

पावर सिस्टम ऑपरेशन कॉर्पोरेशन लिमिटेड

(भारत सरकार का उद्यम)

POWER SYSTEM OPERATION CORPORATION LIMITED

(A Govt. of India Enterprise)



पंजीकृत एवं केन्द्रीय कार्यालय : प्रथम तल, बी-9, कुतुब इंस्टीट्यूशनल एरिया, कट्वारिया सराय, नई दिल्ली-110016
Registered & Corporate Office : 1st Floor, B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi -110016
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संदर्भ संख्या:- POSOCO/NLDC/MR/

दिनांक: 20.02.2020

सौना में,

वितरण सूची के अनुसार

विषय:- निष्पादन रिपोर्ट – जनवरी-2020

माहोदय,

आईईजीसी-2010 के प्राक्षान के अनुसार, जनवरी-2020 माह की अखिल भारतीय प्रणाली की निष्पादन रिपोर्ट संलग्न है।

धन्यवाद

भवदीय

Yer. No. 230f
(एस नरलालसाहन)
20(2) 2020

मुख्य महाप्रबंधक
(राजभाष्यकै)

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, 3rd & 4th 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
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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 कारपोरेशन लिमिटेड

NATIONAL LOAD DESPATCH CENTRE –राष्ट्रीय भार प्रेषण केन्द्र

मासिक ऑपरेशन रिपोर्ट

Monthly
Operation Report



जनवरी
2020

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

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



माह जनवरी-2020 के लिए प्रचालन निष्पादन रिपोर्ट

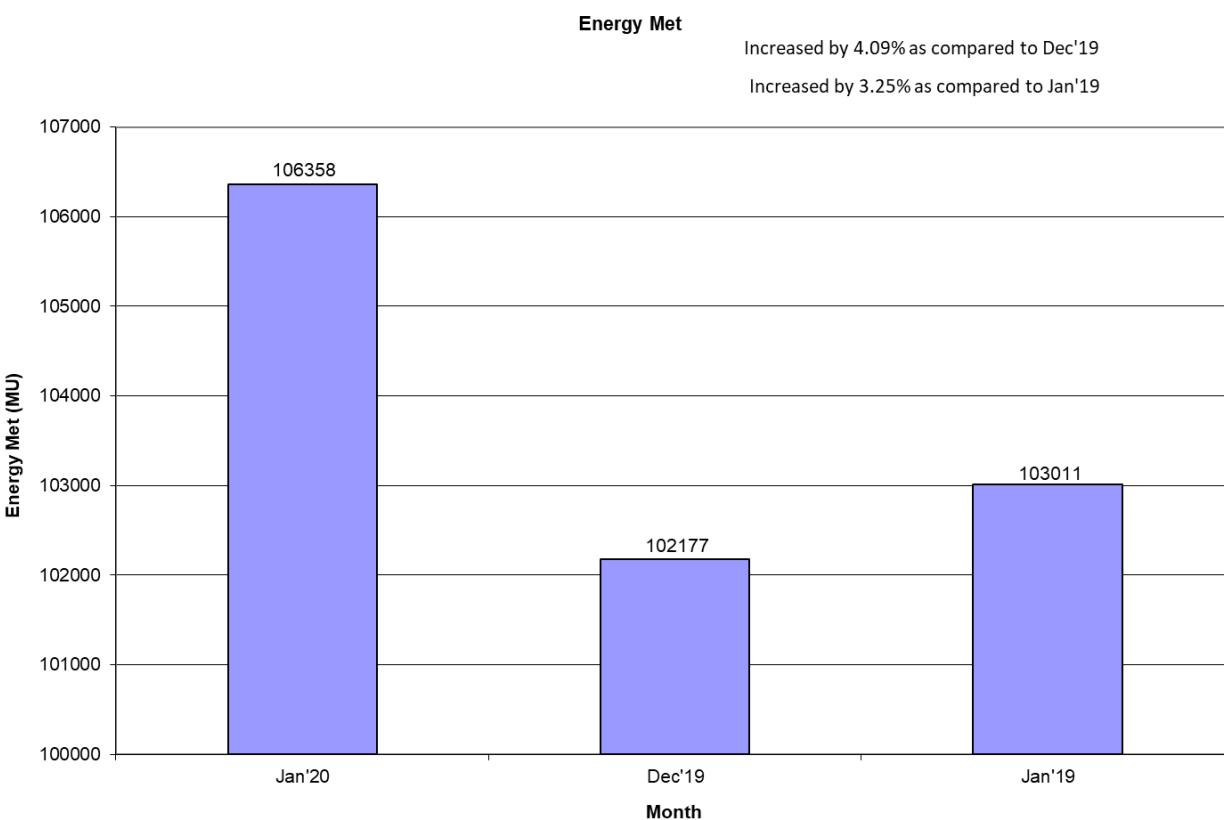
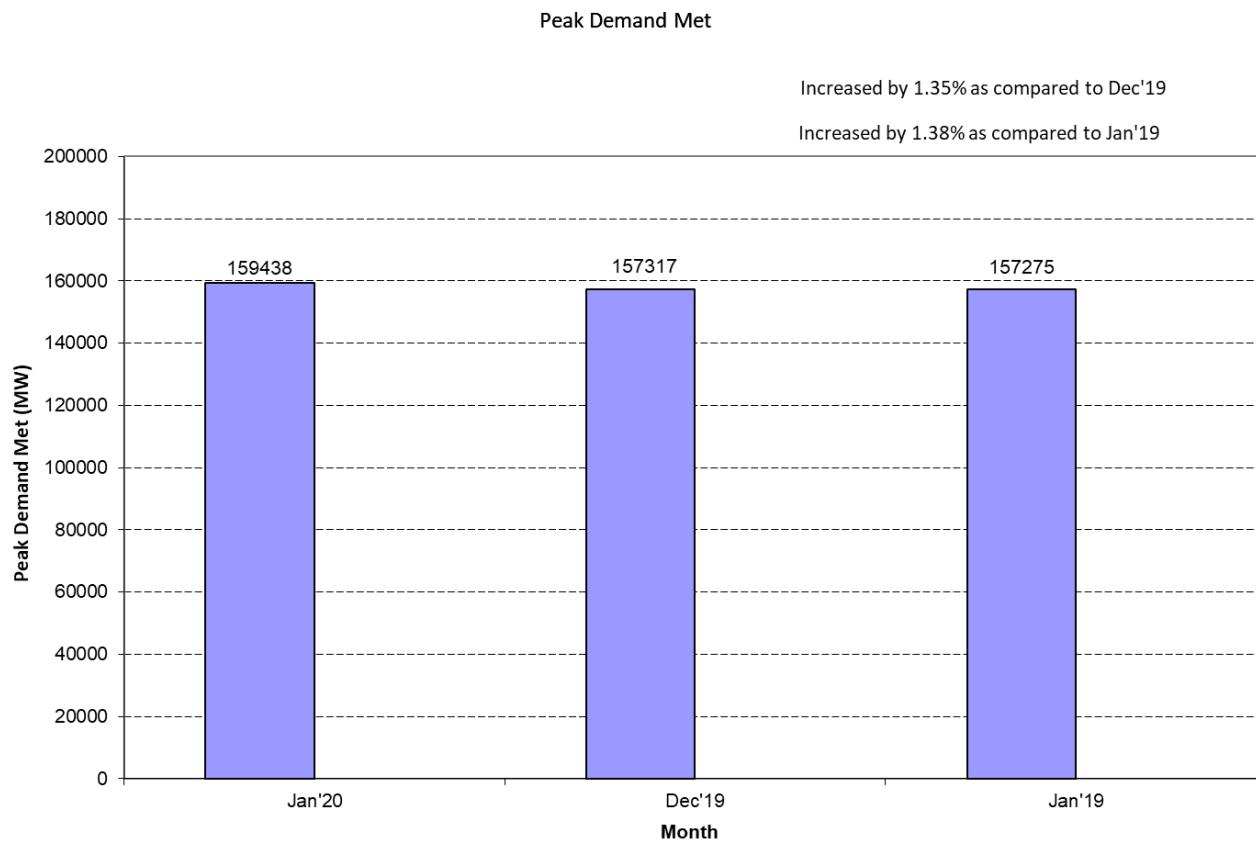
OPERATIONAL PERFORMANCE REPORT FOR THE
MONTH OF JANUARY-2020

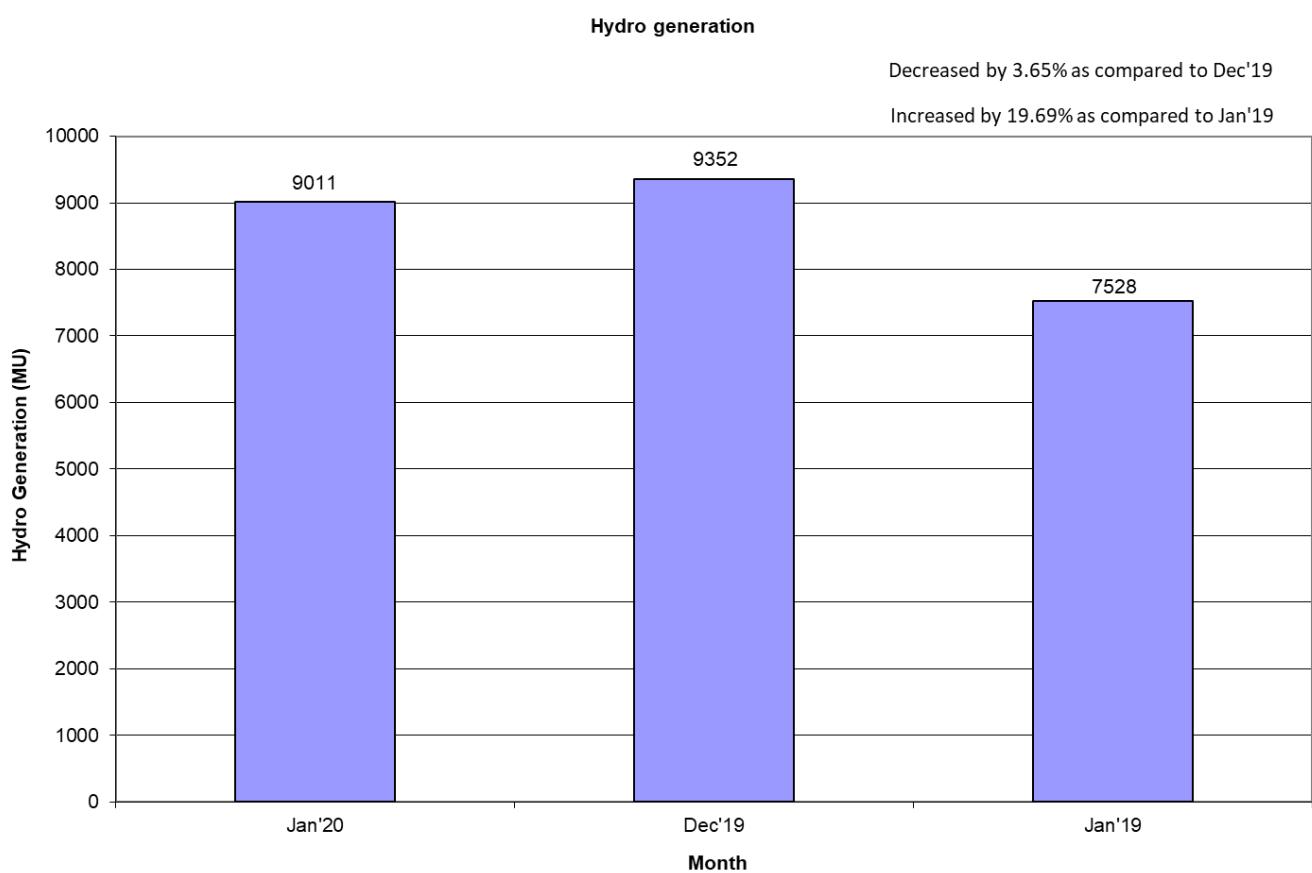
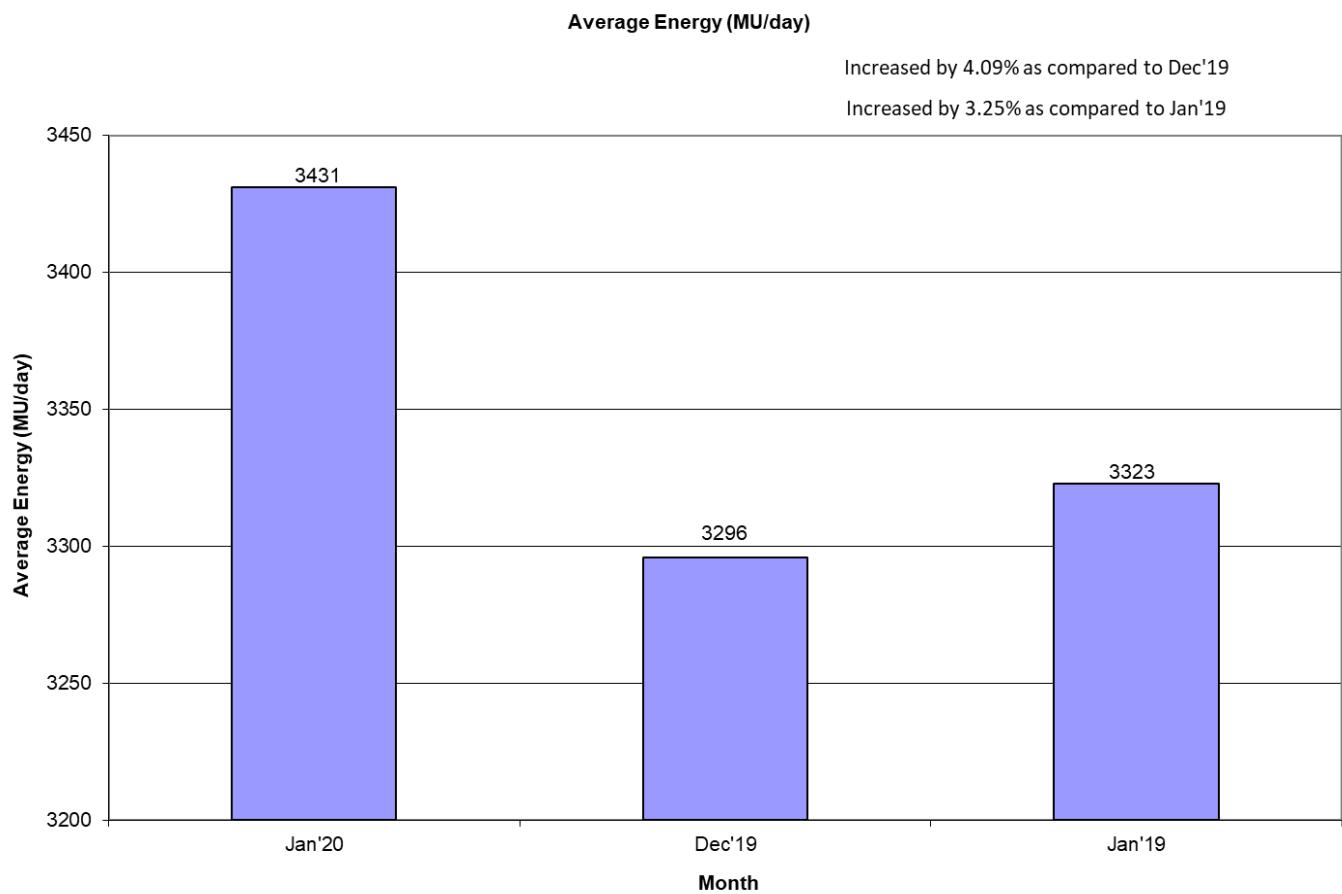
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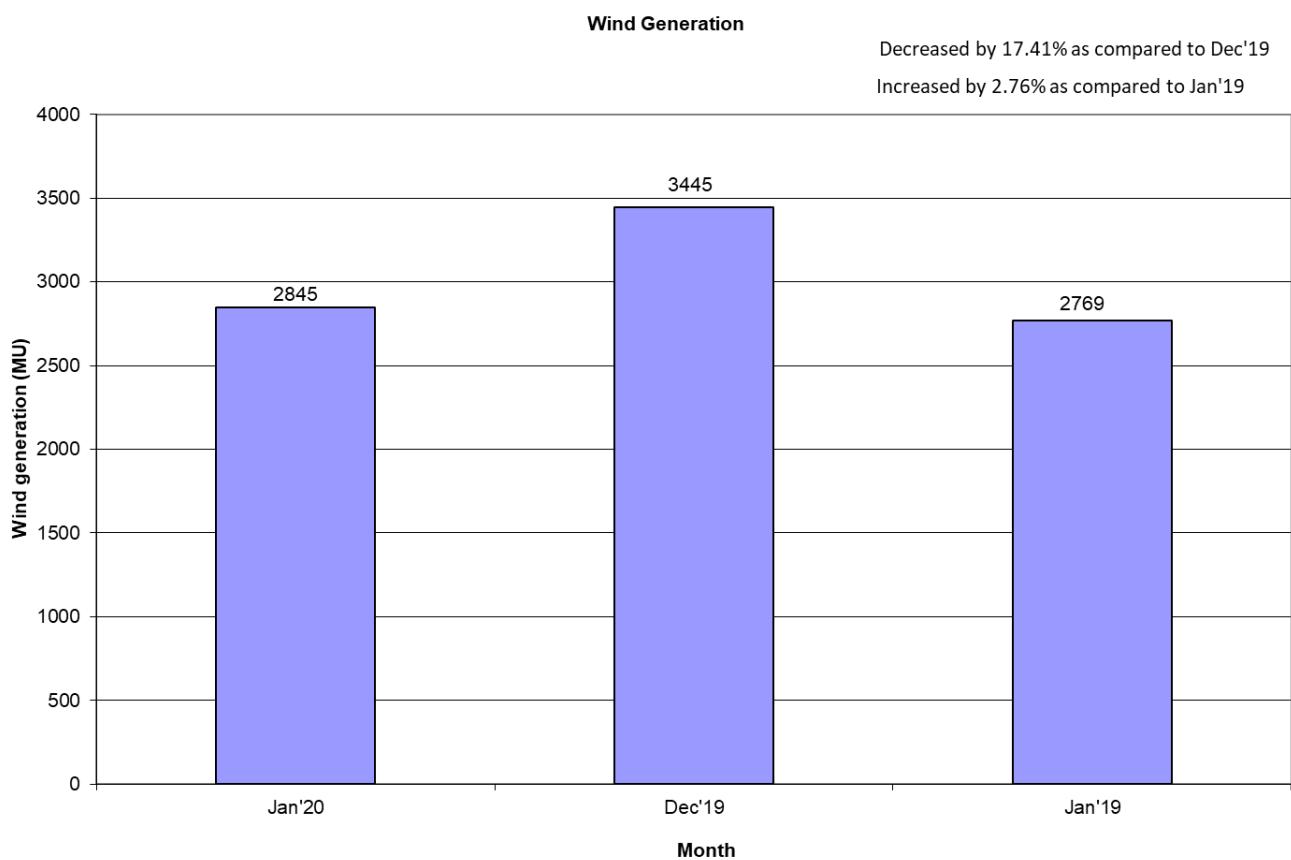
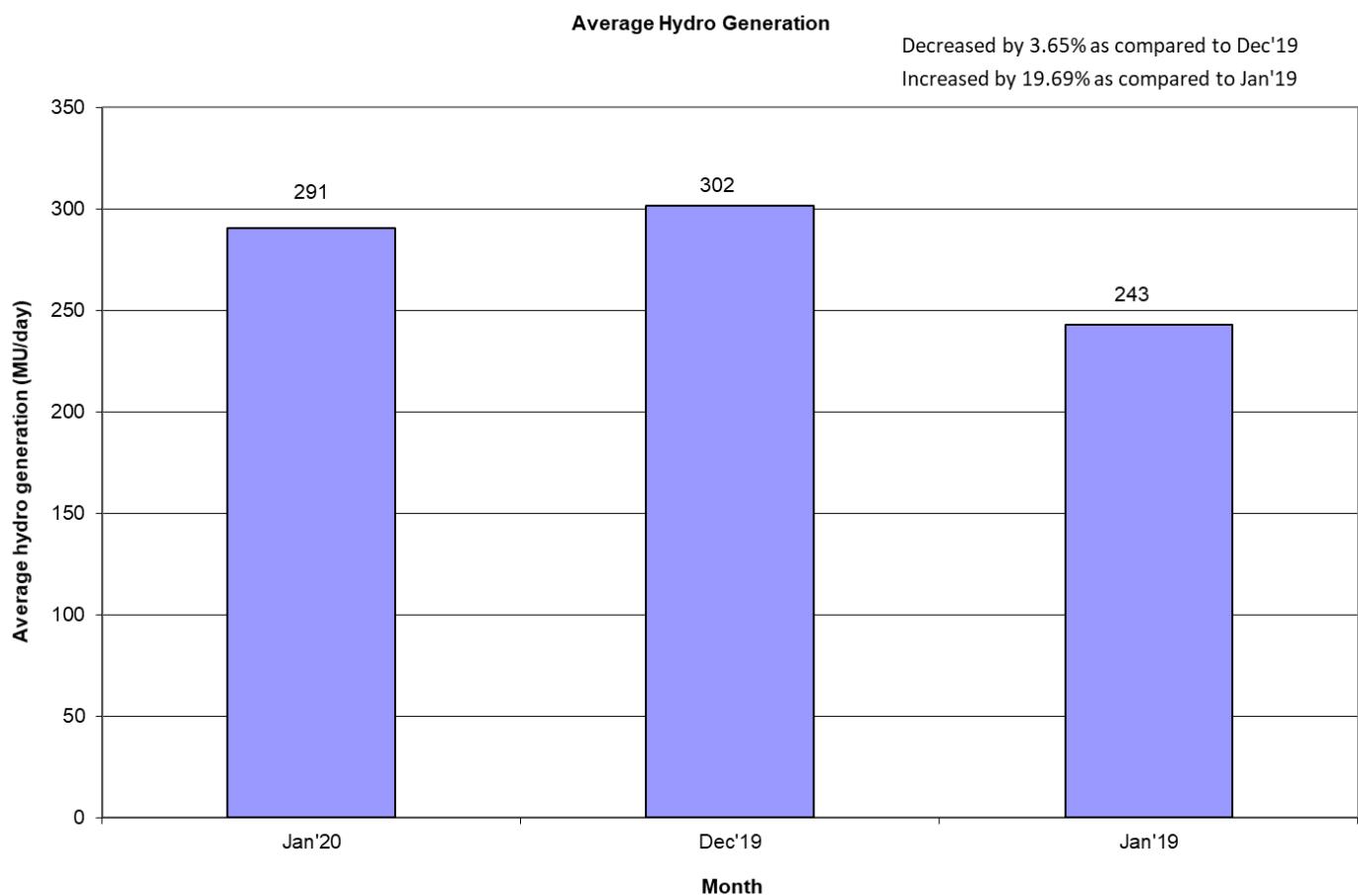
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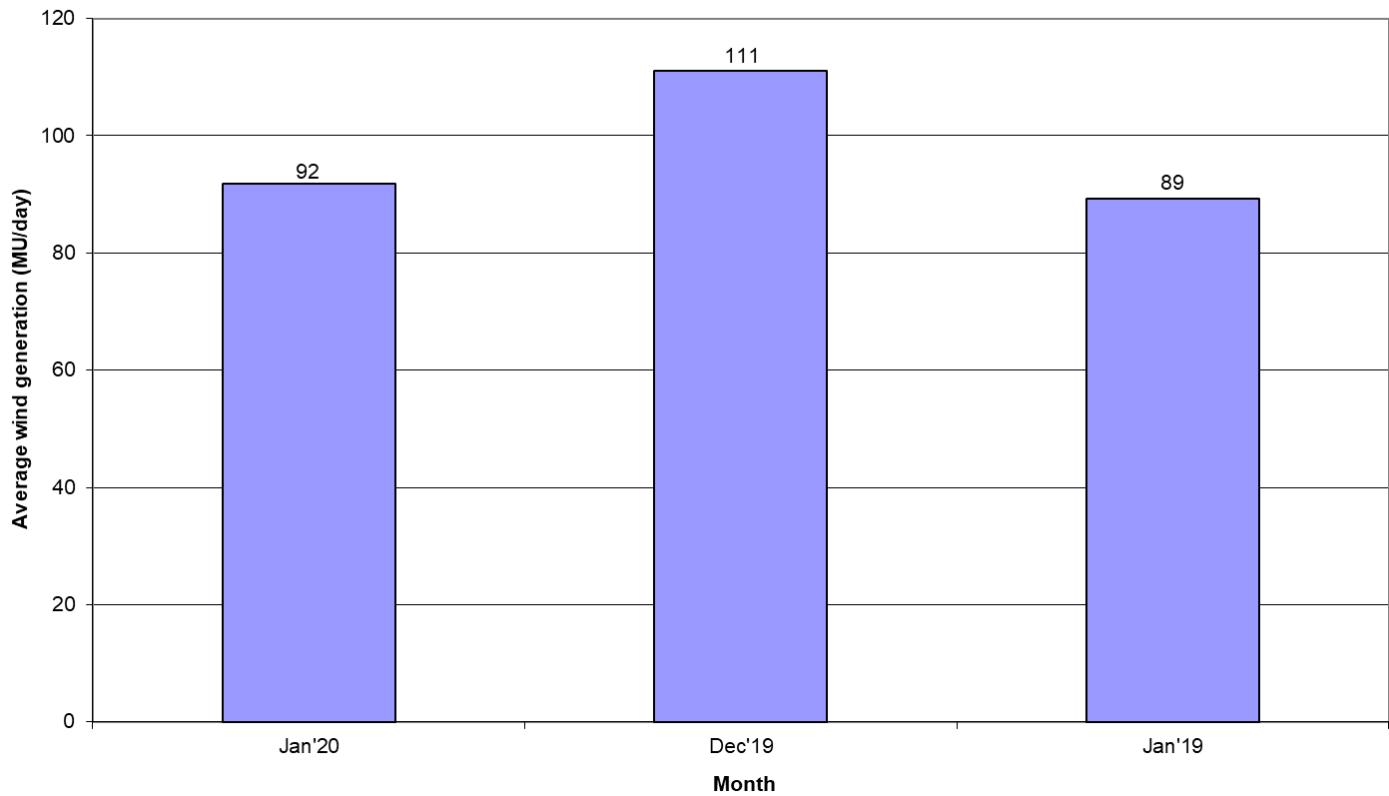




Average wind generation (MU/day)

Decreased by 17.41% as compared to Dec'19

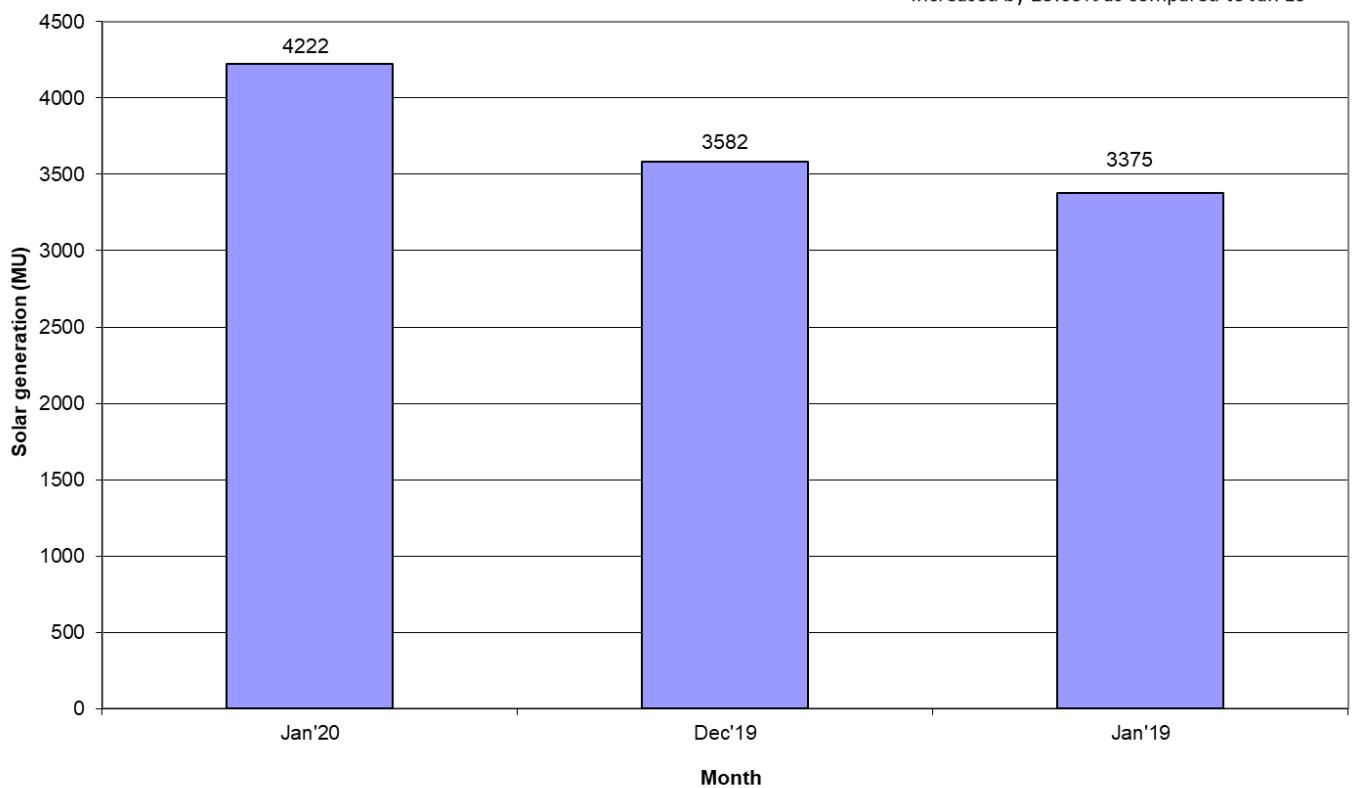
Increased by 2.76% as compared to Jan'19

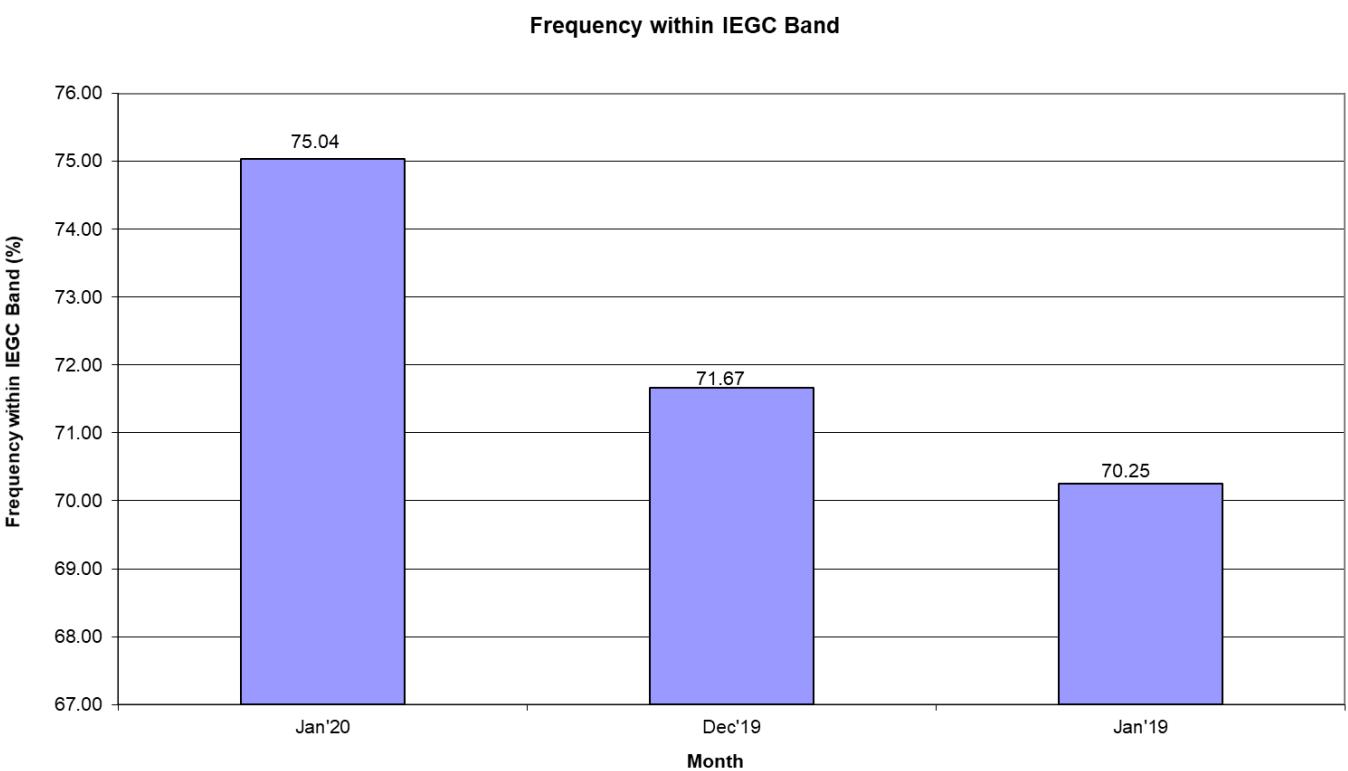
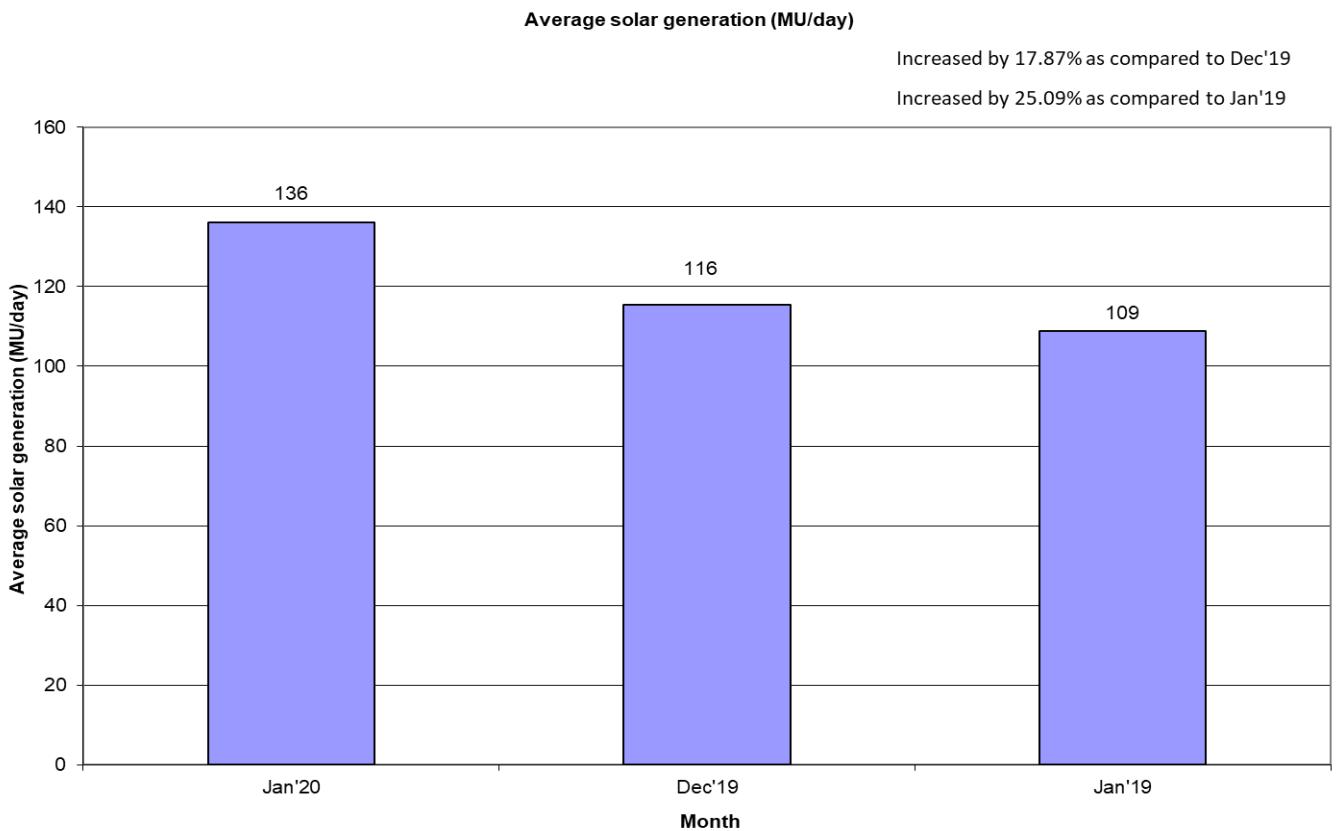


Solar Generation

Increased by 17.87% as compared to Dec'19

Increased by 25.09% as compared to Jan'19





2. ALL INDIA REGIONWISE INSTALLED CAPACITY

As on 31.01.2020
(All figures are in MW)

S No	Region	THERMAL					NUCLEAR	HYDRO	RES @ MNRE	GRAND TOTAL
		COAL	LIGNITE	GAS	DIESEL	TOTAL				
1	NR	52990	1580	5781	0	60351	1620	20011	16503	98485
2	WR	72275	1540	10806	0	84622	1840	7548	25373	119382
3	SR	44515	3640	6492	434	55080	3320	11775	42161	112335
4	ER	27415	0	100	0	27515	0	4639	1490	33644
5	NER	770	0	1776	36	2582	0	1427	363	4372
6	ISLANDS	0	0	0	40	40	0	0	18	58
	ALL INDIA	197965	6760	24955	510	230190	6780	45399	85908	368276

Remarks: Data from CEA website

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

माह: जनवरी 2020 MONTH:- JANUARY 2020

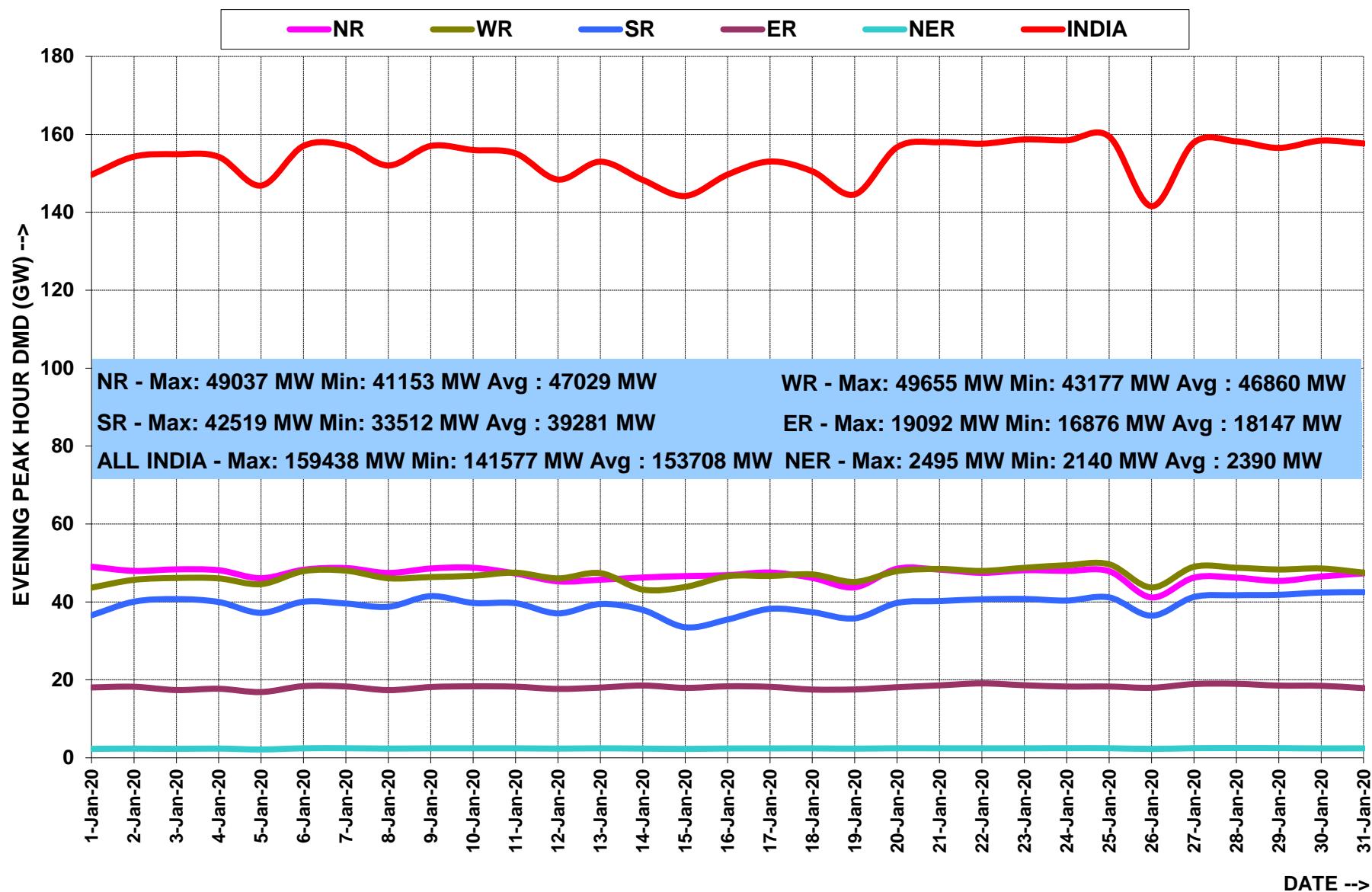
सभी आंकड़े मेगावाट में All figures in MW

दिनांक Date	ऊतरी क्षे. NR	पश्चिमी क्षे. WR	दक्षिणी क्षे. SR	पूर्वी क्षे. ER	पूर्वोत्तर क्षे. NER	कुल TOTAL
1-Jan-20	49037	43684	36574	18054	2286	149635
2-Jan-20	47965	45671	40058	18227	2359	154280
3-Jan-20	48361	46147	40722	17382	2290	154902
4-Jan-20	48126	46045	39977	17714	2367	154229
5-Jan-20	46083	44572	37187	16876	2140	146858
6-Jan-20	48262	47898	40059	18384	2433	157036
7-Jan-20	48692	48023	39584	18295	2452	157046
8-Jan-20	47439	46086	38755	17364	2365	152009
9-Jan-20	48578	46380	41486	18157	2422	157023
10-Jan-20	48772	46710	39733	18340	2429	155984
11-Jan-20	47292	47495	39669	18244	2428	155128
12-Jan-20	45280	46041	37054	17673	2358	148406
13-Jan-20	45698	47390	39455	18018	2427	152988
14-Jan-20	46271	43177	37949	18549	2361	148307
15-Jan-20	46632	43835	33512	17939	2275	144193
16-Jan-20	46860	46603	35476	18344	2384	149667
17-Jan-20	47543	46662	38222	18203	2396	153026
18-Jan-20	46170	47056	37363	17517	2412	150518
19-Jan-20	43761	45143	35787	17544	2350	144585
20-Jan-20	48526	47898	39737	18105	2439	156705
21-Jan-20	48291	48458	40218	18582	2435	157984
22-Jan-20	47466	47951	40671	19092	2422	157602
23-Jan-20	48119	48758	40765	18623	2430	158695
24-Jan-20	47966	49409	40346	18282	2461	158464
25-Jan-20	47883	49655	41165	18286	2449	159438
26-Jan-20	41153	43709	36467	17964	2284	141577
27-Jan-20	46236	49012	41258	18929	2457	157892
28-Jan-20	46223	48775	41720	18992	2495	158205
29-Jan-20	45376	48321	41823	18525	2473	156518
30-Jan-20	46527	48581	42411	18472	2403	158394
31-Jan-20	47320	47529	42519	17873	2423	157664
उच्चतम MAXIMUM	49037	49655	42519	19092	2495	159438
निम्नतम MINIMUM	41153	43177	33512	16876	2140	141577
औसत AVERAGE	47029	46860	39281	18147	2390	153708
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 JANUARY '2020



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

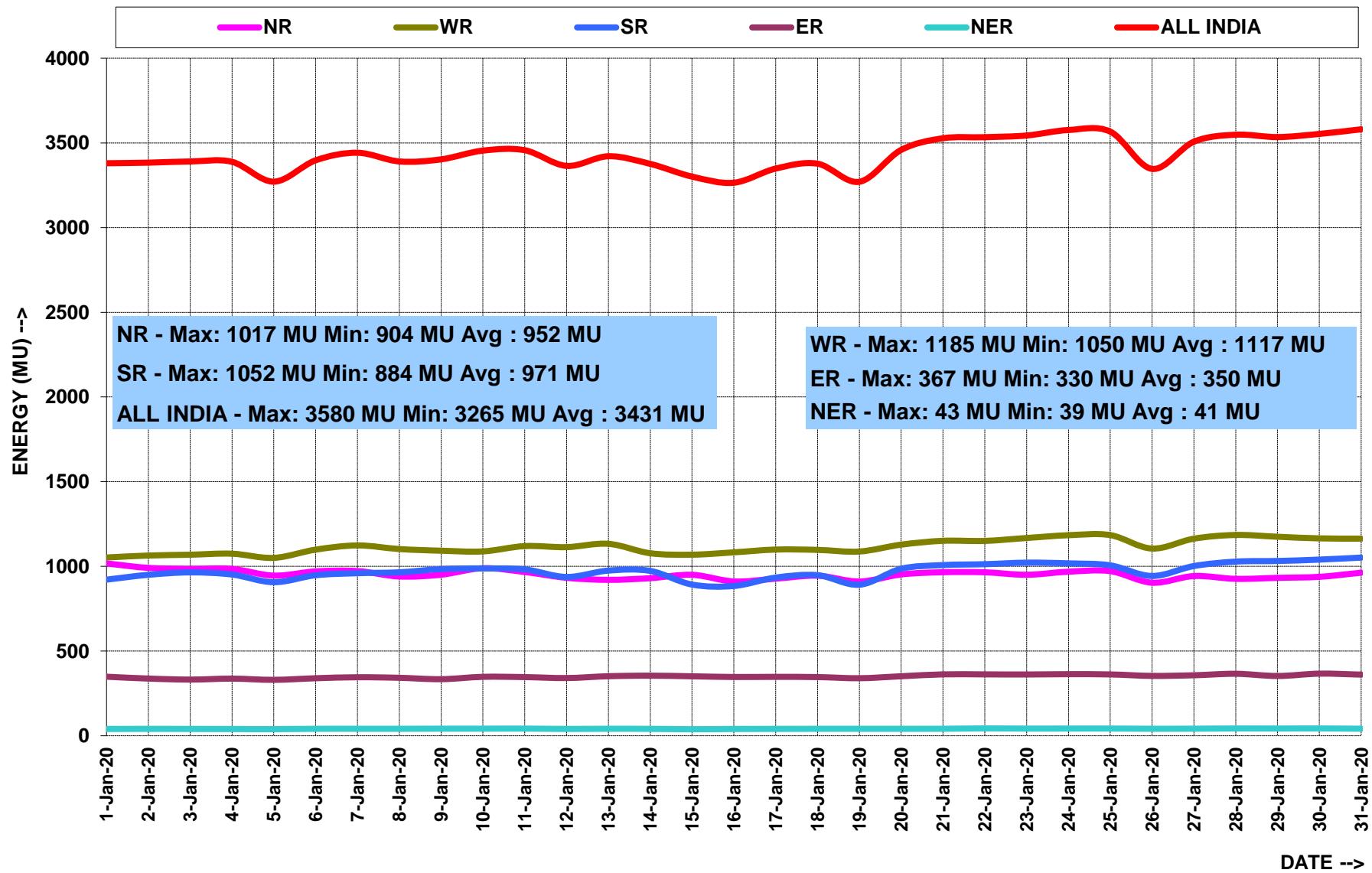
माह: जनवरी 2020

MONTH:- JANUARY 2020

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-Jan-20	1017	1052	922	349	40	3380
02-Jan-20	991	1064	950	338	41	3383
03-Jan-20	985	1069	964	332	40	3390
04-Jan-20	985	1075	952	337	40	3388
05-Jan-20	946	1050	906	330	39	3271
06-Jan-20	970	1099	948	339	41	3397
07-Jan-20	972	1124	959	345	41	3442
08-Jan-20	940	1102	965	342	41	3391
09-Jan-20	951	1093	984	334	42	3403
10-Jan-20	989	1088	988	348	42	3455
11-Jan-20	967	1120	982	346	42	3457
12-Jan-20	932	1114	937	341	40	3364
13-Jan-20	920	1133	975	351	41	3421
14-Jan-20	930	1078	973	355	41	3376
15-Jan-20	950	1069	893	351	39	3301
16-Jan-20	911	1083	884	347	40	3265
17-Jan-20	927	1099	934	348	40	3349
18-Jan-20	945	1097	948	346	41	3377
19-Jan-20	911	1088	892	340	41	3270
20-Jan-20	952	1128	986	351	41	3459
21-Jan-20	965	1151	1008	362	41	3527
22-Jan-20	965	1150	1013	362	43	3534
23-Jan-20	950	1168	1022	362	42	3544
24-Jan-20	968	1184	1018	364	42	3576
25-Jan-20	972	1185	1006	362	43	3567
26-Jan-20	904	1105	943	353	41	3347
27-Jan-20	943	1164	1002	357	42	3507
28-Jan-20	926	1185	1028	366	43	3548
29-Jan-20	932	1175	1032	353	43	3534
30-Jan-20	938	1165	1040	367	43	3553
31-Jan-20	963	1164	1052	361	41	3580
कुल TOTAL	29520	34619	30105	10838	1276	106358
उच्चतम MAXIMUM	1017	1185	1052	367	43	3580
निम्नतम MINIMUM	904	1050	884	330	39	3265
औसत AVERAGE	952	1117	971	350	41	3431
संचयी 2019-20 Cumulative 2019-20	335624	334736	283191	125749	13946	1093246
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 JANUARY' 2020



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

राष्ट्रीय ग्रिड NATIONAL GRID								
फ्रेक्वेंसी रूपरेखा (Hz)			<49.9	49.9-50.05	>50.05	उच्चतम फ्रेक्वेंसी	निम्नतम फ्रेक्वेंसी	औसत फ्रेक्वेंसी
% 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
	Jan-20	All India Grid	6.47	75.04	18.49	50.27	49.69	50.00
	2019-20 (upto Jan)	All India Grid	6.54	72.98	20.48	50.34	49.55	50.00

5.1 जनवरी 2020 के लिए आवृत्ति रूपरेखा FREQUENCY PROFILE FOR JANUARY 2020

फ्रिक्वेंसी रूपरेखा (Hz)		<49.9	49.9-50.05	>50.05	उच्चतम फ्रिक्वेंसी	निम्नतम फ्रिक्वेंसी	औसत फ्रिक्वेंसी	एफ.वी.आई.
% समय	01-Jan-20	6.35	68.11	25.53	50.27	49.78	50.01	0.04
	02-Jan-20	11.04	67.70	21.26	50.22	49.76	49.99	0.05
	03-Jan-20	10.31	74.20	15.49	50.17	49.70	49.99	0.05
	04-Jan-20	7.18	78.41	14.41	50.21	49.75	49.99	0.04
	05-Jan-20	5.81	78.95	15.24	50.23	49.79	49.99	0.04
	06-Jan-20	13.81	72.88	13.31	50.18	49.69	49.98	0.06
	07-Jan-20	10.67	76.68	12.65	50.15	49.76	49.98	0.04
	08-Jan-20	6.52	75.56	17.93	50.21	49.75	50.00	0.04
	09-Jan-20	2.60	74.18	23.22	50.21	49.84	50.01	0.03
	10-Jan-20	4.98	73.52	21.50	50.21	49.76	50.01	0.04
	11-Jan-20	5.19	70.21	24.61	50.19	49.78	50.01	0.04
	12-Jan-20	5.06	79.24	15.71	50.23	49.78	50.00	0.03
	13-Jan-20	5.81	75.21	18.98	50.19	49.75	50.00	0.04
	14-Jan-20	6.48	77.19	16.33	50.17	49.76	50.00	0.03
	15-Jan-20	2.04	76.16	21.81	50.23	49.82	50.02	0.03
	16-Jan-20	8.36	72.06	19.58	50.26	49.78	50.00	0.04
	17-Jan-20	10.31	76.48	13.21	50.15	49.73	49.98	0.04
	18-Jan-20	2.67	77.86	19.47	50.22	49.85	50.01	0.03
	19-Jan-20	4.22	74.44	21.33	50.20	49.81	50.01	0.03
	20-Jan-20	6.24	75.53	18.23	50.21	49.77	50.00	0.04
	21-Jan-20	4.10	69.86	26.04	50.21	49.75	50.01	0.04
	22-Jan-20	0.32	69.09	30.59	50.19	49.88	50.02	0.03
	23-Jan-20	6.00	72.51	21.49	50.19	49.75	50.00	0.04
	24-Jan-20	7.50	79.50	13.00	50.24	49.80	49.99	0.03
	25-Jan-20	9.99	76.46	13.55	50.16	49.76	49.99	0.04
	26-Jan-20	6.30	75.82	17.88	50.24	49.69	50.00	0.04
	27-Jan-20	7.64	73.50	18.87	50.18	49.76	50.00	0.04
	28-Jan-20	7.77	76.68	15.56	50.17	49.79	49.99	0.04
	29-Jan-20	5.32	77.09	17.58	50.16	49.80	50.00	0.03
	30-Jan-20	5.57	81.79	12.64	50.19	49.79	49.99	0.03
	31-Jan-20	4.41	79.43	16.16	50.24	49.82	50.00	0.03

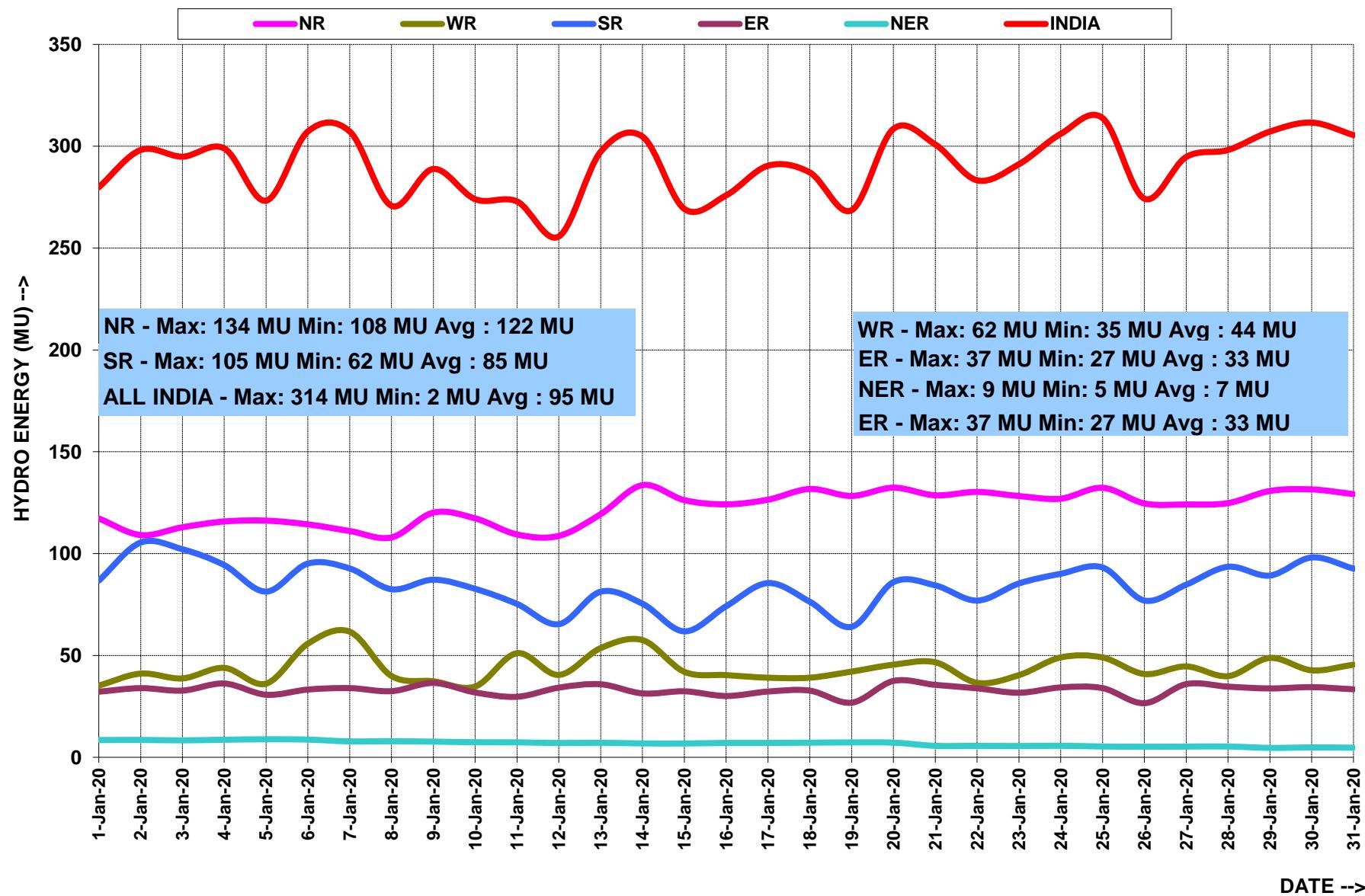
6.राष्ट्रीय स्तर पर जल विद्युत उत्पादन
HYDRO GENERATION AT NATIONAL LEVEL

माह: जनवरी 2020 MONTH:- JANUARY 2020

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-Jan-20	117	35	87	32	8	280
02-Jan-20	109	41	105	34	9	298
03-Jan-20	113	39	102	33	8	295
04-Jan-20	116	44	94	36	9	299
05-Jan-20	116	36	81	31	9	273
06-Jan-20	114	56	95	33	9	307
07-Jan-20	111	62	93	34	8	307
08-Jan-20	108	40	83	32	8	271
09-Jan-20	120	37	87	37	8	289
10-Jan-20	117	35	83	32	7	274
11-Jan-20	109	51	75	30	7	273
12-Jan-20	109	40	65	34	7	256
13-Jan-20	119	54	81	36	7	297
14-Jan-20	134	58	75	31	7	305
15-Jan-20	126	42	62	32	7	269
16-Jan-20	124	40	74	30	7	276
17-Jan-20	126	39	86	32	7	290
18-Jan-20	132	39	76	33	7	287
19-Jan-20	128	42	64	27	7	269
20-Jan-20	132	45	86	37	7	309
21-Jan-20	129	47	84	36	6	301
22-Jan-20	130	37	77	34	6	283
23-Jan-20	128	40	85	32	6	291
24-Jan-20	127	49	90	34	6	306
25-Jan-20	132	49	93	34	5	314
26-Jan-20	125	41	77	27	5	274
27-Jan-20	124	45	85	36	5	295
28-Jan-20	125	40	94	35	5	298
29-Jan-20	131	49	89	34	5	307
30-Jan-20	132	43	98	34	5	312
31-Jan-20	129	45	93	33	5	305
कुल TOTAL	3794	1359	2621	1025	211	9011
उच्चतम MAXIMUM	134	62	105	37	9	314
निम्नतम MINIMUM	108	35	62	27	5	256
औसत AVERAGE	122	44	85	33	7	291
संचयी 2019-20 Cumulative 2019-20	72747	15608	27641	24922	4823	145741
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 JANUARY' 2020



7. राष्ट्रीय स्तर पर पवन ऊर्जा उत्पादन
WIND GENERATION AT NATIONAL LEVEL
माह: जनवरी 2020 MONTH:- JANUARY 2020

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-Jan-20	31.2	56.4	35.8	-----	-----	123
02-Jan-20	23.0	44.3	24.0	-----	-----	91
03-Jan-20	11.4	34.5	18.2	-----	-----	64
04-Jan-20	2.9	36.2	13.8	-----	-----	53
05-Jan-20	4.7	61.6	24.7	-----	-----	91
06-Jan-20	12.1	57.4	54.7	-----	-----	124
07-Jan-20	14.5	37.4	46.2	-----	-----	98
08-Jan-20	6.9	40.7	35.4	-----	-----	83
09-Jan-20	12.2	68.1	22.0	-----	-----	102
10-Jan-20	29.6	95.6	45.3	-----	-----	171
11-Jan-20	23.8	57.1	46.9	-----	-----	128
12-Jan-20	19.5	21.7	40.9	-----	-----	82
13-Jan-20	11.0	35.2	12.4	-----	-----	59
14-Jan-20	5.1	16.1	20.6	-----	-----	42
15-Jan-20	19.9	36.7	37.4	-----	-----	94
16-Jan-20	15.3	50.9	22.1	-----	-----	88
17-Jan-20	2.4	28.0	23.4	-----	-----	54
18-Jan-20	5.1	38.7	34.1	-----	-----	78
19-Jan-20	11.8	80.6	23.0	-----	-----	115
20-Jan-20	6.1	46.5	37.5	-----	-----	90
21-Jan-20	12.8	31.7	58.0	-----	-----	102
22-Jan-20	37.2	86.1	73.3	-----	-----	197
23-Jan-20	20.4	88.6	64.3	-----	-----	173
24-Jan-20	5.6	45.0	51.8	-----	-----	102
25-Jan-20	4.2	14.8	30.0	-----	-----	49
26-Jan-20	3.4	12.7	22.1	-----	-----	38
27-Jan-20	15.5	45.7	25.5	-----	-----	87
28-Jan-20	12.0	65.1	22.9	-----	-----	100
29-Jan-20	2.3	25.8	18.6	-----	-----	47
30-Jan-20	13.2	26.0	18.2	-----	-----	57
31-Jan-20	9.9	32.6	19.4	-----	-----	62
कुल TOTAL	404.9	1417.8	1022.4	-----	-----	2845.1
उच्चतम MAXIMUM	37.2	95.6	73.3	-----	-----	197
निम्नतम MINIMUM	2.3	12.7	12.4	-----	-----	38
औसत AVERAGE	13.1	45.7	33.0	-----	-----	92
संचयी 2019-20 Cumulative 2019-20	5513.8	20929.9	25354.8	-----	-----	51799
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: जनवरी 2020 MONTH:- JANUARY 2020

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-Jan-20	22	16	73	1	0.0	111
02-Jan-20	23	14	71	1	0.0	109
03-Jan-20	27	17	73	1	0.0	118
04-Jan-20	27	19	75	1	0.0	122
05-Jan-20	16	22	73	1	0.0	112
06-Jan-20	16	24	64	1	0.0	105
07-Jan-20	13	18	63	1	0.0	96
08-Jan-20	24	20	77	1	0.0	122
09-Jan-20	32	25	81	1	0.0	139
10-Jan-20	32	26	83	1	0.0	143
11-Jan-20	26	23	87	1	0.0	138
12-Jan-20	23	22	91	1	0.0	137
13-Jan-20	13	19	94	2	0.0	128
14-Jan-20	32	21	94	1	0.0	149
15-Jan-20	31	20	97	1	0.0	150
16-Jan-20	25	22	96	1	0.0	144
17-Jan-20	30	23	91	1	0.1	146
18-Jan-20	32	24	80	1	0.1	138
19-Jan-20	32	22	80	1	0.0	135
20-Jan-20	23	24	87	2	0.0	136
21-Jan-20	33	23	93	1	0.0	151
22-Jan-20	34	25	90	1	0.0	150
23-Jan-20	37	25	78	1	0.0	141
24-Jan-20	39	27	91	2	0.0	158
25-Jan-20	36	24	89	2	0.0	151
26-Jan-20	37	26	89	2	0.0	154
27-Jan-20	26	23	90	1	0.0	139
28-Jan-20	32	23	79	2	0.0	136
29-Jan-20	35	25	78	1	0.0	139
30-Jan-20	37	27	96	1	0.2	161
31-Jan-20	38	27	96	2	0.2	163
कुल TOTAL	883	696	2600	42	1.3	4222
उच्चतम MAXIMUM	39	27	97	2	0.20	163
निम्नतम MINIMUM	13	14	63	1	0.00	96
औसत AVERAGE	28	22	84	1	0.04	136
संचयी 2019-20 Cumulative 2019-20	7987	6116	22078	561	11.3	36753
अब तक का उच्चतम All Time Max.	39	28	97	3	0.24	163
दिनांक Date	24.01.20	20.04.19	15.01.20	05.08.19	22.11.19	31.01.20

*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 प्रति
DAILY MAXIMUM DEMAND MET AT NATIONAL LEVEL

माह: जनवरी 2020 MONTH:- JANUARY 2020

सभी आंकड़े मेगावाट में All figures in MW

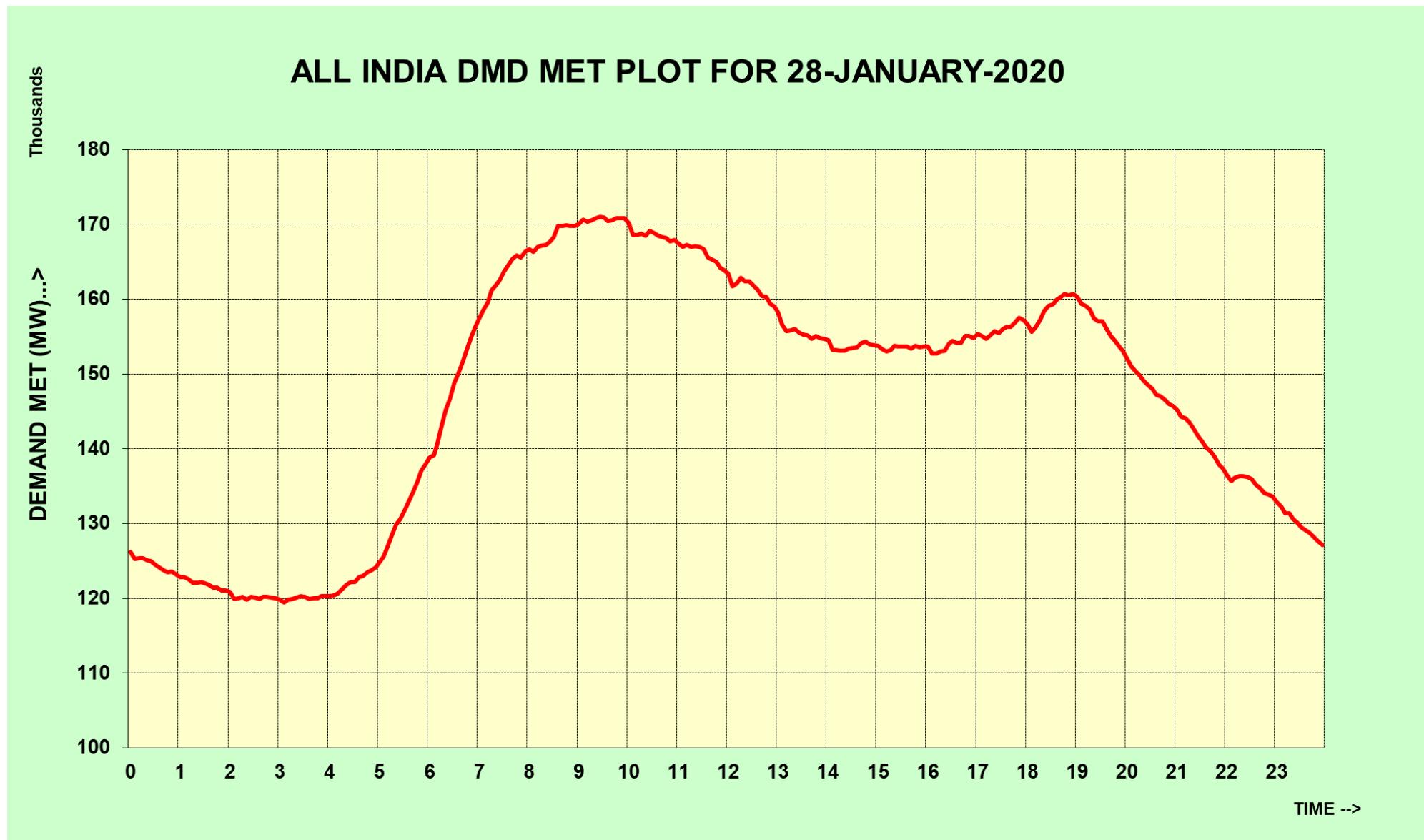
दिनांक Date	ऊतरी क्षे. NR	पश्चिमी क्षे. WR	दक्षिणी क्षे. SR	पूर्वी क्षे. ER	पूर्वोत्तर क्षे. NER	कुल TOTAL	विभिन्नता फैक्टर Diversity Factor*
01-Jan-20	51661	51854	45046	18090	2358	165213	1.023
02-Jan-20	51002	52182	46129	18154	2503	165222	1.029
03-Jan-20	50223	52494	46349	17458	2409	164606	1.026
04-Jan-20	50126	52336	45248	17930	2428	163488	1.028
05-Jan-20	47926	50790	44155	16981	2328	158307	1.024
06-Jan-20	49436	53508	46524	18252	2525	165753	1.027
07-Jan-20	48476	54397	47471	18334	2518	165369	1.035
08-Jan-20	47323	52829	46290	16939	2431	159710	1.038
09-Jan-20	48852	51899	47068	18186	2490	163027	1.034
10-Jan-20	50262	52613	45246	18499	2512	165576	1.021
11-Jan-20	49411	54521	44389	18344	2502	164111	1.031
12-Jan-20	47925	54647	42406	18082	2388	161089	1.027
13-Jan-20	46833	55471	46174	18618	2420	165721	1.023
14-Jan-20	47047	51697	46617	18722	2458	163366	1.019
15-Jan-20	48620	52292	43453	18207	2326	162171	1.017
16-Jan-20	46889	52508	42210	18416	2434	157260	1.033
17-Jan-20	47895	53578	45589	18130	2431	162874	1.029
18-Jan-20	47614	53533	44966	18623	2505	161538	1.035
19-Jan-20	46687	53059	43622	17901	2369	159665	1.025
20-Jan-20	48718	54730	46940	18351	2467	166529	1.028
21-Jan-20	49247	55575	47600	19000	2454	169468	1.026
22-Jan-20	49368	55367	47686	19192	2499	168599	1.033
23-Jan-20	48662	56272	47912	18872	2526	169201	1.030
24-Jan-20	49350	57057	48818	18821	2506	169343	1.043
25-Jan-20	48880	56647	47195	18554	2543	170770	1.018
26-Jan-20	48931	51822	43795	18362	2362	160824	1.028
27-Jan-20	48422	56070	47469	19063	2478	168675	1.029
28-Jan-20	47552	57152	49151	19318	2521	171063	1.027
29-Jan-20	46621	56212	47414	18706	2468	167903	1.021
30-Jan-20	48047	55851	48461	18700	2500	170288	1.019
31-Jan-20	48503	56653	48497	18443	2469	170721	1.023
उच्चतम MAXIMUM	51661	57152	49151	19318	2543	171063	1.043
निम्नतम MINIMUM	46621	50790	42210	16939	2326	157260	1.017
औसत AVERAGE	48597	54052	46126	18363	2456	165079	1.027
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	

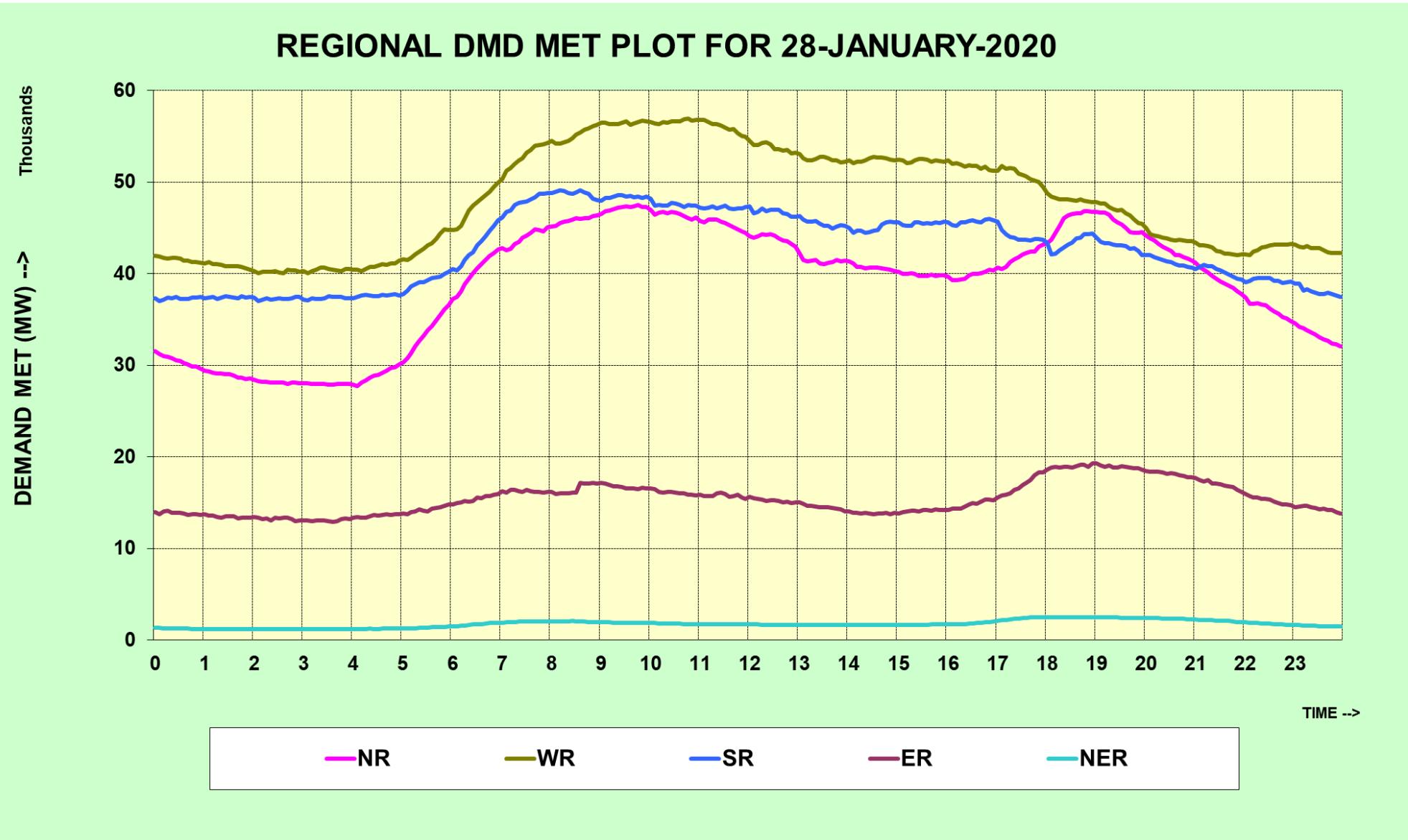
* Diversity factor = (Sum of regional max demands) / All India max demand

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

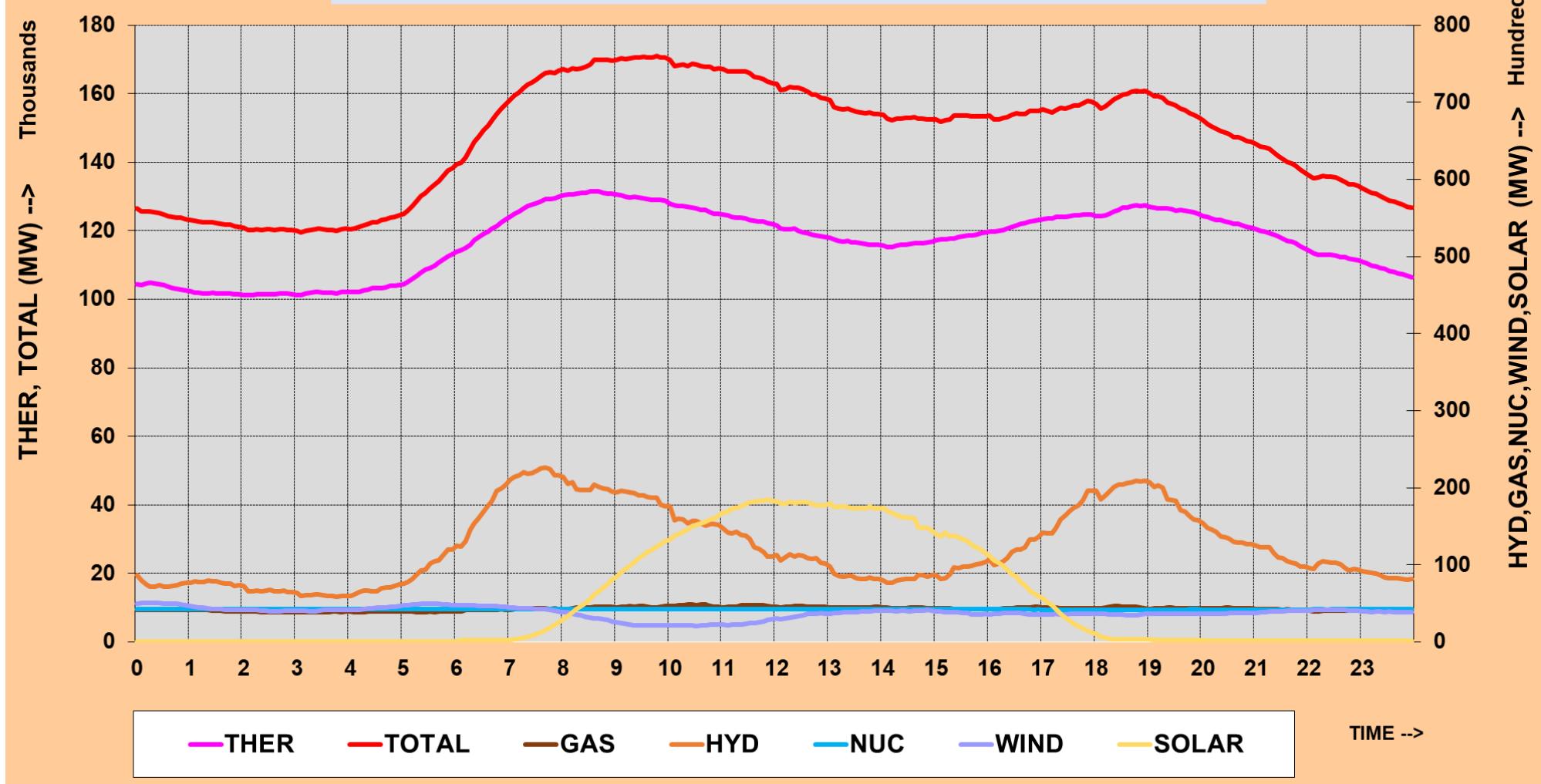
Note: The above figures denote daily maximum demand met recorded in NLDC SCADA.

10. DEMAND AND GENERATION PLOTS FOR 28-JANUARY (MAXIMUM DEMAND MET)

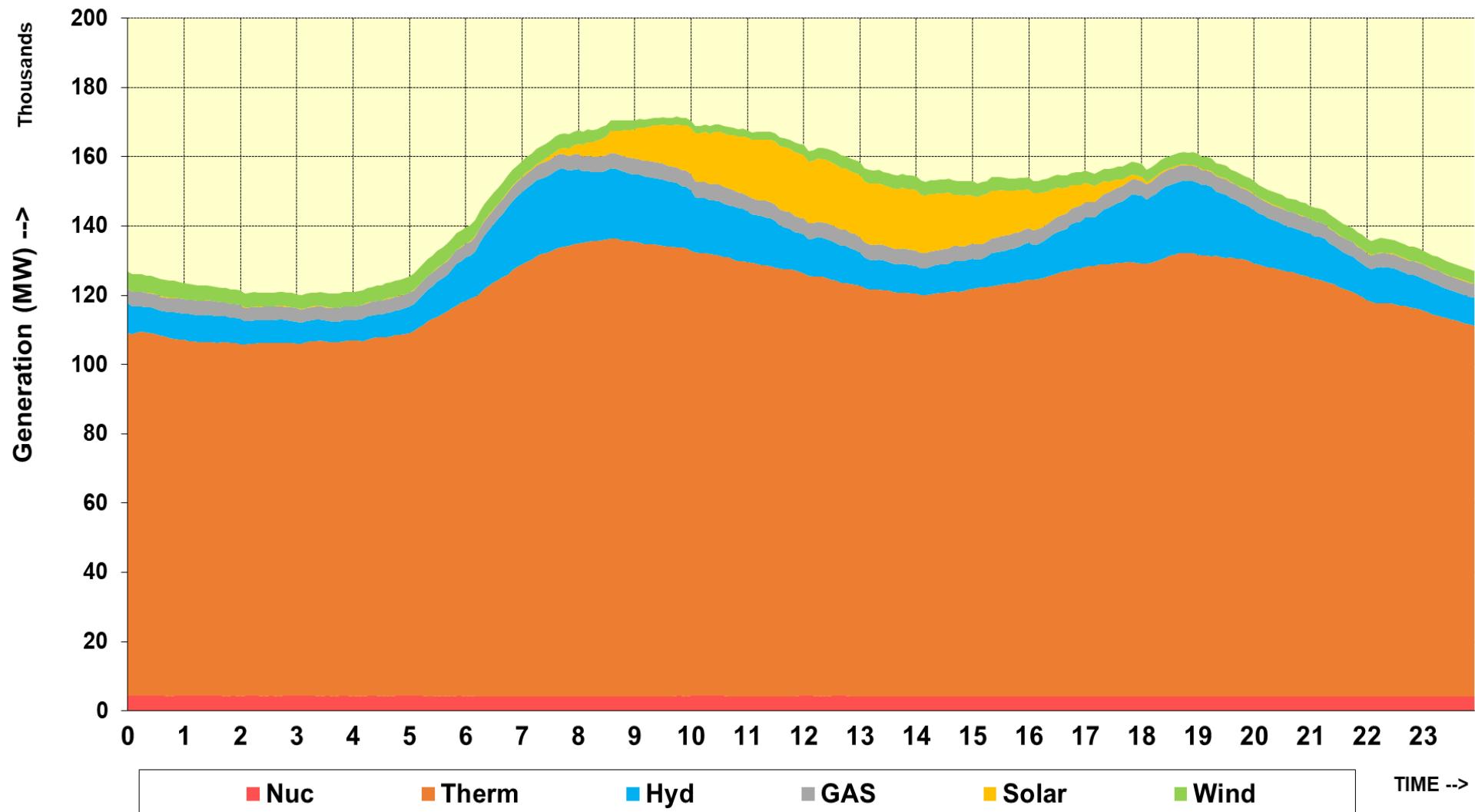




ALL INDIA GENERATION PLOT FOR 28-JANUARY-2020



All India Fuel-wise Generation Patterns for 28-JANUARY-2020



28 जनवरी 2020 (अधिकतम माँग) की आल इंडिया माँग आपूर्ति
ALL INDIA DEMAND MET FOR 28 JANUARY-2020 (MAXIMUM DEMAND*)

Time Block	All India Demand (MW)		Time Block	All India Demand (MW)
1	125227		49	161769
2	125026		50	162375
3	124092		51	161281
4	123559		52	159339
5	122800		53	156531
6	122080		54	156050
7	121764		55	155153
8	121082		56	154751
9	119924		57	153194
10	119801		58	153061
11	119934		59	153541
12	120103		60	153983
13	119431		61	153294
14	120102		62	153776
15	119942		63	153657
16	120267		64	153584
17	120421		65	152733
18	121820		66	153108
19	122806		67	154143
20	123763		68	155096
21	125558		69	155041
22	129841		70	155716
23	132921		71	156299
24	137032		72	157480
25	139170		73	155669
26	145199		74	158479
27	150085		75	159938
28	154837		76	160498
29	158623		77	159348
30	161792		78	157427
31	164491		79	155998
32	165574		80	153685
33	166359		81	151044
34	167250		82	149109
35	169768		83	147163
36	169788		84	145997
37	170589		85	144279
38	170849		86	142663
39	170466		87	140169
40	170840		88	137952
41	168597		89	135636
42	168428		90	136345
43	168486		91	135210
44	167694		92	133862
45	166986		93	132284
46	167107		94	130628
47	165612		95	129077
48	164115		96	127579

* 15 minute interval SCADA DATA

11. ACTUAL POWER SUPPLY POSITION - JANUARY 2020

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	136	136	0	0.0	297	297	0	0.0
	Delhi	74	74	0.0	2295	2295	0	0.0	5226	5226	0	0.0
	Haryana	125	125	0.0	3883	3882	0	0.0	7016	7016	0	0.0
	Himachal Pradesh	30	30	0.0	934	934	-1	-0.1	1786	1786	0	0.0
	J&K	61	50	-11.7	1899	1537	-362	-19.0	2574	2574	0	0.0
	Punjab	110	110	0.0	3406	3406	0	0.0	6326	6326	0	0.0
	Rajasthan	237	237	0.0	7343	7343	0	0.0	14017	14017	0	0.0
	Uttar Pradesh	284	283	-0.3	8789	8779	-10	-0.1	16987	16987	0	0.0
	Uttarakhand	39	39	0.0	1212	1211	-1	0.0	2208	2208	0	0.0
	NFF/Railway	2	2	0.0	73	73	0	0.0	112	112	0	0.0
WR	TOTAL	967	955	-12.0	29970	29597	-373	-1.2	51338	50780	-558	-1.1
	Gujarat	320	320	0.0	9907	9907	0	0.0	16189	16189	0	0.0
	Madhya Pradesh	245	245	-0.1	7605	7602	-3	0.0	14729	14729	0	0.0
	Chhattisgarh	77	77	0.0	2383	2383	0	0.0	3829	3828	-1	0.0
	Maharashtra	438	438	0.0	13569	13569	0	0.0	22975	22975	0	0.0
	Goa	11	11	0.0	336	335	-1	-0.2	603	602	-1	-0.1
	D&D	7	7	0.0	216	216	0	0.0	347	347	0	0.0
	DNH	18	18	0.0	566	566	0	0.0	816	816	0	0.0
SR	ESIL	6	6	0.0	179	179	0	0.0	1074	1074	0	0.0
	TOTAL	1121	1121	-0.1	34760	34756	-3	0.0	58643	58643	0	0.0
	Andhra Pradesh	167	167	0.0	5180	5180	0	0.0	9605	9605	0	0.0
	Telangana	202	202	0.1	6271	6273	2	0.0	11359	11359	0	0.0
	Karnataka	216	216	0.1	6683	6685	2	0.0	13169	13169	0	0.0
	Kerala	70	70	0.0	2164	2165	1	0.0	3796	3796	0	0.0
ER	Tamil Nadu	276	276	0.1	8544	8547	3	0.0	14719	14719	0	0.0
	Pondicherry	7	7	0.0	204	204	0	0.0	377	375	-2	-0.4
	TOTAL	937	937	0.2	29046	29053	7	0.0	49172	49172	0	0.0
	Bihar	79	79	-0.1	2458	2455	-3	-0.1	4743	4567	-176	-3.7
	Jharkhand	26	26	-0.2	811	805	-6	-0.8	1373	1373	0	0.0
	DVC	69	69	0.0	2133	2133	0	0.0	2971	2971	0	0.0
NER	Odisha	67	67	0.0	2070	2070	0	0.0	3631	3631	0	0.0
	West Bengal	120	120	-0.1	3728	3725	-3	-0.1	6372	6352	-20	-0.3
	Sikkim	2	2	0.0	56	56	0	0.0	189	189	0	0.0
	TOTAL	363	363	-0.4	11256	11244	-12	-0.1	19311	19311	0	0.0
	Arunachal Pradesh	2	2	0.0	70	69	0	-0.4	125	117	-8	-6.4
	Assam	22	22	-0.5	689	674	-15	-2.2	1366	1366	0	0.0
	Manipur	3	3	0.0	95	95	0	-0.5	221	218	-3	-1.4
ALL INDIA	Meghalaya	7	6	-0.5	213	198	-15	-7.0	371	371	0	0.0
	Mizoram	2	2	0.0	61	60	0	-0.5	127	127	0	0.0
	Nagaland	2	2	0.0	71	71	0	-0.6	182	159	-23	-12.7
	Tripura	5	5	0.0	166	166	0	0.0	229	229	0	0.0
	TOTAL	44	43	-1.0	1366	1334	-32	-2.3	2622	2588	-34	-1.3
	ALL INDIA	3432	3419	-13.3	106397	105985	-413	-0.4	181086	180494	-592	-0.3

12. ENERGY COMPARISON OF JANUARY 2020 vs JANUARY 2019

REGION	STATE	Energy Requirement (MU)					Energy Met (MU)				
		Jan-19	Jan-20	Difference	% Change	Average MU/day for Jan-20	Jan-19	Jan-20	Difference	% Change	Average MU/day for Jan-20
NR	Chandigarh	115	136	20	18	4	115	136	20	18	4
	Delhi	2150	2295	145	7	74	2150	2295	145	7	74
	Haryana	3873	3883	10	0	125	3863	3882	20	1	125
	Himachal Pradesh	916	934	18	2	30	912	934	22	2	30
	J&K	1892	1899	6	0	61	1545	1537	-8	-1	50
	Punjab	3372	3406	34	1	110	3372	3406	34	1	110
	Rajasthan	7265	7343	78	1	237	7265	7343	78	1	237
	Uttar Pradesh	8632	8789	157	2	284	8577	8779	202	2	283
	Uttarakhand	1185	1212	27	2	39	1182	1211	29	2	39
	NFF/Railway	79	73	-6	-7	2	79	73	-6	-7	2
	TOTAL	29481	29970	489	2	967	29061	29597	536	2	955
WR	Gujarat	9869	9907	39	0	320	9872	9907	35	0	320
	Madhya Pradesh	7816	7605	-211	-3	245	7810	7602	-208	-3	245
	Chhattisgarh	2446	2383	-63	-3	77	2439	2383	-56	-2	77
	Maharashtra	12585	13569	984	8	438	12585	13569	984	8	438
	Goa	317	336	19	6	11	317	335	18	6	11
	D&D	207	216	9	4	7	207	216	9	4	7
	DNH	538	566	28	5	18	538	566	28	5	18
	ESIL	323	179	-145	-45	6	323	179	-145	-45	6
	TOTAL	34100	34760	659	2	1121	34091	34756	665	2	1121
SR	Andhra Pradesh	4995	5180	185	4	167	4995	5180	185	4	167
	Telangana	5449	6271	822	15	202	5450	6273	822	15	202
	Karnataka	6465	6683	218	3	216	6467	6685	218	3	216
	Kerala	2011	2164	153	8	70	2012	2165	153	8	70
	Tamil Nadu	8681	8544	-137	-2	276	8684	8547	-137	-2	276
	Pondicherry	218	204	-14	-7	7	218	204	-14	-7	7
	TOTAL	27819	29046	1228	4	937	27826	29053	1228	4	937
ER	Bihar	2311	2458	146	6	79	2306	2455	149	6	79
	Jharkhand	814	811	-3	0	26	754	805	50	7	26
	DVC	2173	2133	-40	-2	69	2173	2133	-40	-2	69
	Odisha	2294	2070	-224	-10	67	2294	2070	-224	-10	67
	West Bengal	3858	3728	-130	-3	120	3853	3725	-128	-3	120
	Sikkim	51	56	4	8	2	51	56	4	8	2
	TOTAL	11502	11256	-247	-2	363	11432	11244	-188	-2	363
NER	Arunachal Pradesh	77	70	-8	-10	2	77	69	-8	-10	2
	Assam	721	689	-31	-4	22	673	674	2	0	22
	Manipur	92	95	4	4	3	92	95	3	4	3
	Meghalaya	196	213	17	9	7	196	198	2	1	6
	Mizoram	55	61	6	10	2	53	60	7	14	2
	Nagaland	72	71	-1	-2	2	71	71	0	0	2
	Tripura	116	166	50	44	5	116	166	50	43	5
	TOTAL	1397	1366	-31	-2	44	1333	1334	1	0	43
ALL INDIA		104299	106397	2098	2	3432	103743	105985	2241	2	3419

13. DEMAND COMPARISON OF JANUARY 2020 vs JANUARY 2019

REGION	STATE	Peak Requirement (MW)				Peak Met (MW)			
		Jan-19	Jan-20	Difference	% Change	Jan-19	Jan-20	Difference	% Change
NR	Chandigarh	258	297	39	15.1	258	297	39	15.1
	Delhi	4472	5226	754	16.9	4472	5226	754	16.9
	Haryana	7078	7016	-62	-0.9	7078	7016	-62	-0.9
	Himachal Pradesh	1686	1786	100	5.9	1686	1786	100	5.9
	J&K	3078	2574	-504	-16.4	2463	2574	111	4.5
	Punjab	6049	6326	277	4.6	6049	6326	277	4.6
	Rajasthan	12921	14017	1096	8.5	12921	14017	1096	8.5
	Uttar Pradesh	14928	16987	2059	13.8	14928	16987	2059	13.8
	Uttarakhand	2216	2208	-8	-0.4	2216	2208	-8	-0.4
	NFF/Railway	116	112	-4	-3.6	116	112	-4	-3.6
WR	Gujarat	15729	16189	460	3	15723	16189	466	3.0
	Madhya Pradesh	14362	14729	367	3	14362	14729	367	2.6
	Chhattisgarh	3951	3829	-122	-3	3840	3828	-12	-0.3
	Maharashtra	21138	22975	1837	9	21138	22975	1837	8.7
	Goa	577	603	26	5	577	602	25	4.4
	D&D	339	347	8	2.4	339	347	8	2.4
	DNH	798	816	18	2.3	798	816	18	2.3
	ESIL	928	1074	146	15.7	928	1074	146	15.7
SR	Andhra Pradesh	9439	9605	166	1.8	9416	9605	189	2.0
	Telangana	10829	11359	530	4.9	10818	11359	541	5.0
	Karnataka	10090	13169	3079	30.5	10090	13169	3079	30.5
	Kerala	3725	3796	71	1.9	3653	3796	144	3.9
	Tamil Nadu	14971	14719	-252	-1.7	14946	14719	-227	-1.5
	Pondicherry	387	377	-10	-2.7	387	375	-12	-3.1
ER	Bihar	4417	4743	325	7.4	4332	4567	234	5.4
	Jharkhand	1411	1373	-38	-2.7	1278	1373	95	7.4
	DVC	2999	2971	-28	-0.9	2999	2971	-28	-0.9
	Odisha	4210	3631	-578	-13.7	4210	3631	-578	-13.7
	West Bengal	6501	6372	-129	-2.0	6457	6352	-105	-1.6
	Sikkim	107	189	82	76.6	107	189	82	76.6
NER	Arunachal Pradesh	126	125	-1	-0.6	124	117	-7	-5.5
	Assam	1491	1366	-125	-8.4	1468	1366	-102	-6.9
	Manipur	219	221	2	1.0	216	218	2	1.1
	Meghalaya	372	371	-1	-0.2	372	371	-1	-0.2
	Mizoram	121	127	6	5.0	119	127	8	6.8
	Nagaland	141	182	41	29.1	138	159	21	15.2
	Tripura	224	229	5	2.3	223	229	6	2.7

14. SCHEDULE AND DRAWAL OF CONSTITUENTS - JANUARY 2020

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	132.77	137.88	5.10	3.84	4.28	4.45	0.16
	Delhi	1852.45	1832.42	-20.03	-1.08	59.76	59.11	-0.65
	Haryana	2610.47	2626.82	16.36	0.63	84.21	84.74	0.53
	Himachal Pradesh	725.64	729.25	3.61	0.50	23.41	23.52	0.12
	J&K	1361.01	1321.29	-39.73	-2.92	43.90	42.62	-1.28
	Punjab	1725.45	1690.40	-35.05	-2.03	55.66	54.53	-1.13
	Rajasthan	2188.39	2184.11	-4.28	-0.20	70.59	70.46	-0.14
	Uttar Pradesh	3641.74	3630.80	-10.95	-0.30	117.48	117.12	-0.35
	Uttarakhand	709.98	719.99	10.01	1.41	22.90	23.23	0.32
	NFF/Railway	73.10	72.24	-0.86	-1.17	2.36	2.33	-0.03
WR	Gujarat	2544.20	2613.20	69.00	2.71	82.07	84.30	2.23
	Madhya Pradesh	4001.70	3907.60	-94.10	-2.35	129.09	126.05	-3.04
	Maharashtra	4420.00	4386.50	-33.50	-0.76	142.58	141.50	-1.08
	Chhattisgarh	876.10	829.10	-47.00	-5.36	28.26	26.75	-1.52
	Goa	306.20	323.07	16.87	5.51	9.88	10.42	0.54
	D&D	205.00	215.60	10.60	5.17	6.61	6.95	0.34
	D&NH	565.30	565.81	0.51	0.09	18.24	18.25	0.02
	ESIL	182.70	178.60	-4.10	-2.24	5.89	5.76	-0.13
SR	Andhra Pradesh	2024.41	2012.12	-12.29	-0.61	65.30	64.91	-0.40
	Telangana	3301.89	3301.55	-0.34	-0.01	106.51	106.50	-0.01
	Karnataka	1852.45	1834.71	-17.74	-0.96	59.76	59.18	-0.57
	Kerala	1731.23	1772.51	41.28	2.38	55.85	57.18	1.33
	Tamil Nadu	4808.11	4814.50	6.39	0.13	155.10	155.31	0.21
	Pondicherry	220.02	211.51	-8.51	-3.87	7.10	6.82	-0.27
	Goa (SR)	49.69	48.58	-1.11	-2.23	1.60	1.57	-0.04
ER	Bihar	2396.92	2403.81	6.89	0.29	77.32	77.54	0.22
	Jharkhand	524.83	539.29	14.46	2.76	16.93	17.40	0.47
	DVC	-1037.43	-1037.17	0.27	-0.03	-33.47	-33.46	0.01
	Odisha	156.64	153.24	-3.39	-2.17	5.05	4.94	-0.11
	West Bengal	758.47	758.96	0.49	0.06	24.47	24.48	0.02
	Sikkim	53.38	55.53	2.14	4.02	1.72	1.79	0.07
NER	Arunachal Pradesh	61.63	65.03	3.40	5.52	1.99	2.10	0.11
	Assam	587.58	593.99	6.42	1.09	18.95	19.16	0.21
	Manipur	95.19	94.96	-0.23	-0.24	3.07	3.06	-0.01
	Meghalaya	126.44	142.73	16.29	12.88	4.08	4.60	0.53
	Mizoram	46.62	46.96	0.33	0.71	1.50	1.51	0.01
	Nagaland	64.67	65.84	1.17	1.81	2.09	2.12	0.04
	Tripura	67.45	62.64	-4.81	-7.13	2.18	2.02	-0.16

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	Jan'20	Fin. Year 2019-20
Name of Line											
Import of NR from WR (WR-NR)											
WR - NR 765 kV Gwalior - Agra 2x5/C											
WR-NR 765 kV Gwalior - Phagi 2x5/C	1152.39	1244.91	1416.19	1297.61	1447.53	1311.86	1211.67	1090.46	1333.15	1350.43	12856.20
WR-NR 765 kV Gwalior - Rihand - D/C	470.99	631.50	646.70	611.93	537.61	678.68	597.27	605.94	649.85	622.97	6053.44
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	921.07	9103.64
WR-NR 765 kV Satna-Orai	815.18	906.34	895.23	862.62	866.64	892.99	891.91	813.80	889.42	875.54	8709.67
WR-NR 765 kV Gwalior-Orai	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WR - NR HVDC Champa - Kurukshetra	569.10	815.03	1194.11	1055.41	1242.77	1017.24	600.32	570.13	819.77	1006.59	8890.47
WR - NR HVDC VindhyaChal	1.11	2.86	13.95	42.93	1.76	48.23	0.00	0.00	41.17	37.68	189.69
WR - NR 400 kV Zerda Kankroli	0.00	5.02	3.73	6.80	44.58	33.60	18.49	3.08	4.44	1.46	121.20
WR - NR 400 kV Zerda Bhinmal	5.65	16.43	5.33	11.37	50.94	69.01	74.84	31.47	54.25	60.20	379.49
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	27.46	696.76
WR - NR 220 kV Bhanpura - Ranpur	17.93	18.97	25.29	48.34	33.57	21.32	23.80	3.60	1.78	1.97	196.57
WR - NR 220 kV Bhanpura - Modak	34.44	39.16	47.10	62.86	44.21	39.69	36.58	10.66	38.31	26.71	379.72
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	0.00	26.96
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	0.00	0.00
WR - NR HVDC Mundra - Mohindergarh	925.79	1040.00	1160.33	1077.14	925.72	986.15	938.90	915.72	993.83	1234.61	10198.19
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	136.49	2107.03
Total WR - NR	4721.41	5820.04	6639.11	6452.13	6823.96	6623.96	5614.99	5005.66	5904.59	6303.18	59909.03
Export of NR to WR (NR-WR)											
NR - WR 765 kV Gwalior - Agra 2x5/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NR - WR 765 kV Gwalior - Phagi 2x5/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00
NR - WR 765 kV Satna-Orai	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
NR - WR 765 kV Gwalior-Orai	280.55	254.42	262.28	238.53	217.80	187.37	223.43	299.41	320.93	336.23	2620.95
NR - WR HVDC Champa- Kurukshetra	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NR - WR HVDC VindhyaChal	173.15	215.47	300.88	193.16	267.98	196.37	307.93	271.11	227.86	242.96	2396.87
NR - WR 400 kV Zerda Kankroli	78.46	33.35	31.33	25.34	1.63	0.00	1.81	16.48	16.92	17.90	223.22
NR - WR 400 kV Zerda Bhinmal	19.25	13.28	55.90	81.72	11.56	1.37	0.74	8.20	1.71	0.15	193.88
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	2.45	34.23
NR - WR 220 kV Bhanpura - Ranpur	1.29	4.19	0.24	0.00	0.00	0.00	0.00	18.62	11.79	4.15	40.28
NR - WR 220 kV Bhanpura - Modak	1.33	0.26	0.26	0.00	0.00	0.00	0.00	0.88	0.48	1.50	4.71
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	44.51	230.93
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	679.92	6731.01
NR - WR HVDC Mundra - Mohindergarh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	0.16	115.12
Total NR - WR	1297.48	1164.49	1361.08	1265.33	1187.32	1079.51	1230.64	1360.32	1316.10	1329.93	12592.20
Import of NR from ER (ER-NR)											
ER - NR 765 kV Sasaram - Fatehpur	96.69	43.72	16.45	9.45	1.57	20.21	17.63	159.05	176.90	100.46	642.13
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	300.82	1840.43
ER - NR 765 kV Gaya - Balia	134.05	128.29	243.21	211.82	168.52	183.08	162.52	200.17	212.15	207.62	1851.43
ER - NR HVDC Alipurduar - Agra	0.00	428.84	387.93	1109.50	799.07	802.30	472.84	44.92	26.14	112.72	4184.26
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	436.19	4552.90
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	239.37	3118.59
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	153.20	1613.85
ER - NR 400 kV Motihari - Gorakhpur D/C	154.73	172.28	99.63	106.95	52.72	7.47	0.00	0.00	0.00	1.90	600.68
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	51.46	383.67
ER - NR 400 kV Sasaram - Varanasi	45.60	53.96	144.07	163.55	162.58	131.51	131.90	118.49	109.92	171.49	1233.07
ER - NR 400 kV Sasaram - Allahabad	6.42	3.89	40.33	49.67	21.80	38.36	31.59	51.52	74.79	75.12	393.49
ER - NR 220 kV Pusauli - Sahupuri	85.65	115.19	103.22	97.06	100.60	91.35	67.94	25.68	37.06	54.37	778.12
ER - NR 132 kV Sahupuri - Karamnasa	8.16	12.82	10.30	6.72	7.68	13.90	10.02	9.12	7.53	9.12	95.37
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	2.84	5.63
ER - NR 132 kV Rihand - Garhwa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total ER-NR	1637.48	2033.54	2182.24	2708.23	2004.16	2518.93	1893.18	2103.12	2296.06	1916.68	21293.62
Import of NR from NER (NER-NR)											
NER-NR HVDC Biswanath Chariali - Agra	0.00	234.57	355.35	589.31	476.16	417.67	356.57	44.21	0.00	11.83	2485.67
Total NER - NR	0.00	234.57	355.35	589.31	476.16	417.67	356.57	44.21	0.00	11.83	2485.67
Export of NR to ER (NR-ER)											
NR - ER 765 kV Sasaram - Fatehpur	0.00	7.18	55.51	75.74	111.33	34.47	18.68	0.00	0.00	0.00	302.91
NR - ER 765 kV Gaya - Varanasi 2*S/C	0.00	4.02	4.02	6.52	40.29	0.33	4.93	0.00	0.00	0.00	60.11
NR - ER 765 kV Gaya - Balia	0.00	0.00	0.00	0.00	0.00	3.15	4.92	0.00	0.00	0.00	8.07
NR - ER HVDC Alipurduar - Agra	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NR - ER 400 kV Patna - Balia 2xD/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NR - ER 400 kV Muzaffarpur - Gorakhpur D/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NR - ER 400 kV Biharshariff - Balia D/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ER - NR 400 kV Motihari - Gorakhpur D/C	0.00	0.00	72.74	43.89	43.89	0.00	0.00	0.00	0.84	0.00	161.36
NR - ER 400 kV Biharshariff - Varanasi D/C	0.00	1.36	28.47	32.53	99.92	10.41	36.80	7.80	0.00	2.29	219.58
NR - ER 400 kV Sasaram - Varanasi	0.00	0.00	0.00	0.00	0.00	0.00	2.71	0.00	0.00	0.00	2.71
NR - ER 400 kV Sasaram - Allahabad	2.24	9.70	6.91	0.01	1.47	0.00	0.00	0.00	0.00	0.00	20.33
NR - ER 220 kV Sasaram - Allahabad	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NR - ER 220 kV Pusauli - Sahupuri	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NR - ER 132 kV Sahupuri - Karamnasa	1.49	1.92	5.55	2.88	3.84	5.26	1.44	0.48	0.48	0.48	23.82
NR - ER 132 kV Rihand - Son Nagar	12.23	9.10	9.87	9.25	9.09	8.29	6.98	7.53	6.16	9.25	87.75
ER - NR 132 kV Rihand - Garhwa	2.94	3.55	3.40	4.75	1.51	1.53	3.20	4.57	4.10	6.75	36.30
Total NR - ER	18.90	36.83	186.47	175.57	311.34	63.44	79.66	20.38	11.58	18.77	922.94
Export of NR to NER (NER-NR)											
NR-NR HVDC Biswanath Chariali - Agra	458.88	32.94	0.00	0.00	0.00	0.00	0.00	0.00	181.80		

	Apr'19	May'19	June'19	July'19	Aug'19	Sep'19	Oct'19	Nov'19	Dec'19	Jan'20	Fin. Year 2019-20
Name of Line											
Export of WR to ER (WR-ER)											
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	161.63	3557.57
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	586.38	7405.83
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	21.70	747.56
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	64.58	1301.82
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	41.10	1197.26
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	79.31	758.99
WR - ER 220 kV Raigarh - Budhipadar	0.00	0.44	3.75	2.71	0.88	0.01	0.04	0.05	0.05	0.08	8.02
Total WR - ER	1478.57	1735.90	1892.80	2202.04	2479.51	1473.08	1396.91	712.73	650.73	954.77	14977.05
Import of WR from ER (ER - WR)											
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	20.42	155.33
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	3.59	28.00
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	49.04	202.16
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	6.18	40.75
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	49.67	168.09
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	0.09	2.73
ER - WR 220 kV Raigarh - Budhipadar	54.42	33.65	12.73	17.60	25.25	45.65	20.76	37.55	46.50	36.47	330.57
Total ER - WR	90.17	56.03	16.40	24.42	25.51	51.90	42.55	201.94	253.23	165.46	927.62
Export of ER to NER (ER - NER)											
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	40.26	1476.10
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	9.70	442.02
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	6.45	254.65
Total ER - NER	12.20	95.34	309.84	318.79	537.39	439.87	348.76	48.20	5.97	56.40	2172.77
Import of ER from NER (NER - ER)											
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	39.32	444.62
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	77.55	902.09
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	9.98	90.72
Total NER - ER	369.77	236.08	18.26	141.55	16.67	24.90	14.59	219.53	269.24	126.85	1437.44
Export of ER to SR (ER - SR)											
ER - SR HVDC Gauwaka	438.03	420.15	332.54	286.92	48.45	0.00	298.60	376.35	390.42	433.67	3025.14
ER - SR HVDC Talchar - Kolar	1496.40	1275.81	947.36	1041.06	539.22	602.97	876.30	1164.91	1313.11	1223.73	10480.87
ER - SR 765 kV Angul - Srikalum D/C	1104.20	920.55	726.76	628.85	743.92	708.97	873.24	1024.74	1120.66	1306.09	9157.99
Total ER - SR	3038.63	2616.51	2006.67	1956.83	1331.59	1311.94	2048.14	2566.00	2824.20	2963.50	22663.99
Import of ER from SR (SR - ER)											
SR - ER HVDC Gauwaka	0.00	0.00	0.00	0.00	213.51	224.91	33.60	0.00	0.00	0.00	472.01
SR - ER HVDC Talchar - Kolar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SR - ER 765 kV Angul - Srikalum D/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total SR - ER	0.00	0.00	0.00	0.00	213.51	224.91	33.60	0.00	0.00	0.00	472.01
Export of WR to SR (WR-SR)											
WR - SR HVDC Bhadravati	413.36	633.02	337.28	286.71	182.70	97.17	240.81	417.28	412.44	515.96	3536.73
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	827.73	4953.84
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	1202.34	8891.08
WR - SR 400kV Kolhapur-Kudgi D/C	5.33	5.79	1.85	4.73	0.00	0.00	0	0.37	0.05	4.91	23.03
Total WR - SR	2950.79	2116.19	1105.16	1253.67	910.88	829.43	1402.42	1878.95	2406.24	2550.94	17404.68
Import of WR from SR (SR - WR)											
SR - WR HVDC Bhadravati	0.00	0.00	4.73	22.84	42.73	85.34	15.10	0.00	0.00	0.00	170.75
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	18.04	957.20
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	0.00	28.32
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	208.96	3282.93
Total SR - WR	160.00	248.37	528.20	552.31	890.71	720.78	405.79	368.03	338.02	227.00	4439.20
TOTAL ALL INDIA	16234	16427	16602	17640	17209	15780	14868	14711	16583	16861	162915

Date	15.1 Import-Export of NR with WR during January 2020																
	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- Kankroli	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 / Mehtaon	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-Jan-20	53.12	21.65	35.78	31.22	0.00	43.16	5.22	0.00	0.41	2.02	0.05	1.08	0.00	0.00	43.78	7.81	245.30
2-Jan-20	49.83	22.18	33.94	31.07	0.00	37.05	0.72	0.00	0.66		0.00	0.50	0.00	0.00	39.51	5.52	220.98
3-Jan-20	42.62	19.51	35.78	29.48	0.00	36.05	4.57	0.00	1.65		0.20	0.51	0.00	0.00	43.96	2.42	216.75
4-Jan-20	43.61	19.81	30.04	29.37	0.00	32.59	0.00	0.00	2.50	2.84	0.08	1.15	0.00	0.00	44.72	1.00	207.71
5-Jan-20	42.02	18.11	27.17	27.98	0.00	39.47	0.00	0.00	2.04	2.49	0.13	0.91	0.00	0.00	47.22	0.00	207.54
6-Jan-20	41.70	18.20	30.23	28.16	0.00	43.63	1.40	0.00	1.79	3.14	0.27	1.28	0.00	0.00	42.26	1.64	213.70
7-Jan-20	43.17	22.11	29.84	28.37	0.00	33.18	4.46	0.00	1.68	2.17	0.00	0.84	0.00	0.00	37.83	4.60	208.25
8-Jan-20	37.16	14.28	29.84	27.48	0.00	43.51	3.80	0.00	1.81	0.00	0.00	0.49	0.00	0.00	35.55	1.54	195.46
9-Jan-20	37.01	19.32	27.94	27.76	0.00	30.33	2.22	0.00	1.98	0.31	0.00	0.93	0.00	0.00	38.71	5.30	191.81
10-Jan-20	42.89	15.37	30.53	27.85	0.00	41.05	0.00	0.00	0.84		0.00	1.07	0.00	0.00	43.60	9.33	212.53
11-Jan-20	42.26	20.99	33.24	32.02	0.00	36.82	4.44	0.00	0.34		0.00	0.92	0.00	0.00	45.09	5.76	221.88
12-Jan-20	41.87	23.45	32.71	28.17	0.00	28.80	0.00	0.00	0.68	1.46	0.00	0.78	0.00	0.00	34.60	3.77	196.29
13-Jan-20	39.62	20.82	27.15	26.93	0.00	35.81	0.00	0.00	0.53	0.41	0.16	1.16	0.00	0.00	37.25	4.12	193.96
14-Jan-20	42.45	21.49	28.61	28.79	0.00	16.80	0.84	0.00	2.41	0.08	0.00	0.55	0.00	0.00	33.25	6.18	181.45
15-Jan-20	45.56	22.58	31.61	29.17	0.00	30.12	0.00	0.00	1.03	0.24	0.00	0.63	0.00	0.00	31.99	7.12	200.05
16-Jan-20	45.33	20.52	28.81	28.78	0.00	26.45	0.00	0.00	1.95	1.43	0.00	0.00	0.00	0.00	40.74	8.96	202.97
17-Jan-20	42.47	21.96	28.13	23.26	0.00	36.59	0.00	0.00	3.34	2.16	0.09	0.41	0.00	0.00	39.55	2.31	200.27
18-Jan-20	40.81	21.01	27.22	25.76	0.00	47.45	0.00	0.00	3.67		0.05	0.99	0.00	0.00	39.66	2.41	209.03
19-Jan-20	46.38	19.43	28.59	27.82	0.00	20.40	0.00	0.00	3.95		0.00	0.86	0.00	0.00	39.68	6.30	193.41
20-Jan-20	45.12	21.93	29.85	28.58	0.00	33.52	0.00	0.73	4.44	2.73	0.51	1.40	0.00	0.00	37.64	3.99	210.44
21-Jan-20	45.68	20.12	27.75	27.59	0.00	43.58	0.37	0.00	2.38	1.44	0.25	1.24	0.00	0.00	37.71	2.93	211.04
22-Jan-20	46.58	17.52	28.84	29.17	0.00	33.23	0.60	0.20	0.00	0.00	0.00	0.91	0.00	0.00	37.06	6.90	201.01
23-Jan-20	44.19	16.49	26.92	26.97	0.00	31.25	2.63	0.46	1.99	0.00	0.00	0.84	0.00	0.00	33.33	13.53	198.60
24-Jan-20	49.48	20.90	30.85	29.57	0.00	25.64	1.10	0.00	3.02	1.14	0.00	0.94	0.00	0.00	37.06	4.49	204.19
25-Jan-20	40.15	18.61	28.61	26.43	0.00	23.56	2.69	0.00	3.23	0.11	0.00	1.04	0.00	0.00	42.57	2.26	189.26
26-Jan-20	40.77	20.54	27.07	25.96	0.00	17.35	2.62		3.64		0.00	0.89	0.00	0.00	38.71	-2.64	174.91
27-Jan-20	43.34	21.35	30.60	27.91	0.00	21.62	0.00	0.00	2.83	1.20	0.10	1.08	0.00	0.00	38.70	4.83	193.56
28-Jan-20	41.70	19.61	29.33	28.23	0.00	20.41	0.00	0.07	1.50	0.52	0.00	1.05	0.00	0.00	42.44	4.60	189.46
29-Jan-20	41.65	21.80	23.90	26.26	0.00	38.23	0.00	0.00	2.11	0.00	0.00	0.00	0.00	0.00	43.68	2.46	200.09
30-Jan-20	43.87	19.45	27.80	29.24	0.00	30.52	0.00	0.00	0.02	0.00	0.00	1.15	0.00	0.00	46.87	0.49	199.41
31-Jan-20	48.02	21.86	32.39	30.19	0.00	28.42	0.00	0.00	1.78	1.57	0.08	1.11	0.00	0.00	39.89	6.56	211.87
Total	1350.43	622.97	921.07	875.54	0.00	1006.59	37.68	1.46	60.20	27.46	1.97	26.71	0.00	0.00	1234.61	136.49	6303.18

Date	15.1 Import-Export of NR with WR during January 2020																
	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- Kurukshetra	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 / Mehtaon	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-Jan-20	0.00	0.00	0.00	0.00	10.60	0.00	3.61	0.24	0.00	0.00	0.00	0.00	1.06	21.92	0.00	0.00	37.43
2-Jan-20	0.00	0.00	0.00	0.00	10.88	0.00	9.35	0.48	0.00		0.74	0.00	1.34	21.67	0.00	0.00	44.46
3-Jan-20	0.00	0.00	0.00	0.00	9.42	0.00	2.62	0.90	0.00		0.00	0.00	1.83	21.91	0.00	0.00	36.68
4-Jan-20	0.00	0.00	0.00	0.00	10.13	0.00	8.75	0.97	0.00	0.00	0.00	0.00	1.72	22.71	0.00	0.00	44.28
5-Jan-20	0.00	0.00	0.00	0.00	9.74	0.00	9.71	1.36	0.00	0.00	0.00	0.00	1.63	16.56	0.00	0.16	39.16
6-Jan-20	0.00	0.00	0.00	0.00	9.78	0.00	5.54	1.12	0.00	0.00	0.00	0.00	1.59	12.63	0.00	0.00	30.66
7-Jan-20	0.00	0.00	0.00	0.00	5.73	0.00	6.90	0.81	0.00	0.00	0.26	0.00	1.38	21.94	0.00	0.00	37.02
8-Jan-20	0.00	0.00	0.00	0.00	9.56	0.00	4.28	1.52	0.00	1.36	0.64	0.00	1.08	22.86	0.00	0.00	41.30
9-Jan-20	0.00	0.00	0.00	0.00	11.37	0.00	5.30	0.86	0.00	0.00	0.15	0.00	1.44	19.80	0.00	0.00	38.92
10-Jan-20	0.00	0.00	0.00	0.00	10.69	0.00	6.46	0.32	0.00		0.01	0.00	0.94	22.39	0.00	0.00	40.81
11-Jan-20	0.00	0.00	0.00	0.00	13.35	0.00	4.68	0.98	0.00		0.22	0.00	1.51	22.06	0.00	0.00	42.80
12-Jan-20	0.00	0.00	0.00	0.00	13.96	0.00	8.44	1.30	0.00	0.00	0.35	0.00	1.96	22.76	0.00	0.00	48.77
13-Jan-20	0.00	0.00	0.00	0.00	11.50	0.00	12.12	1.29	0.00	0.00	0.00	0.00	2.06	22.45	0.00	0.00	49.42
14-Jan-20	0.00	0.00	0.00	0.00	11.68	0.00	9.28	0.22	0.00	0.00	0.26	0.00	2.80	22.73	0.00	0.00	46.97
15-Jan-20	0.00	0.00	0.00	0.00	11.02	0.00	7.45	0.39	0.00	0.00	0.23	0.00	1.88	21.65	0.00	0.00	42.62
16-Jan-20	0.00	0.00	0.00	0.00	11.60	0.00	8.34	0.13	0.00	0.00	0.63	0.62	0.87	21.98	0.00	0.00	44.17
17-Jan-20	0.00	0.00	0.00	0.00	6.96	0.00	9.03	0.54	0.00	0.00	0.00	0.00	1.52	22.18	0.00	0.00	40.23
18-Jan-20	0.00	0.00	0.00	0.00	11.41	0.00	9.70	0.54	0.00		0.00	0.00	1.27	22.85	0.00	0.00	45.77
19-Jan-20	0.00	0.00	0.00	0.00	9.72	0.00	10.21	0.48	0.00		-0.14	0.00	1.12	22.84	0.00	0.00	44.23
20-Jan-20	0.00	0.00	0.00	0.00	10.87	0.00	11.50	0.00	0.00	0.00	0.00	0.00	0.86	23.04	0.00	0.00	46.27
21-Jan-20	0.00	0.00	0.00	0.00	10.65	0.00	10.24	0.33	0.00	0.00	0.00	0.00	0.97	22.91	0.00	0.00	45.10
22-Jan-20	0.00	0.00	0.00	0.00	9.78	0.00	7.14	0.00	0.15	0.50	0.13	0.00	0.77	22.79	0.00	0.00	41.26
23-Jan-20	0.00	0.00	0.00	0.00	10.08	0.00	2.85	0.00	0.00	0.31	0.06	0.00	1.26	21.82	0.00	0.00	36.38
24-Jan-20	0.00	0.00	0.00	0.00	11.18	0.00	8.62	0.11	0.00	0.00	0.11	0.00	0.82	22.93	0.00	0.00	43.77
25-Jan-20	0.00	0.00	0.00	0.00	11.90	0.00	2.19	0.24	0.00	0.00	0.16	0.00	1.37	23.05	0.00	0.00	38.91
26-Jan-20	0.00	0.00	0.00	0.00	11.88	0.00	4.76		0.00		0.11	0.00	1.76	22.84	0.00	0.00	41.35
27-Jan-20	0.00	0.00	0.00	0.00	11.52	0.00	10.11	0.06	0.00	0.00	0.00	0.00	1.45	22.96	0.00	0.00	46.10
28-Jan-20	0.00	0.00	0.00	0.00	11.62	0.00	9.10	0.00	0.00	0.00	0.03	0.00	1.39	22.92	0.00	0.00	45.06
29-Jan-20	0.00	0.00	0.00	0.00	14.46	0.00	11.27	0.90	0.00	0.27	0.14	0.88	1.87	23.00	0.00	0.00	52.79
30-Jan-20	0.00	0.00	0.00	0.00	11.49	0.00	12.13	1.58	0.00	0.01	0.06	0.00	1.63	23.02	0.00	0.00	49.92
31-Jan-20	0.00	0.00	0.00	0.00	11.70	0.00	11.28	0.23	0.00	0.00	0.00	0.00	1.36	22.75	0.00	0.00	47.32
Total	0.00	0.00	0.00	0.00	336.23	0.00	242.96	17.90	0.15	2.45	4.15	1.50	44.51	679.92	0.00	0.16	1329.93

Date	15.2 Import-Export of NR with ER & NER during January 2020																	
	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-Jan-20	3.17	8.59	7.85	1.67	13.29	7.36	5.51		1.71	4.20	2.20	0.98		0.00	56.53	0.00	0.00	
2-Jan-20	3.53	11.35	8.12	4.77	15.59	6.21	5.39		2.20	4.57	2.54	1.77	0.96	0.00	67.00	0.00	0.00	
3-Jan-20	3.16	9.30	6.63	10.78	12.62	3.86	2.93		0.06	7.62	2.08	1.11	0.96	0.00	61.11		0.00	
4-Jan-20	3.38	9.87	6.44	11.82	13.13	5.05	2.86		0.39	4.72	2.19	1.24	0.48	0.00	61.57		0.00	
5-Jan-20	2.14	8.24	6.05	12.01	11.66	4.31	2.77		0.03	7.21	2.25	1.28		0.00	57.95	11.83	11.83	
6-Jan-20	2.86	7.23	7.85	12.35	14.02	4.32	3.75		0.58	5.02	1.95	1.48		0.00	61.41	0.00	0.00	
7-Jan-20	2.70	7.68	8.53	11.28	14.21	4.33	4.69		0.53	5.03	1.88	1.61		0.00	62.47	0.00	0.00	
8-Jan-20	0.24	4.48	8.15	12.04	16.27	2.27	6.41		0.00	5.96	1.49	2.26		0.00	59.57		0.00	
9-Jan-20	2.29	5.65	6.92	12.19	12.75	4.05	2.57		0.00	5.08	1.85	2.18	0.96	0.00	56.49		0.00	
10-Jan-20	0.00	10.14	3.12	12.08	11.74	2.96	2.68		0.00	5.08	2.02	2.67	0.96	0.00	53.45		0.00	
11-Jan-20	2.50	12.63	0.00	11.73	14.37	4.47	3.58		0.00	7.18	2.08	2.42	0.96		61.92	0.00	0.00	
12-Jan-20	4.40	15.88			15.81	9.80	6.29		2.18	6.74	2.70	2.57		0.00	66.37	0.00	0.00	
13-Jan-20	3.32	12.70	0.33		16.33	8.47	6.44		1.00	7.27	2.18	2.88		0.00	60.92	0.00	0.00	
14-Jan-20	3.55	9.64	6.74	0.00	13.35	8.20	4.67		1.38	7.19	2.37	2.04	0.48	0.71	60.32	0.00	0.00	
15-Jan-20	3.02	8.90	6.75	0.00	11.21	8.64	5.82		1.61	4.83	2.47	2.48	0.48	0.71	56.92	0.00	0.00	
16-Jan-20	0.35	9.09	6.39		11.18	8.59	6.09		2.33	4.44	2.56	2.11	0.96	0.71	54.80	0.00	0.00	
17-Jan-20	4.79	10.77	8.47		14.24	11.27	6.28		3.90	4.09	2.87	1.17			67.85	0.00	0.00	
18-Jan-20	5.38	11.62	7.35		16.04	12.42	6.47		4.37	4.14	2.99	1.08			71.86	0.00	0.00	
19-Jan-20	5.03	10.84	8.36		15.62	10.98	6.07		4.15	6.31	2.84	1.35		0.00	71.55	0.00	0.00	
20-Jan-20	5.80	11.45	9.08		17.17	11.98	6.47		4.61	4.29	2.89	1.55			75.29	0.00	0.00	
21-Jan-20	3.87	12.94	7.41	0.00	14.97	9.60	5.36		3.20	4.11	2.66	0.83		0.00	64.95	0.00	0.00	
22-Jan-20	2.40	10.25	7.21	0.00	12.95	8.75	4.51		1.28	4.49	2.69	2.67	0.48	0.00	57.68	0.00	0.00	
23-Jan-20	1.70	8.86	6.68		12.88	7.27	4.28		0.50	6.57	2.57	2.85		0.00	54.16	0.00	0.00	
24-Jan-20	3.04	11.00	8.29		15.95	9.73	4.20		1.58	6.47	2.62	2.34		0.00	65.22	0.00	0.00	
25-Jan-20	3.84	9.95	7.68		16.58	10.70	6.02		2.42	6.63	2.84	2.22		0.00	68.88	0.00	0.00	
26-Jan-20	2.88	7.95	7.05		12.95	8.13	4.20		1.18	6.85	2.51	1.76		0.00	55.46	0.00	0.00	
27-Jan-20	4.13	9.88	8.92		16.43	9.73	5.71		2.00	4.39	2.35	1.67	0.48	0.71	66.40	0.00	0.00	
28-Jan-20	4.03	8.76	7.43		14.28	8.44	4.72		1.90	4.29	2.56	2.10	0.96		59.47	0.00	0.00	
29-Jan-20	4.55	8.33	7.58		13.75	9.85	5.31		2.47	5.49	2.72	1.63		0.00	61.68	0.00	0.00	
30-Jan-20	3.96	8.48	8.19		14.33	9.03	5.25		1.67	4.64	2.66	0.07		0.00	58.28	0.00	0.00	
31-Jan-20	4.45	8.37	8.05		10.52	8.60	5.90	1.90	2.23	6.59	2.54	0.00		0.00	59.15	0.00	0.00	
Total	100.46	300.82	207.62	112.72	436.19	239.37	153.20	1.90	51.46	171.49	75.12	54.37	9.12	2.84	0.00	1916.68	11.83	11.83

Date	15.2 Import-Export of NR with ER & NER during January 2020																	
	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 Motihari - Gorakhpur Balia D/C	NR - ER 400 kV Biharshariff - Varanasi 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 Pusull - 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	Total NR-NER
1-Jan-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.65	4.95	4.95		
2-Jan-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.59	0.17	0.17		
3-Jan-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.53	0.00	0.00		
4-Jan-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0.67	0.00	0.00		
5-Jan-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68	0.68	0.00	0.00		
6-Jan-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.59	0.00	0.00		
7-Jan-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68	0.68	0.00	0.00		
8-Jan-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.77	0.00	0.00	0.00	0.00	0.68	2.45	0.00	0.00		
9-Jan-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.61	0.71	0.00	0.00		
10-Jan-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.00	0.61	0.90	0.00	0.00		
11-Jan-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.71	0.84	0.43	0.43		
12-Jan-20	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71	0.71	10.65	10.65		
13-Jan-20	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.65	12.23	12.23		
14-Jan-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.02	12.02		
15-Jan-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.00	0.48	11.87	11.87		
16-Jan-20	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.03	12.03		
17-Jan-20	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			12.37	12.37		
18-Jan-20	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	11.94		
19-Jan-20	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71	0.71	11.91	11.91		
20-Jan-20	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	11.67		
21-Jan-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71	0.71	11.26	11.26		
22-Jan-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.79	0.79	12.18	12.18		
23-Jan-20	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	12.06	12.06		
24-Jan-20	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0.67	9.54	9.54		
25-Jan-20	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.59	9.77	9.77		
26-Jan-20	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71	0.71	11.89	11.89		
27-Jan-20	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.67		
28-Jan-20	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.73	10.71	10.71		
29-Jan-20	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0.67	11.11	11.11		
30-Jan-20	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.72	12.34	12.34		
31-Jan-20	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.72	11.24	11.24		
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.29	0.00	0.00	0.00	0.48	9.25	6.75	18.77	236.01	235.58

Date	15.3 Import and Export of ER with WR & NER during January 2020																							
	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 arh - 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	WR - ER 220 KV Raigarh - Budhipadar	Total WR - ER	ER - WR 765 kV Dharamjaya arh - Ranchi 2xS/C	ER-WR 765 KV Dharamjaya arh - Jharsuguda D/C	ER - WR 400 KV Durg - Jharsuguda D/C	ER - WR 400 KV Raigarh - Jharsuguda - 2xD/C	ER - WR 220 KV Korba - Budhipadar D/C	ER - WR 220 KV Raigarh - Budhipadar	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-Jan-20	10.9	19.8	1.8	3.9	3.4	3.4	0.0	43.26	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.17	1.25	0.64	0.25	2.15	2.27	2.93	0.45	5.65
2-Jan-20	7.9	21.0	1.3	3.4	3.5	3.2	0.0	40.31	0.0	0.0	0.8	0.0	0.1	0.0	1.1	1.91	1.60	0.20	0.28	2.08	0.37	1.59	0.14	2.09
3-Jan-20	6.0	20.4	1.1	3.0	4.0	3.2	0.0	37.84	0.1	0.0	0.7	0.0	0.0	0.0	0.9	1.77	2.82	0.14	0.30	3.26	0.02	2.57	0.08	2.67
4-Jan-20	6.4	20.5	0.8	3.0	2.9	3.0	0.0	36.56	0.0	0.0	0.4	0.0	0.2	0.0	1.2	1.82	2.51	0.00	0.28	2.79	0.00	3.02	0.12	3.14
5-Jan-20	6.1	20.5	0.9	3.0	2.8	3.2	0.0	36.49	0.2	0.0	0.4	0.0	0.1	0.0	1.0	1.76	2.49	0.02	0.19	2.69	0.00	2.99	0.11	3.11
6-Jan-20	6.0	18.5	1.4	2.7	2.5	3.2	0.0	34.27	0.2	0.1	0.6	0.0	0.2	0.0	1.0	2.05	2.89	0.01	0.30	3.20	0.00	2.59	0.03	2.62
7-Jan-20	9.6	22.4	1.2	3.8	2.2	3.3	0.0	42.35	0.0	0.0	0.5	0.0	0.4	0.0	1.0	1.93	3.73	0.19	0.51	4.42	0.00	1.66	0.01	1.66
8-Jan-20	7.9	20.9	1.2	3.4	2.6	3.7	0.0	39.56	0.0	0.0	0.9	0.0	0.6	0.0	0.7	2.16	4.03	0.21	0.51	4.75	0.00	1.43	0.00	1.43
9-Jan-20	6.8	23.1	1.8	2.8	2.2	3.8	0.0	40.64	0.0	0.0	0.6	0.0	0.3	0.0	0.5	1.38	4.92	0.74	0.72	6.37	0.00	0.89	0.01	0.90
10-Jan-20	10.3	16.4	1.5	4.0	2.3	3.0	0.0	37.42	0.0	0.0	2.1	0.0	0.6	0.0	0.9	3.60	4.90	0.61	0.68	6.19	0.00	0.77	0.01	0.78
11-Jan-20	5.6	5.4	0.0	2.1	0.2	2.2	0.0	15.48	0.2	0.8	3.9	0.0	1.8	0.0	1.6	8.37	3.78	0.34	0.44	4.56	0.14	1.48	0.03	1.64
12-Jan-20	2.3	3.6	0.0	0.9	0.0	1.6	0.0	8.33	1.9	2.5	7.3	0.5	4.1	0.0	1.7	17.97	0.05	0.04	0.04	0.13	2.61	3.10	0.45	6.15
13-Jan-20	2.3	12.5	0.1	1.3	1.2	2.8	0.0	20.25	1.6	0.2	5.3	0.4	1.3	0.0	1.2	9.94	0.05	0.02	0.02	0.09	2.66	3.51	0.62	6.79
14-Jan-20	6.5	22.9	1.1	2.5	1.4	3.1	0.0	37.52	0.5	0.0	1.2	0.2	2.0	0.0	1.1	4.93	0.15	0.14	0.07	0.35	2.39	3.55	0.54	6.49
15-Jan-20	7.8	14.9	0.4	2.9	1.6	2.9	0.0	30.49	0.0	0.0	1.4	0.0	1.0	0.0	1.3	3.63	0.05	0.03	0.03	0.12	3.04	3.70	0.68	7.42
16-Jan-20	5.5	17.8	0.2	2.0	0.7	2.8	0.0	28.99	0.0	0.0	1.2	0.0	1.1	0.0	1.4	3.74	0.02	0.01	0.02	0.05	3.15	4.08	0.70	7.94
17-Jan-20	1.2	17.8	0.1	0.6	0.5	2.4	0.0	22.55	2.2	0.0	3.1	0.4	0.7	0.0	1.5	7.99	0.02	0.02	0.03	0.06	2.74	4.52	0.67	7.93
18-Jan-20	1.3	15.8	0.2	0.7	0.6	1.9	0.0	20.56	3.0	0.0	3.0	0.6	1.1	0.0	1.2	8.87	0.05	0.06	0.06	0.17	2.34	3.83	0.52	6.68
19-Jan-20	3.6	23.6	1.9	1.5	1.5	2.7	0.0	34.69	0.4	0.0	0.4	0.0	0.3	0.0	0.8	1.87	0.03	0.03	0.06	0.11	2.63	4.24	0.61	7.48
20-Jan-20	2.8	18.7	0.7	1.1	1.0	2.5	0.0	26.65	0.9	0.0	2.4	0.4	1.2	0.0	1.4	6.25	0.02	0.02	0.04	0.08	2.50	4.18	0.60	7.28
21-Jan-20	3.4	18.1	0.3	1.7	1.3	2.3	0.0	26.97	0.9	0.0	2.7	0.3	1.1	0.0	1.3	6.23	0.18	0.23	0.11	0.52	1.67	2.87	0.34	4.88
22-Jan-20	6.7	22.3	0.5	2.3	0.3	1.8	0.0	33.82	0.0	0.0	0.7	0.0	2.0	0.0	1.4	4.23	0.19	0.23	0.14	0.56	1.34	2.34	0.30	3.97
23-Jan-20	5.2	20.6	0.3	1.9	0.4	2.2	0.0	30.65	0.6	0.0	0.6	0.2	2.0	0.0	1.3	4.65	0.54	0.62	0.20	1.36	0.68	1.16	0.14	1.98
24-Jan-20	5.0	20.3	0.6	2.1	0.9	2.4	0.0	31.26	0.3	0.0	1.0	0.1	2.2	0.0	1.4	5.02	1.01	1.31	0.26	2.59	0.81	1.32	0.25	2.38
25-Jan-20	1.7	19.2	0.2	0.8	0.2	1.8	0.0	23.82	1.8	0.0	1.2	0.4	2.4	0.0	1.1	6.91	0.89	1.18	0.24	2.32	0.87	1.42	0.28	2.57
26-Jan-20	4.0	19.2	0.2	1.5	0.2	2.2	0.0	27.24	0.9	0.0	0.9	0.1	2.0	0.0	1.3	5.20	0.38	0.47	0.15	0.99	0.99	1.69	0.32	2.99
27-Jan-20	4.0	22.6	0.8	1.3	0.0	1.8	0.0	30.42	0.4	0.0	0.8	0.3	4.3	0.0	1.5	7.18	0.62	0.92	0.23	1.77	1.08	1.68	0.28	3.04
28-Jan-20	6.8	24.6	0.6	1.1	0.1	1.4	0.0	34.67	0.0	0.0	0.9	0.8	4.5	0.0	1.2	7.46	0.40	0.53	0.14	1.08	0.93	1.80	0.30	3.03
29-Jan-20	1.7	20.5	0.2	0.6	0.0	1.0	0.0	24.04	2.3	0.0	1.3	0.9	4.5	0.1	1.0	10.03	0.34	0.41	0.06	0.81	1.02	1.74	0.31	3.06
30-Jan-20	2.7	22.6	0.3	1.2	0.2	2.2	0.0	29.26	1.2	0.0	1.3	0.3	3.3	0.0	1.2	7.26	0.13	0.13	0.06	0.32	1.29	2.21	0.47	3.98
31-Jan-20	4.0	20.0	0.2	1.6	0.3	2.3	0.0	28.45	0.8	0.0	1.5	0.3	4.4	0.0	1.3	8.19	0.22	0.21	0.03	0.45	1.80	2.70	0.62	5.12
Total	161.63	586.38	21.70	64.58	41.10	79.31	0.08	954.77	20.42	3.59	49.04	6.18	49.67	0.09	36.47	165.46	40.26	9.70	6.45	56.40	39.32	77.55	9.98	126.85

Date	15.4 Import and Export of SR with ER & WR during January 2020																		
	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 2x5/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 2x5/C	SR-WR 765 kV Wardha - Nizamabad D/C	SR-WR 400KV Kolhapur-Kudgi D/C	Total SR - WR	
1-Jan-20	16.07	48.66	35.20	99.93	0.00	0.00	0.00	0.00	10.57	32.32	43.73	0.01	86.63	0.00	0.06	0.00	6.36	6.41	
2-Jan-20	16.07	44.51	37.24	97.82	0.00	0.00	0.00	0.00	12.13	35.91	49.37	0.04	97.45	0.00	0.00	0.00	5.37	5.37	
3-Jan-20	12.28	50.92	39.16	102.36	0.00	0.00	0.00	0.00	9.45	35.59	46.82	0.01	91.87	0.00	0.00	0.00	5.60	5.60	
4-Jan-20	15.17	49.65	35.00	99.82	0.00	0.00	0.00	0.00	12.07	30.86	42.60	0.03	85.56	0.00	0.05	0.00	5.94	5.99	
5-Jan-20	16.15	48.91	32.95	98.01	0.00	0.00	0.00	0.00	12.80	29.16	40.49	0.82	83.26	0.00	0.00	0.00	3.81	3.81	
6-Jan-20	16.15	49.01	30.82	95.98	0.00	0.00	0.00	0.00	14.37	25.25	39.17	0.02	78.81	0.00	0.21	0.00	4.32	4.53	
7-Jan-20	16.15	44.64	29.28	90.07	0.00	0.00	0.00	0.00	21.18	23.52	35.08	0.01	79.78	0.00	1.11	0.00	4.93	6.04	
8-Jan-20	16.15	45.54	32.73	94.42	0.00	0.00	0.00	0.00	22.12	30.11	37.84	0.13	90.21	0.00	0.02	0.00	3.55	3.57	
9-Jan-20	16.15	49.23	37.47	102.85	0.00	0.00	0.00	0.00	23.98	32.62	41.64	0.18	98.42	0.00	0.00	0.00	7.09	7.09	
10-Jan-20	16.15	15.10	38.65	69.90	0.00	0.00	0.00	0.00	23.74	35.51	40.38	0.00	99.63	0.00	0.00	0.00	6.12	6.12	
11-Jan-20	16.15	0.00	38.38	54.53	0.00	0.00	0.00	0.00	23.69	30.55	34.69	0.00	88.93	0.00	0.00	0.00	7.96	7.96	
12-Jan-20	16.15	2.15	38.74	57.04	0.00	0.00	0.00	0.00	23.27	23.31	30.31	0.00	76.89	0.00	0.95	0.00	10.39	11.34	
13-Jan-20	16.15	32.10	35.50	83.75	0.00	0.00	0.00	0.00	18.28	25.32	34.20	0.00	77.80	0.00	0.75	0.00	9.41	10.16	
14-Jan-20	16.15	45.32	37.25	98.73	0.00	0.00	0.00	0.00	19.67	23.59	35.84	0.00	79.10	0.00	0.29	0.00	8.77	9.07	
15-Jan-20	16.15	41.71	34.35	92.21	0.00	0.00	0.00	0.00	12.00	18.07	31.63	0.00	61.71	0.00	2.85	0.00	12.43	15.28	
16-Jan-20	14.64	29.51	44.38	88.53	0.00	0.00	0.00	0.00	13.21	21.93	37.75	0.00	72.89	0.00	0.51	0.00	8.45	8.95	
17-Jan-20	10.81	33.11	52.93	96.85	0.00	0.00	0.00	0.00	12.49	28.65	44.25	0.02	85.42	0.00	0.00	0.00	6.94	6.94	
18-Jan-20	12.26	35.49	54.11	101.86	0.00	0.00	0.00	0.00	12.08	30.13	42.38	0.03	84.62	0.00	0.00	0.00	6.69	6.69	
19-Jan-20	12.27	42.16	50.58	105.00	0.00	0.00	0.00	0.00	14.45	28.92	41.13	0.07	84.56	0.00	0.09	0.00	4.87	4.96	
20-Jan-20	12.19	41.22	47.20	100.62	0.00	0.00	0.00	0.00	12.72	23.47	39.07	0.05	75.31	0.00	0.69	0.00	6.99	7.68	
21-Jan-20	11.94	40.46	46.48	98.88	0.00	0.00	0.00	0.00	12.90	24.59	40.06	0.00	77.55	0.00	0.99	0.00	9.71	10.70	
22-Jan-20	12.44	38.75	47.18	98.38	0.00	0.00	0.00	0.00	15.11	21.96	38.08	0.00	75.15	0.00	1.48	0.00	12.60	14.08	
23-Jan-20	12.37	35.61	48.87	96.86	0.00	0.00	0.00	0.00	13.25	25.51	41.05	0.00	79.81	0.00	0.90	0.00	9.76	10.65	
24-Jan-20	12.33	41.85	46.71	100.89	0.00	0.00	0.00	0.00	12.00	23.51	36.98	0.00	72.50	0.00	1.14	0.00	9.82	10.96	
25-Jan-20	12.33	46.95	47.95	107.24	0.00	0.00	0.00	0.00	12.15	22.82	34.23	0.01	69.22	0.00	1.92	0.00	9.18	11.11	
26-Jan-20	12.33	41.79	44.06	98.19	0.00	0.00	0.00	0.00	16.36	21.81	32.99	0.73	71.88	0.00	1.83	0.00	4.07	5.90	
27-Jan-20	12.31	42.72	48.48	103.51	0.00	0.00	0.00	0.00	16.74	22.42	35.27	0.31	74.75	0.00	1.21	0.00	3.24	4.45	
28-Jan-20	12.28	48.30	47.51	108.09	0.00	0.00	0.00	0.00	21.82	23.74	35.39	1.11	82.05	0.00	0.45	0.00	3.08	3.53	
29-Jan-20	12.28	42.59	52.29	107.15	0.00	0.00	0.00	0.00	23.80	26.73	38.95	0.72	90.20	0.00	0.02	0.00	3.47	3.49	
30-Jan-20	12.28	47.88	47.86	108.03	0.00	0.00	0.00	0.00	23.77	25.82	41.47	0.08	91.14	0.00	0.17	0.00	4.29	4.46	
31-Jan-20	11.37	47.89	46.76	106.02	0.00	0.00	0.00	0.00	23.78	24.02	39.51	0.54	87.85	0.00	0.36	0.00	3.75	4.10	
TOTAL	433.67	1223.73	1306.09	2963.50	0.00	0.00	0.00	0.00	515.96	827.73	1202.34	4.91	2550.94	0.00	18.04	0.00	208.96	227.00	

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

अप्रैल 2019 से मार्च 2020 April 2019 to March 2020

अंतरराष्ट्रीय 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
जनवरी 2020 JAN'20	123.70	-289.87	-292.78	-0.70
कुल Total	6165.78	-1839.25	-6168.14	-7.34

* Based on daily operational data

Date	16.1 Import from neighbouring countries during January 2020 (All figures in MU)												
	Import from Bhutan						Import from Bangladesh		Import from Nepal			Import from Myanmar	
	400 kV Tala-Binaguri I,II & IV	400 kV Binaguri-Malbase	220 kV Birpara-Chuka D/C	220 kV Birpara-Malbase	400 kV Jigmeeling-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-Jan-20	2.26	0.74	0.00	0.00	2.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-Jan-20	1.49	0.34	0.00	0.00	2.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3-Jan-20	1.58	0.35	0.00	0.00	2.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4-Jan-20	1.97	0.55	0.06	0.00	2.61	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5-Jan-20	2.13	0.66	0.13	0.00	2.57	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6-Jan-20	0.82	0.38	0.00	0.00	2.57	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7-Jan-20	1.01	0.52	0.00	0.00	2.68	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8-Jan-20	1.31	0.83	0.06	0.00	2.60	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9-Jan-20	1.24	0.75	0.05	0.00	2.62	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10-Jan-20	1.35	0.86	0.10	0.00	2.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11-Jan-20	1.37	0.70	0.09	0.00	2.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12-Jan-20	1.66	1.27	0.13	0.00	2.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13-Jan-20	1.11	0.68	0.00	0.00	2.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14-Jan-20	1.54	1.15	0.00	0.00	2.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15-Jan-20	1.38	0.99	0.00	0.00	2.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16-Jan-20	1.42	1.03	0.00	0.00	2.49	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17-Jan-20	1.38	0.98	0.00	0.00	2.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18-Jan-20	1.36	0.97	0.00	0.00	2.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19-Jan-20	1.57	1.18	0.10	0.00	2.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20-Jan-20	1.40	1.00	0.00	0.00	2.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21-Jan-20	1.21	0.81	0.00	0.00	2.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22-Jan-20	1.13	0.71	0.00	0.00	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23-Jan-20	1.08	0.66	0.00	0.00	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24-Jan-20	1.07	0.66	0.00	0.00	2.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25-Jan-20	1.15	0.74	0.00	0.00	2.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26-Jan-20	1.12	0.74	0.00	0.00	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27-Jan-20	1.22	0.83	0.00	0.00	2.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28-Jan-20	1.16	0.75	0.00	0.00	1.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29-Jan-20	1.08	0.66	0.00	0.00	2.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30-Jan-20	1.00	0.58	0.00	0.00	2.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31-Jan-20	0.99	0.57	0.00	0.00	2.46	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Total	41.55	23.65	0.73	0.00	75.46	0.55	0.00	0.00	0.00	0.00	1.00	0.00	0.00

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

Date	16.2 Export to neighbouring countries during January 2020												
	(All figures in MU)							Export to Nepal			Export to Myanmar		
	Export to Bhutan						Export to Bangladesh						
	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 Suryamaninagar-Comilla D/C	132 kV Tanakpur-Mahendranagar	220 kV Muzaffarpur-Dhalkebar	From BIHAR Source	11 kV Moreh-Tamu
1-Jan-20	0.00	0.00	0.11	1.00	0.00	0.26	0.32	7.43	1.98	1.27	6.04	2.62	0.01
2-Jan-20	0.00	0.00	0.13	0.98	0.00	0.20	0.27	7.30	2.04	1.21	5.97	2.72	0.02
3-Jan-20	0.00	0.00	0.04	0.80	0.00	0.11	0.23	5.48	1.64	1.18	5.88	1.65	0.02
4-Jan-20	0.00	0.00	0.00	0.78	0.00	0.00	0.15	7.21	1.84	1.25	5.52	1.05	0.02
5-Jan-20	0.00	0.00	0.00	0.75	0.00	0.00	0.09	8.04	2.00	1.27	5.72	2.12	0.02
6-Jan-20	0.00	0.00	0.17	0.25	0.00	0.00	0.19	8.01	1.98	1.26	5.83	2.38	0.02
7-Jan-20	0.00	0.00	0.35	0.23	0.00	0.00	0.20	8.00	2.01	1.27	5.86	2.47	0.02
8-Jan-20	0.00	0.00	0.00	0.52	0.00	0.00	0.17	8.07	1.99	1.25	6.03	2.18	0.02
9-Jan-20	0.00	0.00	0.00	0.55	0.00	0.00	0.14	8.09	2.01	1.29	5.94	2.43	0.02
10-Jan-20	0.00	0.00	0.00	0.41	0.00	0.04	0.17	5.36	1.80	1.30	6.12	2.57	0.02
11-Jan-20	0.00	0.00	0.00	0.49	0.00	0.08	0.16	6.86	1.97	1.26	5.31	2.26	0.02
12-Jan-20	0.00	0.00	0.00	0.68	0.00	0.26	0.35	7.80	2.01	1.27	5.93	3.09	0.02
13-Jan-20	0.00	0.00	0.52	1.05	0.00	0.37	0.46	8.15	2.04	1.30	6.02	3.17	0.02
14-Jan-20	0.00	0.00	0.06	0.61	0.00	0.23	0.35	7.32	2.09	1.30	6.07	3.05	0.02
15-Jan-20	0.00	0.00	0.06	0.81	0.00	0.23	0.35	7.84	2.07	1.17	5.89	1.09	0.02
16-Jan-20	0.00	0.00	0.06	0.80	0.00	0.00	0.34	7.83	2.07	1.14	5.60	1.59	0.02
17-Jan-20	0.00	0.00	0.05	0.78	0.00	0.26	0.31	5.31	1.82	1.11	5.19	0.37	0.02
18-Jan-20	0.00	0.00	0.00	0.72	0.00	0.17	0.29	6.92	1.95	0.94	4.94	0.37	0.02
19-Jan-20	0.00	0.00	0.00	0.64	0.00	0.13	0.55	8.02	2.10	0.94	5.53	1.72	0.02
20-Jan-20	0.00	0.00	0.03	0.72	0.00	0.18	0.30	7.92	2.03	1.14	5.80	2.47	0.02
21-Jan-20	0.00	0.00	0.09	0.75	0.00	0.20	0.34	7.81	1.94	1.25	6.05	2.77	0.02
22-Jan-20	0.00	0.00	0.15	0.85	0.00	0.23	0.35	7.85	1.89	1.17	5.86	2.95	0.02
23-Jan-20	0.00	0.00	0.14	0.80	0.00	0.22	0.34	7.90	2.08	1.25	5.70	2.99	0.02
24-Jan-20	0.00	0.00	0.11	0.76	0.00	0.12	0.27	5.50	1.89	1.37	6.05	2.80	0.02
25-Jan-20	0.00	0.00	0.05	0.68	0.00	0.02	0.28	6.97	2.02	1.30	5.89	1.98	0.02
26-Jan-20	0.00	0.00	0.08	0.72	0.00	0.08	0.30	8.28	2.04	1.32	5.87	3.11	0.02
27-Jan-20	0.00	0.00	0.06	0.59	0.00	0.40	0.21	8.28	2.08	1.35	5.99	3.37	0.02
28-Jan-20	0.00	0.00	0.07	0.72	0.00	0.70	0.22	8.23	2.13	1.33	5.97	4.23	0.02
29-Jan-20	0.00	0.00	0.14	0.86	0.00	0.39	0.25	8.21	2.15	0.63	5.98	3.32	0.03
30-Jan-20	0.00	0.00	0.24	1.00	0.00	0.28	0.37	8.20	2.18	0.65	6.08	3.35	0.02
31-Jan-20	0.00	0.00	0.27	1.06	0.00	0.20	0.31	5.30	1.81	1.29	6.08	3.16	0.02
Total	0.00	0.00	2.96	22.34	0.00	5.36	8.63	229.48	61.66	37.04	180.72	75.37	0.70

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

17. एसटीओए (द्विपक्षीय एवं सामूहिक) एवं डी एस एम बिलिंग का व्योरा – माह जनवरी 2020
STOA (BILATERAL AND COLLECTIVE) & DSM BILLING DETAILS - JANUARY 2020

द्विपक्षीय एसटीओए BILATERAL SHORT TERM OPEN ACCESS

जनवरी 2020 JANUARY 2020			Apr-Mar'20	
क्षे.आ.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	647	1228	10394	23650
प.क्षे. WR	146	1504	2222	12818
द.क्षे. SR	143	702	1885	12136
पु.क्षे. ER	151	619	2497	11179
पूर्वोत्तर क्षे. NER	42	166	287	740
कुल TOTAL	1129	4219	17285	60524

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
जनवरी 2020 Jan'20	3063	4792	1129	4219
कुल TOTAL	28754	40899	17285	60524

मासिक डी एस 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
30.12.19 to 05.01.20	32.52	30.80	22.97	17.78	10.28
06.01.20 to 12.01.20	21.60	24.30	9.16	11.48	4.10
13.01.20 to 19.01.20	41.26	31.51	20.32	20.68	23.57
20.01.20 to 26.01.20	53.51	50.68	21.90	35.82	20.19
27.01.20 to 02.02.20	64.37	47.44	15.31	---	---

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 जनवरी 2020
EXCHANGES THROUGH POWER EXCHANGES -JANUARY 2020

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	0.00	152.99
2	हरियाणा Haryana		37.97	139.41
3	राजस्थान Rajasthan		200.41	303.42
4	दिल्ली Delhi		96.45	311.38
5	उत्तर प्रदेश Uttar Pradesh		162.55	133.27
6	उत्तराखण्ड Uttarakhand		17.72	98.95
7	हिमाचल प्रदेश Himachal Pradesh		130.85	38.61
8	जम्मू और कश्मीर J & K		0.61	349.19
9	केंद्र शासित चंडीगढ़ UT Chandigarh		5.67	14.81
10	ए डी हाइड्रो AD Hydro		13.37	0.00
11	कर्णधर वांगटू KW		13.30	0.00
12	श्री सीमेंट Shree Cement		5.82	0.00
13	नाथपा झाकरी Nathpa Jhakri		0.00	0.00
14	बैरासूल Bairasul 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	धौलिगंगा Dhauliganga HEP(DG0)		0.00	0.00
18	दुलहस्ती Dulahasti HEP(DU0)		0.00	0.00
19	सलाल Salal HEP(SL0)		0.00	0.00
20	सेवा -2 Sewa-II NHPC(SW2)		0.00	0.00
21	टनकपुर Tanakpur HEP(TP0)		0.00	0.00
22	ऊरी Uri HEP(URO)		0.00	0.00
23	लांकने बुधिल LANCO Budhil		0.66	0.00
24	चमेरा -3 chamera 3		0.00	0.00
25	अदानी एचवीडीएल ADANI HVDC(NORGUO)		0.00	0.00
26	मलाना MALANA		0.00	0.00
27	ऊरी-II Uri-II HEP(UR2)		0.00	0.00
28	पार्बति -III Parbati-III		0.00	0.00
29	सिंगराली Singrauli		7.93	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		0.45	0.00
36	रिहंद -II Rihand STPS-II		0.00	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		11.37	0.00
40	दादरी गैस Dadri GPP		0.00	0.00
41	ओरिया 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 एचडीपी रामपुर 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 Koteshwar		0.00	0.00

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

POWER MARKET INFORMATION (Source IEX & PXIL)

पावर एक्सचेंज के माध्यम से विनियम - माह जनवरी 2020

EXCHANGES THROUGH POWER EXCHANGES -JANUARY 2020

क्र. स. S. No.	क्षेत्रीय इकाई Regional Entity	क्षेत्र Region	पावर एक्सचेंज के माध्यम से (भि.गु. मे) Through Power Exchange in MU	
			विक्रय Sale	क्रय Purchase
48	मध्य प्रदेश MP	पश्चिमी क्षेत्र WR	493.24	9.36
49	महाराष्ट्र Maharashtra		18.77	435.65
50	गुजरात Gujarat		16.84	525.95
51	छत्तीसगढ़ Chhattisgarh		119.39	134.38
52	गोवा Goa		31.80	7.12
53	दमन और दीव Daman and Diu		0.00	42.05
54	दादरा और नगर हवेली Dadra & Nagar Haveli		0.01	87.79
55	जिंदल Jindal		36.97	0.00
56	लांके अमरकंटक LANCO AMK		0.00	0.00
57	आर्बन कॉल ACB India Limited		18.67	0.00
58	जिंदल स्टील एंड पावर Jindal Steel and Power Ltd		28.38	0.00
59	बालको -2 Balco-II		0.20	0.00
60	स्टर्लाइट Sterlite(w3rse0)		0.00	0.00
61	एमको EMCO		0.82	0.00
62	वन्दना विधुत VANDANA VIDYUT		0.00	0.00
63	एस्सार पावर ESSAR POWER		45.70	0.00
64	एस्सार स्टील ESSAR STEEL		0.00	3.19
65	के एस के महानदी KSK Mahanadi		0.00	0.00
66	जिंदल स्टेज-II Jindal Stg-II		73.92	0.00
67	कोरबा (प.) Korba(W) Comp. Ltd.		78.12	0.00
68	डी बी पावर D B Power		138.10	0.00
69	धारिवाल Dharival		0.22	0.00
70	जे पी निग्री Jaypee Nigire		171.66	0.00
71	जी एम आर छत्तीसगढ़ GMR Chhattisgarh		374.35	0.00
72	डी जीडीएन मेगा पावर DGEN Mega Power		0.00	0.00
73	एम बी मेंगा पावर MB Power		211.68	0.00
74	एपीएल मुंद्रा स्टेज-I APL Mundra Stg-I		0.00	0.00
75	एपीएल मुंद्रा स्टेज-II APL Mundra Stg-II		328.11	0.00
76	एपीएल मुंद्रा स्टेज-III APL Mundra Stg-III		81.66	0.00
77	टोरेंट सुगेन Torrent Sugen		0.00	0.00
78	मारुति कॉल Maruti Coal		48.73	0.00
79	स्पेक्ट्रम Spectrum		59.70	0.00
80	झाबुआ पावर Jhabua Power		28.89	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		1.57	0.00
84	विंध्याचल -IV VindhyaChal Stg-IV		6.82	0.00
85	विंध्याचल -V VindhyaChal Stg-V		1.51	0.00
86	मौदा-I Mouda STPS Stg-I		0.07	0.00
87	सीपत- I Sipat Stg-I		0.00	0.00
88	सीपत- II Sipat Stg-II		0.24	0.00
89	सासन Sasan UMPP		0.00	0.00
90	एनएसपीएल NSPCL		0.00	0.00
91	कोरबा-III Korba-III		16.87	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		7.23	0.00
95	आरक्षेपम पावरजेन RKM Power Gen		0.00	0.00
96	कवास Kawas		0.00	0.00
97	मौदा-II Mouda STPS Stg-II		0.29	0.00
98	एसकेएस पावरजेन SKS Powergen		37.30	0.00
99	शोलापुर एसटीपीपी Sholapur STPP		0.00	0.00
100	रत्नगिरी गैस पावर प्राइवेट लिमिटेड RGPLL		0.00	0.00
101	गदरवाड़ा Gadarwara		0.00	0.00
102	लारा-II LARA-II		0.15	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 विनियमय – माह जनवरी 2020

EXCHANGES THROUGH POWER EXCHANGES -JANUARY 2020

क्र. स. S. No.	स्थानीय इकाई Regional Entity	क्षेत्र Region	पावर एक्सचेंज के माध्यम से (मि.यु.मे) Through Power Exchange in MU	
			विक्रय Sale	क्रय Purchase
103	आंध्र प्रदेश Andhra Pradesh	दक्षिणी क्षेत्र SR	20.22	130.78
104	कर्नाटक Karnataka		48.98	105.03
105	केरल Kerala		3.35	63.38
106	तमिलनाडु Tamilnadu		5.66	382.14
107	पौण्डिचेरी Pondicherry		0.00	0.00
108	गोवा Goa		0.00	0.00
109	लांको कॉडापल्ली LANCO_KONDPLY		0.00	0.00
110	सिम्हापुरी SIMHAPURI		0.00	0.00
111	मीनाक्षी MINAXI		0.00	0.00
112	तेलंगाना TELANGANA		5.91	920.41
113	थर्मल पावर टेक Thermal Power Tech		87.73	0.00
114	कोस्टल इनरजेन Coastal Energen		0.00	0.00
115	आइ एल & एफ ऐएस IL&FS		11.48	0.00
116	सिंहाद्री -II Simhadri Stg-II		0.44	0.00
117	एनएलसी -I विस्तार NLC TPS-I (Exp)		25.12	0.00
118	एनएलसी -II स्टेज-II NLC TPS-II Stg-I		21.81	0.00
119	एनएलसी -II स्टेज-III NLC TPS-II Stg-II		33.66	0.00
120	लांको कॉडापल्ली स्टेज-III LANCO_KONDPLY STG III		0.00	0.00
121	रामागृहम -I Ramagundam Stg-I		3.15	0.00
122	तालचर -II Talcher Stg-II		2.94	0.00
123	रामागृहम -III Ramagundam Stg-III		0.82	0.00
124	एसजीपीएल Sembcorp Gayatri Pvt. Ltd.		527.61	0.00
125	एनटीईसीएल वल्लूर NTECL Vallur		0.00	0.00
126	कुडगी Kudgi		0.00	0.00
127	सिंहाद्री -I Simhadri Stg-I		0.00	0.00
128	एनएलसी ईपीएस -II एक्स्प्र NLC TPS-II EXP		5.13	0.00
129	एन टी पी एल NTPL		0.16	0.00
130	एस वी जी क्लीनेटेक SBG Cleantech		0.00	0.00
131	पश्चिम बंगाल West Bengal	पूर्वी क्षेत्र ER	50.68	88.83
132	ଓଡିଶା Odisha		219.90	28.18
133	बिहार Bihar		31.82	206.79
134	झारखण्ड Jharkhand		36.42	12.67
135	सिक्किम Sikkim		9.31	0.00
136	दामोदर घाटी परियोजना DVC		3.69	0.00
137	स्टरलाइट STERLITE		0.00	0.00
138	मैथन पावर लिमिटेड Maithon P. Ltd		0.00	0.00
139	आधुनिक पा. लिमिटेड Adhunik P.Ltd		1.28	0.00
140	चुजाचेन Chuzachen HEP		1.20	0.00
141	रंगित Rangit HEP		0.00	0.00
142	तीस्ता Teesta HEP		0.00	0.00
143	जीएमआर कमलंगा GMR Kamalanga		3.41	0.00
144	जिंदत आई पी टी एल JIPTL		63.99	0.00
145	जोरेथांग Jorethang		12.10	0.00
146	फराक्का-III Farakka-III		9.84	0.00
147	बाथ-II Barh Stage-II		0.00	0.00
148	कहलगाँव -II Kahalgaon Stage-II		0.00	0.00
149	फराक्का Farakka		0.00	0.00
150	कहलगाँव Kahalgaon		0.00	0.00
151	तालचर Talcher		0.00	0.00
152	तीस्ता -III Teesta-III		121.25	0.00
153	दिक्खु Dikchu HEP		6.98	0.00
154	ताशिदिङ Tashiding HEP		10.78	0.00
155	बीआरबीसीएल BRBCL		0.40	0.00
156	केमीयूएनएल KBUNL		0.00	0.00
157	ओपीजीसी युनिट-IV OPGC UNIT-IV		0.00	0.00
158	अरुणाचल प्रदेश Arunachal Pradesh	पूर्वोत्तर क्षेत्र NER	2.26	0.28
159	असम Assam		136.42	33.27
160	मणिपुर Manipur		21.81	0.40
161	मेघालय Meghalaya		0.00	30.41
162	मिजोरम Mizoram		7.90	0.00
163	नागालैंड Nagaland		0.00	1.62
164	त्रिपुरा Tripura		46.71	0.00
165	अगरतला जटीपीपी Agartala GTTPP_AGO		0.00	0.00
166	कोपिली KOPILI_KP1		0.00	0.00
167	असम जीबीपी Assam GBPP_KTO		0.00	0.00
168	लोकटक LOKTAK		0.00	0.00
169	रंगनदी Ranganadi		0.00	0.00
170	दोयांग Doyang		0.00	0.00
171	पलाताना Palatana		2.88	0.00
172	कोपिली -II Kopili-II		0.00	0.00
173	खड्गीग कhandong		0.00	0.00
174	बोंगाइङाव Bongaigaon TPP		3.42	0.00
175	पारे PARE		0.00	0.00
कुल Total			4792	4792

19. RENEWABLE ENERGY CERTIFICATE MECHANISM
MONTH : JANUARY 2020

RE Source & Unit wise break up (01.01.2020-31.01.2020)

Sr.No	Source Wise	Accreditation		Registration	
		Capacity (MW)	Unit	Capacity (MW)	Unit
1	Wind	57	6	9	3
2	Urban or Municipal Waste	0	0	0	0
3	Solar Thermal	0	0	0	0
4	Solar PV	1	1	36	5
5	Small Hydro	0	0	3	1
6	Others	0	0	0	0
7	Geothermal	0	0	0	0
8	Biomass	0	0	0	0
9	Bio-fuel cogeneration	43	4	20	2
	Total	101	11	68	11

RECs Issued (01.01.2020-31.01.2020)

Sr.No.	Non Solar	Solar	Total
1	541222	72554	613776

Redemption of REC (01.01.2020-31.01.2020)

Sr.No.	Non Solar	Solar	Total
1	495610	76596	572206

19. RENEWABLE ENERGY CERTIFICATE MECHANISM
MONTH : JANUARY 2020

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

Sr.No	Source Wise	Accreditation		Registration	
		Capacity (MW)	Unit	Capacity (MW)	Unit
1	Wind	568	58	537	62
2	Urban or Municipal Waste	0	0	0	0
3	Solar Thermal	0	0	0	0
4	Solar PV	155	65	159	61
5	Small Hydro	30	3	54	6
6	Others	3	1	3	1
7	Geothermal	0	0	0	0
8	Biomass	28	4	24	3
9	Bio-fuel cogeneration	105	12	69	9
	Total	889	143	846	142

RECs Issued (Apr-Mar'20)

Sr.No.	Non Solar	Solar	Total
1	4654500	746268	5400768

Redemption of REC (Apr- Mar'20)

Sr.No.	Non Solar	Solar	Total
1	5216122	972787	6188909

19. RENEWABLE ENERGY CERTIFICATE MECHANISM
MONTH : JANUARY 2020

RE Source & Unit wise break up Since Inception to January'20

Sr.No	Source Wise	Accreditation		Registration	
		Capacity (MW)	Unit	Capacity (MW)	Unit
1	Wind	2656	472	2611	471
2	Urban or Municipal Waste	0	0	0	0
3	Solar Thermal	0	0	0	0
4	Solar PV	813	379	798	374
5	Small Hydro	250	37	250	37
6	Others	4	2	3	1
7	Geothermal	0	0	0	0
8	Biomass	480	44	416	39
9	Bio-fuel cogeneration	834	92	345	52
	Total	5037	1026	4423	974

RECs Issued since Inception to January'20

Sr.No.	Non Solar	Solar	Total
1	49797621	9478490	59276111

Redemption of REC since Inception to January'20

Sr.No.	Non Solar	Solar	Total
1	48410170	9446099	57856269

REC Closing balance as on 31.01.2020

Sr.No.	Non Solar	Solar	Total
1	1387451	32391	1419842

20. IMPORTANT GRID EVENTS / DISTURBANCES

Northern Region-Grid Event Report for January 2020																	
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) 220 KV Debari(RS)-RAP5_A(NP) (RS) Ckt-1 2) 220 KV RAPS_B(NP)-Debar(RS) (PG) Ckt-1	RAJASTHAN	POWERGRID, RRVPNL	1-Jan-20	20:20	1-Jan-20	21:50	01:30	All 220kV lines and ICTs at 220kV Debari(RS) tripped due to Y-Ph, CT blast of 220kV Debari-Madri line at Debari end. As per PMU, Y-N fault with delayed clearance is observed in the system. In antecedent conditions, 220kV Debari-Amberi, 220kV Debari-Chittorgarh, 220kV Debari-RAPP A carrying 14MW, 82MW & 45MW respectively.	0	90	GD-1	0.14			
2	NR	1) 220 KV Mohana(HV)-Sonipat(PG) (HVPNL) Ckt-1 2) 220 KV Mohana(HV)-Sonipat(PG) (HVPNL) Ckt-2	HARYANA	HVPNL	2-Jan-20	09:55	2-Jan-20	11:32	0.07	220 KV Mohana(HV)-Sonipat(PG) (HVPNL) Ckt-1 & 2 tripped due R & Y- Phase CT of 220kV Mohana - Sampla ckt-2 damaged at Mohana end. As per PMU, R-N fault followed by R-Y fault with delayed clearance is observed in the system. In antecedent conditions, 220 KV Mohana(HV)-Sonipat(PG) (HVPNL) Ckt-1 & 2 carrying 137MW & 131MW respectively.	0	150	GD-1	0.23			
3	NR	1) 220KV Samba(PG)-Hiranganj(PDD) (PG) Ckt-1 2) 220/132KV ICT 1 & ICT 2 at 220KV Hiranganj(JK)	J & K	POWERGRID	2-Jan-20	11:10	2-Jan-20	16:05	04:55	R-phase jumper snapped resulted in bus fault at 220kV Hiranganj(JK) and subsequent bus bar protection operation. This resulted in tripping of 220/132KV ICT 1 & ICT 2 at 220KV Hiranganj(JK) and load loss of approx 200MW. As per PMU, R-B fault with delayed clearance is observed in the system. In antecedent conditions, 220KV Samba(PG)-Hiranganj(PDD) (PG) Ckt-1 carrying 193MW.	0	200	GD-1	0.23			
4	NR	1) 400kV Bus 1 at Banda(UP) 2) 400 KV Banda-Orail (UP) Ckt-2 3) 400 KV Obra, B-Rewa Road (UP) Ckt-1 4) 400 KV Rewa Road-Masoli (UP) Ckt-1 5) 400 KV Rewa Road-Panki (UP) Ckt-1 6) 400 KV Banda-Rewa Road (UP) Ckt-1 7) 400/220 KV 315 MVA ICT 1 at Rewa Road(UP) 8) 400/220 KV 315 MVA ICT 2 at Rewa Road(UP) 9) 63 MVAR Bus Reactor No 1 at 400KV Banda(UP)	UTTAR PRADESH	UPPTCL	11-Jan-20	02:38	11-Jan-20	04:24	01:46	Due to 400kV Banda-Orail ckt 2 tie CB CT busted at Banda end, caused tripping of 400kV Bus 1 and 400kV Banda-Rewa road ckt 1 on Bus bar protection. Whereas at Rewa road, all the 400kv elements along with ICTs are connected on Bus 1 only, due to blast of CT at Banda, Bus 1 along with ICTs tripped on Bus bar protection at Rewa road. As per PMU, B-N followed by Y-N fault is observed in the system.	0	0	GI-2	0.00			
5	NR	1) 400 KV Chamera_2(NH)-Chamera_1(NH) (PG) Ckt-1 2) 400 KV Chamera_2(NH)-Kishenpur(PG) (PG) Ckt-1 3) 220 KV Wagpora(PG)-Pampore(PDD) (PDD JK) Ckt-2 4) 220 KV Wagpora(PG)-Pampore(PDD) (PDD JK) Ckt-1	J & K	PDD JK, POWERGRID	13-Jan-20	13:21	13-Jan-20	14:14	00:53	220 KV Wagpora(PG)-Pampore(PDD) (PDD JK) Ckt-1 & 2 tripped on B-N fault and 400 KV Chamera_2(NH)-Chamera_1(NH) (PG) Ckt-1, 400 KV Chamera_2(NH)-Kishenpur(PG) (PG) Ckt-1 tripped on overvoltage. As per PMU, B-N fault with delayed clearance of 560ms is observed in the system. In antecedent conditions, 220 KV Wagpora(PG)-Pampore(PDD) (PDD JK) Ckt-1 & 2 carrying 121MW & 125MW respectively.	0	300	GD-1	0.00			
6	NR	1) 220 KV Kishenganga(NH)-Wagoora(PG) (PG) Ckt-1 2) 220 KV Kishenganga(NH)-Wagoora(PG) (PG) Ckt-2	J & K	POWERGRID	16-Jan-20	09:18	16-Jan-20	10:37	01:19	220 KV Kishenganga(NH)-Wagoora(PG) (PG) Ckt-2 tripped on R-N fault and 220 KV Kishenganga(NH)-Wagoora(PG) (PG) Ckt-1 tripped on R-N fault. As per PMU, R-B fault is observed in the system. In antecedent conditions, 220 KV Kishenganga(NH)-Wagoora(PG) (PG) Ckt-1 & 2 carrying 9MW & 8MW respectively.	0	0	GI-2	0.00			
7	NR	1) 400 KV Moga-Hissar (PG) Ckt-2 2) 765/400 KV 1500 MVA ICT 1 at Moga(PG)	PUNJAB	POWERGRID	20-Jan-20	20:12	20-Jan-20	20:46	00:34	400 KV Moga-Hissar (PG) Ckt-2 & 765/400 KV 1500 MVA ICT 1 at Moga(PG) tripped due to relay maloperation. As per PMU, fluctuations observed in the phase voltages. In antecedent conditions, 765/400 KV 1500 MVA ICT 1 at Moga(PG) carrying 292MW.	0	0	GI-2	0.00			
8	NR	1) 400 KV Anpara-Sarnath (UP) Ckt-1 2) 400/220 KV 315 MVA ICT 1 at Sarnath(UP)	UTTAR PRADESH	UPPTCL	26-Jan-20	12:32	26-Jan-20	14:09	01:37	400 KV Anpara-Sarnath (UP) Ckt-1 tripped due to R-B fault. At the same time, 400/220 KV 315 MVA ICT 1 at Sarnath(UP) also tripped. As per PMU, R-B fault with delayed clearance of 400ms is observed. In antecedent conditions, 400 KV Anpara-Sarnath (UP) Ckt-1 & 400/220 KV 315 MVA ICT 1 at Sarnath(UP) carrying 405MW & 123MW respectively.	0	0	GI-2	0.00			
9	NR	1) 400/220 KV 315 MVA ICT 2 at Malerkotla(PG) 2) 400/220 KV 315 MVA ICT 3 at Malerkotla(PG)	PUNJAB	POWERGRID	27-Jan-20	14:44	27-Jan-20	18:11	03:27	220 KV BUS BAR protection operated at Malerkotla PSTCL Sub station resulting in tripping of 400/220 KV 315 MVA ICT 2 & 500MVA ICT 3 at Malerkotla(PG). As per PMU, R-N fault is observed in the system. In antecedent conditions, 400/220 KV 315 MVA ICT 2 & 500MVA ICT 3 at Malerkotla(PG) carrying 80MW & 123MW respectively.	0	300	GD-1	1.03			
10	NR	1) 400/220 KV 315 MVA ICT 2 at Malerkotla(PG) 2) 400/220 KV 500 MVA ICT 3 at Malerkotla(PG) 3) 400/220 KV 315 MVA ICT 1 at Malerkotla(PG) 4) 400 KV Ludhiana-Malerkotla (PG) Ckt-1 5) 400 KV Bareilly-Unnao (UP) Ckt-1	PUNJAB	POWERGRID	28-Jan-20	19:27	28-Jan-20	21:17	01:50	At 220kV Substation Malerkotla all 220kV elements tripped from Remote end due to damage of 220kV Dhuri 2 upper Bus Bar insulator string of R phase at 1927hrs during heavy rain and lightning. As per PMU, R-N fault with delayed clearance of around 2320ms is observed in the system. In antecedent conditions, 315 MVA ICT 1, 315 MVA ICT 2 & 500 MVA ICT 3 at 400/220KV Malerkotla(PG) carrying 75MW, 70MW & 114MW respectively.	0	250	GD-1	0.46			
11	NR	1) 400/220 KV 315 MVA ICT 1 at Chittorgarh(RS) 2) 400/220 KV 315 MVA ICT 2 at Chittorgarh(RS)	RAJASTHAN	RRVPNL	29-Jan-20	09:01	29-Jan-20	10:17	01:16	315 MVA ICT 1 & 315 MVA ICT 2 at 400/220KV Chittorgarh(RS) tripped on overloading. As per PMU, no fault is observed in the system. In antecedent conditions, 315 MVA ICT 1 & 315 MVA ICT 2 at 400/220KV Chittorgarh(RS) carrying 305MW & 300MW respectively.	0	400	GD-1	0.51			
12	NR	1) 400 KV Bareilly-Unnao (UP) Ckt-2 2) 400/220 KV 315 MVA ICT 2 at Bareilly(UP)	UTTAR PRADESH	UPPTCL	30-Jan-20	15:14	30-Jan-20	18:15	03:01	400 KV Bareilly-Unnao (UP) Ckt-2 tripped on R-B fault. At the same time, 315 MVA ICT 2 at 400/220KV Bareilly(UP) tripped due to operation of Backup Overcurrent Protection on HV side. As per PMU, R-B fault is observed in the system. In antecedent conditions, 400 KV Bareilly-Unnao (UP) Ckt-2 & 315 MVA ICT 2 at 400/220KV Bareilly(UP) carrying 254MW & 65MW respectively.	0	0	GI-2	0			

Western Region-Event Report for January 2020

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 1.400kV Bus-4 at VSTPS 2.400kV VSTPS-Sasan 3.400kV VSTPS-KSTPS 4.400kV VSTPS-Jabalpur-1 5.400kV VSTPS-Satna line-2 6.400kV Sasan-Rewa 7.VSTPS Unit-8 8.500 kV HVDC VindhyaChal Pole 1	NTPC	3-Jan-20	05:12	3-Jan-20	06:00	00:48	At 400 kV VSTPS Power station, due to heavy lightening, tracking of B-phase CT of Bus Section 2 taken place and resulted in tripping of all the elements connected to 400 kV Bus 4 on busbar differential protection operation.	300	Nil	GI-2	Nil
2	WR	Tripping of 1. 400 kV Indira Sagar(ISP)-Indore 2 2.ISP Units 5,6,7&8	NHDC	7-Jan-20	14:09	7-Jan-20	14:49	00:40	At 400 kV ISP Hydro power station, during the R-E fault on 400 kV Isp-Indore 2, ISP generating units (Unit 5,6,7&8) tripped on generator Over current protection operation. As intimated by NHDC, after the event, the Generators over current (Definite Time) relay setting is modified as 1.21in, 500msec.	495	Nil	GI-2	Nil
3	WR	Tripping of 1.400 kV Amreli Bus 2 2.400 kV Amreli-Chorania 1 3.400/220 kV Amreli ICT 1&4 4.400 kV Amreli-Jetpur 2 5.400 kV 50 MVAR Kasor 1 reactor	GETCO	8-Jan-20	11:24	8-Jan-20	12:22	00:58	At 400 kV Amreli s/s, 400 kV Bus 2 and all the elements connected to it tripped on B phase fault indication but there was no actual fault in the system. The same event recurred at 14:16 Hrs. As reported by GETCO the Central Unit of the BB relay maloperated and gave trip command even though there was no actual differential current.	Nil	Nil	GI-2	Nil
4	WR	Tripping of 1.400kV Chandrapur Bus-1&2 2.400kV Chandrapur-Bhadrawati -1,2,3&4 3.400kV Chandrapur-Parli (Girwali) 4.400kV Chandrapur-Chandrapur -1&2 5.400kV Chandrapur-Khaparkheda -2 6. ± 500kV HVDC Chandrapur-Padghe Pole-1&2 7.400/220kV Chandrapur ICTs-1&2 8.Chandrapur 210 MW Units 3&4 9.Chandrapur 500 MW Units 5&6	MSETCL	18-Jan-20	12:36	18-Jan-20	13:40	01:04	At 400 KV Chandrapur, 400kV Main Bus I & Bus II tripped simultaneously on operation of 96 trip relay (of ABB RADSS scheme) without any actual fault in the system.	1067	Nil	GD-1	Nil
5	WR	Tripping of 1. ± 800 kV HVDC Champa-Kurukshtera Poles 1&3	PGCIL	10-Jan-20	09:24	10-Jan-20	09:59	00:35	At 09:24 Hrs, 'Instability Detected' Alarm appeared in pole-3 at Kurukshtera end and pole-3 tripped on CatA2 protection . Due to improper isolation of parallel pole(pole-1), pole-1 blocked on Cat B protection. After resetting pole protection, pole-1 deblocked on 10.01.2020 at 09:59 Hrs.	Nil	Nil	GI-2	Nil
6	WR	Tripping of 1.400 kV Chakan Bus 2 2.400 kV Chakan- Pune 3.400/220 kV Chakan ICT 2	MSETCL	19-Jan-20	15:21	19-Jan-20	16:58	01:37	At 400 kV Chakan s/s,commissioning of 400/220 kV ICT-3 was in progress. For this work 400 kV spare line bay was being made ready for shifting of 400 kV Talegaon line.Trip positive extended erroneously to LBB protection scheme and resulted in tripping of 400 kV Chakan Bus 2 and all the connected elements.	Nil	Nil	GI-2	Nil
7	WR	Tripping of 1. ± 800 kV HVDC Champa-Kurukshtera Poles 1&3	PGCIL	19-Jan-20	20:45	19-Jan-20	22:25	01:40	800 kV HVDC Champa-Kurukshtera Poles 1&3 blocked on Filter power limit	Nil	Nil	GI-2	Nil
8	WR	Tripping of 1.220 kV Raigarh(PG)-Raigarh 1,2&3 2.220 kV Raigarh(PG)- Budhipadhar	PGCIL	26-Jan-19	01:58	26-Jan-19	03:31	01:33	At 400/220 kV Raigarh(PG), all 220 kV lines tripped on Over Voltage protection operation. The O/V trip for 220 kV lines were enabled on 25-01-2020 as per third party audit recommendation by CPRI. As reported by PGCIL, the same was disabled after the event.	Nil	250	GI-1	0.3875
9	WR	Tripping of 1.220 kV Ranasan Bus 1 2.220 kV Ranasan- Dehgam 1 3.220 kV Ranasan- Gandhinagar 1 4.220 kV Ranasan- Karamsad 1 5.220 kV Ranasan- Kapadvanj 1 6.220/132 kV Ranasan ICTs 1&2	GETCO	26-Jan-20	14:52	26-Jan-20	15:26	00:34	At 220 kV Ranasan s/s, during erection of new lighting doom by contract Labour, supply cable came in induction zone of 220kV Kapadvanj line-1 between BUS-A isolator B phase jumper and post insulator. This resulted in tripping of 220 kV Ranasan Bus 1 and all connected elements on Bus bar protection operation.	Nil	Nil	GI-1	Nil
10	WR	Tripping of 1.220 kV Kolhapur(MH)- Five star 1 2.220 kV Kolhapur(MH)- Ichalkaranji 1 3.220 kV Kolhapur(MH)- Bidri 4.220 kV Kolhapur(MH)- Hamidwada 5.400/220 kV Kolhapur(MH) ICTs 1&2	MSETCL	27-Jan-20	13:45	27-Jan-20	14:10	00:25	At 400/220 kV Kolhapur(MH) s/s, Yph insulator string of 220 kV Bus1 blasted and resulted in tripping of all the elements connected to 220 kV Bus 1. As the 400/220 kV 500 MVA ICT 3 was already under outage, the downstream load of 180 MW got affected.	Nil	180	GI-1	0.0750
11	WR	Tripping of 1. 220 kV Sayli-Khadoli	DNH	29-Jan-20	12:12	29-Jan-20	12:55	00:43	220 kV Vapi- Sayali line was under planned outage from 09:24 Hrs of 24-01-2020 for ULO works of 220kV Vapi-Sayali line at Vaghachipa SS of DNH. Due to tripping of 220 kV Sayali- Khadoli on R-Y fault,around 75 MW load loss at Sayali in DNH.	Nil	75	GD-1	0.0538

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 January 2020														
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	All connected elements tripped.	APTRANSCO	1-Jan-20	11:40	1-Jan-20	13:30	1 hr 50 mins	Complete outage of 220kV Bommuru SS of APTRANSCO: Bus bar protection operated resulting in complete outage of 220kV Bommuru SS. Details are awaited.	---	---	GD-1	---	
2	SR	i. 400kV Julurpadu - Manuguru (BTPS) ckt-2 Station Transformer-1 iii. 125 MVA Bus reactor	ii. TGENCO	3-Jan-20	17:15	3-Jan-20	18:04	49 mins	Complete loss of supply at 400kV Manuguru (BTPS) GS of TSGENCO: 400kV Julurpadu – Manuguru line-2 tripped on relay maloperation. BBP of Bus-1 and Bus-2 operated resulting in complete loss of supply at 400kV Manuguru station.	---	---	GD-1	---	

Eastern Region-Grid Event Report for January 2020														
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 KV Rangpo – Teesta V D/C	ISTS	5-Jan-20	20:04	5-Jan-20	22:13	02:09	Both 400 KV Teesta V – Rangpo D/C tripped from Rangpo end at 20:04 HRS on Y-N fault. Unit-III was stopped at 20:03 Hrs before the incident. No generation loss occurred at no generation at Teesta V was scheduled. However, It was observed that SF6 gas failure of Unit-III GIS circuit breaker alarm was appeared in SOE of Scada at 20:04. On preliminary investigation on the checking of purity of SF6 gas of Y-Phase detected the presence of SO2 . Both circuits were restored at 22:13hrs & 22:51hrs respectively.	0	0	GD-I	0.0000	
2	ERLDC	All five 315 MVA 400/220 KV ICTs at Rangpo 220 KV Rangpo-New Melli S/C 220 KV Rangpo-Tashiding S/C All 3 100 MVA 220/132 KV ICTs at Rangpo	ISTS	11-Jan-20	11:45	11-Jan-20	12:19	00:34	220 KV Bus II at Rangpo undershutdown. At 11:45 Hrs, 220 KV Bus I at Rangpo became dead due to operation of bus bar protection resulting tripping of all five 315 MVA 400/220 KV ICTs at Rangpo, 220 KV Rangpo-New Melli S/C, 220 KV Rangpo-Tashiding S/C and all 3 100 MVA 220/132 KV ICTs at Rangpo. Total power failure occurred at 220 KV S/S at Tashiding, New Melli and Jorethang S/S. 400 KV bus at Rangpo was in service. Power supply to Gangtok interrupted as it was being fed through 132 KV Rangpo-Gangtok D/c. No generation occurred loss at Jorethang, Tashiding and Chuzachen as no machine was running.	0	79	GD-I	0.0448	
3	ERLDC	220 KV Gaya-Sonenagar D/C	BSPTCL	13-Jan-20	00:40	13-Jan-20	01:00	00:20	At 00:40 Hrs, 220 KV Gaya-Sonenagar D/C tripped due to B-N Fault, leading to load loss of 130 MW in Aurangabad, Sonenagar, Rafiganj, Japla.	0	130	GD-I	0.0433	
4	ERLDC	400 KV DSTPS-RTPS D/C 400 KV DSTPS-Jamshedpur D/C	DVC	14-Jan-20	13:16	14-Jan-20	13:39	00:23	400 KV bus II at DSTPS was under shutdown. At 13:16 Hrs, 400 KV Bus-I of DSTPS (ANDAL) DVC tripped leading to tripping of 2 running units U1&2 (500MW each) and 400 KV DSTPS-RTPS D/C & 400 KV DSTPS-Jamshedpur D/C.	700	0	GD-I	0.0000	
5	ERLDC	220KV-NEW MELLI-TASHIDING-S/C 220KV-TASHIDING-RANGPO-S/C 220KV-NEW MELLI-JORETHANG-I	ISTS	16-Jan-20	15:48	16-Jan-20	15:58	00:10	At 15:48 hrs 220KV-NEW MELLI-TASHIDING-S/C, 220KV-TASHIDING-RANGPO-S/C, 220KV-NEW MELLI-JORETHANG-I tripped on B-N fault resulting total power failure at Tashiding S/S. There was no generation at Tashiding	0	0	GD-I	0.0000	
6	ERLDC	220KV Maithon-Kalyaneswari-D/C 400/220KV ICT-1&2 at Maithon 220KV Maithon-Dumka D/C 220KV Maithon-Dhanbad D/C	JUSNL	25-Jan-20	15:14	25-Jan-20	15:47	00:33	At 15:14 Hrs, LBB operated at 220KV Bus Coupler bay at Maithon(PG) leading to tripping of 220KV Bus-1&2, 500MVA 400/220KV ICT-1&2, 220KV Maithon-Dhanbad Ckt-1&2, 220KV Maithon-Kalyaneswari Ckt-1&2, 220KV Maithon-Dumka Ckt-1&2. Load loss of around 119MW in JSEB at Dumka, Pakur and Deoghar area.	0	119	GD-I	0.0655	

North Eastern Region-Grid Disturbances Report for January 2020

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	132 KV Balipara - Tenga line	NEEPCO & DoP Arunachal Pradesh	02-Jan-20 09:34	02-Jan-20 09:59	0:25:00	Khupi area of Arunachal Pradesh Power System and Dikshi Power Station were connected with rest of NER Grid through 132 KV Balipara - Tenga line. At 09:34 Hrs on 02.01.2020, 132 KV Balipara - Tenga line tripped. Due to tripping of this element, Khupi area of Arunachal Pradesh Power System and Dikshi Power Station were separated from rest of NER Grid and subsequently collapsed due to load generation mismatch in this area.	4	17	0.002	0.007	GD 1
2	NER	132 KV Badarpur - Kolasib line 132 KV Aizawl - Kolasib line	POWERGRID	03-Jan-20 19:06	03-Jan-20 19:36	0:30:00	Kolasib area of Mizoram Power System and Turial Power Station were connected with rest of NER Grid through 132 KV Badarpur - Kolasib line and 132 KV Aizawl - Kolasib line. At 19:06 hrs on 03.01.2020, 132 KV Badarpur - Kolasib line and 132 KV Aizawl - Kolasib line tripped. Due to tripping of these elements, Kolasib area of Mizoram Power System and Turial Power Station were separated from rest of NER Grid and subsequently collapsed due to load generation mismatch in this area.	24	9	0.012	0.005	GD 1
3	NER	132 KV Loktak- Ningthoukhong line	MSPCL	03-Jan-20 22:45	03-Jan-20 22:49	0:04:00	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 22:45 Hrs on 03.01.20, 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.	0	23	0	0.0015	GD 1
4	NER	132 KV Balipara - Tenga line	NEEPCO & DoP Arunachal Pradesh	05-Jan-20 12:51	05-Jan-20 13:21	0:30:00	Khupi area of Arunachal Pradesh Power System and Dikshi Power Station were connected with rest of NER Grid through 132 KV Balipara - Tenga line. At 12:51 Hrs on 05.01.2020, 132 KV Balipara - Tenga line tripped. Due to tripping of this element, Khupi area of Arunachal Pradesh Power System and Dikshi Power Station were separated from rest of NER Grid and subsequently collapsed due to load generation mismatch in this area.	6	20	0.003	0.01	GD 1
5	NER	132 KV Balipara - Tenga line	NEEPCO & DoP Arunachal Pradesh	08-Jan-20 09:26	08-Jan-20 09:56	0:30:00	Khupi area of Arunachal Pradesh Power System and Dikshi Power Station were connected with rest of NER Grid through 132 KV Balipara - Tenga line. At 09:26 Hrs on 08.01.20, 132 KV Balipara - Tenga line tripped. Due to tripping of this element, Khupi area of Arunachal Pradesh Power System and Dikshi Power Station were separated from rest of NER Grid and subsequently collapsed due to no source in this area.	0	19	0	0.01	GD 1
6	NER	132 KV Ningthoukhong- Churachandpur 1 & 2 lines	MSPCL	08-Jan-20 12:11	08-Jan-20 12:23	0:12:00	Churachandpur area of Manipur Power System was connected with rest of NER Grid through 132 KV Ningthoukhong- Churachandpur 1 & 2 lines.132 KV Kakching - Kongba line kept open for over-loading of 132 KV Loktak- Ningthoukhong line. At 12:11 Hrs on 08.01.20, 132 KV Ningthoukhong- Churachandpur 1 & 2 lines tripped. Due to tripping of these elements, Churachandpur area of Manipur Power System was separated from rest of NER Grid and subsequently collapsed due to no source in this area.	0	35	0	0.007	GD 1
7	NER	132 KV Doyang-Sanis line 132 Imphal-Kohima line	POWERGRID & DoP Nagaland	09-Jan-20 12:14	09-Jan-20 12:29	0:15:00	Kohima area of Nagaland Power System was connected with the rest of NER Grid through 132 KV Doyang-Sanis line and 132 Imphal - Kohima line. 132 Kohima-Karong Line was under Planned Shutdown . At 12:14 Hrs on 09.01.2020, 132 KV Doyang-Sanis line and 132 KV Imphal-Kohima line tripped. Due to tripping of these elements, Kohima area was separated from the rest of NER Grid and subsequently collapsed due to no source in this area.	0	30	0	0.008	GD 1
8	NER	132 KV Loktak- Ningthoukhong line	MSPCL	13-Jan-20 17:28	13-Jan-20 17:41	0:13:00	Ningthoukhong area of Manipur Power System was connected with rest of NER Grid through 132 KV Loktak- Ningthoukhong line. 132 KV Imphal - Ningthoukhong line & 132 KV Kakching-Kongba line kept open to avoid over-loading of 132 KV Loktak- Ningthoukhong line. At 17:28 Hrs on 13.01.20, 132 KV Loktak- Ningthoukhong line . 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.	0	60	0	0.013	GD 1
9	NER	132 KV Balipara - Tenga line	DoP AP , NEEPCO	15-Jan-20 21:48	15-Jan-20 21:53	0:05:00	Khupi area of Arunachal Pradesh Power System and Dikshi Power Station were connected with rest of NER Grid through 132 KV Balipara - Tenga line. At 21:48 Hrs on 15.01.2020, 132 KV Balipara - Tenga line tripped. Due to tripping of this element, Khupi area of Arunachal Pradesh Power System and Dikshi Power Station were separated from rest of NER Grid and subsequently collapsed due to load generation mismatch in this area.	6	22	0.001	0.002	GD 1
10	NER	132 KV Ningthoukhong- Churachandpur 1 & 2 lines	MSPCL	16-Jan-20 08:22	16-Jan-20 08:25	0:03:00	Churachandpur area of Manipur Power System was connected with rest of NER Grid through 132 KV Ningthoukhong- Churachandpur 1 & 2 lines.132 KV Kakching - Kongba line was kept open to avoid overloading of 132 KV Loktak-Ningthoukhong line At 08:22 Hrs on 16.01.20, 132 KV Ningthoukhong- Churachandpur 1 & 2 lines tripped. Due to tripping of these elements, Churachandpur area of Manipur Power System was separated from rest of NER Grid and subsequently collapsed due to no source in this area.	0	42	0	0.002	GD 1
11	NER	132 KV Mawlyndep-NEHU line 132 KV Khleihriat(MePTCL) - Khleihriat (PG) D/C lines 132 KV Panchgram- Lumshnong line , 132 KV NEHU - NEIGRIHMS line 132 KV NEHU - Mustem line	POWERGRID & MePTCL	16-Jan-20 09:11	16-Jan-20 09:27	0:16:00	Khleihriat area of Meghalaya Power System was connected with rest of NER Grid through 132 KV Mawlyndep- NEHU line , 132 KV Khleihriat (PG) D/C lines,132 KV Panchgram- Lumshnong line , 132 KV NEHU - NEIGRIHMS line & 132 KV NEHU - Mustem line . At 09:11 Hrs on 16.01.20, 132 KV Mawlyndep-Neju line , 132 KV Khleihriat(MePTCL) - Khleihriat (PG) D/C lines,132 KV Mawlyndep-NEHU line , 132 KV Khleihriat - Khleihriat (PG) D/C lines,132 KV Panchgram- Lumshnong line , 132 KV NEHU - NEIGRIHMS line & 132 KV NEHU - Mustem line tripped. Due to tripping of these elements, Khleihriat area of Meghalaya Power System was separated from rest of NER Grid and subsequently collapsed due to no source in this area.	0	75	0	0.02	GD 1
12	NER	132 KV Ranganadi - Itanagar Line 132 KV Pare - Itanagar Line	DoP AP & NEEPCO	23-Jan-20 20:00	23-Jan-20 20:36	0:36:00	Itanagar area of Arunachal Pradesh Power System was connected with rest of NER Grid through 132 KV Ranganadi - Itanagar Line and 132 KV Pare - Itanagar Line. 132 KV Lekhi - Itanagar Line was kept open to avoid overloading of 132 KV Pare-Lekhi Line. At 20:00 Hrs on 23.01.20, 132 KV Ranganadi - Itanagar Line and 132 KV Pare - Itanagar Line tripped. Due to tripping of these elements, Itanagar area of Arunachal Pradesh Power System was separated from rest of NER Grid and subsequently collapsed due to no source in this area.	0	13	0	0.008	GD 1

North Eastern Region-Grid Incidences Report for January 2020

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	AGBPP Unit 6	NEEPCO	18-Jan-20 12:09	18-Jan-20 12:45	0:36:00	AGBPP Unit 6 tripped at 12:09 Hrs on 18.01.20 due to high vibration. Revision of schedule from Block No 52 on 18.01.20.	28	0	0.020	0	GI 2
2	NER	AGBPP Unit -2	NEEPCO	21-Jan-20 16:11	21-Jan-20 17:00	0:49:00	AGBPP Unit-2 tripped at 16:11 Hrs on 21-01-20 due to pressure problem of Gas compressor . Revision done from Block No.69 on 21-01-20	28.7	0	0.020	0	GI 2

21. NEW ELEMENTS COMMISSIONED* IN JANUARY 2020

COMMISSIONING OF NEW GENERATING UNITS

REGION	S.NO.	CONSTITUENT	UNIT NAME / LOCATION	UNIT NO	CAPACITY (MW)	DATE
NR	1	CLEAN SOLAR POWER	Clean Solar Energy Power Ltd. / Bhadla (Rajasthan)		300*	16-01-2020
WR	1	RUMS	Mahindra(Solar) / MP	1	250*	03-01-2020
	2	SECI	GIWEL II(Wind) / Gujarat	1	180.6+176.4+100.8***	04-01-2020
NER	1	NEEPCO	Kameng / Arunachal Pradesh	2	150	12-01-2020
	2	NEEPCO	Kameng / Arunachal Pradesh	1	150	26-01-2020

* COD of additional 70MW capacity ** COD of additional 15MW capacity ***COD capacity

COMMISSIONING OF NEW ICTs

REGION	S.NO.	CONSTITUENT	VOLTAGE LEVEL	SUB-STATION	ICT NO	CAPACITY (MVA)	DATE
SR	1	TELANGANA	400/220	Ramadgu	1 & 2	500 (each)	29-01-2020
ER	1	PGCIL	400/220	Pusauli	2	500	16-01-2020
	2	OPTCL	400/220	Mendasal	3	315	24-01-2020
NER	1	NTPC	400/220	BgTPP	1	315	23-01-2020

COMMISSIONING OF NEW TRANSMISSION LINES

REGION	S.NO.	CONSTITUENT	LINE NAME	CKT NO	VOLTAGE (kV)	DATE
ER	1	ATL	400kV Alipurduar - Binaguri	3 & 4	400	16-01-2020

LILO OF TRANSMISSION LINES

REGION	SL. NO.	CONSTITUENT	LINE NAME	LILO AT	VOLTAGE (kV)	DATE

COMMISSIONING OF BUS/LINE REACTORS

REGION	SL. NO.	CONSTITUENT	SUB-STATION	VOLTAGE LEVEL	CAPACITY (MVAR)	DATE
ER	1	PGCIL	Subhashgram	400	125	11-01-2020
	2	PGCIL	Barh	400	80	28-01-2020
SR	2	PGCIL	Yelahanka	400	63	11-01-2020

COMMISSIONING OF FACTS DEVICE/SYSTEM

REGION	SL. NO.	NAME	SUB-STATION/CONSTITUENT	RATINGS	VOLTAGE (kV)	DATE

*Includes first time charging (FTC) as well

22. Voltage Profile

विद्युत विभाग रूपरेखा माह - जनवरी 2020

VOLTAGE PROFILE - January 2020

Date of reporting: 05-Feb-20

क्र.सि. सि. No.	वात्र REGION	उपर्कद 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	पूर्ण क्षेत्र ER	अंगुल ANGUL	0%	100%	0%	0%	0	797	763	783
2		गया GAYA	0%	100%	0%	0%	0	792	754	776
3		जारसुगुडा JHARSUGUDA	0%	87%	13%	13%	99	808	774	794
4		रांची RANCHI	0%	100%	0%	0%	0	794	763	782
5		सासाराम SASARAM	0%	100%	0%	0%	0	797	742	765
1	उत्तरी क्षेत्र NR	आगरा AGRA	0%	100%	0%	0%	1	806	750	782
2		आगरा (फेटेहाबाद) AGRA (FATEHABAD)	0%	87%	13%	13%	94	810	734	787
3		अनंपरा ली ANPARA-C	0%	100%	0%	0%	0	781	758	769
4		अनंपरा ली ANPARA-D	0%	100%	0%	0%	0	782	757	769
5		अंटा ANTA	0%	100%	0%	0%	0	799	757	782
6		बालिया BALLIA	0%	100%	0%	0%	0	795	752	777
7		बिहारी BHIWANI	0%	98%	2%	2%	11	810	750	785
8		बरेती BAREILLY	0%	81%	19%	19%	139	809	759	791
9		फलिपुर FATEHPUR	0%	100%	0%	0%	0	796	734	768
10		गोटर नोडा GREATER NOIDA	0%	86%	14%	14%	106	813	756	791
11		जाटिकरा JHATIKARA	0%	99%	1%	1%	5	806	744	784
12		कानपुर जीआईएस KANPUR GIS	0%	100%	0%	0%	0	799	756	781
13		लखनऊ LUCKNOW	0%	95%	5%	5%	34	804	761	787
14		ललितपुर LALITPUR	0%	99%	0%	1%	5	816	720	773
15		मेरठ MEERUT	0%	98%	2%	2%	17	812	741	784
16		मोगा MOGA	0%	100%	0%	0%	0	804	742	775
17		फागी PHAGI	0%	100%	0%	0%	0	805	751	783
18		वाराणसी VARANASI	0%	100%	0%	0%	0	798	759	782
19		उन्नामा UNNAO	0%	100%	0%	0%	0	789	746	770
1	पश्चिमी क्षेत्र WR	अकोला AKOLA	0%	100%	0%	0%	0	792	750	773
2		ओरांगाबाद AURANGABAD	0%	100%	0%	0%	0	801	748	780
3		भोपाल (बीटीटीसीएस) BHOPAL (BDTCL)	0%	100%	0%	0%	0	791	750	774
4		बिलासपुर BILASPUR	0%	100%	0%	0%	0	790	759	776
5		बीना BINA	0%	100%	0%	0%	0	798	756	782
6		चांगा CHAMPA	0%	98%	2%	2%	12	801	769	787
7		धारमजगहा DHARAMJAIGARH	0%	100%	0%	0%	0	793	751	773
8		धुले (बीटीटीसीएस) DHULE (BDTCL)	0%	100%	0%	0%	0	797	740	774
9		एकतरी EKTUNI	0%	100%	0%	0%	0	794	747	774
10		ग्वालियर GWALIOR	0%	100%	0%	0%	1	806	753	784
11		इंदौर INDORE	0%	100%	0%	0%	0	795	747	771
12		जबलपुर JABALPUR	0%	100%	0%	0%	0	800	759	785
13		कोरडी KORADI	0%	100%	0%	0%	0	779	746	765
14		पुणे PUNE	0%	100%	0%	0%	0	800	751	782
15		रायगढ़ पॉलिंग RAIGARH POOLING	0%	100%	0%	0%	0	800	769	786
16		रायपुर-पॉलिंग RAIPUR POOLING	0%	100%	0%	0%	0	795	759	780
17		सासान SASAN	0%	100%	0%	0%	0	786	759	772
18		सतना SATNA	0%	100%	0%	0%	0	793	755	777
19		सिनोनी SEONI	0%	100%	0%	0%	0	800	754	782
20		सीपात SIPAT	0%	100%	0%	0%	0	788	760	776
21		सोलापुर SOLAPUR	0%	98%	2%	2%	17	805	750	786
22		तामनार TAMNAR	0%	100%	0%	0%	0	798	771	786
23		तिरोडा TIRORA	0%	100%	0%	0%	0	770	748	761
24		वडोदरा VADODARA	0%	100%	0%	0%	0	798	760	782
25		विद्युत्यांक पॉलिंग VINDHYACHAL PS	0%	100%	0%	0%	0	786	761	774
26		वर्धा WARDHA	0%	100%	0%	0%	1	804	749	782
1	दक्षिणी क्षेत्र SR	कुर्नुल KURNOOL	0%	100%	0%	0%	0	797	739	775
2		नेल्लूर-पॉलिंग NELLORE PS	0%	100%	0%	0%	0	794	746	772
3		रायपुर RAICHUR	0%	100%	0%	0%	0	797	742	778
4		निजामाबाद NIZAMABAD	0%	95%	5%	5%	34	813	746	784
5		श्रीकाकुलम SRIKAKULAM	0%	94%	6%	6%	43	813	748	785
6		थिरुवाळम THIRUVALEM	0%	99%	1%	1%	4	802	734	777
1	पूर्वी क्षेत्र NER	अजारा AZARA (400 kV)	0%	100%	0%	0%	0	414	405	410
2		बालिपारा BALIPARA (400 kV)	0%	100%	0%	0%	1	421	396	410
3		विद्युत्यांक चारिओडी BISWANATH CHARIALI (400 kV)	0%	100%	0%	0%	0	421	395	408
4		बोंगाइगांव BONGAIGAON (400 kV)	0%	100%	0%	0%	0	416	374	409
5		बोंगाइगांव टीपोली BONGAIGAON TPS (400 kV)	0%	100%	0%	0%	0	418	400	411
6		बैर्निहाट BYRNihat (400 kV)	0%	100%	0%	0%	0	414	405	410
7		पालाटाना PALATANA (400 kV)	0%	98%	2%	2%	12	421	406	415
8		रंगनाडी RANGANADI (400 kV)	0%	64%	36%	36%	266	431	386	417
9		मिसा MISA (400 kV)	0%	100%	0%	0%	2	422	398	411
10		सिल्चर SILCHAR (400 kV)	0%	98%	2%	2%	15	421	398	411

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 January-2020

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
Inter Regional Elements									
1	Bhadrawati Pole-I	HVDC	WR/SR	TS	01-01-2020 00:00	Tripped due to failure of west side Y-Phase 234MVA Converter Transformer	05-01-2020 08:19	104:19:00	1
2	Bhadrawati Pole-I	HVDC	WR/SR	TS	19-01-2020 05:58	Asymmetric fault; dc voltage amplifier card replaced in pole-01 protection panel.	19-01-2020 11:50	5:52:00	2
3	Bhadrawati Pole-I	HVDC	WR/SR	TS	22-01-2020 11:43	Asymmetric fault	22-01-2020 18:25	6:42:00	3
4	Bhadrawati Pole-I	HVDC	WR/SR	TS	23-01-2020 02:31	Asymmetric fault at Bhadrawati S/S	24-01-2020 18:34	40:03:00	4
5	Bhadrawati Pole-I	HVDC	WR/SR	TS	25-01-2020 02:08	Asymmetric fault	25-01-2020 19:10	17:02:00	5
6	Bhadrawati Pole-II	HVDC	WR/SR	TS	03-01-2020 03:46	Internal minor alarm during tripping of Bhadrawati-Ramagundam Ckt#1	03-01-2020 07:34	3:48:00	1
7	Bhadrawati Pole-II	HVDC	WR/SR	TS	27-01-2020 09:34	Thyristor failure	27-01-2020 14:40	5:06:00	2
8	Biswanath Chariali-Agra Line-I	HVDC	NER/NR	MO	01-01-2020 00:00	Kept out under system constraint	11-01-2020 22:33	262:33:00	0
9	Biswanath Chariali-Agra Line-II	HVDC	NER/NR	MO	01-01-2020 10:52	Blocked to reverse power flow from BNC to Agra	01-01-2020 20:44	9:52:00	0
10	Biswanath Chariali-Agra Line-II	HVDC	NER/NR	MO	02-01-2020 00:10	Pole blocked on system high voltage.	01-02-2020 00:00	719:50:00	0
11	Champa-Kurushetra pole-I	HVDC	WR/NR	TS	10-01-2020 09:25	Blocked due to instability alarm	10-01-2020 09:59	0:34:00	1
12	Champa-Kurushetra pole-I	HVDC	WR/NR	TS	19-01-2020 20:44	Pole Block due to Filter Power Limit	19-01-2020 22:25	1:41:00	2
13	Champa-Kurushetra pole-II	HVDC	WR/NR	TP	09-01-2020 11:23	Maloperation of lane 1.	09-01-2020 12:00	0:37:00	1
14	Champa-Kurushetra pole-II	HVDC	WR/NR	SE	16-01-2020 13:48	Minor sparking observed on tubular corona ring of valve module of y phase in pole-2 valve hall at kurukshetra end	16-01-2020 16:55	3:07:00	1
15	Champa-Kurushetra pole-II	HVDC	WR/NR	SC	30-01-2020 08:00	Pole-4 commissioning works	01-02-2020 00:00	40:00:00	1
16	Gazuwaka Pole-I	HVDC	ER/SR	SE	31-01-2020 14:51	blocked due to severe humming noise from converter transformers/reactors and power fluctuations in 400 kv jeyapore-gazuwaka d/c line	31-01-2020 17:14	2:23:00	0
17	HVDC Agra-Alipurduar Line-3	HVDC	NR/ER	MO	01-01-2020 00:00	Hvdc pole-3 blocked at apd & agra to facilitate power reversal from agra to bnc	01-01-2020 11:37	11:37:00	0
18	HVDC Agra-Alipurduar Line-3	HVDC	NR/ER	MO	06-01-2020 22:04	Pole blocked on system high voltage.	01-02-2020 00:00	601:56:00	0
19	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	06-01-2020 13:28	877:28:00	0
20	HVDC Agra-Alipurduar Line-4	HVDC	NR/ER	MO	11-01-2020 21:50	Pole 4 blocked at APD & Agra to facilitate power reversal from Agra to BNC	01-02-2020 00:00	482:10:00	0
21	Mundra-Mahendragarh-Pole-I	HVDC	WR/NR	SO	12-01-2020 13:41	Water leakage arresting inside valve hall pole-2	12-01-2020 17:07	3:26:00	0
22	Talcher-Kolar Pole-I	HVDC	ER/SR	SO	10-01-2020 07:33	Amp work	13-01-2020 14:15	78:42:00	0
23	Talcher-Kolar Pole-I	HVDC	ER/SR	SO	18-01-2020 08:33	RVO mode due to heavy fog & chattering sound observed at talcher end.	18-01-2020 11:01	0:29:36	0
24	Talcher-Kolar Pole-II	HVDC	ER/SR	SO	02-01-2020 14:25	Replacement of secondary boxes.	02-01-2020 17:06	2:41:00	0
25	Talcher-Kolar Pole-II	HVDC	ER/SR	SO	10-01-2020 06:09	Amp work	12-01-2020 20:54	62:45:00	0
26	Talcher-Kolar Pole-II	HVDC	ER/SR	SO	18-01-2020 08:37	RVO mode due to heavy fog & chattering sound observed at talcher end.	18-01-2020 11:07	0:30:00	0
27	Talcher-Kolar Pole-II	HVDC	ER/SR	TS	08-01-2020 10:50	On external protection trip	08-01-2020 11:55	1:05:00	1
28	VindhyaChal Pole-I	HVDC	WR/NR	TS	03-01-2020 05:12	DC overcurrent protection trip	03-01-2020 07:23	2:11:00	1
29	132 kV Rihand-Garwah 1	Line	ER/NR	TL	03-01-2020 06:01	Tripped from Rihand end on B-N fault	03-01-2020 08:01	2:00:00	1
30	132kV Ranapratap Sagar-Gandhi Sagar 2	Line	WR/NR	SC	15-01-2020 14:55	For lilo jumping work	16-01-2020 22:50	31:55:00	0
31	220 kV Budhipadar-Raigarh	Line	ER/WR	TV	26-01-2020 01:58	Tripped on over voltage	26-01-2020 03:52	1:54:00	1
32	220 KV Bhanpura - Ranpur line	Line	WR/NR	TL	16-01-2020 10:20	Tripped on R-N fault	16-01-2020 13:00	2:40:00	1
33	220 KV Bhanpura - Ranpur line	Line	WR/NR	SO	17-01-2020 09:37	To take work permit	17-01-2020 17:28	7:51:00	1
34	220 kV Malanpur-Auraiya	Line	WR/NR	SO	24-01-2020 11:26	S/D on 220 kv half main bus at Malanpur	24-01-2020 19:17	7:51:00	0
35	220 kV Mehgaon-Auraiya	Line	WR/NR	TL	16-01-2020 19:09	B-N fault	16-01-2020 20:02	0:53:00	1
36	220 kV Mehgaon-Auraiya	Line	WR/NR	TL	20-01-2020 07:49	R-ph fault,2.6ka,34.43km from Mehgaon end;	20-01-2020 09:11	1:22:00	2
37	220 kV Mehgaon-Auraiya	Line	WR/NR	TL	21-01-2020 20:43	Z1,R-E	21-01-2020 21:42	0:59:00	3
38	220 kV Mehgaon-Auraiya	Line	WR/NR	TL	28-01-2020 08:16	Y-N fault	28-01-2020 09:16	1:00:00	4
39	220 kV Mudasangi (Kolhapur)-Chikkodi	Line	WR/SR	SC	27-01-2020 08:40	For construction work of 110kv Mudshingi-Bapat Camp D/c	31-01-2020 17:10	104:30:00	0
40	220 kV Mudasangi (Kolhapur)-Chikkodi	Line	WR/SR	SE	25-01-2020 10:03	Arcing observed at line isolator R-phase at Chikodi s/s	25-01-2020 19:55	9:52:00	0
41	220 kV Pusauli-Sahupuri	Line	ER/NR	TL	01-01-2020 16:33	R-Y-B fault, f.c-2ka, f.d-127.2km from Pusauli.	01-01-2020 19:53	3:20:00	1
42	220 kV Pusauli-Sahupuri	Line	ER/NR	TL	14-01-2020 06:33	Tripped from Sahupuri end only	14-01-2020 11:37	5:04:00	2
43	220kV Ponda-Ambewadi	Line	WR/SR	SO	18-01-2020 12:30	Tension tower B-Ph dead end cut and fallen on 11 kv line and road crossing.	18-01-2020 18:21	5:51:00	0
44	220kV Ponda-Ambewadi	Line	WR/SR	SO	01-01-2020 00:00	Debunching of the circuit at T.L. no.218(Goa)	07-01-2020 20:11	164:11:00	0
45	400 kV Bhadrawati-Ramagundam-I	Line	WR/SR	TL	03-01-2020 03:46	Tripped on Y-ph fault	03-01-2020 07:40	3:54:00	1
46	400 kV Biharshariff-Balia-I	Line	ER/NR	SO	14-01-2020 14:57	To attend hotspot (temp-95c) in line side finger of R-ph line isolator	14-01-2020 18:33	3:36:00	0
47	400 kV Motihari-Gorakhpur-I	Line	ER/NR	SO	29-01-2020 00:00	Charging the circuit after bypassing lilo at motihari (Earlier this line was Motihari-Gorakhpur,right now lilo section of motihari is bypassed due to damaged tower)	05-02-2020 18:57	186:57:00	0
48	400 kV Motihari-Gorakhpur-II	Line	ER/NR	SO	20-01-2020 12:25	As contingency arrangement stringing works of the tl between location no. 530 to location no. 532 has to be done to make the mentioned ckt. as 400 kv barh-gorakhpur -1 and 2 bypassing motihari	01-02-2020 00:00	275:35:00	0
49	400 kV Siliguri-Bongaigaon-II	Line	ER/NER	SO	14-01-2020 09:38	New traveling wave fault locator relay retrofitting & commissioning	14-01-2020 18:29	8:51:00	0
50	400 kV Varanasi-Biharshariff-II	Line	ER/NR	TS	02-01-2020 11:19	DT received at varanasi, line charged from biharsarif end	02-01-2020 12:00	0:41:00	1

23. List of Outages of Elements monitored by NLDC for the month of January-2020

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
51	400kV Barh-Gorakhpur Ckt-I	Line	ER/NR	SO	20-01-2020 12:25	As contingency arrangement stringing works of the tl between location no. 530 to location no. 532 has to be done to make the mentioned cts. as 400 kv barh-gorakhpur -1 and 2 bypassing mothihari	01-02-2020 00:00	275:35:00	0
52	400kV Barh-Gorakhpur Ckt-II	Line	ER/NR	TV	30-01-2020 19:37	Tripped on high voltage.(Earlier this line was Mothihari-Gorakhpur,right now lilo section of mothihari is bypassed due to damaged tower)	31-01-2020 10:06	14:29:00	1
53	400kV Barh-Gorakhpur Ckt-II	Line	ER/NR	MO	29-01-2020 13:46	Manually opened due to high voltage.(Earlier this line was Mothihari-Gorakhpur,right now lilo section of mothihari is bypassed due to damaged tower)	30-01-2020 19:36	29:50:00	1
54	765 kV Angul-Srikakulum-I	Line	ER/SR	TL	08-01-2020 15:17	R-N fault Angul:fc-5.56ka,fl-176.4 km Srikakulam:fc-5.6 ka,fl:78 km	08-01-2020 16:32	1:15:00	1
55	765 kV Gaya-Varanasi-I	Line	ER/NR	SC	10-01-2020 09:22	For diversion due to infringing the corridor of "purvanchal expressway"	13-01-2020 20:33	83:11:00	0
56	765 kV Gaya-Varanasi-I	Line	ER/NR	SO	06-01-2020 08:54	Insulator cleaning and line maintenance.	06-01-2020 19:43	10:49:00	0
57	765 kV Gaya-Varanasi-I	Line	ER/NR	SO	07-01-2020 09:04	Insulator cleaning and fine maintenance.	07-01-2020 19:28	10:24:00	0
58	765 kV Gaya-Varanasi-I	Line	ER/NR	SO	09-01-2020 09:25	Insulator cleaning and line maintenance.	09-01-2020 22:14	12:49:00	0
59	765 kV Gaya-Varanasi-I	Line	ER/NR	SO	17-01-2020 09:17	For tower strengthening work	17-01-2020 19:27	10:10:00	0
60	765 kV Gaya-Varanasi-I	Line	ER/NR	SO	18-01-2020 09:57	For tower strengthening work	18-01-2020 19:00	9:03:00	0
61	765 kV Gaya-Varanasi-I	Line	ER/NR	SO	19-01-2020 09:36	For tower strengthening work	19-01-2020 19:09	9:33:00	0
62	765 kV Gaya-Varanasi-I	Line	ER/NR	SO	20-01-2020 08:47	For tower strengthening work	20-01-2020 19:26	10:39:00	0
63	765 kV Gaya-Varanasi-II	Line	ER/NR	SO	01-01-2020 10:55	For strengthening of 765 kv line suspension delta tower	01-01-2020 18:59	8:04:00	0
64	765 kV Gaya-Varanasi-II	Line	ER/NR	SO	25-01-2020 09:02	For strengthening of 765 kv line suspension delta tower	25-01-2020 18:51	9:49:00	0
65	765 kV Gaya-Varanasi-II	Line	ER/NR	SO	26-01-2020 09:16	For strengthening of 765 kv line suspension delta tower	26-01-2020 19:33	10:17:00	0
66	765 kV Gaya-Varanasi-II	Line	ER/NR	SO	27-01-2020 09:27	For strengthening of 765 kv line suspension delta tower	27-01-2020 19:27	10:00:00	0
67	765 kV Gaya-Varanasi-II	Line	ER/NR	SO	28-01-2020 08:48	For strengthening of 765 kv line suspension delta tower	28-01-2020 19:59	11:11:00	0
68	765 kV Gaya-Varanasi-II	Line	ER/NR	SO	29-01-2020 09:17	For strengthening of 765 kv line suspension delta tower	29-01-2020 19:36	10:19:00	0
69	765 kV Gaya-Varanasi-II	Line	ER/NR	SO	30-01-2020 10:30	For strengthening of 765 kv line suspension delta tower	30-01-2020 20:21	9:51:00	0
70	765 kV Gaya-Varanasi-II	Line	ER/NR	SO	31-01-2020 08:49	For strengthening of 765 kv line suspension delta tower	31-01-2020 20:15	11:26:00	0
71	765 kV Gaya-Varanasi-II	Line	ER/NR	SE	01-01-2020 20:51	Hand tripped from varanasi end due to sparking in yard.	01-01-2020 23:47	2:56:00	0
72	765 kV Gwalior-Phagi-I	Line	WR/NR	SO	03-01-2020 10:13	For insulator cleaning & line maintenance work (attending s/d nature defects).	03-01-2020 19:59	9:46:00	0
73	765 kV Gwalior-Phagi-I	Line	WR/NR	SO	04-01-2020 09:52	For insulator cleaning & line maintenance work (attending s/d nature defects).	04-01-2020 20:07	10:15:00	0
74	765 kV Gwalior-Phagi-II	Line	WR/NR	SO	05-01-2020 09:18	Insulator cleaning and line maintenance.	05-01-2020 20:15	10:57:00	0
75	765 kV Gwalior-Phagi-II	Line	WR/NR	SO	06-01-2020 08:38	Insulator cleaning and line maintenance.	06-01-2020 20:21	11:43:00	0
76	765 kV Jharsuguda-Dharmajaygarh-I	Line	ER/WR	SO	23-01-2020 11:03	To attend broken line insulator at location No 404	23-01-2020 18:25	7:22:00	0
77	765 kV New Ranchi-Dharamjaygarh-I	Line	ER/WR	SO	11-01-2020 11:40	Tension insulator at t junction on b phase of 765kv ranchi 1 feeder broken at dharamjaygarh	11-01-2020 18:39	6:59:00	0
78	765kV Durg-Jharsuguda Ckt-I	Line	WR/ER	MO	22-01-2020 14:15	Manually opened due to high voltage.	02-02-2020 09:57	259:42:00	0
79	765kV Durg-Jharsuguda Ckt-II	Line	WR/ER	MO	01-01-2020 00:00	Manually opened due to high voltage.	08-01-2020 10:13	178:13:00	0
80	765kV Gwalior-Orai	Line	NR/WR	SO	07-01-2020 10:11	Jumper connection of extension pkg, amp work RTV coating	07-01-2020 20:34	10:23:00	0
81	765kV Jharsuguda - Dharamjaigarh-III	Line	ER/WR	SO	18-01-2020 08:40	Transmission line maintenance works.	18-01-2020 21:17	12:37:00	0
82	765kV Jharsuguda - Dharamjaigarh-III	Line	ER/WR	MO	18-01-2020 23:24	Manually opened due to high voltage.	20-01-2020 10:09	34:45:00	0
83	765kV Jharsuguda - Dharamjaigarh-IV	Line	ER/WR	SO	05-01-2020 08:46	SF6 low in main bay at jharsuguda	06-01-2020 09:36	24:50:00	0
84	765kV Jharsuguda - Dharamjaigarh-IV	Line	ER/WR	SO	21-01-2020 08:51	Transmission line maintenance works.	21-01-2020 19:32	10:41:00	0
85	765kV Jharsuguda - Dharamjaigarh-IV	Line	ER/WR	MO	21-01-2020 19:33	Manually opened due to high voltage.	22-01-2020 08:15	12:42:00	0

23. List of Outages of Elements monitored by NLDC for the month of January-2020

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	HVDC Behramara Pole-I	HVDC	Bangladesh	TS	14-01-2020 05:16	Due to tripping of all outgoing feeders	14-01-2020 05:48	0:32:00	1
2	HVDC Behramara Pole-II	HVDC	Bangladesh	TS	14-01-2020 05:16	Due to tripping of all outgoing feeders	14-01-2020 05:48	0:32:00	1
3	132kV Rangia-Deothang S/C	Line	Bhutan	SO	29-01-2020 06:37	Rectification of hotspot at bus sectionaliser isolator	29-01-2020 08:21	1:44:00	0
4	132kV Raxaul - Parwanipur	Line	ER/Nepal	SE	22-01-2020 12:09	Emergency work at raxaul	22-01-2020 12:25	0:16:00	0
5	220 kV Chukha - Birpara - I	Line	Bhutan	MO	01-01-2020 00:00	Manually opened due to high voltage.	06-01-2020 09:06	129:06:00	0
6	220 kV Chukha - Birpara - I	Line	Bhutan	MO	07-01-2020 22:08	Manually opened due to high voltage.	01-02-2020 00:00	577:52:00	0
7	220 kV Malbase - Birpara	Line	Bhutan	SO	06-01-2020 09:18	Insulator replacement	07-01-2020 14:32	29:14:00	0
8	400 kV Tala - Binaguri - II	Line	Bhutan	SO	16-01-2020 11:05	For maintenance work	01-02-2020 00:00	372:55:00	0
9	400 kV Tala - Binaguri - II	Line	Bhutan	MO	07-01-2020 10:28	Manually opened due to high voltage.	16-01-2020 11:05	216:37:00	0
10	400 kV Tala - Binaguri - IV	Line	Bhutan	SO	01-01-2020 00:00	To carry out 12 years special maintenance at GIS & Annual maintenance of 2019-2020 by THP.	11-01-2020 11:30	251:30:00	0
11	400 kV Tala - Binaguri - IV	Line	Bhutan	MO	11-01-2020 18:24	Manually opened due to high voltage.	06-02-2020 16:21	621:57:00	0
12	400kV Alipurdaur-Jingmeling-I	Line	ER/BHUTAN	MO	01-01-2020 00:00	Manually opened due to high voltage.	01-02-2020 00:00	744:00:00	0
13	400kV Alipurdaur-Jingmeling-II	Line	ER/BHUTAN	TL	05-01-2020 15:36	Line tripped on R ph fault (2kA, 212 Km from APD end)	05-01-2020 16:24	0:48:00	1

23. List of Outages of Elements monitored by NLDC for the month of January-2020

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	HVDC Agra Pole-1	HVDC	NR	MO	01-01-2020 00:00	Kept out under system constraint	11-01-2020 22:33	262:33:00	0
2	HVDC Agra Pole-2	HVDC	NR	MO	01-01-2020 10:52	Blocked to reverse power flow from BNC to Agra	01-01-2020 20:44	9:52:00	0
3	HVDC Agra Pole-2	HVDC	NR	MO	02-01-2020 00:10	Pole blocked on system high voltage.	01-02-2020 00:00	719:50:00	0
4	HVDC Agra Pole-3	HVDC	NR	MO	01-01-2020 00:00	Hvdc pole-3 blocked at apd & agra to facilitate power reversal from agra to bnc	01-01-2020 11:37	11:37:00	0
5	HVDC Agra Pole-3	HVDC	NR	MO	06-01-2020 22:04	Pole blocked on system high voltage.	01-02-2020 00:00	601:56:00	0
6	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	06-01-2020 13:28	877:28:00	0
7	HVDC Agra Pole-4	HVDC	NR	MO	11-01-2020 21:50	Pole 4 blocked at APD & Agra to facilitate power reversal from Agra to BNC	01-02-2020 00:00	482:10:00	0
8	HVDC Kurukshetra Pole-1	HVDC	NR	MO	26-01-2020 21:48	Pole blocked on system high voltage.	27-01-2020 09:29	11:41:00	0
9	HVDC Kurukshetra Pole-1	HVDC	NR	MO	27-01-2020 21:55	Pole blocked on system high voltage.	28-01-2020 18:04	20:09:00	0
10	HVDC Kurukshetra Pole-1	HVDC	NR	MO	03-01-2020 02:18	Pole blocked on system high voltage.	03-01-2020 09:00	6:42:00	0
11	HVDC Kurukshetra Pole-1	HVDC	NR	MO	03-01-2020 23:37	Pole blocked on system high voltage.	04-01-2020 07:18	7:41:00	0
12	HVDC Kurukshetra Pole-1	HVDC	NR	MO	11-01-2020 00:05	Pole blocked on system high voltage.	11-01-2020 07:16	7:11:00	0
13	HVDC Kurukshetra Pole-1	HVDC	NR	MO	11-01-2020 23:49	Pole blocked on system high voltage.	12-01-2020 07:48	7:59:00	0
14	HVDC Kurukshetra Pole-1	HVDC	NR	MO	19-01-2020 00:03	Pole blocked on system high voltage.	19-01-2020 08:34	8:31:00	0
15	HVDC Kurukshetra Pole-1	HVDC	NR	MO	19-01-2020 22:43	Pole blocked on system high voltage.	20-01-2020 06:52	8:09:00	0
16	HVDC Kurukshetra Pole-3	HVDC	NR	MO	06-01-2020 00:14	Pole blocked on system high voltage.	06-01-2020 06:25	6:11:00	0
17	HVDC Kurukshetra Pole-3	HVDC	NR	MO	07-01-2020 00:00	Pole blocked on system high voltage.	07-01-2020 09:57	9:57:00	0
18	HVDC Kurukshetra Pole-3	HVDC	NR	MO	08-01-2020 21:17	Pole blocked on system high voltage.	09-01-2020 09:32	12:15:00	0
19	HVDC Kurukshetra Pole-3	HVDC	NR	MO	28-01-2020 19:55	Pole blocked on system high voltage.	30-01-2020 07:59	36:04:00	0
20	HVDC Kurukshetra Pole-3	HVDC	NR	TS	19-01-2020 20:44	Pole Block due to Filter Power Limit	19-01-2020 22:01	1:17:00	1
21	HVDC Kurukshetra Pole-3	HVDC	NR	MO	09-01-2020 21:13	Pole blocked on system high voltage.	10-01-2020 10:31	13:18:00	1
22	HVDC Kurukshetra Pole-3	HVDC	NR	MO	12-01-2020 23:49	Pole blocked on system high voltage.	13-01-2020 06:42	6:53:00	1
23	HVDC Kurukshetra Pole-3	HVDC	NR	MO	13-01-2020 21:30	Pole blocked on system high voltage.	14-01-2020 08:51	11:21:00	1
24	HVDC Kurukshetra Pole-3	HVDC	NR	MO	14-01-2020 13:24	Pole blocked on system high voltage.	15-01-2020 09:40	20:16:00	1
25	HVDC Kurukshetra Pole-3	HVDC	NR	MO	15-01-2020 15:21	Pole blocked on system high voltage.	16-01-2020 09:18	17:57:00	1
26	HVDC Kurukshetra Pole-3	HVDC	NR	MO	16-01-2020 20:50	Pole blocked on system high voltage.	17-01-2020 08:37	11:47:00	1
27	HVDC Kurukshetra Pole-3	HVDC	NR	MO	20-01-2020 23:31	Pole blocked on system high voltage.	21-01-2020 07:36	8:05:00	1
28	HVDC Kurukshetra Pole-3	HVDC	NR	MO	22-01-2020 00:15	Pole blocked on system high voltage.	22-01-2020 08:16	8:01:00	1
29	HVDC Kurukshetra Pole-3	HVDC	NR	MO	22-01-2020 13:55	Pole blocked on system high voltage.	26-01-2020 21:12	103:17:00	1
30	Rihand-Dadri Pole-I	HVDC	NR	SO	29-01-2020 10:16	R-phase converter transformer replaced of pole-I at rihand.	01-02-2020 00:00	61:44:00	0
31	Rihand-Dadri Pole-II	HVDC	NR	TS	31-01-2020 22:39	Line protection due to blast in neutral bus ground switch. pole 1 was already out.	01-02-2020 00:00	1:21:00	1
32	765/400 KV ICT-I at Jhatikara	ICT	NR	SO	10-01-2020 10:09	Csd pre-commissionig checks	10-01-2020 20:35	10:26:00	0
33	765/400 KV ICT-I at Moga	ICT	NR	TS	20-01-2020 20:12	Tripped on relay maloperation of 423 tie bay	20-01-2020 22:41	2:29:00	1
34	765/400 KV ICT-I at Phagi	ICT	NR	SO	10-01-2020 10:48	Testing and maintenance of transformer.	10-01-2020 18:08	7:20:00	0
35	765/400 KV ICT-II at Agra	ICT	NR	SE	07-01-2020 13:10	To attend hotspot	07-01-2020 16:17	3:07:00	0
36	765/400 KV ICT-II at Jhatikara	ICT	NR	SO	13-01-2020 10:18	For GE make CSD tuning and require 05times swicthing of ict	13-01-2020 20:07	9:49:00	0
37	765/400 KV ICT-II at Phagi	ICT	NR	TS	06-01-2020 17:22	Neutral over current protection operated .	06-01-2020 18:03	0:41:00	1
38	765/400 KV ICT-II at Phagi	ICT	NR	SO	07-01-2020 15:17	PRD operated	08-01-2020 20:18	29:01:00	1
39	765/400 KV ICT-III at Jhatikara	ICT	NR	SO	15-01-2020 09:46	For CSD commissioning	15-01-2020 18:46	9:00:00	0
40	765/400 KV ICT-III at Unnao	ICT	NR	SE	14-01-2020 14:29	Hot spot in R-ph isolator in 400kv bus-a side	14-01-2020 16:21	1:52:00	0
41	765/400KV ICT-I at Bikaner	ICT	NR	SO	02-01-2020 12:05	H/T,repair or change switching plug of ict-1 in cmb	02-01-2020 18:40	6:35:00	0
42	765/400KV ICT-I at Bikaner	ICT	NR	SO	06-01-2020 09:56	For Amp work.	06-01-2020 17:11	7:15:00	0
43	765/400KV ICT-I at Bikaner	ICT	NR	SO	27-01-2020 09:45	For commissioning of b-phase (initially spare phase was taken in place of b-ph in ict-1).	27-01-2020 15:58	6:13:00	0
44	765/400KV ICT-II at Bikaner	ICT	NR	SO	22-01-2020 09:58	CSD fine tuning work	22-01-2020 15:51	5:53:00	0
45	765/400KV ICT-III at Bhadla	ICT	NR	SO	04-01-2020 09:40	Hand tripped due to spark in b-ph isolator	04-01-2020 11:50	2:10:00	0
46	765 KV Moga-Meerut	Line	NR	MO	01-01-2020 17:10	Manually opened due to high voltage.	02-01-2020 08:32	15:22:00	0
47	765 KV Moga-Meerut	Line	NR	MO	02-01-2020 18:51	Manually opened due to high voltage.	03-01-2020 09:19	14:28:00	0
48	765 KV Moga-Meerut	Line	NR	MO	03-01-2020 19:45	Manually opened due to high voltage.	04-01-2020 09:14	13:29:00	0
49	765 KV Moga-Meerut	Line	NR	MO	04-01-2020 13:44	Manually opened due to high voltage.	06-01-2020 08:07	42:23:00	0
50	765 KV Moga-Meerut	Line	NR	MO	06-01-2020 19:00	Manually opened due to high voltage.	07-01-2020 09:53	14:53:00	0
51	765 KV Moga-Meerut	Line	NR	MO	07-01-2020 20:27	Manually opened due to high voltage.	08-01-2020 10:28	14:01:00	0
52	765 KV Moga-Meerut	Line	NR	MO	08-01-2020 19:41	Manually opened due to high voltage.	09-01-2020 10:40	14:59:00	0
53	765 KV Moga-Meerut	Line	NR	MO	09-01-2020 21:39	Manually opened due to high voltage.	10-01-2020 09:06	11:27:00	0
54	765 KV Moga-Meerut	Line	NR	MO	10-01-2020 20:26	Manually opened due to high voltage.	11-01-2020 08:11	11:45:00	0

23. List of Outages of Elements monitored by NLDC for the month of January-2020

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
55	765 kV Moga-Meerut	Line	NR	MO	11-01-2020 20:12	Manually opened due to high voltage.	12-01-2020 09:26	13:14:00	0
56	765 kV Moga-Meerut	Line	NR	MO	12-01-2020 14:05	Manually opened due to high voltage.	13-01-2020 07:17	17:12:00	0
57	765 kV Moga-Meerut	Line	NR	MO	13-01-2020 12:38	Manually opened due to high voltage.	14-01-2020 07:41	19:03:00	0
58	765 kV Moga-Meerut	Line	NR	MO	14-01-2020 19:33	Manually opened due to high voltage.	16-01-2020 09:47	38:14:00	0
59	765 kV Moga-Meerut	Line	NR	MO	16-01-2020 13:32	Manually opened due to high voltage.	17-01-2020 07:56	18:24:00	0
60	765 kV Moga-Meerut	Line	NR	MO	17-01-2020 20:15	Manually opened due to high voltage.	19-01-2020 09:36	37:21:00	0
61	765 kV Moga-Meerut	Line	NR	MO	19-01-2020 13:19	Manually opened due to high voltage.	20-01-2020 07:32	18:13:00	0
62	765 kV Moga-Meerut	Line	NR	MO	20-01-2020 19:51	Manually opened due to high voltage.	21-01-2020 07:22	11:31:00	0
63	765 kV Moga-Meerut	Line	NR	MO	21-01-2020 13:29	Manually opened due to high voltage.	22-01-2020 09:29	20:00:00	0
64	765 kV Moga-Meerut	Line	NR	MO	22-01-2020 20:01	Manually opened due to high voltage.	24-01-2020 09:11	37:10:00	0
65	765 kV Moga-Meerut	Line	NR	MO	24-01-2020 13:48	Manually opened due to high voltage.	25-01-2020 08:43	18:55:00	0
66	765 kV Moga-Meerut	Line	NR	MO	25-01-2020 16:16	Manually opened due to high voltage.	26-01-2020 08:10	15:54:00	0
67	765 kV Moga-Meerut	Line	NR	MO	26-01-2020 13:12	Manually opened due to high voltage.	27-01-2020 08:47	19:35:00	0
68	765 kV Moga-Meerut	Line	NR	MO	27-01-2020 23:05	Manually opened due to high voltage.	28-01-2020 08:15	9:10:00	0
69	765 kV Moga-Meerut	Line	NR	MO	28-01-2020 21:35	Manually opened due to high voltage.	30-01-2020 07:47	34:12:00	0
70	765 kV Moga-Meerut	Line	NR	MO	30-01-2020 13:19	Manually opened due to high voltage.	31-01-2020 10:04	20:45:00	0
71	765 kV Moga-Meerut	Line	NR	MO	31-01-2020 13:35	Manually opened due to high voltage.	02-02-2020 10:00	44:25:00	0
72	765kV Ajmer-Chittorgarh Ckt-I	Line	NR	MO	08-01-2020 20:59	Manually opened due to high voltage.	09-01-2020 06:30	9:31:00	0
73	765kV Ajmer-Chittorgarh Ckt-I	Line	NR	MO	18-01-2020 04:10	Manually opened due to high voltage.	18-01-2020 07:33	3:23:00	0
74	765kV Ajmer-Chittorgarh Ckt-I	Line	NR	MO	05-01-2020 22:17	Manually opened due to high voltage.	06-01-2020 07:13	8:56:00	0
75	765kV Ajmer-Chittorgarh Ckt-II	Line	NR	MO	01-01-2020 21:12	Manually opened due to high voltage.	02-01-2020 07:00	9:48:00	0
76	765kV Ajmer-Chittorgarh Ckt-II	Line	NR	MO	01-01-2020 21:12	Manually opened due to high voltage.	02-01-2020 07:00	9:48:00	0
77	765kV Ajmer-Chittorgarh Ckt-II	Line	NR	MO	26-01-2020 21:49	Manually opened due to high voltage.	27-01-2020 09:08	11:19:00	0
78	765kV Aligarh-Jhatikara	Line	NR	MO	08-01-2020 01:37	Manually opened due to high voltage.	08-01-2020 05:59	4:22:00	0
79	765kV Aligarh-Orai Ckt-1	Line	NR	MO	10-01-2020 02:36	Manually opened due to high voltage.	10-01-2020 06:04	3:28:00	0
80	765kV Aligarh-Orai Ckt-2	Line	NR	SO	29-01-2020 08:35	Amp works	29-01-2020 20:22	11:47:00	0
81	765kV Anpara C-Anpara D	Line	NR	TS	02-01-2020 11:19	Failure of CT	02-01-2020 12:50	1:31:00	1
82	765kV Anpara C-Unnao	Line	NR	TL	10-01-2020 13:53	Line tripped on Y-N fault; 3.108kA,154.11km from Unnao end; 3.1kA,253.4km from Anpara end	10-01-2020 16:36	2:43:00	1
83	765kV Bara-Mainpuri-I	Line	NR	TL	25-01-2020 14:37	Tripped on B-N fault	25-01-2020 16:48	2:11:00	1
84	765kV Bara-Mainpuri-I	Line	NR	SO	27-01-2020 13:09	Routine testing & maintenance work.	27-01-2020 20:49	7:40:00	1
85	765kV Bara-Mainpuri-I	Line	NR	SO	28-01-2020 11:23	Routine testing & maintenance work.	29-01-2020 19:37	32:14:00	1
86	765kV Fatehabad-Lalitpur-I	Line	NR	MO	16-01-2020 02:14	Manually opened due to high voltage.	16-01-2020 08:31	6:17:00	0
87	765kV Fatehabad-Lalitpur-I	Line	NR	MO	22-01-2020 00:16	Manually opened due to high voltage.	22-01-2020 06:55	6:39:00	0
88	765kV Fatehabad-Lalitpur-I	Line	NR	MO	27-01-2020 01:36	Manually opened due to high voltage.	27-01-2020 05:58	4:22:00	0
89	765kV Fatehabad-Lalitpur-II	Line	NR	MO	01-01-2020 00:00	Manually opened due to high voltage.	06-01-2020 08:24	128:24:00	0
90	765kV Fatehabad-Lalitpur-II	Line	NR	MO	16-01-2020 13:33	Manually opened due to high voltage.	21-01-2020 07:20	113:47:00	0
91	765kV Fatehabad-Lalitpur-II	Line	NR	MO	27-01-2020 22:33	Manually opened due to high voltage.	28-01-2020 06:10	7:37:00	0
92	765kV Fatehpur-Agra-I	Line	NR	MO	02-01-2020 01:41	Manually opened due to high voltage.	02-01-2020 06:20	4:39:00	0
93	765kV Fatehpur-Agra-I	Line	NR	MO	02-01-2020 19:01	Manually opened due to high voltage.	03-01-2020 07:09	12:08:00	0
94	765kV Fatehpur-Agra-I	Line	NR	MO	03-01-2020 19:37	Manually opened due to high voltage.	04-01-2020 06:44	11:07:00	0
95	765kV Fatehpur-Agra-I	Line	NR	MO	06-01-2020 18:58	Manually opened due to high voltage.	07-01-2020 06:46	11:48:00	0
96	765kV Fatehpur-Agra-I	Line	NR	MO	08-01-2020 02:35	Manually opened due to high voltage.	08-01-2020 08:14	5:39:00	0
97	765kV Fatehpur-Agra-I	Line	NR	MO	09-01-2020 00:59	Manually opened due to high voltage.	09-01-2020 07:47	6:48:00	0
98	765kV Fatehpur-Agra-I	Line	NR	MO	10-01-2020 00:54	Manually opened due to high voltage.	10-01-2020 06:10	5:16:00	0
99	765kV Fatehpur-Agra-I	Line	NR	MO	11-01-2020 01:53	Manually opened due to high voltage.	11-01-2020 04:27	2:34:00	0
100	765kV Fatehpur-Agra-I	Line	NR	MO	12-01-2020 12:46	Manually opened due to high voltage.	13-01-2020 06:34	17:48:00	0
101	765kV Fatehpur-Agra-I	Line	NR	MO	14-01-2020 01:35	Manually opened due to high voltage.	14-01-2020 09:46	8:11:00	0
102	765kV Fatehpur-Agra-I	Line	NR	MO	15-01-2020 19:56	Manually opened due to high voltage.	16-01-2020 06:48	10:52:00	0
103	765kV Fatehpur-Agra-I	Line	NR	MO	17-01-2020 02:29	Manually opened due to high voltage.	17-01-2020 09:06	6:37:00	0
104	765kV Fatehpur-Agra-I	Line	NR	MO	19-01-2020 13:13	Manually opened due to high voltage.	20-01-2020 06:40	17:27:00	0
105	765kV Fatehpur-Agra-I	Line	NR	MO	20-01-2020 16:57	Manually opened due to high voltage.	22-01-2020 09:08	40:11:00	0
106	765kV Fatehpur-Agra-I	Line	NR	MO	23-01-2020 00:12	Manually opened due to high voltage.	23-01-2020 10:27	10:15:00	0
107	765kV Fatehpur-Agra-I	Line	NR	MO	24-01-2020 01:15	Manually opened due to high voltage.	25-01-2020 07:00	29:45:00	0
108	765kV Fatehpur-Agra-I	Line	NR	MO	26-01-2020 04:05	Manually opened due to high voltage.	26-01-2020 07:02	2:57:00	0
109	765kV Fatehpur-Agra-I	Line	NR	MO	28-01-2020 13:31	Manually opened due to high voltage.	29-01-2020 06:32	17:01:00	0
110	765kV Fatehpur-Agra-II	Line	NR	TV	01-01-2020 17:10	Tripped on over voltage	01-01-2020 17:25	0:15:00	1
111	765kV Fatehpur-Agra-II	Line	NR	MO	01-01-2020 17:25	Kept open on High voltage after tripping	02-01-2020 08:39	15:14:00	1
112	765kV Fatehpur-Agra-II	Line	NR	MO	04-01-2020 20:07	Manually opened due to high voltage.	06-01-2020 09:00	36:53:00	1

23. List of Outages of Elements monitored by NLDC for the month of January-2020

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
113	765kV Fatehpur-Agra-II	Line	NR	MO	07-01-2020 18:42	Manually opened due to high voltage.	08-01-2020 05:24	10:42:00	1
114	765kV Fatehpur-Agra-II	Line	NR	MO	08-01-2020 19:37	Manually opened due to high voltage.	09-01-2020 09:13	13:36:00	1
115	765kV Fatehpur-Agra-II	Line	NR	MO	09-01-2020 21:10	Manually opened due to high voltage.	11-01-2020 08:06	34:56:00	1
116	765kV Fatehpur-Agra-II	Line	NR	MO	11-01-2020 13:34	Manually opened due to high voltage.	12-01-2020 08:31	18:57:00	1
117	765kV Fatehpur-Agra-II	Line	NR	MO	13-01-2020 02:02	Manually opened due to high voltage.	13-01-2020 09:28	7:26:00	1
118	765kV Fatehpur-Agra-II	Line	NR	MO	13-01-2020 12:35	Manually opened due to high voltage.	14-01-2020 06:27	17:52:00	1
119	765kV Fatehpur-Agra-II	Line	NR	MO	14-01-2020 19:59	Manually opened due to high voltage.	15-01-2020 09:18	13:19:00	1
120	765kV Fatehpur-Agra-II	Line	NR	MO	16-01-2020 00:13	Manually opened due to high voltage.	17-01-2020 07:37	31:24:00	1
121	765kV Fatehpur-Agra-II	Line	NR	MO	18-01-2020 14:12	Manually opened due to high voltage.	19-01-2020 08:07	17:55:00	1
122	765kV Fatehpur-Agra-II	Line	NR	MO	22-01-2020 13:12	Manually opened due to high voltage.	23-01-2020 06:00	16:48:00	1
123	765kV Fatehpur-Agra-II	Line	NR	MO	23-01-2020 13:07	Manually opened due to high voltage.	24-01-2020 06:41	17:34:00	1
124	765kV Fatehpur-Agra-II	Line	NR	MO	25-01-2020 02:02	Manually opened due to high voltage.	26-01-2020 06:07	28:05:00	1
125	765kV Fatehpur-Agra-II	Line	NR	MO	27-01-2020 19:15	Manually opened due to high voltage.	28-01-2020 08:25	13:10:00	1
126	765kV Fatehpur-Agra-II	Line	NR	MO	29-01-2020 01:19	Manually opened due to high voltage.	01-02-2020 15:51	86:32:00	1
127	765kV G'Noida-Mainpuri	Line	NR	SO	14-01-2020 11:54	For Annual Maintenance work, jumper & hardware tightness.	14-01-2020 19:08	7:14:00	0
128	765kV G'Noida-Mainpuri	Line	NR	SO	15-01-2020 10:39	For Annual Maintenance work, jumper & hardware tightness.	15-01-2020 19:30	8:51:00	0
129	765kV Jhatikara-Bhiwani(PG)	Line	NR	SO	07-01-2020 11:52	Fix hanging cc ring of tower no 186.	07-01-2020 16:03	4:11:00	0
130	765kV Kanpur-Aligarh	Line	NR	MO	01-01-2020 17:07	Manually opened due to high voltage.	02-01-2020 08:09	15:02:00	0
131	765kV Kanpur-Aligarh	Line	NR	MO	02-01-2020 18:30	Manually opened due to high voltage.	03-01-2020 09:24	14:54:00	0
132	765kV Kanpur-Aligarh	Line	NR	MO	03-01-2020 17:47	Manually opened due to high voltage.	04-01-2020 09:11	15:24:00	0
133	765kV Kanpur-Aligarh	Line	NR	MO	04-01-2020 23:12	Manually opened due to high voltage.	05-01-2020 08:52	9:40:00	0
134	765kV Kanpur-Aligarh	Line	NR	MO	05-01-2020 21:00	Manually opened due to high voltage.	06-01-2020 11:04	14:04:00	0
135	765kV Kanpur-Aligarh	Line	NR	MO	06-01-2020 21:05	Manually opened due to high voltage.	07-01-2020 05:21	8:16:00	0
136	765kV Kanpur-Aligarh	Line	NR	MO	07-01-2020 20:56	Manually opened due to high voltage.	08-01-2020 06:44	9:48:00	0
137	765kV Kanpur-Aligarh	Line	NR	MO	08-01-2020 22:05	Manually opened due to high voltage.	09-01-2020 07:38	9:33:00	0
138	765kV Kanpur-Aligarh	Line	NR	MO	10-01-2020 00:15	Manually opened due to high voltage.	10-01-2020 06:39	6:24:00	0
139	765kV Kanpur-Aligarh	Line	NR	MO	11-01-2020 00:09	Manually opened due to high voltage.	11-01-2020 09:24	9:15:00	0
140	765kV Kanpur-Aligarh	Line	NR	MO	11-01-2020 20:57	Manually opened due to high voltage.	12-01-2020 08:44	11:47:00	0
141	765kV Kanpur-Aligarh	Line	NR	MO	12-01-2020 23:28	Manually opened due to high voltage.	13-01-2020 09:35	10:07:00	0
142	765kV Kanpur-Aligarh	Line	NR	MO	13-01-2020 23:10	Manually opened due to high voltage.	14-01-2020 09:48	10:38:00	0
143	765kV Kanpur-Aligarh	Line	NR	MO	14-01-2020 21:11	Manually opened due to high voltage.	15-01-2020 06:24	9:13:00	0
144	765kV Kanpur-Aligarh	Line	NR	MO	15-01-2020 21:48	Manually opened due to high voltage.	16-01-2020 07:14	9:26:00	0
145	765kV Kanpur-Aligarh	Line	NR	MO	17-01-2020 00:01	Manually opened due to high voltage.	17-01-2020 07:42	7:41:00	0
146	765kV Kanpur-Aligarh	Line	NR	MO	18-01-2020 00:53	Manually opened due to high voltage.	18-01-2020 07:11	6:18:00	0
147	765kV Kanpur-Aligarh	Line	NR	MO	18-01-2020 21:25	Manually opened due to high voltage.	19-01-2020 09:00	11:35:00	0
148	765kV Kanpur-Aligarh	Line	NR	MO	19-01-2020 15:15	Manually opened due to high voltage.	20-01-2020 09:29	18:14:00	0
149	765kV Kanpur-Aligarh	Line	NR	MO	20-01-2020 23:15	Manually opened due to high voltage.	21-01-2020 08:52	9:37:00	0
150	765kV Kanpur-Aligarh	Line	NR	MO	21-01-2020 22:01	Manually opened due to high voltage.	22-01-2020 08:33	10:32:00	0
151	765kV Kanpur-Aligarh	Line	NR	MO	22-01-2020 22:03	Manually opened due to high voltage.	23-01-2020 05:29	7:26:00	0
152	765kV Kanpur-Aligarh	Line	NR	MO	23-01-2020 21:11	Manually opened due to high voltage.	24-01-2020 05:47	8:36:00	0
153	765kV Kanpur-Aligarh	Line	NR	MO	24-01-2020 21:55	Manually opened due to high voltage.	25-01-2020 06:42	8:47:00	0
154	765kV Kanpur-Aligarh	Line	NR	MO	25-01-2020 21:51	Manually opened due to high voltage.	26-01-2020 06:43	8:52:00	0
155	765kV Kanpur-Aligarh	Line	NR	MO	26-01-2020 13:12	Manually opened due to high voltage.	27-01-2020 07:21	18:09:00	0
156	765kV Kanpur-Aligarh	Line	NR	MO	27-01-2020 18:02	Manually opened due to high voltage.	28-01-2020 08:57	14:55:00	0
157	765kV Kanpur-Aligarh	Line	NR	MO	28-01-2020 21:30	Manually opened due to high voltage.	29-01-2020 09:03	11:33:00	0
158	765kV Kanpur-Aligarh	Line	NR	MO	29-01-2020 22:41	Manually opened due to high voltage.	30-01-2020 09:44	11:03:00	0
159	765kV Kanpur-Aligarh	Line	NR	MO	30-01-2020 21:22	Manually opened due to high voltage.	31-01-2020 06:08	8:46:00	0
160	765kV Kanpur-Aligarh	Line	NR	MO	31-01-2020 21:04	Manually opened due to high voltage.	01-02-2020 00:00	2:56:00	0
161	765kV Meerut-Bhiwani(PG)	Line	NR	MO	01-01-2020 21:18	Manually opened due to high voltage.	02-01-2020 08:29	11:11:00	0
162	765kV Meerut-Bhiwani(PG)	Line	NR	MO	02-01-2020 18:52	Manually opened due to high voltage.	03-01-2020 07:36	12:44:00	0
163	765kV Meerut-Bhiwani(PG)	Line	NR	MO	03-01-2020 21:19	Manually opened due to high voltage.	04-01-2020 08:23	11:04:00	0
164	765kV Meerut-Bhiwani(PG)	Line	NR	MO	04-01-2020 21:57	Manually opened due to high voltage.	05-01-2020 08:40	10:43:00	0
165	765kV Meerut-Bhiwani(PG)	Line	NR	MO	05-01-2020 20:56	Manually opened due to high voltage.	06-01-2020 07:48	10:52:00	0
166	765kV Meerut-Bhiwani(PG)	Line	NR	MO	06-01-2020 15:57	Manually opened due to high voltage.	07-01-2020 11:23	19:26:00	0
167	765kV Meerut-Bhiwani(PG)	Line	NR	MO	07-01-2020 21:01	Manually opened due to high voltage.	08-01-2020 10:00	12:59:00	0
168	765kV Meerut-Bhiwani(PG)	Line	NR	MO	08-01-2020 21:24	Manually opened due to high voltage.	09-01-2020 09:37	12:13:00	0
169	765kV Meerut-Bhiwani(PG)	Line	NR	MO	09-01-2020 13:37	Manually opened due to high voltage.	15-01-2020 09:13	139:36:00	0
170	765kV Meerut-Bhiwani(PG)	Line	NR	MO	15-01-2020 21:10	Manually opened due to high voltage.	16-01-2020 09:35	12:25:00	0
171	765kV Meerut-Bhiwani(PG)	Line	NR	MO	16-01-2020 22:23	Manually opened due to high voltage.	18-01-2020 07:56	33:33:00	0

23. List of Outages of Elements monitored by NLDC for the month of January-2020

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
172	765kV Meerut-Bhiwani(PG)	Line	NR	MO	18-01-2020 16:23	Manually opened due to high voltage.	29-01-2020 09:45	257:22:00	0
173	765kV Meerut-Bhiwani(PG)	Line	NR	MO	29-01-2020 22:57	Manually opened due to high voltage.	12-02-2020 11:51	324:54:00	0
174	765kV Phagi-Bhiwani-I	Line	NR	MO	01-01-2020 02:34	Manually opened due to high voltage.	01-01-2020 07:06	4:32:00	0
175	765kV Phagi-Bhiwani-I	Line	NR	MO	03-01-2020 00:41	Manually opened due to high voltage.	03-01-2020 06:41	6:00:00	0
176	765kV Phagi-Bhiwani-I	Line	NR	MO	05-01-2020 00:23	Manually opened due to high voltage.	05-01-2020 07:35	7:12:00	0
177	765kV Phagi-Bhiwani-I	Line	NR	MO	07-01-2020 00:06	Manually opened due to high voltage.	07-01-2020 06:34	6:28:00	0
178	765kV Phagi-Bhiwani-I	Line	NR	MO	08-01-2020 22:32	Manually opened due to high voltage.	09-01-2020 08:25	9:53:00	0
179	765kV Phagi-Bhiwani-I	Line	NR	MO	10-01-2020 00:38	Manually opened due to high voltage.	10-01-2020 06:24	5:46:00	0
180	765kV Phagi-Bhiwani-I	Line	NR	MO	11-01-2020 02:23	Manually opened due to high voltage.	11-01-2020 06:39	4:16:00	0
181	765kV Phagi-Bhiwani-I	Line	NR	MO	12-01-2020 00:27	Manually opened due to high voltage.	12-01-2020 07:18	6:51:00	0
182	765kV Phagi-Bhiwani-I	Line	NR	MO	14-01-2020 23:11	Manually opened due to high voltage.	15-01-2020 07:01	7:50:00	0
183	765kV Phagi-Bhiwani-I	Line	NR	MO	17-01-2020 22:43	Manually opened due to high voltage.	18-01-2020 07:07	8:24:00	0
184	765kV Phagi-Bhiwani-I	Line	NR	MO	19-01-2020 23:53	Manually opened due to high voltage.	20-01-2020 07:02	7:09:00	0
185	765kV Phagi-Bhiwani-I	Line	NR	MO	22-01-2020 00:44	Manually opened due to high voltage.	22-01-2020 06:38	5:54:00	0
186	765kV Phagi-Bhiwani-I	Line	NR	MO	24-01-2020 22:45	Manually opened due to high voltage.	25-01-2020 07:31	8:46:00	0
187	765kV Phagi-Bhiwani-I	Line	NR	MO	26-01-2020 23:50	Manually opened due to high voltage.	27-01-2020 05:54	6:04:00	0
188	765kV Phagi-Bhiwani-I	Line	NR	MO	28-01-2020 22:20	Manually opened due to high voltage.	29-01-2020 07:07	8:47:00	0
189	765kV Phagi-Bhiwani-I	Line	NR	MO	31-01-2020 00:38	Manually opened due to high voltage.	31-01-2020 07:15	6:37:00	0
190	765kV Phagi-Bhiwani-II	Line	NR	MO	01-01-2020 23:38	Manually opened due to high voltage.	02-01-2020 07:12	7:34:00	0
191	765kV Phagi-Bhiwani-II	Line	NR	MO	03-01-2020 23:59	Manually opened due to high voltage.	04-01-2020 06:53	6:54:00	0
192	765kV Phagi-Bhiwani-II	Line	NR	MO	05-01-2020 21:20	Manually opened due to high voltage.	06-01-2020 07:10	9:50:00	0
193	765kV Phagi-Bhiwani-II	Line	NR	MO	13-01-2020 00:22	Manually opened due to high voltage.	13-01-2020 06:56	6:34:00	0
194	765kV Phagi-Bhiwani-II	Line	NR	MO	13-01-2020 23:41	Manually opened due to high voltage.	14-01-2020 07:30	7:49:00	0
195	765kV Phagi-Bhiwani-II	Line	NR	MO	16-01-2020 00:09	Manually opened due to high voltage.	16-01-2020 07:02	6:53:00	0
196	765kV Phagi-Bhiwani-II	Line	NR	MO	17-01-2020 00:30	Manually opened due to high voltage.	17-01-2020 06:31	6:01:00	0
197	765kV Phagi-Bhiwani-II	Line	NR	MO	18-01-2020 23:41	Manually opened due to high voltage.	19-01-2020 07:15	7:34:00	0
198	765kV Phagi-Bhiwani-II	Line	NR	MO	21-01-2020 00:21	Manually opened due to high voltage.	21-01-2020 07:32	7:11:00	0
199	765kV Phagi-Bhiwani-II	Line	NR	MO	23-01-2020 02:27	Manually opened due to high voltage.	23-01-2020 06:06	3:39:00	0
200	765kV Phagi-Bhiwani-II	Line	NR	MO	24-01-2020 00:40	Manually opened due to high voltage.	24-01-2020 05:49	5:09:00	0
201	765kV Phagi-Bhiwani-II	Line	NR	MO	25-01-2020 21:31	Manually opened due to high voltage.	26-01-2020 07:07	9:36:00	0
202	765kV Phagi-Bhiwani-II	Line	NR	MO	28-01-2020 00:34	Manually opened due to high voltage.	28-01-2020 06:56	6:22:00	0
203	765kV Phagi-Bhiwani-II	Line	NR	MO	29-01-2020 23:10	Manually opened due to high voltage.	30-01-2020 07:33	8:23:00	0

23. List of Outages of Elements monitored by NLDC for the month of January-2020

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
Western Region Elements									
1	240 Mvar B/R-I at Padghe	Bus Reactor	WR	SO	13-01-2020 10:59	For taking b phase bus reactor into service in place of spare reactor.	13-01-2020 13:16	2:17:00	0
2	330Mvar Bus Reactor-I at Banaskantha	Bus Reactor	WR	SO	17-01-2020 07:46	Swapping of R-ph reactor due to DGA violation	17-01-2020 12:20	4:34:00	0
3	330Mvar Bus Reactor-I at Banaskantha	Bus Reactor	WR	SO	28-01-2020 09:06	CSD fine tuning.	28-01-2020 18:49	9:43:00	0
4	330Mvar Bus Reactor-I at Banaskantha	Bus Reactor	WR	SO	29-01-2020 11:48	Amp works.	29-01-2020 14:26	2:38:00	0
5	B/R -I at Bhuj	Bus Reactor	WR	SE	04-01-2020 20:28	Hot spot in spare isolator	04-01-2020 22:15	1:47:00	0
6	B/R-I at Rajnandgaon	Bus Reactor	WR	SO	29-01-2020 10:20	Annual maintenance of bus reactor	29-01-2020 18:15	7:55:00	0
7	B/R-I at Tamnar	Bus Reactor	WR	SO	16-01-2020 10:25	For spare reactor switching with R-ph .	16-01-2020 19:05	8:40:00	0
8	HVDC Champa Pole-1	HVDC	WR	MO	26-01-2020 21:48	Pole blocked on system high voltage.	27-01-2020 09:29	11:41:00	0
9	HVDC Champa Pole-1	HVDC	WR	MO	27-01-2020 21:55	Pole blocked on system high voltage.	28-01-2020 18:04	20:09:00	0
10	HVDC Champa Pole-1	HVDC	WR	MO	03-01-2020 02:18	Pole blocked on system high voltage.	03-01-2020 09:00	6:42:00	0
11	HVDC Champa Pole-1	HVDC	WR	MO	03-01-2020 23:37	Pole blocked on system high voltage.	04-01-2020 07:18	7:41:00	0
12	HVDC Champa Pole-1	HVDC	WR	MO	11-01-2020 00:05	Pole blocked on system high voltage.	11-01-2020 07:16	7:11:00	0
13	HVDC Champa Pole-1	HVDC	WR	MO	11-01-2020 23:49	Pole blocked on system high voltage.	12-01-2020 07:48	7:59:00	0
14	HVDC Champa Pole-1	HVDC	WR	MO	19-01-2020 00:03	Pole blocked on system high voltage.	19-01-2020 08:34	8:31:00	0
15	HVDC Champa Pole-1	HVDC	WR	MO	19-01-2020 22:43	Pole blocked on system high voltage.	20-01-2020 06:52	8:09:00	0
16	HVDC Champa Pole-3	HVDC	WR	MO	06-01-2020 00:14	Pole blocked on system high voltage.	06-01-2020 06:25	6:11:00	0
17	HVDC Champa Pole-3	HVDC	WR	MO	07-01-2020 00:00	Pole blocked on system high voltage.	07-01-2020 09:57	9:57:00	0
18	HVDC Champa Pole-3	HVDC	WR	MO	07-01-2020 23:50	Pole blocked on system high voltage.	08-01-2020 08:39	8:49:00	0
19	HVDC Champa Pole-3	HVDC	WR	MO	08-01-2020 21:17	Pole blocked on system high voltage.	09-01-2020 09:32	12:15:00	0
20	HVDC Champa Pole-3	HVDC	WR	MO	28-01-2020 19:55	Pole blocked on system high voltage.	30-01-2020 07:59	36:04:00	0
21	HVDC Champa Pole-3	HVDC	WR	TS	19-01-2020 20:44	Pole Block due to Filter Power Limit	19-01-2020 22:01	1:17:00	1
22	HVDC Champa Pole-3	HVDC	WR	MO	09-01-2020 21:13	Pole blocked on system high voltage.	10-01-2020 10:31	13:18:00	1
23	HVDC Champa Pole-3	HVDC	WR	MO	12-01-2020 23:49	Pole blocked on system high voltage.	13-01-2020 06:42	6:53:00	1
24	HVDC Champa Pole-3	HVDC	WR	MO	13-01-2020 21:30	Pole blocked on system high voltage.	14-01-2020 08:51	11:21:00	1
25	HVDC Champa Pole-3	HVDC	WR	MO	14-01-2020 13:24	Pole blocked on system high voltage.	15-01-2020 09:40	20:16:00	1
26	HVDC Champa Pole-3	HVDC	WR	MO	15-01-2020 15:21	Pole blocked on system high voltage.	16-01-2020 09:18	17:57:00	1
27	HVDC Champa Pole-3	HVDC	WR	MO	16-01-2020 20:50	Pole blocked on system high voltage.	17-01-2020 08:37	11:47:00	1
28	HVDC Champa Pole-3	HVDC	WR	MO	20-01-2020 23:31	Pole blocked on system high voltage.	21-01-2020 07:36	8:05:00	1
29	HVDC Champa Pole-3	HVDC	WR	MO	22-01-2020 00:15	Pole blocked on system high voltage.	22-01-2020 08:16	8:01:00	1
30	HVDC Champa Pole-3	HVDC	WR	MO	22-01-2020 13:55	Pole blocked on system high voltage.	26-01-2020 21:12	103:17:00	1
31	HVDC Kurukshetra Pole-3	HVDC	WR	MO	07-01-2020 23:50	Pole blocked on system high voltage.	08-01-2020 08:39	8:49:00	0
32	765/400 KV ICT-I at Aurangabad(PG)	ICT	WR	SO	02-01-2020 09:28	Y-ph air cell replacement and amp works.	02-01-2020 21:21	11:53:00	0
33	765/400 KV ICT-I at Raipur PS(Durg)	ICT	WR	SO	15-01-2020 13:28	For amp works	15-01-2020 20:49	7:21:00	0
34	765/400 KV ICT-I at Sholapur-PG	ICT	WR	SO	02-01-2020 09:23	Amp work	02-01-2020 21:17	11:54:00	0
35	765/400 KV ICT-I at Sipat	ICT	WR	SO	20-01-2020 07:57	For amp	20-01-2020 20:51	12:54:00	0
36	765/400 KV ICT-II at Indore	ICT	WR	SO	04-01-2020 10:29	Amp work.	04-01-2020 13:10	2:41:00	0
37	765/400KV ICT-I at Banaskantha	ICT	WR	SO	24-01-2020 10:18	Amp works.	24-01-2020 18:19	8:01:00	0
38	765/400KV ICT-II at Banaskantha	ICT	WR	SO	22-01-2020 09:06	Amp works.	22-01-2020 20:57	11:51:00	0
39	765/400KV ICT-II at Banaskantha	ICT	WR	SE	23-01-2020 18:17	Hot spot in isolator	23-01-2020 23:48	5:31:00	0
40	765kV Aurangabad-Phadge Ckt-I	Line	WR	SO	19-01-2020 18:04	To rectification 7136 gas compartment at Padghe-GIS end	19-01-2020 20:13	2:09:00	0
41	765kV Aurangabad-Phadge Ckt-I	Line	WR	MO	19-01-2020 20:14	Manually opened due to high voltage.	20-01-2020 06:53	10:39:00	0
42	765kV Aurangabad-Sholapur-I	Line	WR	MO	02-01-2020 18:08	Manually opened due to high voltage.	03-01-2020 07:01	12:53:00	0
43	765kV Aurangabad-Sholapur-I	Line	WR	MO	06-01-2020 00:19	Manually opened due to high voltage.	06-01-2020 06:39	6:20:00	0
44	765kV Aurangabad-Sholapur-I	Line	WR	MO	11-01-2020 00:23	Manually opened due to high voltage.	11-01-2020 08:03	7:40:00	0
45	765kV Aurangabad-Sholapur-I	Line	WR	MO	11-01-2020 21:42	Manually opened due to high voltage.	12-01-2020 06:46	9:04:00	0
46	765kV Aurangabad-Sholapur-I	Line	WR	MO	15-01-2020 19:51	Manually opened due to high voltage.	16-01-2020 07:28	11:37:00	0
47	765kV Aurangabad-Sholapur-I	Line	WR	MO	23-01-2020 21:14	Manually opened due to high voltage.	24-01-2020 09:40	12:26:00	0
48	765kV Aurangabad-Sholapur-I	Line	WR	MO	26-01-2020 17:40	Manually opened due to high voltage.	10-02-2020 06:35	348:55:00	0
49	765kV Aurangabad-Sholapur-II	Line	WR	SO	18-01-2020 11:36	Conductor strands in y-phase Broken.	18-01-2020 18:28	6:52:00	0
50	765kV Aurangabad-Sholapur-II	Line	WR	MO	01-01-2020 17:22	Manually opened due to high voltage.	02-01-2020 07:27	14:05:00	0
51	765kV Aurangabad-Sholapur-II	Line	WR	MO	03-01-2020 21:02	Manually opened due to high voltage.	04-01-2020 07:22	10:20:00	0

23. List of Outages of Elements monitored by NLDC for the month of January-2020

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
52	765kV Aurangabad-Sholapur-II	Line	WR	MO	06-01-2020 20:33	Manually opened due to high voltage.	07-01-2020 06:14	9:41:00	0
53	765kV Aurangabad-Sholapur-II	Line	WR	MO	14-01-2020 19:44	Manually opened due to high voltage.	15-01-2020 08:48	13:04:00	0
54	765kV Aurangabad-Sholapur-II	Line	WR	MO	16-01-2020 20:14	Manually opened due to high voltage.	17-01-2020 06:48	10:34:00	0
55	765kV Aurangabad-Sholapur-II	Line	WR	MO	18-01-2020 18:29	Manually opened due to high voltage.	19-01-2020 06:59	12:30:00	0
56	765kV Aurangabad-Sholapur-II	Line	WR	MO	22-01-2020 18:25	Manually opened due to high voltage.	23-01-2020 06:52	12:27:00	0
57	765kV Bhuj-Banaskantha-I	Line	WR	SO	13-01-2020 10:01	CSD fine tuning & spare reactor switching	13-01-2020 20:12	10:11:00	0
58	765kV Bhuj-Banaskantha-II	Line	WR	SO	27-01-2020 09:26	CSD fine tuning & spare reactor switching (of L/R) line amp.	27-01-2020 20:33	11:07:00	0
59	765kV Bina-Gwalior-I	Line	WR	SO	12-01-2020 09:22	For insulator cleaning & line maintenance work (attending S/D nature defects).	12-01-2020 19:35	10:13:00	0
60	765kV Bina-Gwalior-I	Line	WR	MO	08-01-2020 02:24	Manually opened due to high voltage.	08-01-2020 07:40	5:16:00	0
61	765kV Bina-Gwalior-I	Line	WR	MO	11-01-2020 02:05	Manually opened due to high voltage.	11-01-2020 05:11	3:06:00	0
62	765kV Bina-Gwalior-I	Line	WR	MO	20-01-2020 03:36	Manually opened due to high voltage.	20-01-2020 06:12	2:36:00	0
63	765kV Bina-Gwalior-II	Line	WR	SO	10-01-2020 08:44	for insulator cleaning & line maintenance work	10-01-2020 19:44	11:00:00	0
64	765kV Bina-Gwalior-II	Line	WR	MO	12-01-2020 02:10	Manually opened due to high voltage.	12-01-2020 06:37	4:27:00	0
65	765kV Bina-Gwalior-III	Line	WR	SO	09-01-2020 08:58	For insulator cleaning & line maintenance work	09-01-2020 20:21	11:23:00	0
66	765kV Bina-Jabalpur-I	Line	WR	SO	27-01-2020 15:10	Conductor damage	27-01-2020 18:47	3:37:00	0
67	765kV Bina-Jabalpur-I	Line	WR	MO	01-01-2020 17:24	Manually opened due to high voltage.	02-01-2020 08:35	15:11:00	0
68	765kV Bina-Jabalpur-I	Line	WR	MO	15-01-2020 21:30	Manually opened due to high voltage.	16-01-2020 07:32	10:02:00	0
69	765kV Bina-Jabalpur-I	Line	WR	MO	27-01-2020 18:48	Manually opened due to high voltage.	28-01-2020 08:24	13:36:00	0
70	765kV Bina-Jabalpur-II	Line	WR	SO	27-01-2020 11:32	Conductor damage	27-01-2020 14:45	3:13:00	0
71	765kV Bina-Jabalpur-II	Line	WR	MO	01-01-2020 01:27	Manually opened due to high voltage.	01-01-2020 06:11	4:44:00	0
72	765kV Bina-Jabalpur-II	Line	WR	MO	07-01-2020 00:40	Manually opened due to high voltage.	07-01-2020 07:53	7:13:00	0
73	765kV Bina-Jabalpur-II	Line	WR	MO	16-01-2020 22:02	Manually opened due to high voltage.	17-01-2020 06:52	8:50:00	0
74	765kV Bina-Jabalpur-II	Line	WR	MO	22-01-2020 22:15	Manually opened due to high voltage.	23-01-2020 09:48	11:33:00	0
75	765kV Bina-Jabalpur-III	Line	WR	MO	08-01-2020 21:28	Manually opened due to high voltage.	09-01-2020 06:47	9:19:00	0
76	765kV Bina-Jabalpur-III	Line	WR	MO	15-01-2020 01:23	Manually opened due to high voltage.	15-01-2020 07:32	6:09:00	0
77	765kV Dhule-Vadodara	Line	WR	SO	30-01-2020 10:43	Amp work	30-01-2020 22:34	11:51:00	0
78	765kV Dhule-Vadodara	Line	WR	MO	14-01-2020 20:55	Manually opened due to high voltage.	15-01-2020 05:45	8:50:00	0
79	765kV Durg-Wardha-I	Line	WR	MO	07-01-2020 22:33	Manually opened due to high voltage.	13-01-2020 09:26	130:53:00	0
80	765kV Durg-Wardha-I	Line	WR	MO	18-01-2020 20:04	Manually opened due to high voltage.	22-01-2020 09:22	85:18:00	0
81	765kV Durg-Wardha-I	Line	WR	MO	29-01-2020 15:43	Manually opened due to high voltage.	01-02-2020 00:00	56:17:00	0
82	765kV Durg-Wardha-II	Line	WR	MO	02-01-2020 20:01	Manually opened due to high voltage.	07-01-2020 10:48	110:47:00	0
83	765kV Durg-Wardha-II	Line	WR	MO	13-01-2020 20:43	Manually opened due to high voltage.	18-01-2020 09:55	109:12:00	0
84	765kV Durg-Wardha-II	Line	WR	MO	22-01-2020 13:32	Manually opened due to high voltage.	29-01-2020 10:53	165:21:00	0
85	765kV Durg-Wardha-III	Line	WR	MO	06-01-2020 17:39	Manually opened due to high voltage.	10-01-2020 10:10	88:31:00	0
86	765kV Durg-Wardha-III	Line	WR	MO	17-01-2020 21:12	Manually opened due to high voltage.	20-01-2020 09:20	60:08:00	0
87	765kV Durg-Wardha-III	Line	WR	MO	28-01-2020 20:14	Manually opened due to high voltage.	30-01-2020 08:17	36:03:00	0
88	765kV Durg-Wardha-IV	Line	WR	MO	01-01-2020 00:00	Manually opened due to high voltage.	06-01-2020 16:21	136:21:00	0
89	765kV Durg-Wardha-IV	Line	WR	MO	10-01-2020 20:21	Manually opened due to high voltage.	17-01-2020 09:23	157:02:00	0
90	765kV Durg-Wardha-IV	Line	WR	MO	22-01-2020 02:04	Manually opened due to high voltage.	28-01-2020 10:45	152:41:00	0
91	765kV Durg-Wardha-IV	Line	WR	MO	31-01-2020 22:26	Manually opened due to high voltage.	10-02-2020 06:25	223:59:00	0
92	765kV Indore-Vadodara	Line	WR	SO	28-01-2020 10:01	Reactor LA base changing works at indore.	28-01-2020 19:54	9:53:00	0
93	765kV Jabalpur-Dharamjaigarh-I	Line	WR	MO	01-01-2020 00:00	Manually opened due to high voltage.	11-01-2020 08:05	248:05:00	0
94	765kV Jabalpur-Dharamjaigarh-I	Line	WR	MO	31-01-2020 23:47	Manually opened due to high voltage.	01-02-2020 00:00	0:13:00	0
95	765kV Jabalpur-Dharamjaigarh-II	Line	WR	MO	12-01-2020 19:55	Manually opened due to high voltage.	29-01-2020 11:09	399:14:00	0
96	765kV Jabalpur-Dharamjaigarh-III	Line	WR	MO	06-01-2020 21:42	Manually opened due to high voltage.	23-01-2020 11:49	398:07:00	0
97	765kV Jabalpur-Dharamjaigarh-IV	Line	WR	MO	01-01-2020 00:00	Manually opened due to high voltage.	06-01-2020 10:46	130:46:00	0
98	765kV Jabalpur-Dharamjaigarh-IV	Line	WR	MO	26-01-2020 17:44	Manually opened due to high voltage.	10-02-2020 06:52	349:08:00	0
99	765kV Pune-Phadge	Line	WR	TS	21-01-2020 12:32	For replacement of main-1 relay at pune-gis end	21-01-2020 17:29	4:57:00	1
100	765kV Pune-Phadge	Line	WR	MO	01-01-2020 00:00	Manually opened due to high voltage.	13-01-2020 10:24	298:24:00	1
101	765kV Pune-Sholapur	Line	WR	MO	04-01-2020 17:02	Manually opened due to high voltage.	27-01-2020 08:41	543:39:00	0
102	765kV Pune-Sholapur	Line	WR	MO	28-01-2020 17:14	Manually opened due to high voltage.	01-02-2020 00:00	78:46:00	0
103	765kV Raigarh-PS(Kotra)-Tamnar-I	Line	WR	SO	13-01-2020 08:52	For jumper spacer bolt missing loc no 42 & 765kv-raigarh-ps-tamnar-2	13-01-2020 20:04	11:12:00	0
104	765kV Raigarh-PS(Kotra)-Tamnar-II	Line	WR	SO	14-01-2020 09:12	For jumper spacer bolt missing loc no 30 & 765kv-raigarh-ps-tamnar-1	14-01-2020 19:11	9:59:00	0
105	765kV Satna-Gwalior-II	Line	WR	SO	11-01-2020 09:40	For insulator cleaning & maintenance works	11-01-2020 19:50	10:10:00	0
106	765kV Seoni-Bina-I	Line	WR	SO	31-01-2020 08:31	For line amp works - to liquidate the line defects	31-01-2020 21:35	13:04:00	0
107	765kV Sipat-Bilaspur-I	Line	WR	SO	11-01-2020 09:14	For tower strengthening works.	12-01-2020 01:19	16:05:00	0
108	765kV Sipat-Bilaspur-I	Line	WR	SO	12-01-2020 08:58	For tower strengthening works.	12-01-2020 20:16	11:18:00	0
109	765kV Sipat-Bilaspur-I	Line	WR	SO	13-01-2020 09:22	For tower strengthening works.	13-01-2020 20:09	10:47:00	0
110	765kV Sipat-Bilaspur-I	Line	WR	SO	14-01-2020 08:47	For tower strengthening works.	14-01-2020 19:40	10:53:00	0
111	765kV Sipat-Bilaspur-I	Line	WR	SO	24-01-2020 08:35	Tower strengthening work	24-01-2020 21:00	12:25:00	0

23. List of Outages of Elements monitored by NLDC for the month of January-2020

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
112	765kV Sipat-Bilaspur-I	Line	WR	SO	25-01-2020 09:02	Tower strengthening work	25-01-2020 19:45	10:43:00	0
113	765kV Sipat-Bilaspur-II	Line	WR	SO	17-01-2020 08:21	Tower strengthening work.	17-01-2020 20:34	12:13:00	0
114	765kV Sipat-Bilaspur-II	Line	WR	SO	18-01-2020 08:34	Tower strengthening work.	18-01-2020 19:40	11:06:00	0
115	765kV Sipat-Bilaspur-II	Line	WR	SO	19-01-2020 09:32	For tower strengthening works	19-01-2020 19:37	10:05:00	0
116	765kV Sipat-Bilaspur-II	Line	WR	SO	22-01-2020 08:20	Tower strengthening work	22-01-2020 19:57	11:37:00	0
117	765kV Sipat-Bilaspur-II	Line	WR	SC	23-01-2020 08:30	Stringing over 63 mvar line reactor(future 765 kv ghatampur-agra line)	23-01-2020 20:14	11:44:00	0
118	765kV Sipat-Bilaspur-II	Line	WR	SO	28-01-2020 08:48	Tower strengthening work	28-01-2020 19:43	10:55:00	0
119	765kV Sipat-Bilaspur-II	Line	WR	SO	29-01-2020 08:28	Tower strengthening work	29-01-2020 19:39	11:11:00	0
120	765kV Sipat-Bilaspur-II	Line	WR	SO	30-01-2020 08:30	Tower strengthening work	30-01-2020 19:16	10:46:00	0
121	765kV Sipat-Bilaspur-II	Line	WR	SO	31-01-2020 08:37	Tower strengthening work	31-01-2020 20:15	11:38:00	0
122	765kV Sipat-Bilaspur-II	Line	WR	SO	27-01-2020 08:14	Tower strengthening work	27-01-2020 19:56	11:42:00	0
123	765kV VindhyaChal-Satna-II	Line	WR	SO	25-01-2020 11:02	Critical nature defects found in line while patrolling at the location nos. 411 & 405 & 453	25-01-2020 19:11	8:09:00	0
124	765kV Wardha-Aurangabad-I	Line	WR	MO	01-01-2020 21:56	Manually opened due to high voltage.	06-01-2020 08:17	106:21:00	0
125	765kV Wardha-Aurangabad-I	Line	WR	SO	24-01-2020 13:10	Tightening of y type extension link bolt nut towards dead end assembly	24-01-2020 17:22	4:12:00	0
126	765kV Wardha-Aurangabad-I	Line	WR	MO	24-01-2020 18:05	Manually opened due to high voltage.	25-01-2020 09:31	15:26:00	0
127	765kV Wardha-Aurangabad-II	Line	WR	SE	13-01-2020 12:21	Hot spot observed on drop jumper connector R-ph.	13-01-2020 22:26	10:05:00	0
128	765kV Wardha-Aurangabad-III	Line	WR	MO	01-01-2020 01:52	Manually opened due to high voltage.	01-01-2020 06:33	4:41:00	0
129	765kV Wardha-Aurangabad-III	Line	WR	MO	05-01-2020 21:01	Manually opened due to high voltage.	08-01-2020 08:17	59:16:00	0
130	765kV Wardha-Aurangabad-IV	Line	WR	MO	08-01-2020 19:46	Manually opened due to high voltage.	13-01-2020 12:02	112:16:00	0
131	765kV Wardha-Aurangabad-IV	Line	WR	MO	13-01-2020 18:16	Manually opened due to high voltage.	24-01-2020 12:45	258:29:00	0
132	765kV Wardha-Aurangabad-IV	Line	WR	MO	25-01-2020 18:12	Manually opened due to high voltage.	01-02-2020 00:00	149:48:00	0
133	765kV Warora-New Parli Ckt-II	Line	WR	SE	25-01-2020 10:25	Hotspot in Isolator of 765 KV Warora Parli-2 89L Y-PH found on High Temperature 73.6 degree centigrade.	25-01-2020 14:34	4:09:00	0

23. List of Outages of Elements monitored by NLDC for the month of January-2020

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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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 Alipurdaur Pole-3	HVDC	ER	MO	01-01-2020 00:00	Hvdc pole-3 blocked at apd & agra to facilitate power reversal from agra to bnc	01-01-2020 11:37	11:37:00	0
2	HVDC Alipurdaur Pole-3	HVDC	ER	MO	06-01-2020 22:04	Pole blocked on system high voltage.	01-02-2020 00:00	601:56:00	0
3	HVDC Alipurdaur Pole-4	HVDC	ER	MO	01-01-2020 00:00	Pole 4 blocked at APD & Agra to facilitate power reversal from Agra to BNC	06-01-2020 13:28	133:28:00	0
4	HVDC Alipurdaur Pole-4	HVDC	ER	MO	11-01-2020 21:50	Pole 4 blocked at APD & Agra to facilitate power reversal from Agra to BNC	01-02-2020 00:00	482:10:00	0
5	765/400 KV ICT-II at Angul	ICT	ER	SO	30-01-2020 09:40	Amp works	30-01-2020 18:04	8:24:00	0
6	765/400 KV ICT-II at Jharsuguda	ICT	ER	SO	22-01-2020 09:35	for changing of ICT-2 B-ph with spare ICT for oil leakage arresting works of ICT-2 B-ph.	22-01-2020 14:55	5:20:00	0
7	765kV Angul-Jharsuguda-II	Line	ER	MO	17-01-2020 13:02	Manually opened due to high voltage.	27-01-2020 11:46	238:44:00	0
8	765kV Angul-Jharsuguda-III	Line	ER	MO	01-01-2020 00:00	Manually opened due to high voltage.	07-01-2020 10:17	154:17:00	0
9	765kV Angul-Jharsuguda-III	Line	ER	MO	27-01-2020 22:23	Manually opened due to high voltage.	05-02-2020 10:25	204:02:00	0
10	765kV Angul-Jharsuguda-IV	Line	ER	MO	07-01-2020 22:26	Manually opened due to high voltage.	17-01-2020 10:32	228:06:00	0

23. List of Outages of Elements monitored by NLDC for the month of January-2020

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
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	B/R-II Chilkuripetha	Bus Reactor	SR	SO	06-01-2020 10:40	R-ph WTI replacement	06-01-2020 12:52	2:12:00	0
2	B/R-I at Kurnool	Bus Reactor	SR	SO	07-01-2020 10:27	Spare changeover	07-01-2020 18:03	7:36:00	0
3	B/R-I at Nellore	Bus Reactor	SR	SO	02-01-2020 09:46	Amp work	02-01-2020 13:38	3:52:00	0
4	B/R-I at Vemagiri	Bus Reactor	SR	SO	28-01-2020 10:10	Spare change over	28-01-2020 13:14	3:04:00	0
5	765kV Cuddapah- Chilkuripetha Ckt-I	Line	SR	MO	16-01-2020 11:08	Manually opened on high voltage	17-01-2020 10:05	22:57:00	0
6	765kV Cuddapah- Chilkuripetha Ckt-I	Line	SR	MO	09-01-2020 21:40	Manually opened due to high voltage.	10-01-2020 05:43	8:03:00	0
7	765kV Cuddapah- Chilkuripetha Ckt-I	Line	SR	MO	10-01-2020 00:20	Manually opened due to high voltage.	11-01-2020 06:13	29:53:00	0
8	765kV Cuddapah- Chilkuripetha Ckt-I	Line	SR	MO	12-01-2020 00:39	Manually opened due to high voltage.	12-01-2020 10:02	9:23:00	0
9	765kV Cuddapah- Chilkuripetha Ckt-I	Line	SR	MO	15-01-2020 16:48	Manually opened due to high voltage.	16-01-2020 10:17	17:29:00	0
10	765kV Cuddapah- Chilkuripetha Ckt-I	Line	SR	MO	18-01-2020 18:25	Manually opened due to high voltage.	20-01-2020 10:03	39:38:00	0
11	765kV Cuddapah- Chilkuripetha Ckt-I	Line	SR	MO	20-01-2020 19:13	Manually opened due to high voltage.	22-01-2020 07:55	36:42:00	0
12	765kV Cuddapah- Chilkuripetha Ckt-II	Line	SR	MO	01-01-2020 21:53	Manually opened due to high voltage.	02-01-2020 07:42	9:49:00	0
13	765kV Cuddapah- Chilkuripetha Ckt-II	Line	SR	MO	08-01-2020 21:40	Manually opened due to high voltage.	09-01-2020 06:21	8:41:00	0
14	765kV Cuddapah- Chilkuripetha Ckt-II	Line	SR	MO	11-01-2020 00:20	Manually opened due to high voltage.	11-01-2020 06:13	5:53:00	0
15	765kV Cuddapah- Chilkuripetha Ckt-II	Line	SR	MO	14-01-2020 19:48	Manually opened due to high voltage.	15-01-2020 07:07	11:19:00	0
16	765kV Cuddapah- Chilkuripetha Ckt-II	Line	SR	MO	17-01-2020 15:03	Manually opened due to high voltage.	18-01-2020 08:37	17:34:00	0
17	765kV Cuddapah- Chilkuripetha Ckt-II	Line	SR	MO	22-01-2020 18:44	Manually opened due to high voltage.	22-02-2020 08:00	221:16:00	0
18	765kV Cuddapah-Thiruvalam Ckt-I	Line	SR	SO	20-01-2020 08:59	For diamond formation of earth wires of 765kv kadapa-thiruvalam dc line and 800kv raigarh-pugalur hvdc line	20-01-2020 19:52	10:53:00	0
19	765kV Cuddapah-Thiruvalam Ckt-I	Line	SR	TV	26-01-2020 18:04	Tripped on over voltage	26-01-2020 18:15	0:11:00	1
20	765kV Cuddapah-Thiruvalam Ckt-I	Line	SR	MO	26-01-2020 18:15	Kept open on High voltage after tripping	27-01-2020 07:14	12:59:00	1
21	765kV Cuddapah-Thiruvalam Ckt-I	Line	SR	MO	03-01-2020 23:53	Manually opened due to high voltage.	04-01-2020 07:42	7:49:00	1
22	765kV Cuddapah-Thiruvalam Ckt-I	Line	SR	MO	06-01-2020 21:18	Manually opened due to high voltage.	07-01-2020 08:02	10:44:00	1
23	765kV Cuddapah-Thiruvalam Ckt-I	Line	SR	MO	12-01-2020 23:21	Manually opened due to high voltage.	13-01-2020 08:38	9:17:00	1
24	765kV Cuddapah-Thiruvalam Ckt-I	Line	SR	MO	15-01-2020 00:14	Manually opened due to high voltage.	15-01-2020 07:09	6:55:00	1
25	765kV Cuddapah-Thiruvalam Ckt-I	Line	SR	MO	16-01-2020 11:08	Manually opened due to high voltage.	17-01-2020 06:15	19:07:00	1
26	765kV Cuddapah-Thiruvalam Ckt-I	Line	SR	MO	18-01-2020 19:38	Manually opened due to high voltage.	19-01-2020 07:59	12:23:00	1
27	765kV Cuddapah-Thiruvalam Ckt-I	Line	SR	MO	21-01-2020 22:49	Manually opened due to high voltage.	22-01-2020 06:59	8:10:00	1
28	765kV Cuddapah-Thiruvalam Ckt-I	Line	SR	MO	22-01-2020 18:42	Manually opened due to high voltage.	23-01-2020 07:35	12:53:00	1
29	765kV Cuddapah-Thiruvalam Ckt-I	Line	SR	MO	24-01-2020 22:26	Manually opened due to high voltage.	25-01-2020 06:42	8:16:00	1
30	765kV Cuddapah-Thiruvalam Ckt-I	Line	SR	MO	28-01-2020 22:10	Manually opened due to high voltage.	29-01-2020 08:21	10:11:00	1
31	765kV Cuddapah-Thiruvalam Ckt-II	Line	SR	SC	20-01-2020 08:52	For diamond formation of earth wires of 765kv kadapa-thiruvalam dc line and 800kv raigarh-pugalur hvdc line	20-01-2020 19:58	11:06:00	0
32	765kV Cuddapah-Thiruvalam Ckt-II	Line	SR	TL	28-01-2020 15:21	R- N fault	28-01-2020 16:13	0:52:00	1
33	765kV Cuddapah-Thiruvalam Ckt-II	Line	SR	MO	02-01-2020 21:38	Manually opened due to high voltage.	03-01-2020 08:10	10:32:00	1
34	765kV Cuddapah-Thiruvalam Ckt-II	Line	SR	MO	04-01-2020 22:10	Manually opened due to high voltage.	06-01-2020 07:02	32:52:00	1
35	765kV Cuddapah-Thiruvalam Ckt-II	Line	SR	MO	13-01-2020 22:56	Manually opened due to high voltage.	14-01-2020 07:28	8:32:00	1
36	765kV Cuddapah-Thiruvalam Ckt-II	Line	SR	MO	15-01-2020 18:01	Manually opened due to high voltage.	16-01-2020 06:26	12:25:00	1
37	765kV Cuddapah-Thiruvalam Ckt-II	Line	SR	MO	17-01-2020 19:52	Manually opened due to high voltage.	18-01-2020 07:26	11:34:00	1
38	765kV Cuddapah-Thiruvalam Ckt-II	Line	SR	MO	19-01-2020 13:32	Manually opened due to high voltage.	20-01-2020 08:51	19:19:00	1
39	765kV Cuddapah-Thiruvalam Ckt-II	Line	SR	MO	20-01-2020 19:59	Manually opened due to high voltage.	21-01-2020 08:41	12:42:00	1
40	765kV Cuddapah-Thiruvalam Ckt-II	Line	SR	MO	23-01-2020 20:12	Manually opened due to high voltage.	24-01-2020 07:33	11:21:00	1
41	765kV Cuddapah-Thiruvalam Ckt-II	Line	SR	MO	27-01-2020 20:49	Manually opened due to high voltage.	28-01-2020 06:47	9:58:00	1
42	765kV Nizamabad- Maheswaram-I	Line	SR	MO	01-01-2020 21:23	Manually opened due to high voltage.	02-01-2020 05:19	7:56:00	0
43	765kV Nizamabad- Maheswaram-I	Line	SR	MO	02-01-2020 21:10	Manually opened due to high voltage.	03-01-2020 06:33	9:23:00	0
44	765kV Nizamabad- Maheswaram-I	Line	SR	MO	04-01-2020 21:40	Manually opened due to high voltage.	05-01-2020 07:33	9:53:00	0
45	765kV Nizamabad- Maheswaram-I	Line	SR	MO	07-01-2020 20:54	Manually opened due to high voltage.	08-01-2020 04:58	8:04:00	0
46	765kV Nizamabad- Maheswaram-I	Line	SR	MO	09-01-2020 21:56	Manually opened due to high voltage.	10-01-2020 04:56	7:00:00	0
47	765kV Nizamabad- Maheswaram-I	Line	SR	MO	11-01-2020 21:59	Manually opened due to high voltage.	12-01-2020 06:10	8:11:00	0
48	765kV Nizamabad- Maheswaram-I	Line	SR	MO	13-01-2020 19:36	Manually opened due to high voltage.	14-01-2020 07:14	11:38:00	0

23. List of Outages of Elements monitored by NLDC for the month of January-2020

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
49	765kV Nizamabad- Maheswaram-I	Line	SR	MO	15-01-2020 17:53	Manually opened due to high voltage.	16-01-2020 05:55	12:02:00	0
50	765kV Nizamabad- Maheswaram-I	Line	SR	MO	17-01-2020 21:08	Manually opened due to high voltage.	18-01-2020 05:52	8:44:00	0
51	765kV Nizamabad- Maheswaram-I	Line	SR	MO	19-01-2020 19:36	Manually opened due to high voltage.	20-01-2020 06:23	10:47:00	0
52	765kV Nizamabad- Maheswaram-I	Line	SR	MO	21-01-2020 20:12	Manually opened due to high voltage.	22-01-2020 07:09	10:57:00	0
53	765kV Nizamabad- Maheswaram-I	Line	SR	MO	24-01-2020 20:21	Manually opened due to high voltage.	25-01-2020 06:33	10:12:00	0
54	765kV Nizamabad- Maheswaram-I	Line	SR	MO	27-01-2020 22:11	Manually opened due to high voltage.	28-01-2020 05:46	7:35:00	0
55	765kV Nizamabad- Maheswaram-II	Line	SR	MO	03-01-2020 21:03	Manually opened due to high voltage.	04-01-2020 06:35	9:32:00	0
56	765kV Nizamabad- Maheswaram-II	Line	SR	MO	05-01-2020 19:14	Manually opened due to high voltage.	06-01-2020 06:40	11:26:00	0
57	765kV Nizamabad- Maheswaram-II	Line	SR	MO	06-01-2020 20:29	Manually opened due to high voltage.	07-01-2020 06:21	9:52:00	0
58	765kV Nizamabad- Maheswaram-II	Line	SR	MO	08-01-2020 19:44	Manually opened due to high voltage.	09-01-2020 05:35	9:51:00	0
59	765kV Nizamabad- Maheswaram-II	Line	SR	MO	11-01-2020 00:26	Manually opened due to high voltage.	11-01-2020 06:07	5:41:00	0
60	765kV Nizamabad- Maheswaram-II	Line	SR	MO	12-01-2020 20:15	Manually opened due to high voltage.	13-01-2020 08:33	12:18:00	0
61	765kV Nizamabad- Maheswaram-II	Line	SR	MO	14-01-2020 19:33	Manually opened due to high voltage.	15-01-2020 08:06	12:33:00	0
62	765kV Nizamabad- Maheswaram-II	Line	SR	MO	16-01-2020 19:45	Manually opened due to high voltage.	17-01-2020 06:08	10:23:00	0
63	765kV Nizamabad- Maheswaram-II	Line	SR	MO	18-01-2020 20:49	Manually opened due to high voltage.	19-01-2020 06:41	9:52:00	0
64	765kV Nizamabad- Maheswaram-II	Line	SR	MO	20-01-2020 20:37	Manually opened due to high voltage.	21-01-2020 07:41	11:04:00	0
65	765kV Nizamabad- Maheswaram-II	Line	SR	MO	23-01-2020 22:18	Manually opened due to high voltage.	24-01-2020 06:33	8:15:00	0
66	765kV Nizamabad- Maheswaram-II	Line	SR	MO	26-01-2020 18:06	Manually opened due to high voltage.	27-01-2020 05:46	11:40:00	0
67	765kV Vemagiri-Chilkuripeta ckt-I	Line	SR	MO	20-01-2020 22:24	Manually opened due to high voltage.	21-01-2020 09:45	11:21:00	0
68	765kV Vemagiri-Chilkuripeta ckt-I	Line	SR	MO	21-01-2020 20:34	Manually opened due to high voltage.	22-01-2020 07:37	11:03:00	0
69	765kV Vemagiri-Chilkuripeta Ckt-II	Line	SR	MO	22-01-2020 21:58	Manually opened due to high voltage.	23-01-2020 07:04	9:06:00	0
70	765kV Vemagiri-Chilkuripeta Ckt-II	Line	SR	MO	23-01-2020 21:20	Manually opened due to high voltage.	25-01-2020 07:52	34:32:00	0
71	765kV Vemagiri-Chilkuripeta Ckt-II	Line	SR	MO	25-01-2020 19:36	Manually opened due to high voltage.	27-01-2020 08:29	36:53:00	0
72	765kV Vemagiri-Chilkuripeta Ckt-II	Line	SR	MO	27-01-2020 20:11	Manually opened due to high voltage.	28-01-2020 08:36	12:25:00	0
73	765kV Vemagiri-Chilkuripeta Ckt-II	Line	SR	MO	29-01-2020 22:43	Manually opened due to high voltage.	30-01-2020 07:53	9:10:00	0
74	765kV Vemagiri-Chilkuripeta Ckt-II	Line	SR	MO	30-01-2020 21:33	Manually opened due to high voltage.	01-02-2020 00:00	26:27:00	0

23. List of Outages of Elements monitored by NLDC for the month of January-2020

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	01-01-2020 00:00	Kept out under system constraint	05-01-2020 09:26	105:26:00	0
2	HVDC Biswanath Chariali Pole-1	HVDC	NER	SC	05-01-2020 09:26	For shifting of conductors of both the poles to newly erected tower on pile foundation at loc 118 (between loc 117-119), which was rendered vulnerable by river bank erosion, a forced majeure	11-01-2020 22:33	157:07:00	0
3	HVDC Biswanath Chariali Pole-2	HVDC	NER	MO	01-01-2020 10:52	Blocked to reverse power flow from BNC to Agra	01-01-2020 20:44	9:52:00	0
4	HVDC Biswanath Chariali Pole-2	HVDC	NER	MO	02-01-2020 00:10	Pole blocked on system high voltage.	05-01-2020 09:26	81:16:00	0
5	HVDC Biswanath Chariali Pole-2	HVDC	NER	MO	11-01-2020 22:33	Pole blocked on system high voltage.	01-02-2020 00:00	481:27:00	0
6	HVDC Biswanath Chariali Pole-2	HVDC	NER	SC	05-01-2020 09:26	For shifting of conductors of both the poles to newly erected tower on pile foundation at loc 118 (between loc 117-119), which was rendered vulnerable by river bank erosion, a forced majeure	11-01-2020 22:33	157:07:00	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 January 2020

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	9	2.25	0.30
3	Import of NR	0	0.00	0.00
4	NEW-SR	90	22.50	3.02
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	1	0.25	0.03
3	Import of NR	0	0.00	0.00
4	NEW-SR	11	2.75	0.37
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

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