR/NR	SO	13-12-2019 05:38	To operate at 400 from 350 kv (Rvo mode)	13-12-2019 06:00	0:04:24	1
42	Mundra-Mahendragarh-Pole-I	HVDC	WR/NR	SO	13-12-2019 06:00	To operate at 450kV from 400 kv (Rvo mode)	13-12-2019 06:38	0:03:48	
43	Mundra-Mahendragarh-Pole-I	HVDC	WR/NR	TS	15-12-2019 15:26	Due to problem in rpc at mahendergarh end.	15-12-2019 17:51	2:25:00	2
44	Mundra-Mahendragarh-Pole-I	HVDC	WR/NR	SO	16-12-2019 08:34	Disc insulator replacement at different locations in line and maintenance of line equipements	16-12-2019 20:11	11:37:00	2

### List of Outages of Elements monitored by NLDC for the month of December-2019

S. No.	Name of Transmission Element	Type of the element	Region Involved	Category	Tripping Date and Time	Brief Reason/Relay Indication	Restoration Date and Time	Outage Duration	Number of Cumulative tripping in the month
45	Mundra-Mahendragarh-Pole-I	HVDC	WR/NR	SO	17-12-2019 08:23	Disc insulator replacement with sri at different locations in line and maintenance of line equipments	17-12-2019 20:19	11:56:00	2
46	Mundra-Mahendragarh-Pole-I	HVDC	WR/NR	SO	18-12-2019 08:03	Disc insulator replacement at different locations in line and maintenance of line equipments	18-12-2019 20:50	12:47:00	2
47	Mundra-Mahendragarh-Pole-I	HVDC	WR/NR	TS	27-12-2019 23:16	Due to severe commutation fault	27-12-2019 23:58	0:42:00	3
48	Pusauli B/B	HVDC	ER/NR	TS	20-12-2019 12:16	System failure alarm	20-12-2019 14:56	2:40:00	1
49	Talcher-Kolar Pole-I	HVDC	ER/SR	SO	03-12-2019 06:29	Taken in rvo mode from 2000 mw to 1600 mw	03-12-2019 09:11	0:32:24	0
50	Talcher-Kolar Pole-I	HVDC	ER/SR	SO	11-12-2019 04:12	Taken in rvo from 2000 mw to 1600 mw	11-12-2019 07:27	0:39:00	0
51	Talcher-Kolar Pole-I	HVDC	ER/SR	SO	12-12-2019 06:41	Taken into rvo mode at 06:41 hrs. fog reported at talcher end.from 200 mw to 1600 mw	12-12-2019 09:22	0:32:12	0
52	Talcher-Kolar Pole-I	HVDC	ER/SR	SO	15-12-2019 07:44	From (taken in rvo mode) 2000 mw to 1600 mw	15-12-2019 11:00	0:39:12	0
53	Talcher-Kolar Pole-II	HVDC	ER/SR	SO	03-12-2019 06:34	Taken in rvo mode from 2000 mw to 1600 mw	03-12-2019 09:15	0:32:12	0
54	Talcher-Kolar Pole-II	HVDC	ER/SR	SO	11-12-2019 04:12	Taken in rvo from 2000 mw to 1600 mw	11-12-2019 07:30	0:39:36	0
55	Talcher-Kolar Pole-II	HVDC	ER/SR	SO	12-12-2019 06:41	Taken into rvo mode at 06:41 hrs. fog reported at talcher end.from 200 mw to 1600 mw	12-12-2019 09:27	0:33:12	0
56	Talcher-Kolar Pole-II	HVDC	ER/SR	SO	15-12-2019 07:48	From (taken in rvo mode) 2000 mw to 1600 mw	15-12-2019 11:04	0:39:12	0
57	VindhyaChal Pole-I	HVDC	WR/NR	TS	10-12-2019 00:20	DC over current protection	10-12-2019 01:53	1:33:00	1
58	VindhyaChal Pole-I	HVDC	WR/NR	TS	21-12-2019 23:44	Tripped on dc overcurrent	22-12-2019 01:22	1:38:00	2
59	132 kV Bina-Morwa	Line	NR/WR	SO	06-12-2019 13:01	Chattering sound from b-phase ct at bina end	06-12-2019 20:25	7:24:00	0
60	132kV Sheopur-Kandhar S/C	Line	NR/WR	SO	29-12-2019 09:30	For stringing work of 220kv sabalgarh-sheopur ckt	29-12-2019 19:00	9:30:00	0
61	220kV Bhanpura – Ranpur line	Line	WR/NR	SO	21-12-2019 10:37	Amp work	21-12-2019 17:35	6:58:00	0
62	220 kV Budhipadar-Korba-II	Line	ER/WR	TL	05-12-2019 03:11	Tripped due to tripping of master relay trip at budhipadar	05-12-2019 05:01	1:50:00	1
63	220 kV Budhipadar-Korba-II	Line	ER/WR	SO	06-12-2019 08:47	For annual maintenance work.	06-12-2019 19:43	10:56:00	1
64	220 kV Budhipadar-Korba-II	Line	ER/WR	SO	07-12-2019 09:21	For annual maintenance work.	07-12-2019 17:09	7:48:00	1
65	220 kV Budhipadar-Korba-III	Line	ER/WR	SO	23-12-2019 10:04	For amp work	23-12-2019 21:08	11:04:00	0
66	220 kV Mehgaon-Auraiya	Line	WR/NR	TL	14-12-2019 06:51	R-ph,2,607ka;3.08km from mehgaon end	14-12-2019 08:09	1:18:00	1
67	220 kV Mehgaon-Auraiya	Line	WR/NR	TL	28-12-2019 07:59	Line tripped on :B-E fault, mehgaon z1,51.3km,2.12ka	28-12-2019 09:11	1:12:00	2
68	220 kV Mudasangi (Kolhapur)-Chikkodi	Line	WR/SR	SE	19-12-2019 11:30	Attend arching in y-ph limb of cb at chikkodi	20-12-2019 22:14	34:44:00	0
69	220 kV Talangde-Chikkodi	Line	WR/SR	SE	20-12-2019 09:40	Attend arching in y-ph limb of cb at chikkodi	20-12-2019 22:16	12:36:00	0
70	220kV Ponda-Ambewadi	Line	WR/SR	SO	09-12-2019 10:26	Replacement of old yamuna insulators with new gold-stone polymerinsulators at goa border towers:154 &155	12-12-2019 17:38	79:12:00	0
71	220kV Ponda-Ambewadi	Line	WR/SR	SO	28-12-2019 09:06	Debunching of the circuit at t.l. no.218(goa)	07-01-2020 20:11	251:05:00	0
72	220kV Xeldorf-Ambewadi	Line	WR/SR	SO	28-12-2019 09:05	Debunching of the circuit at t.l. no.218(goa) and re-connecting of the removed jumps at TL no.154	28-12-2019 14:14	5:09:00	0
73	400 kV Alipurduar-Bongaigaon-I	Line	ER/NER	TS	17-12-2019 11:40	Failure of y-phase cvt at apd end	17-12-2019 16:16	4:36:00	1
74	400 kV Biharshariff-Balia-I	Line	ER/NR	SO	26-12-2019 09:25	Replacement of neutral bushing of line reactor	26-12-2019 19:40	10:15:00	0
75	400 kV Biharshariff-Balia-II	Line	ER/NR	SO	02-12-2019 11:19	For commissioning of travelling wave fault locator CT connection/testing.	02-12-2019 18:07	6:48:00	0
76	400 kV Jeypore-Gazuwaka-I	Line	ER/SR	SO	21-12-2019 09:16	For replacement of PID defective porcelain insulator strings with new polymer insulator strings under jeypore TLM hub	21-12-2019 19:56	10:40:00	0
77	400 kV Jeypore-Gazuwaka-II	Line	ER/SR	SO	22-12-2019 09:42	For replacement of pid defective porcelain insulator strings with new polymer insulator strings under jeypore tlm hub	22-12-2019 19:59	10:17:00	0
78	400 kV Jharsuguda-Raigarh-II	Line	ER/WR	SO	13-12-2019 09:12	Replacement of insulator at tower no. 421, and other maintenance works.	13-12-2019 19:39	10:27:00	0
79	400 kV Patna-Balia-I	Line	ER/NR	SO	03-12-2019 09:31	For DGA sampling of BHEL make HV bushings of line reactor at 400kv Ballia s/s.	03-12-2019 19:58	10:27:00	0
80	400 kV Patna-Balia-I	Line	ER/NR	SE	27-12-2019 19:57	To attend hotspot in y-ph line isolator	27-12-2019 22:44	2:47:00	0
81	400 kV Patna-Balia-III	Line	ER/NR	SO	09-12-2019 12:06	For replacement of 160 kn porcelain insulator by polymer at loc no: 306,307,316,317( only patna side), 321,324,325,331,338,339,342,348,355,357,359. – 15 nos.	09-12-2019 23:12	11:06:00	0
82	400 kV Patna-Balia-IV	Line	ER/NR	SO	04-12-2019 09:42	For amp of the line reactor & dislocated earthwire refixing and line insulator changing at ballia	04-12-2019 18:55	9:13:00	0
83	400 kV Patna-Balia-IV	Line	ER/NR	TL	26-12-2019 00:02	Tripped on r-n fault	26-12-2019 00:40	0:38:00	1
84	400 kV Patna-Balia-IV	Line	ER/NR	SO	28-12-2019 16:03	For rectification of damaged ct secondary cable	28-12-2019 18:29	2:26:00	1
85	400 kV Ranchi-Sipat-I	Line	ER/WR	SO	12-12-2019 12:02	For planned maintenance work	12-12-2019 19:58	7:56:00	0
86	400 kV Ranchi-Sipat-I	Line	ER/WR	SO	13-12-2019 09:56	For amp work by ntpc.	13-12-2019 20:17	10:21:00	0
87	400 kV Sasaram-Allahabad	Line	ER/NR	SO	05-12-2019 09:30	Replacement of insulators at road/rail/river/power line crossings and relay retrofitting by ER-I & insulator cleaning by allahabad	05-12-2019 20:08	10:38:00	0
88	400 kV Sasaram-Varanasi	Line	ER/NR	SO	20-12-2019 13:15	Insulator cleaning and replacement	20-12-2019 19:40	6:25:00	0
89	765 kV Gaya-Balia	Line	ER/NR	SO	12-12-2019 09:35	Tower strengthening works at loc. 12,13,15,16,17,19 gaya side.	12-12-2019 19:27	9:52:00	0
90	765 kV Gaya-Balia	Line	ER/NR	TL	13-12-2019 01:10	B-N,3.3ka,147km from Gaya	13-12-2019 01:48	0:38:00	1
91	765 kV Gaya-Balia	Line	ER/NR	SO	13-12-2019 10:03	Tower strengthening works at loc. 12,13,15,16,17,19 gaya side.	13-12-2019 18:30	8:27:00	1
92	765 kV Gaya-Balia	Line	ER/NR	SO	16-12-2019 09:23	Tower strengthening works at loc. 12,13,15,16,17,19 gaya side.	16-12-2019 18:58	9:35:00	1
93	765 kV Gaya-Balia	Line	ER/NR	SO	17-12-2019 09:13	Tower strengthening works at loc. 12,13,15,16,17,19 gaya side.	17-12-2019 19:10	9:57:00	1

**List of Outages of Elements monitored by NLDC for the month of December-2019**

S. No.	Name of Transmission Element	Type of the element	Region Involved	Catagory	Tripping Date and Time	Brief Reason/Relay Indication	Restoration Date and Time	Outage Duration	Number of Cumulative tripping in the month
94	765 kV Gaya-Balia	Line	ER/NR	SO	18-12-2019 09:35	Tower strengthening works at loc. 12,13,15,16,17,19 gaya side.	18-12-2019 19:11	9:36:00	1
95	765 kV Gaya-Balia	Line	ER/NR	SO	19-12-2019 10:05	Tower strengthening works at loc. 12,13,15,16,17,19 gaya side.	19-12-2019 18:54	8:49:00	1
96	765 kV Gaya-Balia	Line	ER/NR	SO	22-12-2019 09:52	For replacement of broken main bracing member of x-arm with new member at loc no 251.	22-12-2019 19:57	10:05:00	1
97	765 kV Gaya-Varanasi-II	Line	ER/NR	SO	27-12-2019 09:16	For strengthening of 765 kv line suspension delta tower	27-12-2019 20:08	10:52:00	0
98	765 kV Gaya-Varanasi-II	Line	ER/NR	SO	28-12-2019 09:52	For strengthening of 765 kv line suspension delta tower	28-12-2019 19:18	9:26:00	0
99	765 kV Gaya-Varanasi-II	Line	ER/NR	SO	29-12-2019 08:59	For strengthening of 765 kv line suspension delta tower	29-12-2019 19:02	10:03:00	0
100	765 kV Gaya-Varanasi-II	Line	ER/NR	SO	30-12-2019 09:08	For strengthening of 765 kv line suspension delta tower	30-12-2019 19:15	10:07:00	0
101	765 kV Gaya-Varanasi-II	Line	ER/NR	SO	31-12-2019 10:58	For strengthening of 765 kv line suspension delta tower	31-12-2019 14:47	3:49:00	0
102	765 kV New Ranchi-Dharamjaygarh-I	Line	ER/WR	SO	18-12-2019 09:33	For amp works & spare reactor unit change over	18-12-2019 21:07	11:34:00	0
103	765 kV Solapur-Raichur-	Line	WR/SR	SO	01-12-2019 07:50	To repair damaged conductor & spacers	01-12-2019 20:13	12:23:00	0
104	765kV Chittorgarh-Banaskanta-I	Line	NR/WR	SE	05-12-2019 09:18	Tripped on receipt of dt received at chittorgarh while availing shutdown of ckt-2	05-12-2019 09:56	0:38:00	0
105	765kV Chittorgarh-Banaskanta-I	Line	NR/WR	SO	09-12-2019 09:39	For amp of line & line bay equipment and L/R amp works.	09-12-2019 21:30	11:51:00	0
106	765kV Chittorgarh-Banaskanta-I	Line	NR/WR	SO	10-12-2019 09:09	For amp of line & line bay equipment and l/r amp works.	10-12-2019 19:48	10:39:00	0
107	765kV Chittorgarh-Banaskanta-I	Line	NR/WR	SO	11-12-2019 09:25	For amp of line & line bay equipment and l/r amp works.	11-12-2019 20:58	11:33:00	0
108	765kV Chittorgarh-Banaskanta-II	Line	NR/WR	SO	05-12-2019 09:18	For amp of line & line bay equipment and L/R amp works.	05-12-2019 22:08	12:50:00	0
109	765kV Chittorgarh-Banaskanta-II	Line	NR/WR	SO	06-12-2019 09:41	For amp of line & line bay equipment and L/R amp works.	07-12-2019 00:26	14:45:00	0
110	765kV Chittorgarh-Banaskanta-II	Line	NR/WR	SO	07-12-2019 09:14	For amp of line & line bay equipment and L/R amp works.	07-12-2019 21:25	12:11:00	0
111	765kV Durg-Jharsuguda Ckt-I	Line	WR/ER	MO	03-12-2019 10:30	Manually opened due to high voltage.	09-12-2019 12:35	146:05:00	0
112	765kV Durg-Jharsuguda Ckt-I	Line	WR/ER	SO	09-12-2019 12:58	BPI erection works at t-point for system improvement.	09-12-2019 21:49	8:51:00	0
113	765kV Durg-Jharsuguda Ckt-I	Line	WR/ER	MO	09-12-2019 21:50	Manually opened due to high voltage.	12-12-2019 10:14	60:24:00	0
114	765kV Durg-Jharsuguda Ckt-I	Line	WR/ER	MO	18-12-2019 20:32	Manually opened due to high voltage.	28-12-2019 09:50	229:18:00	0
115	765kV Durg-Jharsuguda Ckt-II	Line	WR/ER	MO	12-12-2019 20:26	Manually opened due to high voltage.	18-12-2019 10:07	133:41:00	0
116	765kV Durg-Jharsuguda Ckt-II	Line	WR/ER	MO	28-12-2019 13:16	Manually opened due to high voltage.	01-01-2020 00:00	82:44:00	0

**List of Outages of Elements monitored by NLDC for the month of December-2019**

S. No.	Name of Transmission Element	Type of the element	Region Involved	Category	Tripping Date and Time	Brief Reason/Relay Indication	Restoration Date and Time	Outage Duration	Number of Cumulative tripping in the month
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**Transnational Elements**

S. No.	Name of Transmission Element	Type of the element	Region Involved	Category	Tripping Date and Time	Brief Reason/Relay Indication	Restoration Date and Time	Outage Duration	Number of Cumulative tripping in the month
1	132kV Kataiya-Duhabi	Line	Nepal	SO	07-12-2019 12:40	To attend the melted strands connecting ct and wave-trap at kusaha station	07-12-2019 15:17	2:37:00	0
2	132 kV Mahendernagar-Tanakpur	Line	Nepal	SO	11-12-2019 22:25	Tripped on over current	11-12-2019 23:37	1:12:00	0
3	132 kV Mahendernagar-Tanakpur	Line	Nepal	TL	12-12-2019 05:47	3 ph fault,	12-12-2019 08:35	2:48:00	1
4	132 kV Mahendernagar-Tanakpur	Line	Nepal	TL	12-12-2019 08:59	Due to overcurrent at tanakpur end	12-12-2019 09:53	0:54:00	2
5	132 kV Ramnagar - Valmikinagar (surajpur)	Line	ER/Nepal	SO	26-12-2019 11:50	Winter maintenance	26-12-2019 16:35	4:45:00	0
6	132 kV Salakati-Gelephu	Line	Bhutan	MO	08-12-2019 01:11	Black start operation of Mangdechu	08-12-2019 04:22	3:11:00	0
7	132 kV Surajmani Nagar - Comilla - 1	Line	Bangladesh	SO	29-12-2019 09:56	Relay testing work	29-12-2019 12:08	2:12:00	0
8	132 kV Surajmani Nagar - Comilla - 1	Line	Bangladesh	SO	29-12-2019 12:25	Relay testing work	29-12-2019 13:28	1:03:00	0
9	132kV Rangia-Deothang S/C	Line	Bhutan	SO	11-12-2019 12:36	To rectify the reverse of export and import mode for energy meter	11-12-2019 13:14	0:38:00	0
10	132kV Rangia-Deothang S/C	Line	Bhutan	TL	12-12-2019 13:45	Rangia end: overcurrent e/f	12-12-2019 16:06	2:21:00	1
11	132kV Rangia-Deothang S/C	Line	Bhutan	TS	18-12-2019 06:26	Tripped while taking bus shutdown at rangia	18-12-2019 09:33	3:07:00	2
12	220 kV Chukha - Birpara - I	Line	Bhutan	MO	18-12-2019 09:39	Manually opened due to high voltage.	01-01-2020 00:00	326:21:00	0
13	220 Kv Muzaffarpur-Dhalkebar-II	Line	Nepal	SO	14-12-2019 13:02	To attend CB probem at dhalkebar end	14-12-2019 16:52	3:50:00	0
14	400 kV Behramara-Behrampore-II	Line	Bangladesh	SO	01-12-2019 08:01	For annual maintenance work.	01-12-2019 16:32	8:31:00	0
15	400 kV Behramara-Behrampore-II	Line	Bangladesh	SO	02-12-2019 08:48	For annual maintenance work.	02-12-2019 16:06	7:18:00	0
16	400 kV Malbase - Binaguri - I	Line	Bhutan	SO	25-12-2019 10:51	replacement main energy meter at malbase substation	25-12-2019 12:23	1:32:00	0
17	400 kV Tala - Binaguri - IV	Line	Bhutan	MO	01-12-2019 00:00	Manually opened due to High Voltage.	03-12-2019 08:30	56:30:00	0
18	400 kV Tala - Binaguri - IV	Line	Bhutan	SO	03-12-2019 08:30	To carry out 12 years special maintenance at gis & annual maintenance of 2019-2020 by THP.	01-01-2020 00:00	687:30:00	0
19	400kV Alipurdaur-Jingmeling-I	Line	ER/BHUTAN	TL	04-12-2019 02:07	Tripped on zone fault (B ph-n)	05-12-2019 22:38	44:31:00	1
20	400kV Alipurdaur-Jingmeling-I	Line	ER/BHUTAN	MO	05-12-2019 22:39	Manually opened due to high voltage.	15-12-2019 13:42	231:03:00	1
21	400kV Alipurdaur-Jingmeling-I	Line	ER/BHUTAN	MO	15-12-2019 13:43	Manually opened due to high voltage.	01-01-2020 00:00	394:17:00	1
22	400kV Alipurdaur-Jingmeling-II	Line	ER/BHUTAN	TL	04-12-2019 02:07	Tripped on zone fault (B ph-n)	04-12-2019 04:50	2:43:00	1
23	400kV Alipurdaur-Jingmeling-II	Line	ER/BHUTAN	TL	05-12-2019 17:07	B-N,1.5ka,220km from apd,170mw generation tripped	05-12-2019 17:39	0:32:00	2
24	400kV Alipurdaur-Jingmeling-II	Line	ER/BHUTAN	MO	07-12-2019 23:00	Black start operation of mangdechu	08-12-2019 04:18	5:18:00	2

## List of Outages of Elements monitored by NLDC for the month of December-2019

S. No.	Name of Transmission Element	Type of the element	Region Involved	Category	Tripping Date and Time	Brief Reason/Relay Indication	Restoration Date and Time	Outage Duration	Number of Cumulative tripping in the month
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### Northern Region Elements

S. No.	Name of Transmission Element	Type of the element	Region Involved	Category	Tripping Date and Time	Brief Reason/Relay Indication	Restoration Date and Time	Outage Duration	Number of Cumulative tripping in the month
1	Balia-Bhiwadi Pole-I	HVDC	NR	SE	22-12-2019 20:31	inspection of valve hall	23-12-2019 04:44	8:13:00	0
2	Balia-Bhiwadi Pole-II	HVDC	NR	SE	19-12-2019 13:40	Removing kite thread from loc.tn 1992 and tn 1995	19-12-2019 15:38	1:58:00	0
3	HVDC Agra Pole-1	HVDC	NR	MO	03-12-2019 23:27	Manually opened due to high voltage.	10-12-2019 06:26	150:59:00	0
4	HVDC Agra Pole-1	HVDC	NR	SC	10-12-2019 06:26	For stringing work in between location no. 22-23 under construction of 400kV D/C Jigmeling-Alipurduar TL	10-12-2019 19:24	12:58:00	0
5	HVDC Agra Pole-1	HVDC	NR	MO	10-12-2019 19:24	Manually opened due to High Voltage.	11-12-2019 06:19	10:55:00	0
6	HVDC Agra Pole-1	HVDC	NR	SC	11-12-2019 06:19	For stringing work in between location no. 22-23 under construction of 400kV D/C Jigmeling-Alipurduar TL	11-12-2019 20:38	14:19:00	0
7	HVDC Agra Pole-1	HVDC	NR	MO	11-12-2019 20:38	Manually opened due to High Voltage.	12-12-2019 06:07	9:29:00	0
8	HVDC Agra Pole-1	HVDC	NR	SC	12-12-2019 06:07	For stringing work in between location no. 22-23 under construction of 400kV D/C Jigmeling-Alipurduar TL	12-12-2019 13:15	7:08:00	0
9	HVDC Agra Pole-1	HVDC	NR	MO	12-12-2019 13:15	Kept out under system constraint	01-01-2020 00:00	466:45:00	0
10	HVDC Agra Pole-2	HVDC	NR	MO	01-12-2019 00:00	Manually opened due to High Voltage.	03-12-2019 23:17	71:17:00	0
11	HVDC Agra Pole-2	HVDC	NR	SC	10-12-2019 06:20	For stringing work in between location no. 22-23 under construction of 400kV D/C Jigmeling-Alipurduar TL	10-12-2019 19:24	13:04:00	0
12	HVDC Agra Pole-2	HVDC	NR	MO	10-12-2019 19:24	Manually opened due to High Voltage.	11-12-2019 06:19	10:55:00	0
13	HVDC Agra Pole-2	HVDC	NR	SC	11-12-2019 06:19	For stringing work in between location no. 22-23 under construction of 400kV D/C Jigmeling-Alipurduar TL	11-12-2019 20:38	14:19:00	0
14	HVDC Agra Pole-2	HVDC	NR	MO	11-12-2019 20:38	Manually opened due to High Voltage.	12-12-2019 06:07	9:29:00	0
15	HVDC Agra Pole-2	HVDC	NR	SC	12-12-2019 06:07	For stringing work in between location no. 22-23 under construction of 400kV D/C Jigmeling-Alipurduar TL	12-12-2019 13:15	7:08:00	0
16	HVDC Agra Pole-2	HVDC	NR	MO	12-12-2019 13:15	Kept out under system constraint	12-12-2019 21:34	8:19:00	0
17	HVDC Agra Pole-3	HVDC	NR	MO	01-12-2019 00:00	HVDC pole-3 blocked at APD & Agra to facilitate power reversal from Agra to BNC	10-12-2019 07:29	223:29:00	0
18	HVDC Agra Pole-3	HVDC	NR	MO	12-12-2019 20:55	Hvdc pole-3 blocked at apd & agra to facilitate power reversal from agra to bnc	01-01-2020 00:00	459:05:00	0
19	HVDC Agra Pole-4	HVDC	NR	MO	01-12-2019 00:00	Pole 4 blocked at APD & Agra to facilitate power reversal from Agra to BNC	01-01-2020 00:00	744:00:00	0
20	HVDC Kurukshetra Pole-1	HVDC	NR	MO	01-12-2019 20:37	Manually opened due to high voltage.	02-12-2019 08:44	12:07:00	0
21	HVDC Kurukshetra Pole-1	HVDC	NR	MO	02-12-2019 21:09	Manually opened due to high voltage.	03-12-2019 07:49	10:40:00	0
22	HVDC Kurukshetra Pole-1	HVDC	NR	MO	06-12-2019 22:02	Manually opened due to high voltage.	07-12-2019 09:54	11:52:00	0
23	HVDC Kurukshetra Pole-1	HVDC	NR	MO	07-12-2019 20:10	Manually opened due to high voltage.	08-12-2019 09:21	13:11:00	0
24	HVDC Kurukshetra Pole-1	HVDC	NR	MO	09-12-2019 21:22	Manually opened due to high voltage.	10-12-2019 08:29	11:07:00	0
25	HVDC Kurukshetra Pole-1	HVDC	NR	MO	10-12-2019 20:47	Manually opened due to high voltage.	11-12-2019 09:43	12:56:00	0
26	HVDC Kurukshetra Pole-1	HVDC	NR	MO	13-12-2019 20:27	Manually opened due to high voltage.	14-12-2019 09:44	13:17:00	0
27	HVDC Kurukshetra Pole-1	HVDC	NR	MO	17-12-2019 23:35	Manually opened due to high voltage.	18-12-2019 06:25	6:50:00	0
28	HVDC Kurukshetra Pole-1	HVDC	NR	MO	18-12-2019 21:06	Manually opened due to high voltage.	19-12-2019 07:53	10:47:00	0
29	HVDC Kurukshetra Pole-3	HVDC	NR	MO	01-12-2019 00:00	Manually opened due to High Voltage.	01-12-2019 08:03	8:03:00	0
30	HVDC Kurukshetra Pole-3	HVDC	NR	MO	03-12-2019 14:33	Manually opened due to high voltage.	04-12-2019 09:17	18:44:00	0
31	HVDC Kurukshetra Pole-3	HVDC	NR	MO	05-12-2019 01:37	Manually opened due to high voltage.	05-12-2019 09:10	7:33:00	0
32	HVDC Kurukshetra Pole-3	HVDC	NR	MO	05-12-2019 22:21	Manually opened due to high voltage.	06-12-2019 09:18	10:57:00	0
33	HVDC Kurukshetra Pole-3	HVDC	NR	TS	06-11-2019 11:17	Tripped due to CAT-A tripping at Champa end	06-11-2019 15:07	3:50:00	1
34	HVDC Kurukshetra Pole-3	HVDC	NR	TS	06-11-2019 15:16	At 15:16 Hrs champa-kurukshetra Pole-1 and Pole-3 blocked during Pole-3 deblocking. Pole-3 blocked on DC undercurrent from champa end and Pole-1 Blocked on CAT- B fault generated in Pole-3 due to issue in Pole-3 isolate sequence timing.	06-11-2019 20:40	5:24:00	2
35	HVDC Kurukshetra Pole-3	HVDC	NR	TS	06-12-2019 09:19	While deblocking of pole-3 at 09:18hrs, Pole-3 got blocked on DCUC and Pole-1 also blocked due to Mal operation of protection.	06-12-2019 10:01	0:42:00	3
36	HVDC Kurukshetra Pole-3	HVDC	NR	MO	08-12-2019 21:34	Manually opened due to high voltage.	09-12-2019 09:01	11:27:00	3
37	HVDC Kurukshetra Pole-3	HVDC	NR	MO	11-12-2019 20:06	Manually opened due to high voltage.	12-12-2019 10:35	14:29:00	3
38	HVDC Kurukshetra Pole-3	HVDC	NR	MO	12-12-2019 20:06	Manually opened due to high voltage.	13-12-2019 10:34	14:28:00	3
39	HVDC Kurukshetra Pole-3	HVDC	NR	TS	14-12-2019 10:37	Due to control maloperation	14-12-2019 15:18	4:41:00	4
40	HVDC Kurukshetra Pole-3	HVDC	NR	MO	14-12-2019 21:17	Manually opened due to high voltage.	15-12-2019 09:37	12:20:00	4
41	HVDC Kurukshetra Pole-3	HVDC	NR	MO	15-12-2019 21:00	Manually opened due to high voltage.	16-12-2019 07:55	10:55:00	4
42	HVDC Kurukshetra Pole-3	HVDC	NR	MO	16-12-2019 23:21	Manually opened due to high voltage.	17-12-2019 08:09	8:48:00	4
43	HVDC Kurukshetra Pole-3	HVDC	NR	TS	17-12-2019 11:08	Pole differential operated at kurukshetra end	17-12-2019 11:50	0:42:00	5
44	HVDC Kurukshetra Pole-3	HVDC	NR	MO	20-12-2019 00:08	Manually opened due to high voltage.	20-12-2019 08:47	8:39:00	5
45	HVDC Kurukshetra Pole-3	HVDC	NR	MO	20-12-2019 23:48	Manually opened due to high voltage.	21-12-2019 08:39	8:51:00	5

### List of Outages of Elements monitored by NLDC for the month of December-2019

S. No.	Name of Transmission Element	Type of the element	Region Involved	Category	Tripping Date and Time	Brief Reason/Relay Indication	Restoration Date and Time	Outage Duration	Number of Cumulative tripping in the month
46	HVDC Kurukshetra Pole-3	HVDC	NR	TS	21-12-2019 11:03	Blocked during lane change over at champa end. by investigating the logs its seems control mal o	21-12-2019 12:03	1:00:00	6
47	HVDC Kurukshetra Pole-3	HVDC	NR	MO	22-12-2019 20:41	Manually opened due to high voltage.	23-12-2019 08:57	12:16:00	6
48	HVDC Kurukshetra Pole-3	HVDC	NR	MO	24-12-2019 01:15	Manually opened due to high voltage.	24-12-2019 09:25	8:10:00	6
49	HVDC Kurukshetra Pole-3	HVDC	NR	MO	26-12-2019 01:41	Manually opened due to high voltage.	26-12-2019 07:13	5:32:00	6
50	HVDC Kurukshetra Pole-3	HVDC	NR	MO	27-12-2019 00:18	Manually opened due to high voltage.	27-12-2019 08:08	7:50:00	6
51	HVDC Kurukshetra Pole-3	HVDC	NR	TS	30-12-2019 10:26	Due to cnap(common neutral area protection) protection	30-12-2019 11:45	1:19:00	7
52	765/220 kV ICT-II at Lalitpur	ICT	NR	SE	13-12-2019 12:44	High temperature is observed (around 110-120 degree celsius) in isolator 204-89 d ict # 2 (765/220 kv) and also high acetylene is observed in ict#2 and we need to attend the same.	19-12-2019 11:42	142:58:00	0
53	765/400 kV ICT-I at Anpara D	ICT	NR	SO	01-12-2019 00:00	Replacement of R-Ph ICT with Spare ICT due to High acetylene content.	27-12-2019 13:22	637:22:00	0
54	765/400 kV ICT-I at Fatehabad	ICT	NR	SO	15-12-2019 08:19	Amp works.	16-12-2019 19:09	34:50:00	0
55	765/400 kV ICT-I at Meerut	ICT	NR	SO	27-12-2019 10:03	pre-winter maintenance work	27-12-2019 18:52	8:49:00	0
56	765/400 kV ICT-I at Unnao	ICT	NR	TS	28-12-2019 03:41	Operation of transformer protection 86b ,86bx ,94r ,r phase buchholz relay operated	28-12-2019 08:48	5:07:00	1
57	765/400 kV ICT-I at Unnao	ICT	NR	SO	28-12-2019 11:48	Shutdown availed for top up of oil in R-ph bank	28-12-2019 14:34	2:46:00	1
58	765/400 kV ICT-II at Fatehabad	ICT	NR	SO	17-12-2019 08:25	Amp works.	18-12-2019 18:40	34:15:00	0
59	765/400 kV ICT-II at Jhatikara	ICT	NR	SO	16-12-2019 10:53	For installation of silicon jackets on LA & isolators.	16-12-2019 18:38	7:45:00	0
60	765/400 kV ICT-II at Jhatikara	ICT	NR	SO	23-12-2019 10:08	For silicon jacket installation	23-12-2019 18:16	8:08:00	0
61	765/400 kV ICT-IV at Jhatikara	ICT	NR	SE	12-12-2019 21:30	ICT-4 at Jhatikara was hand tripped due to heavy sparking in b-ph isolator.	13-12-2019 01:35	4:05:00	0
62	765/400kV 1500MVA ICT-III at Bhadla	ICT	NR	SO	07-12-2019 11:58	Final tuning of csd relays	07-12-2019 17:58	6:00:00	0
63	765/400kV ICT- II at Hapur	ICT	NR	SO	18-12-2019 11:30	Due to heavy oil leakage from core locking of top cover of b-phase	18-12-2019 13:25	1:55:00	0
64	765/400kV ICT-I at Bhadla	ICT	NR	SO	14-12-2019 13:12	To attend problem in r-ph ct wiring	14-12-2019 14:13	1:01:00	0
65	765/400kV ICT-I at Bikaner	ICT	NR	SO	27-12-2019 10:54	Amp/spare phase switching	27-12-2019 20:44	9:50:00	0
66	765 kV Moga-Meerut	Line	NR	MO	02-12-2019 12:34	Manually opened due to high voltage.	03-12-2019 07:31	18:57:00	0
67	765 kV Moga-Meerut	Line	NR	MO	03-12-2019 19:49	Manually opened due to high voltage.	04-12-2019 09:45	13:56:00	0
68	765 kV Moga-Meerut	Line	NR	MO	04-12-2019 20:07	Manually opened due to high voltage.	05-12-2019 06:54	10:47:00	0
69	765 kV Moga-Meerut	Line	NR	MO	05-12-2019 21:35	Manually opened due to high voltage.	06-12-2019 09:53	12:18:00	0
70	765 kV Moga-Meerut	Line	NR	MO	06-12-2019 19:34	Manually opened due to high voltage.	07-12-2019 08:45	13:11:00	0
71	765 kV Moga-Meerut	Line	NR	MO	07-12-2019 19:55	Manually opened due to high voltage.	09-12-2019 07:14	35:19:00	0
72	765 kV Moga-Meerut	Line	NR	MO	09-12-2019 21:11	Manually opened due to high voltage.	10-12-2019 09:21	12:10:00	0
73	765 kV Moga-Meerut	Line	NR	MO	10-12-2019 21:15	Manually opened due to high voltage.	11-12-2019 07:41	10:26:00	0
74	765 kV Moga-Meerut	Line	NR	MO	11-12-2019 19:14	Manually opened due to high voltage.	14-12-2019 09:32	62:18:00	0
75	765 kV Moga-Meerut	Line	NR	SO	14-12-2019 09:33	For defective insulator replacement.	14-12-2019 19:04	9:31:00	0
76	765 kV Moga-Meerut	Line	NR	MO	14-12-2019 21:53	Manually opened due to high voltage.	15-12-2019 09:13	11:20:00	0
77	765 kV Moga-Meerut	Line	NR	SO	15-12-2019 09:14	For insulator replacement	15-12-2019 20:28	11:14:00	0
78	765 kV Moga-Meerut	Line	NR	MO	15-12-2019 20:29	Manually opened due to high voltage.	16-12-2019 09:15	12:46:00	0
79	765 kV Moga-Meerut	Line	NR	SO	16-12-2019 09:17	For insulator replacement	16-12-2019 18:55	9:38:00	0
80	765 kV Moga-Meerut	Line	NR	MO	16-12-2019 18:56	Manually opened due to high voltage.	18-12-2019 10:15	39:19:00	0
81	765 kV Moga-Meerut	Line	NR	MO	18-12-2019 20:48	Manually opened due to high voltage.	19-12-2019 09:50	13:02:00	0
82	765 kV Moga-Meerut	Line	NR	MO	19-12-2019 19:39	Manually opened due to high voltage.	20-12-2019 07:42	12:03:00	0
83	765 kV Moga-Meerut	Line	NR	MO	20-12-2019 19:18	Manually opened due to high voltage.	21-12-2019 07:40	12:22:00	0
84	765 kV Moga-Meerut	Line	NR	MO	21-12-2019 19:55	Manually opened due to high voltage.	23-12-2019 10:11	38:16:00	0
85	765 kV Moga-Meerut	Line	NR	MO	23-12-2019 20:18	Manually opened due to high voltage.	24-12-2019 08:06	11:48:00	0
86	765 kV Moga-Meerut	Line	NR	MO	24-12-2019 21:35	Manually opened due to high voltage.	25-12-2019 09:33	11:58:00	0
87	765 kV Moga-Meerut	Line	NR	MO	25-12-2019 20:08	Manually opened due to high voltage.	26-12-2019 07:35	11:27:00	0
88	765 kV Moga-Meerut	Line	NR	MO	26-12-2019 21:21	Manually opened due to high voltage.	27-12-2019 06:48	9:27:00	0
89	765 kV Moga-Meerut	Line	NR	MO	27-12-2019 20:40	Manually opened due to high voltage.	28-12-2019 09:13	12:33:00	0
90	765 kV Moga-Meerut	Line	NR	MO	28-12-2019 19:58	Manually opened due to high voltage.	30-12-2019 10:24	38:26:00	0
91	765 kV Moga-Meerut	Line	NR	MO	30-12-2019 20:09	Manually opened due to high voltage.	31-12-2019 10:04	13:55:00	0
92	765 kV Moga-Meerut	Line	NR	MO	31-12-2019 19:52	Manually opened due to high voltage.	01-01-2020 09:49	13:57:00	0
93	765kV Agra-Jhatikara	Line	NR	SO	01-12-2019 08:17	strengthening work of 'A' type Delta towers	01-12-2019 19:35	11:18:00	0
94	765kV Ajmer - Chittorgarh Ckt-I	Line	NR	MO	01-12-2019 21:37	Manually opened due to high voltage.	02-12-2019 08:17	10:40:00	0
95	765kV Ajmer - Chittorgarh Ckt-I	Line	NR	MO	07-12-2019 22:20	Manually opened due to high voltage.	08-12-2019 08:08	9:48:00	0
96	765kV Ajmer - Chittorgarh Ckt-I	Line	NR	MO	12-12-2019 20:52	Manually opened due to high voltage.	13-12-2019 09:36	12:44:00	0
97	765kV Ajmer - Chittorgarh Ckt-I	Line	NR	MO	13-12-2019 19:57	Manually opened due to high voltage.	14-12-2019 07:38	11:41:00	0
98	765kV Ajmer - Chittorgarh Ckt-I	Line	NR	SO	16-12-2019 09:32	for amp of line & line bay equipment ( terminal equipment ).	16-12-2019 18:23	8:51:00	0
99	765kV Ajmer - Chittorgarh Ckt-I	Line	NR	MO	16-12-2019 22:06	Manually opened due to high voltage.	17-12-2019 06:31	8:25:00	0
100	765kV Ajmer - Chittorgarh Ckt-I	Line	NR	SO	17-12-2019 08:45	for amp of line & line bay equipment ( terminal equipment ).	17-12-2019 19:12	10:27:00	0
101	765kV Ajmer - Chittorgarh Ckt-I	Line	NR	SO	18-12-2019 10:08	for amp of line & line bay equipment ( terminal equipment ).	18-12-2019 18:17	8:09:00	0
102	765kV Ajmer - Chittorgarh Ckt-I	Line	NR	MO	18-12-2019 21:03	Manually opened due to high voltage.	19-12-2019 07:18	10:15:00	0

### List of Outages of Elements monitored by NLDC for the month of December-2019

S. No.	Name of Transmission Element	Type of the element	Region Involved	Catagory	Tripping Date and Time	Brief Reason/Relay Indication	Restoration Date and Time	Outage Duration	Number of Cumulative tripping in the month
103	765kV Ajmer - Chittorgarh Ckt-I	Line	NR	MO	19-12-2019 21:31	Manually opened due to high voltage.	20-12-2019 08:34	11:03:00	0
104	765kV Ajmer - Chittorgarh Ckt-I	Line	NR	MO	23-12-2019 21:39	Manually opened due to high voltage.	24-12-2019 07:35	9:56:00	0
105	765kV Ajmer - Chittorgarh Ckt-I	Line	NR	MO	24-12-2019 19:54	Manually opened due to high voltage.	25-12-2019 08:01	12:07:00	0
106	765kV Ajmer - Chittorgarh Ckt-I	Line	NR	MO	25-12-2019 21:51	Manually opened due to high voltage.	26-12-2019 08:03	10:12:00	0
107	765kV Ajmer - Chittorgarh Ckt-I	Line	NR	MO	28-12-2019 23:27	Manually opened due to high voltage.	29-12-2019 07:23	7:56:00	0
108	765kV Ajmer - Chittorgarh Ckt-I	Line	NR	MO	30-12-2019 20:12	Manually opened due to high voltage.	31-12-2019 08:19	12:07:00	0
109	765kV Ajmer - Chittorgarh Ckt-I	Line	NR	MO	31-12-2019 19:33	Manually opened due to high voltage.	01-01-2020 06:57	11:24:00	0
110	765kV Ajmer - Chittorgarh Ckt-II	Line	NR	MO	04-12-2019 22:36	Manually opened due to high voltage.	05-12-2019 06:00	7:24:00	0
111	765kV Ajmer - Chittorgarh Ckt-II	Line	NR	MO	06-12-2019 19:29	Manually opened due to high voltage.	07-12-2019 08:35	13:06:00	0
112	765kV Ajmer - Chittorgarh Ckt-II	Line	NR	MO	08-12-2019 20:56	Manually opened due to high voltage.	12-12-2019 18:50	93:54:00	0
113	765kV Ajmer - Chittorgarh Ckt-II	Line	NR	MO	08-12-2019 20:56	Manually opened due to high voltage.	09-12-2019 07:19	10:23:00	0
114	765kV Ajmer - Chittorgarh Ckt-II	Line	NR	SO	12-12-2019 09:05	For amp of line & line bay equipment ( terminal equipment )	13-12-2019 18:42	33:37:00	0
115	765kV Ajmer - Chittorgarh Ckt-II	Line	NR	SO	13-12-2019 10:45	For amp of line & line bay equipment ( terminal equipment )	13-12-2019 18:42	7:57:00	0
116	765kV Ajmer - Chittorgarh Ckt-II	Line	NR	SO	14-12-2019 09:22	For amp of line & line bay equipment ( terminal equipment )	14-12-2019 17:57	8:35:00	0
117	765kV Ajmer - Chittorgarh Ckt-II	Line	NR	MO	14-12-2019 17:57	Manually opened due to high voltage.	15-12-2019 07:32	13:35:00	0
118	765kV Ajmer - Chittorgarh Ckt-II	Line	NR	MO	18-12-2019 03:35	Manually opened due to high voltage.	18-12-2019 07:55	4:20:00	0
119	765kV Ajmer - Chittorgarh Ckt-II	Line	NR	MO	22-12-2019 23:06	Manually opened due to high voltage.	23-12-2019 06:59	7:53:00	0
120	765kV Ajmer - Chittorgarh Ckt-II	Line	NR	MO	26-12-2019 21:24	Manually opened due to high voltage.	27-12-2019 06:37	9:13:00	0
121	765kV Ajmer - Chittorgarh Ckt-II	Line	NR	MO	27-12-2019 21:49	Manually opened due to high voltage.	28-12-2019 06:15	8:26:00	0
122	765kV Ajmer - Chittorgarh Ckt-II	Line	NR	MO	29-12-2019 20:18	Manually opened due to high voltage.	30-12-2019 09:35	13:17:00	0
123	765kV Ajmer-Bikaner Ckt-II	Line	NR	SE	24-12-2019 14:44	Emergency s/D availed for rectification broken jumper	24-12-2019 20:07	5:23:00	0
124	765kV Ajmer-Chittorgarh Ckt-II	Line	NR	SE	22-12-2019 17:28	Emergency s/d for Jumpering work of 765kv ajmer-chittorgarh-1	22-12-2019 23:05	5:37:00	0
125	765kV Aligarh-Jhatikara	Line	NR	MO	12-12-2019 21:51	Manually opened due to high voltage.	13-12-2019 08:14	10:23:00	0
126	765kV Aligarh-Orai Ckt-1	Line	NR	TL	07-12-2019 16:22	R-N fault,due to opgw work between loc no 187-188.	07-12-2019 18:46	2:24:00	1
127	765kV Aligarh-Orai Ckt-1	Line	NR	MO	13-12-2019 02:41	Manually opened due to high voltage.	13-12-2019 07:05	4:24:00	1
128	765kV Aligarh-Orai Ckt-1	Line	NR	MO	16-12-2019 00:54	Manually opened due to high voltage.	16-12-2019 07:12	6:18:00	1
129	765kV Aligarh-Orai Ckt-1	Line	NR	MO	24-12-2019 01:13	Manually opened due to high voltage.	24-12-2019 06:02	4:49:00	1
130	765kV Aligarh-Orai Ckt-2	Line	NR	MO	16-12-2019 22:17	Manually opened due to high voltage.	17-12-2019 06:30	8:13:00	0
131	765kV Aligarh-Orai Ckt-2	Line	NR	MO	25-12-2019 02:11	Manually opened due to high voltage.	25-12-2019 08:34	6:23:00	0
132	765kV Balia-Lucknow	Line	NR	TL	13-12-2019 07:33	B-N fault	13-12-2019 13:02	5:29:00	1
133	765kV Fatehabad-Lalitpur-I	Line	NR	MO	13-12-2019 22:53	Manually opened due to high voltage.	14-12-2019 19:04	20:11:00	0
134	765kV Fatehabad-Lalitpur-I	Line	NR	MO	23-12-2019 00:06	Manually opened due to high voltage.	24-12-2019 08:08	32:02:00	0
135	765kV Fatehabad-Lalitpur-II	Line	NR	MO	15-12-2019 23:54	Manually opened due to high voltage.	16-12-2019 08:53	8:59:00	0
136	765kV Fatehabad-Lalitpur-II	Line	NR	SE	24-12-2019 08:57	For attending extra long jumper problem on tp tower no. 319 & hotspot attending, looping, chopping of trees.	30-12-2019 22:29	157:32:00	0
137	765kV Fatehabad-Lalitpur-II	Line	NR	MO	30-12-2019 22:30	Manually opened due to high voltage.	01-01-2020 00:00	25:30:00	0
138	765kV Fatehpur-Agra-I	Line	NR	MO	02-12-2019 13:13	Manually opened due to high voltage.	03-12-2019 06:39	17:26:00	0
139	765kV Fatehpur-Agra-I	Line	NR	MO	03-12-2019 13:33	Manually opened due to high voltage.	04-12-2019 09:30	19:57:00	0
140	765kV Fatehpur-Agra-I	Line	NR	MO	04-12-2019 14:12	Manually opened due to high voltage.	05-12-2019 08:05	17:53:00	0
141	765kV Fatehpur-Agra-I	Line	NR	MO	06-12-2019 14:13	Manually opened due to high voltage.	06-12-2019 17:18	3:05:00	0
142	765kV Fatehpur-Agra-I	Line	NR	MO	07-12-2019 20:21	Manually opened due to high voltage.	09-12-2019 16:01	43:40:00	0
143	765kV Fatehpur-Agra-I	Line	NR	MO	10-12-2019 21:50	Manually opened due to high voltage.	11-12-2019 06:35	8:45:00	0
144	765kV Fatehpur-Agra-I	Line	NR	MO	12-12-2019 17:22	Manually opened due to high voltage.	13-12-2019 07:01	13:39:00	0
145	765kV Fatehpur-Agra-I	Line	NR	MO	13-12-2019 19:55	Manually opened due to high voltage.	14-12-2019 06:41	10:46:00	0
146	765kV Fatehpur-Agra-I	Line	NR	MO	14-12-2019 19:23	Manually opened due to high voltage.	15-12-2019 08:44	13:21:00	0
147	765kV Fatehpur-Agra-I	Line	NR	MO	16-12-2019 13:03	Manually opened due to high voltage.	18-12-2019 10:01	44:58:00	0
148	765kV Fatehpur-Agra-I	Line	NR	MO	19-12-2019 19:52	Manually opened due to high voltage.	20-12-2019 05:54	10:02:00	0
149	765kV Fatehpur-Agra-I	Line	NR	MO	20-12-2019 19:13	Manually opened due to high voltage.	21-12-2019 06:39	11:26:00	0
150	765kV Fatehpur-Agra-I	Line	NR	MO	21-12-2019 14:34	Manually opened due to high voltage.	23-12-2019 08:27	41:53:00	0
151	765kV Fatehpur-Agra-I	Line	NR	MO	23-12-2019 15:50	Manually opened due to high voltage.	25-12-2019 11:41	43:51:00	0
152	765kV Fatehpur-Agra-I	Line	NR	MO	25-12-2019 20:25	Manually opened due to high voltage.	26-12-2019 07:50	11:25:00	0
153	765kV Fatehpur-Agra-I	Line	NR	MO	27-12-2019 13:57	Manually opened due to high voltage.	28-12-2019 06:04	16:07:00	0
154	765kV Fatehpur-Agra-I	Line	NR	MO	28-12-2019 18:12	Manually opened due to high voltage.	29-12-2019 05:13	11:01:00	0
155	765kV Fatehpur-Agra-I	Line	NR	MO	29-12-2019 20:08	Manually opened due to high voltage.	30-12-2019 09:36	13:28:00	0
156	765kV Fatehpur-Agra-II	Line	NR	MO	01-12-2019 14:15	Manually opened due to high voltage.	02-12-2019 08:16	18:01:00	0
157	765kV Fatehpur-Agra-II	Line	NR	MO	05-12-2019 19:49	Manually opened due to high voltage.	06-12-2019 06:55	11:06:00	0
158	765kV Fatehpur-Agra-II	Line	NR	MO	06-12-2019 19:48	Manually opened due to high voltage.	07-12-2019 06:53	11:05:00	0
159	765kV Fatehpur-Agra-II	Line	NR	MO	09-12-2019 21:35	Manually opened due to high voltage.	10-12-2019 08:41	11:06:00	0
160	765kV Fatehpur-Agra-II	Line	NR	MO	11-12-2019 19:25	Manually opened due to high voltage.	12-12-2019 07:43	12:18:00	0

## List of Outages of Elements monitored by NLDC for the month of December-2019

S. No.	Name of Transmission Element	Type of the element	Region Involved	Category	Tripping Date and Time	Brief Reason/Relay Indication	Restoration Date and Time	Outage Duration	Number of Cumulative tripping in the month
161	765kV Fatehpur-Agra-II	Line	NR	MO	12-12-2019 21:39	Manually opened due to high voltage.	13-12-2019 09:30	11:51:00	0
162	765kV Fatehpur-Agra-II	Line	NR	MO	15-12-2019 13:17	Manually opened due to high voltage.	16-12-2019 10:01	20:44:00	0
163	765kV Fatehpur-Agra-II	Line	NR	MO	16-12-2019 22:27	Manually opened due to high voltage.	17-12-2019 06:26	7:59:00	0
164	765kV Fatehpur-Agra-II	Line	NR	MO	18-12-2019 20:59	Manually opened due to high voltage.	19-12-2019 07:56	10:57:00	0
165	765kV Fatehpur-Agra-II	Line	NR	MO	20-12-2019 02:15	Manually opened due to high voltage.	20-12-2019 09:04	6:49:00	0
166	765kV Fatehpur-Agra-II	Line	NR	MO	20-12-2019 23:57	Manually opened due to high voltage.	21-12-2019 09:26	9:29:00	0
167	765kV Fatehpur-Agra-II	Line	NR	MO	26-12-2019 20:07	Manually opened due to high voltage.	27-12-2019 07:43	11:36:00	0
168	765kV Fatehpur-Agra-II	Line	NR	MO	28-12-2019 03:37	Manually opened due to high voltage.	28-12-2019 09:11	5:34:00	0
169	765kV Fatehpur-Agra-II	Line	NR	MO	29-12-2019 00:13	Manually opened due to high voltage.	29-12-2019 09:42	9:29:00	0
170	765kV Fatehpur-Agra-II	Line	NR	MO	30-12-2019 21:02	Manually opened due to high voltage.	31-12-2019 09:29	12:27:00	0
171	765kV Fatehpur-Agra-II	Line	NR	MO	31-12-2019 19:53	Manually opened due to high voltage.	01-01-2020 09:30	13:37:00	0
172	765kV Jabalpur-Orai -I	Line	NR	SO	09-12-2019 09:15	To carry out the insulator cleaning works in the lines for winter preparedness	09-12-2019 21:03	11:48:00	0
173	765kV Jabalpur-Orai -II	Line	NR	SO	08-12-2019 09:26	To carry out the insulator cleaning works in the lines for winter preparedness & for taking out common spare line reactor unit and taking in repaired b-phase line reactor unit	08-12-2019 19:25	9:59:00	0
174	765kV Jabalpur-Orai -II	Line	NR	TS	15-12-2019 00:03	Buchholz relay operated in r-ph reactor at jabalpur end	15-12-2019 03:19	3:16:00	1
175	765kV Jhatikara-Bhiwani(PG)	Line	NR	MO	04-12-2019 01:38	Manually opened due to high voltage.	04-12-2019 07:12	5:34:00	0
176	765kV Kanpur-Aligarh	Line	NR	MO	03-12-2019 19:41	Manually opened due to high voltage.	04-12-2019 09:47	14:06:00	0
177	765kV Kanpur-Aligarh	Line	NR	MO	04-12-2019 19:58	Manually opened due to high voltage.	06-12-2019 09:34	37:36:00	0
178	765kV Kanpur-Aligarh	Line	NR	MO	06-12-2019 23:17	Manually opened due to high voltage.	07-12-2019 09:30	10:13:00	0
179	765kV Kanpur-Aligarh	Line	NR	MO	08-12-2019 00:28	Manually opened due to high voltage.	09-12-2019 10:16	33:48:00	0
180	765kV Kanpur-Aligarh	Line	NR	MO	09-12-2019 16:48	Manually opened due to high voltage.	13-12-2019 09:40	88:52:00	0
181	765kV Kanpur-Aligarh	Line	NR	MO	13-12-2019 23:13	Manually opened due to high voltage.	14-12-2019 09:24	10:11:00	0
182	765kV Kanpur-Aligarh	Line	NR	MO	14-12-2019 22:31	Manually opened due to high voltage.	15-12-2019 06:08	7:37:00	0
183	765kV Kanpur-Aligarh	Line	NR	MO	15-12-2019 21:51	Manually opened due to high voltage.	16-12-2019 07:42	9:51:00	0
184	765kV Kanpur-Aligarh	Line	NR	MO	16-12-2019 22:08	Manually opened due to high voltage.	17-12-2019 08:12	10:04:00	0
185	765kV Kanpur-Aligarh	Line	NR	MO	17-12-2019 23:19	Manually opened due to high voltage.	19-12-2019 09:12	33:53:00	0
186	765kV Kanpur-Aligarh	Line	NR	MO	19-12-2019 19:39	Manually opened due to high voltage.	20-12-2019 09:09	13:30:00	0
187	765kV Kanpur-Aligarh	Line	NR	MO	20-12-2019 19:19	Manually opened due to high voltage.	21-12-2019 09:23	14:04:00	0
188	765kV Kanpur-Aligarh	Line	NR	MO	21-12-2019 19:38	Manually opened due to high voltage.	22-12-2019 07:51	12:13:00	0
189	765kV Kanpur-Aligarh	Line	NR	MO	22-12-2019 21:06	Manually opened due to high voltage.	23-12-2019 07:40	10:34:00	0
190	765kV Kanpur-Aligarh	Line	NR	MO	24-12-2019 00:13	Manually opened due to high voltage.	24-12-2019 06:52	6:39:00	0
191	765kV Kanpur-Aligarh	Line	NR	MO	24-12-2019 22:15	Manually opened due to high voltage.	27-12-2019 08:14	57:59:00	0
192	765kV Kanpur-Aligarh	Line	NR	MO	27-12-2019 20:21	Manually opened due to high voltage.	28-12-2019 09:26	13:05:00	0
193	765kV Kanpur-Aligarh	Line	NR	MO	29-12-2019 00:21	Manually opened due to high voltage.	29-12-2019 09:15	8:54:00	0
194	765kV Kanpur-Aligarh	Line	NR	MO	29-12-2019 21:17	Manually opened due to high voltage.	30-12-2019 06:55	9:38:00	0
195	765kV Kanpur-Aligarh	Line	NR	MO	30-12-2019 21:07	Manually opened due to high voltage.	31-12-2019 06:13	9:06:00	0
196	765kV Kanpur-Aligarh	Line	NR	MO	31-12-2019 20:07	Manually opened due to high voltage.	01-01-2020 08:35	12:28:00	0
197	765kV Kanpur-Varanasi-I	Line	NR	ME	04-12-2019 10:00	to avoid mishappening due to man climbing on tower	04-12-2019 13:52	3:52:00	0
198	765kV Kanpur-Varanasi-II	Line	NR	ME	04-12-2019 10:02	to avoid mishappening due to man climbing on tower	04-12-2019 14:00	3:58:00	0
199	765kV Meerut-Bhiwani(PG)	Line	NR	MO	02-12-2019 13:34	Manually opened due to high voltage.	04-12-2019 07:25	41:51:00	0
200	765kV Meerut-Bhiwani(PG)	Line	NR	MO	04-12-2019 14:15	Manually opened due to high voltage.	12-12-2019 10:20	188:05:00	0
201	765kV Meerut-Bhiwani(PG)	Line	NR	MO	12-12-2019 19:14	Manually opened due to high voltage.	14-12-2019 09:53	38:39:00	0
202	765kV Meerut-Bhiwani(PG)	Line	NR	MO	14-12-2019 19:23	Manually opened due to high voltage.	21-12-2019 09:59	158:36:00	0
203	765kV Meerut-Bhiwani(PG)	Line	NR	MO	21-12-2019 21:56	Manually opened due to high voltage.	23-12-2019 10:52	36:56:00	0
204	765kV Meerut-Bhiwani(PG)	Line	NR	MO	23-12-2019 21:23	Manually opened due to high voltage.	24-12-2019 09:33	12:10:00	0
205	765kV Meerut-Bhiwani(PG)	Line	NR	MO	24-12-2019 22:01	Manually opened due to high voltage.	25-12-2019 09:30	11:29:00	0
206	765kV Meerut-Bhiwani(PG)	Line	NR	MO	25-12-2019 21:37	Manually opened due to high voltage.	27-12-2019 11:36	37:59:00	0
207	765kV Meerut-Bhiwani(PG)	Line	NR	MO	27-12-2019 19:58	Manually opened due to high voltage.	30-12-2019 10:22	62:24:00	0
208	765kV Meerut-Bhiwani(PG)	Line	NR	MO	30-12-2019 21:06	Manually opened due to high voltage.	31-12-2019 09:38	12:32:00	0
209	765kV Meerut-Bhiwani(PG)	Line	NR	MO	31-12-2019 23:22	Manually opened due to high voltage.	01-01-2020 09:29	10:07:00	0
210	765kV Phagi-Bhiwani-I	Line	NR	MO	01-12-2019 15:34	Manually opened due to high voltage.	02-12-2019 08:28	16:54:00	0
211	765kV Phagi-Bhiwani-I	Line	NR	MO	08-12-2019 21:34	Manually opened due to high voltage.	09-12-2019 06:35	9:01:00	0
212	765kV Phagi-Bhiwani-I	Line	NR	MO	10-12-2019 21:04	Manually opened due to high voltage.	11-12-2019 07:10	10:06:00	0
213	765kV Phagi-Bhiwani-I	Line	NR	MO	12-12-2019 20:53	Manually opened due to high voltage.	13-12-2019 08:09	11:16:00	0
214	765kV Phagi-Bhiwani-I	Line	NR	MO	13-12-2019 19:58	Manually opened due to high voltage.	14-12-2019 08:58	13:00:00	0
215	765kV Phagi-Bhiwani-I	Line	NR	MO	14-12-2019 19:45	Manually opened due to high voltage.	15-12-2019 07:12	11:27:00	0
216	765kV Phagi-Bhiwani-I	Line	NR	MO	15-12-2019 21:57	Manually opened due to high voltage.	16-12-2019 07:44	9:47:00	0
217	765kV Phagi-Bhiwani-I	Line	NR	SO	19-12-2019 10:39	For insulator cleaning ,cc ring, spacer,vd, bird guard & jumper tightening.	19-12-2019 20:06	9:27:00	0
218	765kV Phagi-Bhiwani-I	Line	NR	SO	20-12-2019 09:54	For insulator cleaning ,cc ring, spacer,vd, bird guard & jumper tightening.	20-12-2019 20:13	10:19:00	0

**List of Outages of Elements monitored by NLDC for the month of December-2019**

S. No.	Name of Transmission Element	Type of the element	Region Involved	Category	Tripping Date and Time	Brief Reason/Relay Indication	Restoration Date and Time	Outage Duration	Number of Cumulative tripping in the month
219	765kV Phagi-Bhiwani-I	Line	NR	MO	21-12-2019 01:56	Manually opened due to high voltage.	21-12-2019 09:41	7:45:00	0
220	765kV Phagi-Bhiwani-I	Line	NR	SO	21-12-2019 09:42	For insulator cleaning ,cc ring, spacer, vd, bird guard & jumper tightening.	21-12-2019 19:40	9:58:00	0
221	765kV Phagi-Bhiwani-I	Line	NR	MO	24-12-2019 21:17	Manually opened due to high voltage.	25-12-2019 07:10	9:53:00	0
222	765kV Phagi-Bhiwani-I	Line	NR	MO	28-12-2019 00:45	Manually opened due to high voltage.	28-12-2019 06:52	6:07:00	0
223	765kV Phagi-Bhiwani-I	Line	NR	MO	29-12-2019 00:24	Manually opened due to high voltage.	29-12-2019 07:05	6:41:00	0
224	765kV Phagi-Bhiwani-II	Line	NR	MO	02-12-2019 20:50	Manually opened due to high voltage.	03-12-2019 06:49	9:59:00	0
225	765kV Phagi-Bhiwani-II	Line	NR	MO	04-12-2019 22:13	Manually opened due to high voltage.	05-12-2019 06:08	7:55:00	0
226	765kV Phagi-Bhiwani-II	Line	NR	MO	06-12-2019 19:46	Manually opened due to high voltage.	07-12-2019 07:14	11:28:00	0
227	765kV Phagi-Bhiwani-II	Line	NR	MO	07-12-2019 19:59	Manually opened due to high voltage.	08-12-2019 07:36	11:37:00	0
228	765kV Phagi-Bhiwani-II	Line	NR	MO	09-12-2019 21:14	Manually opened due to high voltage.	10-12-2019 08:12	10:58:00	0
229	765kV Phagi-Bhiwani-II	Line	NR	MO	12-12-2019 02:10	Manually opened due to high voltage.	12-12-2019 07:17	5:07:00	0
230	765kV Phagi-Bhiwani-II	Line	NR	MO	13-12-2019 19:58	Manually opened due to high voltage.	14-12-2019 08:58	13:00:00	0
231	765kV Phagi-Bhiwani-II	Line	NR	MO	16-12-2019 22:14	Manually opened due to high voltage.	17-12-2019 06:44	8:30:00	0
232	765kV Phagi-Bhiwani-II	Line	NR	MO	17-12-2019 21:09	Manually opened due to high voltage.	18-12-2019 07:51	10:42:00	0
233	765kV Phagi-Bhiwani-II	Line	NR	MO	18-12-2019 21:11	Manually opened due to high voltage.	19-12-2019 06:43	9:32:00	0
234	765kV Phagi-Bhiwani-II	Line	NR	MO	19-12-2019 23:53	Manually opened due to high voltage.	20-12-2019 07:11	7:18:00	0
235	765kV Phagi-Bhiwani-II	Line	NR	MO	22-12-2019 00:05	Manually opened due to high voltage.	22-12-2019 08:17	8:12:00	0
236	765kV Phagi-Bhiwani-II	Line	NR	SO	22-12-2019 08:18	For insulator cleaning ,cc ring, spacer, vd, bird guard & jumper tightening.	22-12-2019 20:19	12:01:00	0
237	765kV Phagi-Bhiwani-II	Line	NR	MO	23-12-2019 00:09	Manually opened due to high voltage.	23-12-2019 08:00	7:51:00	0
238	765kV Phagi-Bhiwani-II	Line	NR	SO	23-12-2019 08:01	For insulator cleaning ,cc ring, spacer, vd, bird guard & jumper tightening.	23-12-2019 20:36	12:35:00	0
239	765kV Phagi-Bhiwani-II	Line	NR	MO	26-12-2019 01:24	Manually opened due to high voltage.	26-12-2019 06:16	4:52:00	0
240	765kV Phagi-Bhiwani-II	Line	NR	MO	26-12-2019 21:46	Manually opened due to high voltage.	27-12-2019 06:46	9:00:00	0
241	765kV Phagi-Bhiwani-II	Line	NR	MO	30-12-2019 00:12	Manually opened due to high voltage.	30-12-2019 07:39	7:27:00	0

**List of Outages of Elements monitored by NLDC for the month of December-2019**

S. No.	Name of Transmission Element	Type of the element	Region Involved	Catagory	Tripping Date and Time	Brief Reason/Relay Indication	Restoration Date and Time	Outage Duration	Number of Cumulative tripping in the month
<b>Western Region Elements</b>									
1	330 MVAR Bus Reactor-1 at Warora	Bus Reactor	WR	SO	10-12-2019 11:23	for amp work	10-12-2019 17:29	6:06:00	0
2	B/R -I at Bhuj	Bus Reactor	WR	SO	06-12-2019 09:52	CSD commissioning/fine tuning and rtv coating works. dia to be kept open. B/R will be switched online multiple times to complete csd works	06-12-2019 18:12	8:20:00	0
3	B/R -I at Bhuj	Bus Reactor	WR	SO	07-12-2019 11:25	CSD commissioning/fine tuning and rtv coating works. dia to be kept open. B/R will be switched online multiple times to complete csd works	07-12-2019 18:49	7:24:00	0
4	B/R-I at Bina	Bus Reactor	WR	SO	16-12-2019 10:58	Amp of BR-1.	16-12-2019 11:09	0:11:00	0
5	B/R-II at Champa	Bus Reactor	WR	SO	11-12-2019 13:13	For csd commissioning in bay-725	11-12-2019 17:31	4:18:00	0
6	HVDC Champa Pole-1	HVDC	WR	MO	01-12-2019 20:37	Manually opened due to high voltage.	02-12-2019 08:44	12:07:00	0
7	HVDC Champa Pole-1	HVDC	WR	MO	02-12-2019 21:09	Manually opened due to high voltage.	03-12-2019 07:49	10:40:00	0
8	HVDC Champa Pole-1	HVDC	WR	MO	06-12-2019 22:02	Manually opened due to high voltage.	07-12-2019 09:54	11:52:00	0
9	HVDC Champa Pole-1	HVDC	WR	MO	07-12-2019 20:10	Manually opened due to high voltage.	08-12-2019 09:21	13:11:00	0
10	HVDC Champa Pole-1	HVDC	WR	MO	09-12-2019 21:22	Manually opened due to high voltage.	10-12-2019 08:29	11:07:00	0
11	HVDC Champa Pole-1	HVDC	WR	MO	10-12-2019 20:47	Manually opened due to high voltage.	11-12-2019 09:43	12:56:00	0
12	HVDC Champa Pole-1	HVDC	WR	MO	13-12-2019 20:27	Manually opened due to high voltage.	14-12-2019 09:44	13:17:00	0
13	HVDC Champa Pole-1	HVDC	WR	MO	17-12-2019 23:35	Manually opened due to high voltage.	18-12-2019 06:25	6:50:00	0
14	HVDC Champa Pole-1	HVDC	WR	MO	18-12-2019 21:06	Manually opened due to high voltage.	19-12-2019 07:53	10:47:00	0
15	HVDC Champa Pole-3	HVDC	WR	MO	01-12-2019 00:00	Manually opened due to High Voltage.	01-12-2019 08:03	8:03:00	0
16	HVDC Champa Pole-3	HVDC	WR	MO	03-12-2019 14:33	Manually opened due to high voltage.	04-12-2019 09:17	18:44:00	0
17	HVDC Champa Pole-3	HVDC	WR	MO	05-12-2019 01:37	Manually opened due to high voltage.	05-12-2019 09:10	7:33:00	0
18	HVDC Champa Pole-3	HVDC	WR	MO	05-12-2019 22:21	Manually opened due to high voltage.	06-12-2019 09:18	10:57:00	0
19	HVDC Champa Pole-3	HVDC	WR	TS	06-11-2019 11:17	Tripped due to CAT-A tripping at Champa end	06-11-2019 15:07	3:50:00	1
20	HVDC Champa Pole-3	HVDC	WR	TS	06-11-2019 15:16	At 15:16 Hrs champa-kurukshetra Pole-1 and Pole-3 blocked during Pole-3 deblocking. Pole-3 blocked on DC undercurrent from champa end and Pole-1 Blocked on CAT- B fault generated in Pole-3 due to issue in Pole-3 isolate sequence timing.	06-11-2019 20:40	5:24:00	2
21	HVDC Champa Pole-3	HVDC	WR	TS	06-12-2019 09:19	While deblocking of pole-3 at 09:18hrs, Pole-3 got blocked on DCUC and Pole-1 also blocked due to Mal operation of protection.	06-12-2019 10:01	0:42:00	3
22	HVDC Champa Pole-3	HVDC	WR	MO	08-12-2019 21:34	Manually opened due to high voltage.	09-12-2019 09:01	11:27:00	3
23	HVDC Champa Pole-3	HVDC	WR	MO	11-12-2019 20:06	Manually opened due to high voltage.	12-12-2019 10:35	14:29:00	3
24	HVDC Champa Pole-3	HVDC	WR	MO	12-12-2019 20:06	Manually opened due to high voltage.	13-12-2019 10:34	14:28:00	3
25	HVDC Champa Pole-3	HVDC	WR	TS	14-12-2019 10:37	Due to control maloperation	14-12-2019 15:18	4:41:00	4
26	HVDC Champa Pole-3	HVDC	WR	MO	14-12-2019 21:17	Manually opened due to high voltage.	15-12-2019 09:37	12:20:00	4
27	HVDC Champa Pole-3	HVDC	WR	MO	15-12-2019 21:00	Manually opened due to high voltage.	16-12-2019 07:55	10:55:00	4
28	HVDC Champa Pole-3	HVDC	WR	MO	16-12-2019 23:21	Manually opened due to high voltage.	17-12-2019 08:09	8:48:00	4
29	HVDC Champa Pole-3	HVDC	WR	TS	17-12-2019 11:08	Pole differential operated at kurukshetra end	17-12-2019 11:50	0:42:00	5
30	HVDC Champa Pole-3	HVDC	WR	MO	20-12-2019 00:08	Manually opened due to high voltage.	20-12-2019 08:47	8:39:00	5
31	HVDC Champa Pole-3	HVDC	WR	MO	20-12-2019 23:48	Manually opened due to high voltage.	21-12-2019 08:39	8:51:00	5
32	HVDC Champa Pole-3	HVDC	WR	TS	21-12-2019 11:03	Blocked during lane change over at champa end. by investigating the logs its seems control mal operation.	21-12-2019 12:03	1:00:00	6
33	HVDC Champa Pole-3	HVDC	WR	MO	22-12-2019 20:41	Manually opened due to high voltage.	23-12-2019 08:57	12:16:00	6
34	HVDC Champa Pole-3	HVDC	WR	MO	24-12-2019 01:15	Manually opened due to high voltage.	24-12-2019 09:25	8:10:00	6
35	HVDC Champa Pole-3	HVDC	WR	MO	26-12-2019 01:41	Manually opened due to high voltage.	26-12-2019 07:13	5:32:00	6
36	HVDC Champa Pole-3	HVDC	WR	MO	27-12-2019 00:18	Manually opened due to high voltage.	27-12-2019 08:08	7:50:00	6
37	HVDC Champa Pole-3	HVDC	WR	TS	30-12-2019 10:26	Due to cnap(common neutral area protection) protection	30-12-2019 11:45	1:19:00	7
38	765/400 KV ICT - I at Warora	ICT	WR	SE	31-12-2019 10:53	Due to hot spot at isolator	31-12-2019 16:41	5:48:00	0
39	765/400 KV ICT-I at Bhopal	ICT	WR	SO	20-12-2019 09:06	ICT-1 Y-phase lighting aressstor erection	20-12-2019 19:15	10:09:00	0
40	765/400 KV ICT-I at Indore	ICT	WR	SO	26-12-2019 09:47	Amp works. dia to be kept open on both sides.	26-12-2019 20:00	10:13:00	0
41	765/400 KV ICT-II at Indore	ICT	WR	SO	28-12-2019 09:51	Amp works. dia to be kept open on both sides.	28-12-2019 17:55	8:04:00	0
42	765/400 KV ICT-II at Koradi	ICT	WR	SO	16-12-2019 10:09	Maintenance of ict-2	16-12-2019 20:16	10:07:00	0
43	765/400 KV ICT-II at Seoni	ICT	WR	SO	27-12-2019 17:12	For removal of kite thread engaged between r-ph and earth wire near gantry tower on 400kv side.	27-12-2019 18:42	1:30:00	0
44	765/400 KV ICT-II at Sholapur-PG	ICT	WR	SO	11-12-2019 11:00	for amp works.	11-12-2019 17:29	6:29:00	0
45	765/400 KV ICT-II at Vindhyaichal PS	ICT	WR	SO	18-12-2019 15:44	To attend hot spot in r-phase 89t isolator of ict-2 hv side.	18-12-2019 18:34	2:50:00	0
46	765/400KV ICT-I at Bhuj	ICT	WR	SO	09-12-2019 09:29	CSD commissioning and rtv coating work.dia to be kept open on both sides.ICT will be switched multiple times on line to complete CSD works	09-12-2019 19:42	10:13:00	0

## List of Outages of Elements monitored by NLDC for the month of December-2019

S. No.	Name of Transmission Element	Type of the element	Region Involved	Category	Tripping Date and Time	Brief Reason/Relay Indication	Restoration Date and Time	Outage Duration	Number of Cumulative tripping in the month
47	765/400kV ICT-I at Bhuj	ICT	WR	SO	10-12-2019 09:54	Csd commissioning/fine tuning and rtvcoating works. dia to be kept open onboth sides. ict will be switched onlinemultiple times to complete csd works	10-12-2019 19:45	9:51:00	0
48	765/400kV ICT-II at Bhuj	ICT	WR	SO	11-12-2019 09:22	Csd commissioning/fine tuning and rtvcoating works. dia to be kept open onboth sides. ict will be switched onlinemultiple times to complete csd works	11-12-2019 20:21	10:59:00	0
49	765/400kV ICT-II at Bhuj	ICT	WR	SO	12-12-2019 10:03	Csd commissioning/fine tuning and rtvcoating works. dia to be kept open onboth sides. ict will be switched onlinemultiple times to complete csd works	12-12-2019 19:15	9:12:00	0
50	765kV Aurangabad-Sholapur-I	Line	WR	MO	04-12-2019 19:09	Manually opened due to high voltage.	05-12-2019 07:21	12:12:00	0
51	765kV Aurangabad-Sholapur-I	Line	WR	MO	08-12-2019 17:09	Manually opened due to high voltage.	09-12-2019 07:10	14:01:00	0
52	765kV Aurangabad-Sholapur-I	Line	WR	MO	13-12-2019 20:08	Manually opened due to high voltage.	14-12-2019 07:02	10:54:00	0
53	765kV Aurangabad-Sholapur-I	Line	WR	MO	15-12-2019 16:16	Manually opened due to high voltage.	17-12-2019 06:58	38:42:00	0
54	765kV Aurangabad-Sholapur-I	Line	WR	MO	18-12-2019 21:14	Manually opened due to high voltage.	19-12-2019 06:12	8:58:00	0
55	765kV Aurangabad-Sholapur-I	Line	WR	MO	20-12-2019 20:29	Manually opened due to high voltage.	21-12-2019 06:51	10:22:00	0
56	765kV Aurangabad-Sholapur-I	Line	WR	MO	22-12-2019 21:10	Manually opened due to high voltage.	23-12-2019 05:44	8:34:00	0
57	765kV Aurangabad-Sholapur-I	Line	WR	MO	25-12-2019 19:16	Manually opened due to high voltage.	26-12-2019 07:40	12:24:00	0
58	765kV Aurangabad-Sholapur-I	Line	WR	MO	27-12-2019 19:13	Manually opened due to high voltage.	28-12-2019 07:07	11:54:00	0
59	765kV Aurangabad-Sholapur-I	Line	WR	MO	29-12-2019 19:19	Manually opened due to high voltage.	30-12-2019 06:48	11:33:00	0
60	765kV Aurangabad-Sholapur-I	Line	WR	MO	31-12-2019 17:46	Manually opened due to high voltage.	01-01-2020 07:08	13:22:00	0
61	765kV Aurangabad-Sholapur-II	Line	WR	MO	03-12-2019 19:23	Manually opened due to high voltage.	04-12-2019 07:36	12:13:00	0
62	765kV Aurangabad-Sholapur-II	Line	WR	MO	05-12-2019 13:22	Manually opened due to high voltage.	06-12-2019 07:27	18:05:00	0
63	765kV Aurangabad-Sholapur-II	Line	WR	MO	07-12-2019 16:54	Manually opened due to high voltage.	08-12-2019 08:56	16:02:00	0
64	765kV Aurangabad-Sholapur-II	Line	WR	MO	09-12-2019 19:10	Manually opened due to high voltage.	13-12-2019 07:08	83:58:00	0
65	765kV Aurangabad-Sholapur-II	Line	WR	MO	14-12-2019 20:00	Manually opened due to high voltage.	15-12-2019 09:52	13:52:00	0
66	765kV Aurangabad-Sholapur-II	Line	WR	MO	17-12-2019 21:27	Manually opened due to high voltage.	18-12-2019 07:17	9:50:00	0
67	765kV Aurangabad-Sholapur-II	Line	WR	MO	19-12-2019 20:22	Manually opened due to high voltage.	20-12-2019 06:40	10:18:00	0
68	765kV Aurangabad-Sholapur-II	Line	WR	MO	21-12-2019 21:52	Manually opened due to high voltage.	22-12-2019 06:58	9:06:00	0
69	765kV Aurangabad-Sholapur-II	Line	WR	MO	23-12-2019 21:10	Manually opened due to high voltage.	24-12-2019 05:58	8:48:00	0
70	765kV Aurangabad-Sholapur-II	Line	WR	MO	26-12-2019 20:43	Manually opened due to high voltage.	27-12-2019 06:29	9:46:00	0
71	765kV Aurangabad-Sholapur-II	Line	WR	MO	28-12-2019 19:11	Manually opened due to high voltage.	29-12-2019 07:52	12:41:00	0
72	765kV Aurangabad-Sholapur-II	Line	WR	MO	30-12-2019 17:22	Manually opened due to high voltage.	31-12-2019 06:17	12:55:00	0
73	765kV Bilaspur-Rajnandgaon-I	Line	WR	SE	21-12-2019 12:11	For attending hotspot on line isolator terminal pad ( b phase) at bilaspur ss	21-12-2019 18:03	5:52:00	0
74	765kV Bilaspur-Rajnandgaon-I	Line	WR	TS	28-12-2019 12:23	Dt received from bilaspur end.	29-12-2019 09:29	21:06:00	1
75	765kV Bilaspur-Rajnandgaon-II	Line	WR	SO	20-12-2019 11:08	For attending hotspot on y phase wave trap at bilaspur end	20-12-2019 18:05	6:57:00	0
76	765kV Bina-Gwalior-II	Line	WR	MO	18-12-2019 02:16	Manually opened due to high voltage.	18-12-2019 06:07	3:51:00	0
77	765kV Bina-Indore	Line	WR	SO	29-12-2019 09:03	Amp works/ attending of shut down nature defects in the line by bina. dia to be kept open	29-12-2019 19:55	10:52:00	0
78	765kV Bina-Jabalpur-I	Line	WR	MO	15-12-2019 02:59	Manually opened due to high voltage.	15-12-2019 07:16	4:17:00	0
79	765kV Bina-Jabalpur-I	Line	WR	MO	21-12-2019 23:47	Manually opened due to high voltage.	22-12-2019 07:32	7:45:00	0
80	765kV Bina-Jabalpur-I	Line	WR	MO	30-12-2019 21:13	Manually opened due to high voltage.	31-12-2019 06:09	8:56:00	0
81	765kV Bina-Jabalpur-II	Line	WR	MO	22-12-2019 21:48	Manually opened due to high voltage.	23-12-2019 05:45	7:57:00	0
82	765kV Bina-Jabalpur-III	Line	WR	MO	29-12-2019 23:30	Manually opened due to high voltage.	30-12-2019 08:01	8:31:00	0
83	765kV Durg-Rajnandgaon-I	Line	WR	SO	12-12-2019 12:07	For investigating high db losses at lmu end	12-12-2019 14:45	2:38:00	0
84	765kV Durg-Wardha-I	Line	WR	MO	08-12-2019 00:21	Manually opened due to high voltage.	13-12-2019 07:57	127:36:00	0
85	765kV Durg-Wardha-I	Line	WR	MO	25-12-2019 19:58	Manually opened due to high voltage.	02-01-2020 09:34	181:36:00	0
86	765kV Durg-Wardha-II	Line	WR	MO	14-12-2019 00:07	Manually opened due to high voltage.	23-12-2019 07:53	223:46:00	0
87	765kV Durg-Wardha-III	Line	WR	MO	01-12-2019 00:00	Manually opened due to High Voltage.	11-12-2019 09:21	249:21:00	0
88	765kV Durg-Wardha-III	Line	WR	MO	14-12-2019 23:43	Manually opened due to high voltage.	26-12-2019 08:32	272:49:00	0
89	765kV Durg-Wardha-IV	Line	WR	MO	12-12-2019 23:48	Manually opened due to high voltage.	14-12-2019 07:07	31:19:00	0
90	765kV Durg-Wardha-IV	Line	WR	MO	28-12-2019 19:21	Manually opened due to high voltage.	01-01-2020 00:00	76:39:00	0
91	765kV Jabalpur-Dharamjaigarh-I	Line	WR	SO	01-12-2019 00:00	Rectificaton Work : Leg C (Ckt I side) & A (Ckt II side) of loc no 307 (DB 4.5 ULE) got deformed (78DB 465S) and buckled inside severely at Top Phase cross arm & also cross arm main Leg (Rafta member) detached from joint plate of Ckt II Side.	06-12-2019 21:02	141:02:00	0
92	765kV Jabalpur-Dharamjaigarh-I	Line	WR	MO	06-12-2019 21:03	Manually opened due to high voltage.	17-12-2019 08:43	251:40:00	0
93	765kV Jabalpur-Dharamjaigarh-I	Line	WR	MO	30-12-2019 21:55	Manually opened due to high voltage.	01-01-2020 00:00	26:05:00	0
94	765kV Jabalpur-Dharamjaigarh-II	Line	WR	SO	01-12-2019 00:00	Rectificaton Work : Leg C (Ckt I side) & A (Ckt II side) of loc no 307 (DB 4.5 ULE) got deformed (78DB 465S) and buckled inside severely at Top Phase cross arm & also cross arm main Leg (Rafta member) detached from joint plate of Ckt II Side.	06-12-2019 21:00	141:00:00	0
95	765kV Jabalpur-Dharamjaigarh-II	Line	WR	MO	18-12-2019 02:03	Manually opened due to high voltage.	30-12-2019 10:57	296:54:00	0
96	765kV Jabalpur-Dharamjaigarh-III	Line	WR	MO	11-12-2019 20:12	Manually opened due to high voltage.	23-12-2019 08:22	276:10:00	0
97	765kV Jabalpur-Dharamjaigarh-IV	Line	WR	MO	08-12-2019 19:31	Manually opened due to high voltage.	11-12-2019 10:17	62:46:00	0
98	765kV Jabalpur-Dharamjaigarh-IV	Line	WR	MO	23-12-2019 21:25	Manually opened due to high voltage.	01-01-2020 00:00	194:35:00	0

**List of Outages of Elements monitored by NLDC for the month of December-2019**

S. No.	Name of Transmission Element	Type of the element	Region Involved	Category	Tripping Date and Time	Brief Reason/Relay Indication	Restoration Date and Time	Outage Duration	Number of Cumulative tripping in the month
99	765kV New Parli - Solapur Ckt-I	Line	WR	MO	01-12-2019 18:48	Manually opened due to high voltage.	02-12-2019 06:28	11:40:00	0
100	765kV New Parli - Solapur Ckt-I	Line	WR	MO	03-12-2019 09:12	Manually opened due to high voltage.	04-12-2019 07:20	22:08:00	0
101	765kV New Parli - Solapur Ckt-I	Line	WR	MO	05-12-2019 23:54	Manually opened due to high voltage.	06-12-2019 06:24	6:30:00	0
102	765kV New Parli - Solapur Ckt-II	Line	WR	MO	02-12-2019 20:08	Manually opened due to high voltage.	03-12-2019 06:56	10:48:00	0
103	765kV New Parli - Solapur Ckt-II	Line	WR	MO	04-12-2019 22:00	Manually opened due to high voltage.	05-12-2019 06:35	8:35:00	0
104	765kV New Parli - Solapur Ckt-II	Line	WR	MO	06-12-2019 20:12	Manually opened due to high voltage.	07-12-2019 18:31	22:19:00	0
105	765kV Pune-Phadge	Line	WR	MO	01-12-2019 00:00	Manually opened due to High Voltage.	11-12-2019 08:50	248:50:00	0
106	765kV Pune-Phadge	Line	WR	MO	11-12-2019 18:48	Manually opened due to high voltage.	18-12-2019 12:28	161:40:00	0
107	765kV Pune-Phadge	Line	WR	MO	18-12-2019 20:13	Manually opened due to high voltage.	28-12-2019 10:11	229:58:00	0
108	765kV Pune-Phadge	Line	WR	MO	28-12-2019 19:14	Manually opened due to high voltage.	01-01-2020 00:00	76:46:00	0
109	765kV Pune-Sholapur	Line	WR	MO	06-12-2019 19:18	Manually opened due to high voltage.	07-12-2019 06:13	10:57:00	0
110	765kV Pune-Sholapur	Line	WR	MO	16-12-2019 22:14	Manually opened due to high voltage.	25-12-2019 09:20	203:06:00	0
111	765kV Pune-Sholapur	Line	WR	MO	26-12-2019 11:01	Manually opened due to high voltage.	27-12-2019 09:19	22:18:00	0
112	765kV Sasan - VindhyaChal-I	Line	WR	TS	17-12-2019 15:56	Main and tie bay at vindhyachal ps tripped due to dt receipt. line charged from sasan end through tie bay. main bay at sasan was under planned outage	17-12-2019 16:29	0:33:00	1
113	765kV Sasan - VindhyaChal-I	Line	WR	SO	18-12-2019 22:27	B-ph conductor snapped between loc.5-6( being attended)	20-12-2019 06:34	32:07:00	1
114	765kV Sasan-VindhyaChal-II	Line	WR	SO	04-12-2019 11:16	To carry out replacement of a9bt lmuat sasan end.	04-12-2019 17:13	5:57:00	0
115	765kV Satna-Bina-I	Line	WR	SO	24-12-2019 10:15	For insulator cleaning and to attend shut down nature defects inthe line by bina.	24-12-2019 19:00	8:45:00	0
116	765kV Satna-Bina-II	Line	WR	SO	27-12-2019 10:26	For insulator cleaning and to attend shut down nature defects in the line by bina. dia to be kept open at both sides	27-12-2019 19:04	8:38:00	0
117	765kV Seoni-Bina-I	Line	WR	SO	03-12-2019 10:44	For rectification of damaged connectorsof spare auxiliary bus of line reactor at seoni end.	04-12-2019 01:08	14:24:00	0
118	765kV Seoni-Wardha-I	Line	WR	SO	03-12-2019 11:11	For rectification of damaged connectorsof spare auxiliary bus of line reactor at seoni end.	04-12-2019 01:18	14:07:00	0
119	765kV Seoni-Wardha-II	Line	WR	MO	04-12-2019 01:19	Manually opened due to high voltage.	04-12-2019 06:23	5:04:00	0
120	765kV Tirora-Koradi-I	Line	WR	SO	30-12-2019 14:02	For commissioning of differential summation meter by MSEDCI	30-12-2019 15:42	1:40:00	0
121	765kV Wardha-Aurangabad-I	Line	WR	MO	02-12-2019 12:17	Manually opened due to high voltage.	09-12-2019 11:56	167:39:00	0
122	765kV Wardha-Aurangabad-I	Line	WR	MO	15-12-2019 23:57	Manually opened due to high voltage.	23-12-2019 07:36	175:39:00	0
123	765kV Wardha-Aurangabad-I	Line	WR	MO	30-12-2019 21:26	Manually opened due to high voltage.	01-01-2020 06:33	33:07:00	0
124	765kV Wardha-Aurangabad-III	Line	WR	MO	09-12-2019 16:48	Manually opened due to high voltage.	16-12-2019 08:31	159:43:00	0
125	765kV Wardha-Aurangabad-III	Line	WR	MO	23-12-2019 20:14	Manually opened due to high voltage.	30-12-2019 13:06	160:52:00	0
126	765kV Wardha-Aurangabad-IV	Line	WR	SE	28-12-2019 13:52	E/s/d for attending the y-phase isolator of main bay (722-89 b) mechanism.	28-12-2019 18:49	4:57:00	0
127	765kV Warora-New Parli Ckt-I	Line	WR	MO	01-12-2019 19:55	Manually opened due to high voltage.	02-12-2019 07:25	11:30:00	0
128	765kV Warora-New Parli Ckt-I	Line	WR	MO	07-12-2019 03:42	Manually opened due to high voltage.	07-12-2019 16:39	12:57:00	0

## List of Outages of Elements monitored by NLDC for the month of December-2019

S. No.	Name of Transmission Element	Type of the element	Region Involved	Catagory	Tripping Date and Time	Brief Reason/Relay Indication	Restoration Date and Time	Outage Duration	Number of Cumulative tripping in the month
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### Eastern Region Elements

S. No.	Name of Transmission Element	Type of the element	Region Involved	Catagory	Tripping Date and Time	Brief Reason/Relay Indication	Restoration Date and Time	Outage Duration	Number of Cumulative tripping in the month
1	HVDC Alipurdaur Pole-3	HVDC	ER	MO	01-12-2019 00:00	HVDC pole-3 blocked at APD & Agra to facilitate power reversal from Agra to BNC	10-12-2019 07:29	223:29:00	0
2	HVDC Alipurdaur Pole-3	HVDC	ER	MO	12-12-2019 20:55	Hvdc pole-3 blocked at apd & agra to facilitate power reversal from agra to bnc	01-01-2020 00:00	459:05:00	0
3	HVDC Alipurdaur Pole-4	HVDC	ER	MO	01-12-2019 00:00	Pole 4 blocked at APD & Agra to facilitate power reversal from Agra to BNC	01-01-2020 00:00	744:00:00	0
4	765/400 kV ICT-I at Angul	ICT	ER	SO	09-12-2019 10:52	For amp work	09-12-2019 17:33	6:41:00	0
5	765/400 kV ICT-I at Ranchi New	ICT	ER	SO	16-12-2019 09:27	For amp works	16-12-2019 21:11	11:44:00	0
6	765/400 kV ICT-I at Ranchi New	ICT	ER	SO	17-12-2019 11:05	For amp works	17-12-2019 16:01	4:56:00	0
7	765/400 kV ICT-I at Sasaram	ICT	ER	SO	07-12-2019 09:54	Retrofitting work of CSD relay	07-12-2019 23:02	13:08:00	0
8	765/400 kV ICT-III at Jharsuguda	ICT	ER	SO	30-12-2019 11:27	Csd tuning works	30-12-2019 19:27	8:00:00	0
9	765/400 kV ICT-IV at Jharsuguda	ICT	ER	SO	31-12-2019 10:41	Csd tuning works	31-12-2019 13:58	3:17:00	0
10	765kV Angul-Jharsuguda-III	Line	ER	MO	16-12-2019 22:25	Manually opened due to high voltage.	18-12-2019 11:54	37:29:00	0
11	765kV Angul-Jharsuguda-III	Line	ER	MO	28-12-2019 02:56	Manually opened due to high voltage.	07-01-2020 10:17	247:21:00	0
12	765kV Angul-Jharsuguda-IV	Line	ER	MO	02-12-2019 14:12	Manually opened due to high voltage.	16-12-2019 10:13	332:01:00	0
13	765kV Angul-Jharsuguda-IV	Line	ER	MO	18-12-2019 13:24	Manually opened due to high voltage.	27-12-2019 09:53	212:29:00	0
14	765kV Jharsuguda-Darlipalli Ckt-II	Line	ER	SO	04-12-2019 12:37	To attend cvt fuse fail alarm at sundergarh	05-12-2019 00:49	12:12:00	0

### Southern Region Elements

S. No.	Name of Transmission Element	Type of the element	Region Involved	Catagory	Tripping Date and Time	Brief Reason/Relay Indication	Restoration Date and Time	Outage Duration	Number of Cumulative tripping in the month
1	240Mvar B/R-I at Raichur	Bus Reactor	SR	SO	05-12-2019 09:37	Amp works.	05-12-2019 18:52	9:15:00	0
2	240Mvar B/R-II at Cuddapah	Bus Reactor	SR	SE	05-12-2019 11:34	For arresting oil leakage.	05-12-2019 14:21	2:47:00	0
3	B/R-I at Srikakulam	Bus Reactor	SR	SE	06-12-2019 08:15	Replacement and re-commissioning of csd failed during titli cyclone (02 nos. main and tie cbs)	06-12-2019 19:44	11:29:00	0
4	Bus Reactor - I at Thiruvalam	Bus Reactor	SR	TS	21-12-2019 07:40	Tripped while opening of isolator 70789a	21-12-2019 10:38	2:58:00	1
5	765/400 kV ICT-I at Kurnool New	ICT	SR	SO	03-12-2019 14:18	SFRA testing	03-12-2019 17:02	2:44:00	0
6	765/400 kV ICT-I at Sirkakulam	ICT	SR	SO	12-12-2019 08:26	Amp work	12-12-2019 20:54	12:28:00	0
7	765/400 kV ICT-II at Cuddapah	ICT	SR	SE	02-12-2019 10:10	Arresting of oil leakage	02-12-2019 14:43	4:33:00	0
8	765/400 kV ICT-II at Kurnool New	ICT	SR	SO	04-12-2019 11:00	Sfra testing	04-12-2019 12:42	1:42:00	0
9	765/400 kV ICT-II at Kurnool New	ICT	SR	SO	10-12-2019 10:05	Sfra testing	10-12-2019 13:15	3:10:00	0
10	765/400 kV ICT-II at Kurnool New	ICT	SR	SO	17-12-2019 10:09	Sfra testing	17-12-2019 12:35	2:26:00	0
11	765/400 kV ICT-II at Kurnool New	ICT	SR	SO	19-12-2019 10:05	Replacement and re-commissioning of faulty csd in cb 406	19-12-2019 13:46	3:41:00	0
12	765/400 kV ICT-II at Sirkakulam	ICT	SR	SO	18-12-2019 08:22	Amp works	18-12-2019 19:15	10:53:00	0
13	765/400 kV ICT-II at Vemagiri	ICT	SR	SO	13-12-2019 10:37	For spare change-over	13-12-2019 15:37	5:00:00	0
14	765/400kV ICT-I at Maheshwaram	ICT	SR	SO	02-12-2019 10:01	For spare ict change over (spare ict to be taken out and ict 1 r phase unit to be taken into service)	02-12-2019 12:10	2:09:00	0
15	765kV Cuddapah-Thiruvalam Ckt-I	Line	SR	MO	01-12-2019 14:45	Manually opened due to high voltage.	02-12-2019 08:20	17:35:00	0
16	765kV Cuddapah-Thiruvalam Ckt-I	Line	SR	MO	03-12-2019 21:01	Manually opened due to high voltage.	06-12-2019 08:39	59:38:00	0
17	765kV Cuddapah-Thiruvalam Ckt-I	Line	SR	MO	10-12-2019 20:51	Manually opened due to high voltage.	11-12-2019 06:28	9:37:00	0
18	765kV Cuddapah-Thiruvalam Ckt-I	Line	SR	TV	12-12-2019 23:19	Manually opened due to high voltage.	12-12-2019 23:47	0:28:00	1
19	765kV Cuddapah-Thiruvalam Ckt-I	Line	SR	MO	12-12-2019 23:47	Manually opened due to high voltage.	13-12-2019 07:18	7:31:00	1
20	765kV Cuddapah-Thiruvalam Ckt-I	Line	SR	TP	13-12-2019 20:02	Line tripped while opening of 765kv cuddapah-thiruvalum 2 to control high voltage	13-12-2019 21:48	1:46:00	2
21	765kV Cuddapah-Thiruvalam Ckt-I	Line	SR	MO	14-12-2019 19:56	Manually opened due to high voltage.	16-12-2019 11:10	39:14:00	2
22	765kV Cuddapah-Thiruvalam Ckt-I	Line	SR	MO	18-12-2019 21:16	Manually opened due to high voltage.	19-12-2019 06:43	9:27:00	2
23	765kV Cuddapah-Thiruvalam Ckt-I	Line	SR	SC	20-12-2019 09:11	On continuous basis for line crossing works of hvdc raigarh – pugalur line	21-12-2019 20:20	35:09:00	2
24	765kV Cuddapah-Thiruvalam Ckt-I	Line	SR	MO	26-12-2019 20:20	Manually opened due to high voltage.	27-12-2019 08:02	11:42:00	2
25	765kV Cuddapah-Thiruvalam Ckt-I	Line	SR	MO	28-12-2019 21:18	Manually opened due to high voltage.	29-12-2019 07:31	10:13:00	2
26	765kV Cuddapah-Thiruvalam Ckt-I	Line	SR	MO	30-12-2019 21:41	Manually opened due to high voltage.	31-12-2019 09:06	11:25:00	2
27	765kV Cuddapah-Thiruvalam Ckt-II	Line	SR	MO	02-12-2019 20:05	Manually opened due to high voltage.	03-12-2019 07:50	11:45:00	0
28	765kV Cuddapah-Thiruvalam Ckt-II	Line	SR	MO	06-12-2019 20:51	Manually opened due to high voltage.	09-12-2019 09:58	61:07:00	0

**List of Outages of Elements monitored by NLDC for the month of December-2019**

S. No.	Name of Transmission Element	Type of the element	Region Involved	Category	Tripping Date and Time	Brief Reason/Relay Indication	Restoration Date and Time	Outage Duration	Number of Cumulative tripping in the month
29	765kV Cuddapah-Thiruvalam Ckt-II	Line	SR	MO	09-12-2019 21:31	Manually opened due to high voltage.	10-12-2019 07:52	10:21:00	0
30	765kV Cuddapah-Thiruvalam Ckt-II	Line	SR	MO	11-12-2019 21:44	Manually opened due to high voltage.	12-12-2019 08:08	10:24:00	0
31	765kV Cuddapah-Thiruvalam Ckt-II	Line	SR	MO	13-12-2019 08:02	Manually opened due to high voltage.	14-12-2019 09:41	25:39:00	0
32	765kV Cuddapah-Thiruvalam Ckt-II	Line	SR	MO	16-12-2019 21:05	Manually opened due to high voltage.	17-12-2019 07:50	10:45:00	0
33	765kV Cuddapah-Thiruvalam Ckt-II	Line	SR	MO	17-12-2019 21:48	Manually opened due to high voltage.	18-12-2019 07:13	9:25:00	0
34	765kV Cuddapah-Thiruvalam Ckt-II	Line	SR	MO	19-12-2019 21:17	Manually opened due to high voltage.	20-12-2019 09:10	11:53:00	0
35	765kV Cuddapah-Thiruvalam Ckt-II	Line	SR	SC	20-12-2019 09:11	On continuous basis for line crossing works of hvdc raigarh – pugalur line	21-12-2019 20:26	35:15:00	0
36	765kV Cuddapah-Thiruvalam Ckt-II	Line	SR	MO	21-12-2019 20:27	Manually opened due to high voltage.	23-12-2019 08:27	36:00:00	0
37	765kV Cuddapah-Thiruvalam Ckt-II	Line	SR	MO	24-12-2019 20:37	Manually opened due to high voltage.	26-12-2019 08:00	35:23:00	0
38	765kV Cuddapah-Thiruvalam Ckt-II	Line	SR	MO	27-12-2019 21:43	Manually opened due to high voltage.	28-12-2019 08:27	10:44:00	0
39	765kV Cuddapah-Thiruvalam Ckt-II	Line	SR	MO	29-12-2019 19:19	Manually opened due to high voltage.	30-12-2019 07:02	11:43:00	0
40	765kV Cuddapah-Thiruvalam Ckt-II	Line	SR	MO	31-12-2019 22:02	Manually opened due to high voltage.	01-01-2020 07:40	9:38:00	0
41	765kV Kurnool-Cuddapah Ckt-I	Line	SR	MO	02-12-2019 23:39	Manually opened due to high voltage.	03-12-2019 06:59	7:20:00	0
42	765kV Kurnool-Cuddapah Ckt-I	Line	SR	MO	10-12-2019 23:06	Manually opened due to high voltage.	11-12-2019 08:32	9:26:00	0
43	765kV Kurnool-Cuddapah Ckt-I	Line	SR	MO	15-12-2019 21:52	Manually opened due to high voltage.	16-12-2019 06:49	8:57:00	0
44	765kV Kurnool-Cuddapah Ckt-II	Line	SR	MO	01-12-2019 23:03	Manually opened due to high voltage.	02-12-2019 08:01	8:58:00	0
45	765kV Kurnool-Cuddapah Ckt-II	Line	SR	MO	10-12-2019 02:45	Manually opened due to high voltage.	10-12-2019 07:47	5:02:00	0
46	765kV Kurnool-Cuddapah Ckt-II	Line	SR	MO	13-12-2019 20:58	Manually opened due to high voltage.	14-12-2019 08:54	11:56:00	0
47	765kV Kurnool-Cuddapah Ckt-II	Line	SR	MO	23-12-2019 00:04	Manually opened due to high voltage.	23-12-2019 06:11	6:07:00	0
48	765kV Nizamabad- Maheswaram-I	Line	SR	MO	01-12-2019 19:43	Manually opened due to high voltage.	02-12-2019 06:20	10:37:00	0
49	765kV Nizamabad- Maheswaram-I	Line	SR	MO	03-12-2019 22:04	Manually opened due to high voltage.	04-12-2019 07:18	9:14:00	0
50	765kV Nizamabad- Maheswaram-I	Line	SR	MO	05-12-2019 21:56	Manually opened due to high voltage.	06-12-2019 06:43	8:47:00	0
51	765kV Nizamabad- Maheswaram-I	Line	SR	MO	07-12-2019 21:04	Manually opened due to high voltage.	08-12-2019 07:23	10:19:00	0
52	765kV Nizamabad- Maheswaram-I	Line	SR	MO	10-12-2019 20:52	Manually opened due to high voltage.	11-12-2019 06:11	9:19:00	0
53	765kV Nizamabad- Maheswaram-I	Line	SR	MO	12-12-2019 21:38	Manually opened due to high voltage.	13-12-2019 06:33	8:55:00	0
54	765kV Nizamabad- Maheswaram-I	Line	SR	MO	13-12-2019 20:23	Manually opened due to high voltage.	14-12-2019 06:10	9:47:00	0
55	765kV Nizamabad- Maheswaram-I	Line	SR	MO	15-12-2019 21:07	Manually opened due to high voltage.	16-12-2019 05:55	8:48:00	0
56	765kV Nizamabad- Maheswaram-I	Line	SR	MO	17-12-2019 21:09	Manually opened due to high voltage.	18-12-2019 06:34	9:25:00	0
57	765kV Nizamabad- Maheswaram-I	Line	SR	MO	18-12-2019 21:21	Manually opened due to high voltage.	19-12-2019 05:41	8:20:00	0
58	765kV Nizamabad- Maheswaram-I	Line	SR	MO	23-12-2019 21:09	Manually opened due to high voltage.	24-12-2019 05:26	8:17:00	0
59	765kV Nizamabad- Maheswaram-I	Line	SR	MO	25-12-2019 20:04	Manually opened due to high voltage.	26-12-2019 06:04	10:00:00	0
60	765kV Nizamabad- Maheswaram-I	Line	SR	MO	27-12-2019 21:44	Manually opened due to high voltage.	28-12-2019 06:24	8:40:00	0
61	765kV Nizamabad- Maheswaram-II	Line	SR	MO	02-12-2019 20:22	Manually opened due to high voltage.	03-12-2019 06:41	10:19:00	0
62	765kV Nizamabad- Maheswaram-II	Line	SR	MO	04-12-2019 21:53	Manually opened due to high voltage.	05-12-2019 07:09	9:16:00	0
63	765kV Nizamabad- Maheswaram-II	Line	SR	MO	06-12-2019 20:44	Manually opened due to high voltage.	07-12-2019 06:51	10:07:00	0
64	765kV Nizamabad- Maheswaram-II	Line	SR	MO	08-12-2019 21:58	Manually opened due to high voltage.	09-12-2019 06:53	8:55:00	0
65	765kV Nizamabad- Maheswaram-II	Line	SR	MO	09-12-2019 21:18	Manually opened due to high voltage.	10-12-2019 06:48	9:30:00	0
66	765kV Nizamabad- Maheswaram-II	Line	SR	MO	11-12-2019 21:50	Manually opened due to high voltage.	12-12-2019 07:47	9:57:00	0
67	765kV Nizamabad- Maheswaram-II	Line	SR	MO	14-12-2019 19:05	Manually opened due to high voltage.	15-12-2019 07:07	12:02:00	0
68	765kV Nizamabad- Maheswaram-II	Line	SR	MO	16-12-2019 21:32	Manually opened due to high voltage.	17-12-2019 05:37	8:05:00	0
69	765kV Nizamabad- Maheswaram-II	Line	SR	MO	19-12-2019 21:22	Manually opened due to high voltage.	20-12-2019 06:24	9:02:00	0
70	765kV Nizamabad- Maheswaram-II	Line	SR	MO	23-12-2019 00:12	Manually opened due to high voltage.	23-12-2019 06:19	6:07:00	0
71	765kV Nizamabad- Maheswaram-II	Line	SR	MO	24-12-2019 21:39	Manually opened due to high voltage.	25-12-2019 06:10	8:31:00	0
72	765kV Nizamabad- Maheswaram-II	Line	SR	MO	29-12-2019 20:01	Manually opened due to high voltage.	30-12-2019 06:29	10:28:00	0
73	765kV Nizamabad- Maheswaram-II	Line	SR	MO	30-12-2019 19:46	Manually opened due to high voltage.	31-12-2019 06:43	10:57:00	0
74	765kV Nizamabad- Maheswaram-II	Line	SR	MO	31-12-2019 21:39	Manually opened due to high voltage.	01-01-2020 05:21	7:42:00	0

**List of Outages of Elements monitored by NLDC for the month of December-2019**

S. No.	Name of Transmission Element	Type of the element	Region Involved	Category	Tripping Date and Time	Brief Reason/Relay Indication	Restoration Date and Time	Outage Duration	Number of Cumulative tripping in the month
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**North Eastern Region Elements**

S. No.	Name of Transmission Element	Type of the element	Region Involved	Category	Tripping Date and Time	Brief Reason/Relay Indication	Restoration Date and Time	Outage Duration	Number of Cumulative tripping in the month
1	HVDC Biswanath Chariali Pole-1	HVDC	NER	MO	03-12-2019 23:27	Manually opened due to high voltage.	10-12-2019 06:26	150:59:00	0
2	HVDC Biswanath Chariali Pole-1	HVDC	NER	SC	10-12-2019 06:26	For stringing work in between location no. 22-23 under construction of 400kV D/C Jigmeling-Alipurduar TL	10-12-2019 19:24	12:58:00	0
3	HVDC Biswanath Chariali Pole-1	HVDC	NER	MO	10-12-2019 19:24	Manually opened due to High Voltage.	11-12-2019 06:19	10:55:00	0
4	HVDC Biswanath Chariali Pole-1	HVDC	NER	SC	11-12-2019 06:19	For stringing work in between location no. 22-23 under construction of 400kV D/C Jigmeling-Alipurduar TL	11-12-2019 20:38	14:19:00	0
5	HVDC Biswanath Chariali Pole-1	HVDC	NER	MO	11-12-2019 20:38	Manually opened due to High Voltage.	12-12-2019 06:07	9:29:00	0
6	HVDC Biswanath Chariali Pole-1	HVDC	NER	SC	12-12-2019 06:07	For stringing work in between location no. 22-23 under construction of 400kV D/C Jigmeling-Alipurduar TL	12-12-2019 13:15	7:08:00	0
7	HVDC Biswanath Chariali Pole-1	HVDC	NER	MO	12-12-2019 13:15	Kept out under system constraint	01-01-2020 00:00	466:45:00	0
8	HVDC Biswanath Chariali Pole-2	HVDC	NER	MO	01-12-2019 00:00	Manually opened due to High Voltage.	03-12-2019 23:17	71:17:00	0
9	HVDC Biswanath Chariali Pole-2	HVDC	NER	SC	43809.26389	For stringing work in between location no. 22-23 under construction of 400kV D/C Jigmeling-Alipu	10-12-2019 19:24	13:04:00	0
10	HVDC Biswanath Chariali Pole-2	HVDC	NER	MO	10-12-2019 19:24	Manually opened due to High Voltage.	11-12-2019 06:19	10:55:00	0
11	HVDC Biswanath Chariali Pole-2	HVDC	NER	SC	11-12-2019 06:19	For stringing work in between location no. 22-23 under construction of 400kV D/C Jigmeling-Alipurduar TL	11-12-2019 20:38	14:19:00	0
12	HVDC Biswanath Chariali Pole-2	HVDC	NER	MO	11-12-2019 20:38	Manually opened due to High Voltage.	12-12-2019 06:07	9:29:00	0
13	HVDC Biswanath Chariali Pole-2	HVDC	NER	SC	12-12-2019 06:07	For stringing work in between location no. 22-23 under construction of 400kV D/C Jigmeling-Alipurduar TL	12-12-2019 13:15	7:08:00	0
14	HVDC Biswanath Chariali Pole-2	HVDC	NER	MO	12-12-2019 13:15	Kept out under system constraint	43811.89861	8:19:00	0

TL= Tripping due to Line Fault

TS= Tripping due to S/S Fault

MO= Opened due to system constraints

TV= Tripped on Overvoltage

SC= Planned Shutdown for construction activities

SO= Planned Shutdown for O&M activities

SE= Emergency Shutdown

TP= Protection Maloperation

ME= Miscellaneous outage

**24. System Reliability Indices Report for the month of December 2019**

**Percentage (%) of times ATC was violated**

S.No.	Corridor	Number of Blocks Violated	Number of Hours Violated	%Violation
1	WR-NR	0	0.00	0.00
2	ER-NR	25	6.25	0.84
3	Import of NR	0	0.00	0.00
4	NEW-SR	53	13.25	1.78
5	NER Import	0	0.00	0.00

**Percentage(%) of times (N-1) Criteria was violated**

S.No.	Corridor	Number of Blocks Violated	Number of Hours Violated	%Violation
1	WR-NR	0	0.00	0.00
2	ER-NR	4	1.00	0.13
3	Import of NR	0	0.00	0.00
4	NEW-SR	1	0.25	0.03
4	NER Import	0	0.00	0.00

Remarks: Flows crossing Total Transfer Capability (TTC) on interregional corridors has been worked out as a proxy for (N-1) violation.



## **POWER SYSTEM OPERATION CORPORATION LIMITED**

**पावर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड**

**NATIONAL LOAD DESPATCH CENTRE – राष्ट्रीय भार प्रेषण केन्द्र**

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