

**POWER SYSTEM OPERATION CORPORATION LIMITED  
NATIONAL LOAD DESPATCH CENTRE  
NEW DELHI**

Date: 05-Dec-2019

**System Reliability Indices Report for the month of November 2019**

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

S.No.	Corridor	Number of Blocks Violated	Number of Hours Violated	%Violation
1	WR-NR	0	0.00	0.00
2	ER-NR	25	6.25	0.87
3	Import of NR	0	0.00	0.00
4	NEW-SR	14	3.50	0.49
5	NER Import	1	0.25	0.03

**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	2	0.50	0.07
3	Import of NR	0	0.00	0.00
4	NEW-SR	0	0.00	0.00
4	NER Import	1	0.25	0.03

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

## FREQUENCY DEVIATION INDEX FOR NOVEMBER 2019

Date of reporting:

05-Dec-19

Date	Percentage of time frequency is			Freq Deviation Index* (FDI)	No. of hours frequency is outside 49.95-50.05 Hz	Average Frequency (Hz)
	<49.90 Hz	49.90 - 50.05 Hz	>50.05 Hz			
01-Nov-19	12.03	77.07	10.90	22.93	5:30	49.98
02-Nov-19	6.68	80.30	13.02	19.70	4:43	49.99
03-Nov-19	3.61	80.30	16.09	19.70	4:43	50.00
04-Nov-19	9.64	73.14	17.22	26.86	6:26	49.99
05-Nov-19	8.73	75.10	16.17	24.90	5:58	49.99
06-Nov-19	2.13	74.61	23.26	25.39	6:05	50.01
07-Nov-19	0.00	61.03	38.97	38.97	9:21	50.04
08-Nov-19	2.00	70.56	27.44	29.44	7:04	50.02
09-Nov-19	1.40	79.63	18.97	20.37	4:53	50.01
10-Nov-19	1.76	78.18	20.06	21.82	5:14	50.01
11-Nov-19	0.75	75.31	23.94	24.69	5:55	50.02
12-Nov-19	5.53	73.70	20.76	26.30	6:18	50.01
13-Nov-19	2.81	74.64	22.55	25.36	6:05	50.02
14-Nov-19	4.26	75.68	20.06	24.32	5:50	50.01
15-Nov-19	4.53	68.43	27.05	31.57	7:34	50.02
16-Nov-19	6.44	69.33	24.24	30.67	7:21	50.01
17-Nov-19	2.48	75.88	21.64	24.12	5:47	50.01
18-Nov-19	8.68	79.24	12.08	20.76	4:59	49.99
19-Nov-19	6.44	78.98	14.58	21.02	5:02	49.99
20-Nov-19	6.56	78.81	14.63	21.19	5:05	49.99
21-Nov-19	3.68	65.76	30.56	34.24	8:13	50.02
22-Nov-19	3.17	80.41	16.42	19.59	4:42	50.00
23-Nov-19	1.11	72.47	26.42	27.53	6:36	50.02
24-Nov-19	1.70	68.28	30.02	31.72	7:36	50.03
25-Nov-19	5.34	65.71	28.96	34.29	8:13	50.01
26-Nov-19	2.51	64.79	32.70	35.21	8:27	50.02
27-Nov-19	0.47	66.24	33.29	33.76	8:06	50.03
28-Nov-19	0.41	69.79	29.80	30.21	7:15	50.03
29-Nov-19	3.11	77.40	19.49	22.60	5:25	50.01
30-Nov-19	4.11	77.75	18.14	22.25	5:20	50.00
<b>November 2019</b>	<b>4.07</b>	<b>73.62</b>	<b>22.31</b>	<b>26.38</b>	<b>0.26</b>	<b>50.01</b>

\*FDI is defined as percentage of time for which frequency is outside IEGC band (49.90-50.05 Hz)

क्र.स. Sl. No.	क्षेत्र REGION	उपकेंद्र SUBSTATION	VOLTAGE < V(lower)* (V=380,728 kV)	V(lower) < VOLTAGE < V(upper)*	VOLTAGE > V(upper)* (V=420,800 kV)	Voltage Deviation Index (%age of time voltage is outside range)	Number of hours voltage was outside IEGC band during month	उच्चतम (कि.वो.) Maximum(kV)	निम्नतम(कि.वो.) Minimum(kV)	औसत (कि.वो.) Average(kV)	
1	पूर्वी क्षेत्र ER	अंगल ANGUL	0%	100%	0%	0%	1	801	771	784	
2		गया GAYA	0%	100%	0%	0%	0	789	758	776	
3		झारसगढ़ा JHARSUGUDA	0%	92%	8%	8%	57	807	780	794	
4		रांची RANCHI	0%	100%	0%	0%	0	794	773	785	
5		सासाराम SASARAM	0%	100%	0%	0%	0	793	741	762	
6		दालिपली DALIPLALI	0%	100%	0%	0%	0	797	773	784	
1	उत्तरी क्षेत्र NR	आगरा AGRA	0%	100%	0%	0%	1	806	740	783	
2		आगरा (फतेहाबाद) AGRA (FATEHABAD)	0%	93%	7%	7%	53	805	761	792	
3		अनपरा सी ANPARA-C	0%	100%	0%	0%	0	781	757	769	
4		अनपरा डी ANPARA-D	0%	100%	0%	0%	0	772	749	761	
5		अंता ANTA	0%	100%	0%	0%	0	797	753	782	
6		बलिया BALLIA	0%	100%	0%	0%	0	791	748	776	
7		बारा BARA	0%	100%	0%	0%	0	793	764	780	
8		भिवानी BHIWANI	0%	87%	3%	3%	20	806	746	786	
9		बरेली BAREILLY	0%	100%	0%	0%	0	769	750	759	
10		फतेहपुर FATEHPUR	0%	100%	0%	0%	0	792	740	770	
11		ग्रेटर नोएडा GREATER NOIDA	0%	89%	11%	11%	82	810	746	790	
12		कटिक्करा JHATIKARA	0%	99%	1%	1%	7	803	744	786	
13		कानपुर जीआइएस KANPUR GIS	0%	100%	0%	0%	0	797	754	778	
14		लखनऊ LUCKNOW	0%	98%	2%	2%	11	804	754	784	
15		ललितपुर LALITPUR	0%	100%	0%	0%	0	788	763	780	
16		मेरठ MEERUT	0%	99%	1%	1%	6	809	738	781	
17		मोगा MOGA	0%	100%	0%	0%	1	811	739	774	
18		फागी PHAGI	0%	99%	1%	1%	8	805	746	784	
19		वाराणसी VARANASI	0%	100%	0%	0%	0	796	762	781	
20		उन्नाव UNNAO	0%	100%	0%	0%	0	804	743	768	
21		चित्तौड़गढ़ CHITTOORGARH	0%	99%	1%	1%	9	805	742	781	
22		अलीगढ़ ALIGARH	0%	100%	0%	0%	0	799	738	782	
23		अजमेर AJMER	0%	99%	1%	1%	5	804	736	777	
24		हापड़ HAPUR	0%	99%	1%	1%	10	803	745	785	
25		मैनपुरी MAINPURI	0%	100%	0%	0%	0	790	790	790	
26		उरई ORAI	0%	99%	1%	1%	5	801	760	787	
1	पश्चिमी क्षेत्र WR	अकोला AKOLA	0%	100%	0%	0%	0	794	751	776	
2		औरंगाबाद AURANGABAD	0%	100%	0%	0%	1	802	756	783	
3		भोपाल (बीडीटीसीएल) BHOPAL (BDTCL)	0%	100%	0%	0%	0	796	748	769	
4		बिलासपुर BILASPUR	0%	100%	0%	0%	0	787	765	778	
5		बीना BINA	0%	100%	0%	0%	0	800	750	781	
6		चांपा CHAMPA	0%	100%	0%	0%	3	803	780	791	
7		धर्मजयगढ़ DHARAMJAIGARH	0%	100%	0%	0%	0	792	762	778	
8		धुले (बीडीटीसीएल) DHULE (BDTCL)	0%	100%	0%	0%	0	792	754	776	
9		एकतुनी EKTUNI	0%	100%	0%	0%	0	798	748	776	
10		ग्वालियर GWALIOR	0%	100%	0%	0%	2	803	743	784	
11		इंदौर INDORE	0%	100%	0%	0%	0	797	742	767	
12		जबलपुर JABALPUR	0%	100%	0%	0%	1	802	758	784	
13		कोरडी KORADI	0%	100%	0%	0%	0	786	752	767	
14		पुणे PUNE	0%	100%	0%	0%	0	800	739	778	
15		रायगढ़ पुलिंग RAIGARH POOLING	0%	100%	0%	0%	0	800	779	789	
16		रायपुर पुलिंग RAIPUR POOLING	0%	100%	0%	0%	0	796	769	789	
17		सासन SASAN	0%	100%	0%	0%	0	782	756	770	
18		सतना SATNA	0%	100%	0%	0%	0	790	749	776	
19		सिवनी SEONI	0%	100%	0%	0%	0	800	763	784	
20		सोपल SIPAT	0%	100%	0%	0%	0	787	768	778	
21		सोलापुर SOLAPUR	0%	97%	3%	3%	23	806	754	787	
22		तामनार TAMNAR	0%	100%	0%	0%	0	799	779	789	
23		तिरोडा TIRODA	0%	100%	0%	0%	0	779	752	765	
24		वाडोदरा VADODARA	0%	100%	0%	0%	0	798	760	783	
25		विन्ध्यचल पुलिंग VINDHYACHAL PS	0%	100%	0%	0%	0	782	757	772	
26		वार्धा WARDHA	0%	100%	0%	0%	2	803	762	786	
27		भुज BHUJ	0%	100%	0%	0%	0	795	743	771	
28		बनसकन्था BANASKANTHA	0%	100%	0%	0%	0	796	753	780	
29		गदरवाड़ा GADARWARA	0%	99%	1%	1%	5	803	763	785	
30		पडुचे PADGHE	0%	97%	3%	3%	22	804	757	786	
31		परली PARLI	0%	98%	2%	2%	14	805	763	785	
32		राजनन्दगाँव RAJNANDGAON	0%	100%	0%	0%	3	801	776	790	
33		वाराणसी WARORA	0%	99%	1%	1%	5	802	760	782	
1	दक्षिणी क्षेत्र SR	कूर्नूल KURNOOL	0%	100%	0%	0%	0	796	750	776	
2		नेल्लूर पुलिंग NELLORE PS	0%	100%	0%	0%	0	792	751	773	
3		रायचूर RAICHUR	0%	100%	0%	0%	0	800	755	780	
4		निज़ामाबाद NIZAMABAD	0%	85%	15%	15%	111	812	756	791	
5		श्रीकाकुलम SRIKAKULAM	0%	84%	16%	16%	118	813	754	792	
6		तिरुवल्लूर THIRUVALEM	0%	100%	0%	0%	1	801	748	777	
7		कुड्डापु Cuddapah	0%	81%	19%	19%	136	805	754	789	
8		महेश्वरम MAHESHWARAM	0%	98%	2%	2%	14	805	738	780	
9		वेमगिरी VEMAGIRI	0%	100%	0%	0%	0	782	750	768	
1		पूर्वोत्तर क्षेत्र NER	अज़ारा AZARA (400 kV)	0%	100%	0%	0%	0	413	400	409
2			बालिपारा BALIPARA (400 kV)	0%	100%	0%	0%	0	421	389	408
3			बिस्वानाथ चरियालि BISWANATH CHARIALI (400 kV)	0%	100%	0%	0%	0	420	389	408
4	बोंगागाँव BONGAIGAON (400 kV)		0%	100%	0%	0%	0	414	366	405	
5	बोंगागाँव टीपीएस BONGAIGAON TPS (400 kV)		0%	100%	0%	0%	0	419	387	409	
6	बर्निहाट BYRNIHAT (400 kV)		0%	100%	0%	0%	0	413	400	409	
7	पालाताना PALATANA (400 kV)		0%	100%	0%	0%	1	420	402	413	
8	रंगनदी RANGANADI (400 kV)		0%	77%	23%	23%	162	429	395	415	
9	मिसा MISA (400 kV)		0%	100%	0%	0%	1	422	395	409	
10	सिलचर SILCHAR (400 kV)		0%	99%	1%	1%	8	433	350	409	
11	इम्फाल IMPHAL (400 kV)		0%	100%	0%	0%	1	422	394	409	
12	कामेंग KAMENG (400 kV)		0%	100%	0%	0%	0	421	390	406	

All listed stations are 765 kV stations unless otherwise mentioned

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

