

Status as on 02.12.2013

DETAILS OF FEEDERWISE EXPECTED LOAD RELIEF THROUGH AUTOMATIC UNDER-FREQUENCY RELAYS BASED LOAD-SHEDDING SCHEME

REGION – Northern Region

State: Delhi

Under-frequency Relays setting : 49.2 Hz.

S.No.	Name of Sub-station	Particulars of feeder	Load Relief (MW)		UFR (Functional or Non-functional)	Target date for making UFR functional if not yet functional	Remarks / constraints, if any, in
			Peak	Average			
1	220 kV Kashmiri gate	33KV Fountain Ckt-1	15.0	11.2	Functional	-	-
2	220 kV SOW	66 KV YAMUA VIHAR -1	50.2	37.4		-	-
3	220 kV SOW	66 KV YAMUA VIHAR -2	50.2	37.4		-	-
4	220 kV Pappankaln-1	66KV G-2 CKT-1	64.3	48		-	-
5	220 kV Pappankaln-1	66KV G-2 CKT-II	64.3	48		-	-
6	220 kV Shalimarbagh	33KV RANI BAGH -1	12.2	9.1		-	-
7	220 kV Shalimarbagh	33KV RANI BAGH -2	12.2	9.1		-	-
8	220 kV Parkstreet	33KV PRASAD NAGAR	28.6	21.3		-	-
		Total load relief	296.9	221.5			
		Required load relief	258				

Under-frequency Relays setting : 49.0 Hz.

S.No.	Name of Sub-station	Particulars of feeder	Load Relief (MW)		UFR (Functional or Non-functional)	Target date for making	Remarks / constraints, if any, in
			Peak	Average			
1	220 kV Kashmiri gate	11KV I.S.B.T. Flyover	1.6	1.2	Functional	-	-
2	220 kV Kashmiri gate	11KV New Kashmiri Gate	2.0	1.5		-	-
3	220 kV SOW	66 KV GHONDA -I	46.7	36		-	-
4	220 kV SOW	66 KV GHONDA -II	0.0	0.0		-	-
5	220 kV Geeta Colony	33KV KANTI NG.-I	10.8	8.3		-	-
6	220 kV Geeta Colony	33KV KANTI NG.-II	13.8	10.6		-	-

31	220 kV Kanjhawala	11KV Punjab Khera	2.2	1.7		-	-
32	220 kV Kanjhawala	11kv O/H Rani khera	3.9	3.0		-	-
33	220 kV IP Station	33kv Exhibition -I	6.9	5.3		-	-
34	RPH	33KV Jama Masjid-1	0.0	0.0		-	-
35	RPH	33KV Jama Masjid-2	0.0	0.0		-	-
36	220 kV Masjid Moth	33 kV Balaji	OFF	OFF		-	-
37	220 kV Masjid Moth	33KV ALAKHNANDA	ON	ON		-	-
38	220 kV Narela	11kv U/G NARELA	3.9	3.0		-	-
39	220 kV Narela	11KV NARELA O/H	3.5	2.7		-	-
40	220 kV Narela	11KV DDA-4	1.0	0.8		-	-
41	220 kV Narela	11kv DDA-5	0.9	0.7		-	-
42	220 kV Narela	11kv DSIDC	0.0	0.0		-	-
43	220 kV Narela	11kv BAWANA	1.9	1.5		-	-
44	220 kV Shalimarbagh	33KV SMB KHOSLA U/G-1	13.2	10.2		-	-
45	220 kV Shalimarbagh	11KV VILLAGE BADLI-2	2.1	1.6		-	-
46	220 kV Shalimarbagh	11KV 10- B SMB	2.1	1.6		-	-
47	220 kV Rohini	11KV O/H HYD. DISP.	1.4	1.1		-	-
48	220 kV Vasant Kunj	66KV RIDGE VALLEY-I	0.0	0.0		-	-
49	220 kV Vasant Kunj	66KV RIDGE VALLEY-II	0.0	0.0		-	-
50	220 kV Vasant Kunj	11KV RANGPURI	2.9	2.2		-	-
51	220 kV Vasant Kunj	11KV NANGAL DAIRY	0.1	0.1		-	-
52	220 kV Okhla	66KV OKHLA-I	44.4	34.1		-	-
53	220 kV Okhla	66KV OKHLA-II	44.4	34.1		-	-
54	220 kV Mehrauli	66KV VASANT KUNJ D-I	0.0	0.0		-	-
55	220 kV Mehrauli	66KV VASANT KUNJ D-II	0.0	0.0		-	-
56	220 kV Parksteet	66KV RIDGE VALLEY-1	25.1	19.3		-	-
57	220 kV Parksteet	66KV RIDGE VALLEY-2	18.9	14.5		-	-
58	220 kV Gazipur	11KV FISH MKT.-I	0.2	0.2		-	-
59	220 kV Gazipur	11KV FISH MKT.-II	1.2	0.9		-	-
		Total load relief	352.9	271.6			

		Required load relief	259				
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Under-frequency Relays setting : 48.8 Hz.

S.No.	Name of Sub-station	Particulars of feeder	Load Relief (MW)		UFR (Functional or Non-functional)	Target date for making if not yet functional	Remarks / constraints, if any, in
			Peak	Average			
1	220 kV Kashmiri gate	11KV Mahavir icefactory	3.0	2.4	Functional	-	-
2	220 kV Kashmiri gate	11KV G.P.O.	2.2	1.7		-	-
3	220 kV Geeta colony	33KV SHAKAR PUR	8.7	7.0		-	-
4	220 kV Patparganj	33KV GURU ANGAD NG.-I	20.3	16.2		-	-
5	220 kV Patparganj	33KV GURU ANGAD NG.-II	17.1	13.7		-	-
6	220 kV Najafgarh	11kv Nangli Sakarwati	4.3	3.4		-	-
7	220 kV Najafgarh	11kv Deenpur	3.7	3.0		-	-
8	220 kV Najafgarh	11kv TP KOTLA	3.7	3.0		-	-
9	220kV Pappankaln-1	11KV PP-1	1.9	1.6		-	-
10	220kV Pappankaln-1	11KV MAHA LUXMI	3.1	2.5		-	-
11	220kV Pappankaln-1	11KV MANGALPURI	3.9	3.1		-	-
12	220 kV Lodhi Road	33KV nizamuddin	11.1	8.9		-	-
13	220 kV Lodhi Road	33KV J.L.N. Stadium	0.0	0.0		-	-
14	220 kV Sarita Vihar	66KV MATHURA ROAD-II	22.0	17.6		-	-
15	220 kV Sarita Vihar	11KV SARITA VIHAR -I	2.5	2.0		-	-
16	220 kV Subjimandi	33KV O/G Tripolia	18.8	15.0		-	-
17	220 kV Subjimandi	11KV Bara Hindu Rao(P.S.)	B/D	0.0		-	-
18	220 kV Naraina	33KV Rewari line-I	23.3	18.6		-	-
19	220 kV Kanjhawala	11kv ABC Kanjhawala	3.6	2.9		-	-

20	220 kV Kanjhawala	11kv S.O.S. Bawana	0.1	0.1	-	-
21	220 kV IP Station	33kv Exhibition -2	15.7	12.6	-	-
22	RPH	33 kV Civil Line-1		0.0	-	-
23	RPH	33 kV Lahori Gate-1		0.0	-	-
24	220 kV Masjid Moth	33 kV Pushpa Vihar	13.1	10.5	-	-
25	400 kV Mundka	66KV Ghevra	ON	0.0	-	-
26	220 kV Narela	66KV Badli-I CKT-I	33.3	26.6	-	-
27	220 kV Narela	66KV Badli-II CKT-I	33.3	26.6	-	-
28	220 kV Rohini	66 kV Rohini-VI CKT-I	0.0	0.0	-	-
29	220 kV Rohini	66 kV Rohini-VI CKT-II	0.0	0.0	-	-
30	220 kV Vasant Kunj	11KV AB Hotel KUNJ S/S 5	1.4	1.1	-	-
31	220 kV Vasant Kunj	11KV C9 VASANT Kunj S/S 2	0.6	0.4	-	-
32	220 kV Vasant Kunj	11 kV C9 Vasan Kunj S/S	0.9	0.7	-	-
33	220 kV Vasant Kunj	11 kV C8 Vasan Kunj S/S -1	0.7	0.5	-	-
34	220 kV Okhla	66 kV Malviya NGR-II	24.4	19.5	-	-
35	220 kV Okhla	33 kV Alaknanda-I	12.8	10.2	-	-
36	220 kV Okhla	66KV Malviya NGR-I	24.4	19.5	-	-
37	220 kV Mehrauli	66KV VASANT KUNJ C-I	17.9	14.3	-	-
38	220 kV Mehrauli	66KV VASANT KUNJ C-II	17.4	13.9	-	-
39	220 kV Parksteet	33KV SHANKAR ROAD	26.3	21.0	-	-
40	220 kV Gazipur	66KV VIVEK VIHAR-I	0.0	0.0	-	-
41	220 kV Gazipur	66KV VIVEK VIHAR-II	53.0	42.4	-	-
Total load relief			428.5	342.5		
Required load relief			262.0			

Under-frequency Relays setting : 48.6 Hz.

S.No.	Name of Sub-station	Particulars of feeder	Load Relief (MW)		UFR (Functional or Non-functional)	Target date for making if not yet functional	Remarks / constraints, if any, in
			Peak	Average			
1	220 kV Kashmiri gate	33KV Lohori Gate	20.0	17.4	Functional	-	-
2	220 kV Kashmiri gate	11KV Hamilton Road	2.4	2.1		-	-

29	RPH	33KV TOWN HALL-2		0.0		-	-
30	220 kV Masjid Moth	33KV SHIVALIK	31.4	27.3		-	-
31	400 kV Mundka	66KV MANGOLPURI	49.0	42.6		-	-
32	220 kV Ridge Valley	66KV Incomer-I	58.0	50.4		-	-
33	220 kV Narela	66KV BHALASWA-I	47.1	41.0		-	-
34	220 kV Narela	66KV BHALASWA-II	47.1	41.0		-	-
35	220 kV Shalimarbagh	33KV SMB Facility Centre	9.7	8.4		-	-
36	220 kV Shalimarbagh	11KV KU PPR	1.7	1.5		-	-
37	220 kV Rohini	66KV ROHINI -24 CKT.I	29.9	26.0		-	-
38	220 kV Rohini	66KV ROHINI -24 CKT.II	29.9	26.0		-	-
39	220 kV DSIDC Bawana	66KV NARELA-1	28.0	24.3		-	-
40	220 kV DSIDC Bawana	66KV NARELA-2	28.0	24.3		-	-
41	220 kV Vasant Kunj	66KV VASANT KUNJ C-I	46.0	40.0		-	-
42	220 kV Vasant Kunj	66KV VASANT KUNJ C-II	47.1	41.0		-	-
43	220 kV Okhla	33KV OKHLA-I	24.4	21.2		-	-
44	220 kV Okhla	33KV OKHLA-II	16.1	14.0		-	-
45	220 kV Mehrauli	66KV MALVIYA NAGAR-I	41.9	36.4		-	-
46	220 kV Mehrauli	66KV MALVIYA NAGAR-II	49.1	42.7		-	-
47	220 kV Parkstreet	33KV MOTIA KHAN-1	0.0	0.0		-	-
48	220 kV Parkstreet	33KV MOTIA KHAN-2	9.1	8.0		-	-
49	220 kV Gazipur	66KV KONDLI-I	36.0	31.3		-	-
50	220 kV Gazipur	66KV KONDLI-II	34.0	29.6		-	-
51	220 kV Gazipur	11KV TELCO-I	0.0	0.0		-	-
52	220 kV Gazipur	11KV TELCO-II	0.2	0.1		-	-
Total load relief			1048.5	911.7			
Required load relief			263				

DELHI	Load Relief (MW)	Targeted Load Relief (MW)	% Load Relief implemented w.r.t. Target load Relief
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1	Total Load relief at frequency 49.2Hz	296.9	258.0	115.1
2	Total Load relief at frequency 49.0Hz	352.9	259.0	136.2
3	Total Load relief at frequency 48.8Hz	428.5	262.0	163.6
4	Total Load relief at frequency 48.6Hz	1048.5	263.0	398.7
5	Total Load releif at flat frequency	2126.9	1042.0	204.1

Status as on 02.12.2013

DETAILS OF FEEDERWISE EXPECTED LOAD RELIEF THROUGH AUTOMATIC UNDER-FREQUENCY RELAYS BASED LOAD-SHEDDING SCHEME

REGION – Northern Region

State: Rajasthan

Under-frequency Relays setting : 49.2 Hz.

S.No.	NAME OF SUB STATION		Feeder Voltage level (kV)	Particulars of feeder	Load Relief (MW)		UFR FUNCTIONAL /NOT FUNCTIONAL	TARGET DATE FOR MAKING UFR FUNCTIONAL, IF NOT YET FUNCTIONAL	Remarks / constraints, if any, in
					Peak	Average			
1	132/33 kV	ANOOPGARH	33 kV	10-A	4.5	3.0	FUNCTIONAL	-	-
			33 kV	RAMSINGPUR	4.5	3.0	FUNCTIONAL	-	-
2	132/33 kV	BADI SADRI	33 kV	SATOLA	3.5	2.5	FUNCTIONAL	-	-
			33 kV	BAMBORI	4.5	3.0	FUNCTIONAL	-	-
			33 kV	PIND BHANUJA	10.2	8.0	FUNCTIONAL	-	-
			33 kV	BANSI	6.9	5.0	FUNCTIONAL	-	-
3	132/33 kV	BAGAR	33 kV	BAGAR	4.5	3.0	FUNCTIONAL	-	-
			33 kV	ALIPUR	8.0	6.5	FUNCTIONAL	-	-
			33 kV	MAKHAR	2.8	2.0	FUNCTIONAL	-	-
			33 kV	KALI PAHARI	2.8	2.0	FUNCTIONAL	-	-
4	132/33 kV	BAGOT	33 kV	BAGOT	2.9	2.0	FUNCTIONAL	-	-
			33 kV	ROHINDI	5.9	4.0	FUNCTIONAL	-	-
			33 kV	PEELWA	3.4	3.0	FUNCTIONAL	-	-
			33 kV	HARNAWA	0.0	0.0	FUNCTIONAL	-	-
			33 kV	GULAR	1.4	1.0	FUNCTIONAL	-	-
5	220/132/33kV	BALOTRA	33 kV	ASOTRA	11.4	9.0	FUNCTIONAL	-	-
			33 kV	PACHPADRA	2.3	2.0	FUNCTIONAL	-	-
			33 kV	BUDIWARA	9.1	7.5	FUNCTIONAL	-	-
			33 kV	I/A	11.4	10.0	FUNCTIONAL	-	-
			33 kV	BALOTRA CITY	5.4	4.0	FUNCTIONAL	-	-
6	220/132/33kV	BHADRA	33 kV	CHHANI	10.0	8.0	FUNCTIONAL	-	-
			33 kV	KIRADA	10.0	8.0	FUNCTIONAL	-	-
			33 kV	GOGAMEDI	1.5	1.0	FUNCTIONAL	-	-
7	132/33 kV	BHARATPUR	33 kV	COMPANY BAGH	13.0	11.0	FUNCTIONAL	-	-
			33 kV	HEERA DAS	13.7	11.0	FUNCTIONAL	-	-
			33 kV	CHAMBAL W/W	0.5	0.2	FUNCTIONAL	-	-
			33 kV	UCHAIN	13.0	10.5	FUNCTIONAL	-	-
			33 kV	AJAN	3.5	2.0	FUNCTIONAL	-	-
8	220/132/33kV	BIDASAR	33 kV	MIGSARIA	8.0	6.0	FUNCTIONAL	-	-
			33 kV	DHANERU	9.1	7.5	FUNCTIONAL	-	-
			33 kV	BERASAR	7.1	5.5	FUNCTIONAL	-	-
			33 kV	NANDIATAL	4.6	3.0	FUNCTIONAL	-	-
9	220/132 kV	DAUSA	132 kV	BANDIKUI	35.0	27.0	FUNCTIONAL	-	-
			132 kV	LALSOT	63.0	55.0	FUNCTIONAL	-	-
10	132/33 kV	JHUNJHUNU	33 kV	MANDAWA	2.5	1.5	FUNCTIONAL	-	-
			33 kV	LUTTU	10.0	8.0	FUNCTIONAL	-	-
			33 kV	KHAJHUR	2.5	1.5	FUNCTIONAL	-	-
			33 kV	LALPUR	8.0	6.0	FUNCTIONAL	-	-
11	132/33 kV	KEKRI	33 kV	KADERA	1.8	1.0	FUNCTIONAL	-	-
			33 kV	KALERA	2.3	1.5	FUNCTIONAL	-	-
			33 kV	SARWAD	5.0	3.5	FUNCTIONAL	-	-
			33 kV	SANWAR	8.8	6.5	FUNCTIONAL	-	-

12	132/33 kV	KUCHAMAN	33 kV	JILIYA	7.0	5.5	FUNCTIONAL	-	-
			33 kV	NIMOD	8.0	6.0	FUNCTIONAL	-	-
			33 kV	BHANWATA	10.0	8.0	FUNCTIONAL	-	-
			33 kV	PANCHWA	11.4	9.5	FUNCTIONAL	-	-
			33 kV	ROOPRA	2.5	2.0	FUNCTIONAL	-	-
			33 kV	KUCHAMAN	9.8	8.0	FUNCTIONAL	-	-
								-	-
13	132/33 kV	MERTA	33 kV	BHANAS	3.5	2.5	FUNCTIONAL	-	-
			33 kV	JAS NAGAR	10.0	8.0	FUNCTIONAL	-	-
			33 kV	MUNG DORA	11.2	8.5	FUNCTIONAL	-	-
			33 kV	INDAWAR	10.2	8.0	FUNCTIONAL	-	-
			33 kV	MERTA ROAD	7.6	6.0	FUNCTIONAL	-	-
			33 kV	SIRSLE	8.2	6.5	FUNCTIONAL	-	-
			33 kV	NOLASAR	12.8	10.0	FUNCTIONAL	-	-
14	132/33 kV	MOLASAR	33 KV	JAITPURA	6.0	4.0	FUNCTIONAL	-	-
			33 KV	DHANKOLI	6.9	5.0	FUNCTIONAL	-	-
			33 KV	MOLASAR	5.7	4.0	FUNCTIONAL	-	-
15	220/132 kV	NAGAU	132 kV	MUNDWA	45.0	35.0	FUNCTIONAL	-	-
			132 kV	LADNOO	45.0	37.0	FUNCTIONAL	-	-
16	132/33 kV	NEWAI	33 kV	JHILAI	6.6	4.5	FUNCTIONAL	-	-
			33 kV	LALSOT	14.7	12.0	FUNCTIONAL	-	-
17	220/132/ 33 kV	PHULERA	33 kV	JOBNER	3.0	2.0	FUNCTIONAL	-	-
			33 kV	DUDU	12.0	10.0	FUNCTIONAL	-	-
			33 kV	SAMBHAR LAKE	3.0	2.0	FUNCTIONAL	-	-
			33 kV	BALAJI	12.0	10.0	FUNCTIONAL	-	-
			33 kV	NAWA	5.0	3.5	FUNCTIONAL	-	-
								-	-
18	132/33 kV	RAJIASAR	33 kV	BIJAY NAGAR	5.8	4.0	FUNCTIONAL	-	-
			33 kV	LOONKARANSAR	2.0	1.0	FUNCTIONAL	-	-
19	132/33 kV	SANJOO	33 kV	SANJOO	11.4	8.0	FUNCTIONAL	-	-
			33 kV	BARSANA	13.1	11.0	FUNCTIONAL	-	-
			33 kV	KHATU	2.3	1.5	FUNCTIONAL	-	-
			33 kV	DEGANA	6.3	4.5	FUNCTIONAL	-	-
			33 kV	BARNA	5.1	4.0	FUNCTIONAL	-	-
			33 kV	GUGOR	8.6	6.5	FUNCTIONAL	-	-
								-	-
20	132/33 kV	SHAHPURA	33 kV	SHAHPURA	8.5	6	FUNCTIONAL	-	-
			33 kV	MANOHARPURA	4	3	FUNCTIONAL	-	-
			33 kV	CHAPARA	9	7	FUNCTIONAL	-	-
			33 kV	KANT	8	6	FUNCTIONAL	-	-
			11 kV	I/C	10	8	FUNCTIONAL	-	-
								-	-
21	220/132/ 33 kV	SIROHI	33 kV	PALDI	8	6	FUNCTIONAL	-	-
22	220/132 kV	SIROHI	132 kV	REODHAR	8	6.5	FUNCTIONAL	-	-
								-	-
23	132/33 kV	SULTANA	33 kV	ARDAWATA	6	4.5	FUNCTIONAL	-	-
			33 kV	LOYAL	13.7	11	FUNCTIONAL	-	-
			33 kV	KHYAMSAR	4.5	3	FUNCTIONAL	-	-
			33 kV	KITHANA	4.5	3.5	FUNCTIONAL	-	-
								-	-
24	220/132/ 33 kV	TINWARI	33 kV	BHAISAR KOTWALI	3.4	2.5	FUNCTIONAL	-	-
			33 kV	GHEWRA	12.6	10.5	FUNCTIONAL	-	-
			33 kV	GAGORI	12.6	11.0	FUNCTIONAL	-	-
			33 kV	BIRLA BASNI	13.7	11.0	FUNCTIONAL	-	-
			33 kV	BADA KOTECHA	17.1	14.5	FUNCTIONAL	-	-
			33 kV	BALERWA	8.0	6.0	FUNCTIONAL	-	-

								-	-
25	132/33 kV	WEIR	33 kV	BAYANA	13	11	FUNCTIONAL	-	-
			33 kV	JAG JEEVANPUR	4.5	3	FUNCTIONAL	-	-
			33 kV	CHHOKARWARA	13	11	FUNCTIONAL	-	-
			33 kV	WEIR	10	8	FUNCTIONAL	-	-
26	132/33 kV	TEHANDESAR						-	-
			33 KV	SAJANSAR	9.7	7.5	FUNCTIONAL	-	-
			33 KV	TEHANDESAR	6.9	5.0	FUNCTIONAL	-	-
			33 KV	SADU	12.6	10.0	FUNCTIONAL	-	-
			33 KV	BAMBU	13.7	11.0	FUNCTIONAL	-	-
			33 KV	EYARA	10.3	8.5	FUNCTIONAL	-	-
			33 KV	NABHASAR	11.4	10.0	FUNCTIONAL	-	-
27	132/33 kV	SARDAR SHAHAR	33 KV	SONIASAR	12.6	10.0	FUNCTIONAL	-	-
								-	-
			33 KV	SARDAR SHAHAR	17.1	14.5	FUNCTIONAL	-	-
			33 KV	BHANIPURA	8.0	6.0	FUNCTIONAL	-	-
			33 KV	GARSISAR	17.1	15.0	FUNCTIONAL	-	-
			33 KV	PULASAR	2.3	1.5	FUNCTIONAL	-	-
28	132/33 kV	SANGARIYA	33 KV	MEHRASAR	5.7	4.0	FUNCTIONAL	-	-
								-	-
			33 KV	SANGARIYA	5.7	4.0	FUNCTIONAL	-	-
			33 KV	CHAKHEERA SINGH	10.3	8.5	FUNCTIONAL	-	-
			33 KV	BASEER	5.1	4.0	FUNCTIONAL	-	-
29	132/33 kV	AMARPURA	33 KV	NAGRANA	3.4	2.5	FUNCTIONAL	-	-
								-	-
			33 KV	MASANI	23.5	19.0	FUNCTIONAL	-	-
			33 KV	KAMRANI	6.7	5.0	FUNCTIONAL	-	-
30	132/33 kV	NAPASAR	33 KV	PEERKAMDIA	13.5	11.0	FUNCTIONAL	-	-
			33 KV	RAWATSAR	4.6	3.5	FUNCTIONAL	-	-
								-	-
			33 KV	MUNDSAR	15.4	13.0	FUNCTIONAL	-	-
			33 KV	NAPASAR	6.3	5.0	FUNCTIONAL	-	-
			33 KV	RAMSAR	13.1	11.0	FUNCTIONAL	-	-
31	220/132/33 kV	DHORIMANA	33 KV	BELASAR	13.1	11.7	FUNCTIONAL	-	-
			33 KV	KILCHUJATAN	13.1	11.0	FUNCTIONAL	-	-
								-	-
			33 KV	DHORIMANA	13.7	12.0	FUNCTIONAL	-	-
			33 KV	SOBHALA DARSHNA	13.1	11.0	FUNCTIONAL	-	-
			33 KV	BAMARLA	10.9	8.5	FUNCTIONAL	-	-
			33 KV	NCP	0.6	0.3	FUNCTIONAL	-	-
32	220/132/33 kV	NAGAU	33 KV	RAM JI KA GOL	5.1	4.0	FUNCTIONAL	-	-
			33 KV	TAPI	6.9	4.7	FUNCTIONAL	-	-
			33 KV	DUDU	9.7	7.2	FUNCTIONAL	-	-
								-	-
			33 KV	KARALU	16.2	14.0	FUNCTIONAL	-	-
			33 KV	INANA	4.2	3.0	FUNCTIONAL	-	-
			33 KV	BASNI ROAD	13.3	11.5	FUNCTIONAL	-	-
			33 KV	BHER	9.1	7.0	FUNCTIONAL	-	-
			33 KV	BARALI	12.3	10.0	FUNCTIONAL	-	-
33	132/33 kV	LAMB	33 KV	DEH	12.5	10.0	FUNCTIONAL	-	-
			33 KV	ROL	9.8	8.0	FUNCTIONAL	-	-
			33 KV	JODHYASI	10.2	8.5	FUNCTIONAL	-	-
			33 KV	TANWSAR	7.2	5.5	FUNCTIONAL	-	-
								-	-
			33 KV	LAMB	14.1	12.0	FUNCTIONAL	-	-
34	132/33 kV	GOTAN	33 KV	MOKALA	5.9	4.0	FUNCTIONAL	-	-
			33 KV	RIYAN	13.7	11.0	FUNCTIONAL	-	-
			33 KV	BASANI SEJA	6.9	5.0	FUNCTIONAL	-	-
			33 KV	GAGRANA	8.8	7.0	FUNCTIONAL	-	-
			33 KV	DHADASANI	3.2	2.5	FUNCTIONAL	-	-
								-	-
34	132/33 kV	GOTAN	33 KV	TOONKALIYA	10.6	8.0	FUNCTIONAL	-	-
			33 KV	GOTAN CITY	3.5	2.0	FUNCTIONAL	-	-

			33 KV	SANGWA KI DHANI	5.4	3.5	FUNCTIONAL	-	-
			33 KV	NOKHA + SHIV	21.0	18.0	FUNCTIONAL	-	-
35	132/ KV	KUCHERA						-	-
			33 KV	BUTATI	12.5	11.0	FUNCTIONAL	-	-
			33 KV	ARWAR	14.2	12.0	FUNCTIONAL	-	-
			33 KV	GAJU	13.0	11.0	FUNCTIONAL	-	-
			33 KV	JANANA	8.9	7.0	FUNCTIONAL	-	-
			33 KV	NIMBRI	16.8	14.0	FUNCTIONAL	-	-
36	132/33 KV	GANGAPUR						-	-
			33 KV	BAMANWAS PIPLIA	11.4	9.0	FUNCTIONAL	-	-
			33 KV	TALAWARA	9.1	7.0	FUNCTIONAL	-	-
			33 KV	SALODA	8.6	6.0	FUNCTIONAL	-	-
			33 KV	BAJIRPUR	11.4	9.0	FUNCTIONAL	-	-
37	132 kv	ALWAR						-	-
			33 kv	VIJAY MANDIR	15	12	FUNCTIONAL	-	-
			33 kv	UMRAON	6.5	5	FUNCTIONAL	-	-
38	132/33 kv	BAGRU						-	-
			33 kv	RAMPURA	2	1.5	FUNCTIONAL	-	-
			33 kv	BEGAS	14	12	FUNCTIONAL	-	-
39	132/33 kv	GOVINDGARH						-	-
			33 kv	KHEJROLI	18	15	FUNCTIONAL	-	-
			33 kv	TIGRA	10	8	FUNCTIONAL	-	-
			33 kv	HASTERA	13.7	11	FUNCTIONAL	-	-
40	132/33 kv	DECHU						-	-
			33 kv	CHAMU	13.7	12	FUNCTIONAL	-	-
			33 kv	CHORDIA	9	7	FUNCTIONAL	-	-
			33 kv	CHANDSMA	9	7	FUNCTIONAL	-	-
41	132/33 KV	DESHNOK						-	-
			33 KV	GEEGASAR	12.2	10.0	FUNCTIONAL	-	-
			33 KV	PALANA	11.4	9.5	FUNCTIONAL	-	-
			33 KV	RASISAR	16.9	14.0	FUNCTIONAL	-	-
			33 KV	DESHNOK	6.9	4.5	FUNCTIONAL	-	-
			33 KV	GAUROOPDESAR	20.9	16.5	FUNCTIONAL	-	-
				Total Load Relief	1656.8	1318.1			
				Required Load Relief	390				

1656.8

Under-frequency Relays setting : 49.0 Hz.

S. NO.	NAME OF SUB STATION		Feeder Voltage level (kV)		LOAD RELIEF (MW)		UFR FUNCTIONAL/N OT FUNCTIONAL	TARGET DATE FOR MAKING UFR FUNCTIONAL, IF NOT YET FUNCTIONAL	REMARKS/ CONSTRAINTS, IF ANY, IN IMPLEMENTATION
					PEAK	AVERAGE			
1	220/132/ 33 kV	DAUSA	33 kV	PARASOLI	6	4.5	FUNCTIONAL	-	-
			33 kV	PAPRDA BAJORI	3	2	FUNCTIONAL	-	-
			33 kV	NANGAL RAJAWATAN	14	12	FUNCTIONAL	-	-
			33 kV	CIVIL LINES	14	11	FUNCTIONAL	-	-
								-	-
2	132/33 kV	DEEDWANA	33 kV	DEEDWANA	8	6	FUNCTIONAL	-	-
			33 kV	JAYAL	3	2	FUNCTIONAL	-	-
			33 kV	KHUNKHUNA	9.5	7	FUNCTIONAL	-	-
			33 kV	NUWA	9	7	FUNCTIONAL	-	-
								-	-
3	220/132/ 33 kV	HINDAUN	33 kV	HINDAUN	17	14	FUNCTIONAL	-	-
			33 kV	KHERA	14.7	11	FUNCTIONAL	-	-
			33 kV	RIICO RURAL	10.5	8	FUNCTIONAL	-	-
			33 kV	MAHU	17	15	FUNCTIONAL	-	-
			33 kV	SUROTH	17	14	FUNCTIONAL	-	-
			33 kV	JAT KI SARAI	9.4	7	FUNCTIONAL	-	-

								-	-
4	132/33 kV	FATEHPUR	33 kV	ROLSABSAR	2.7	2	FUNCTIONAL	-	-
			33 kV	UDANSAR	10	8	FUNCTIONAL	-	-
			33 kV	LAXMANGARH	2.5	2	FUNCTIONAL	-	-
			33 kV	KHURDI	4.5	3.5	FUNCTIONAL	-	-
5	132/33 kV	HANUMANGARH	33 kV	PEERKAMDIA	17	14	FUNCTIONAL	-	-
			33 kV	DHOLIPAL	11	9	FUNCTIONAL	-	-
			33 kV	MAKKASAR	16.5	14	FUNCTIONAL	-	-
			33 kV	DABLI FATEHGARH	16	14	FUNCTIONAL	-	-
6	220/132/33 kV	KOTPUTLI	33 kV	PAOTA	22	16	FUNCTIONAL	-	-
			33 kV	PANESIA	22	16	FUNCTIONAL	-	-
			33 kV	PATAN CHALLA	18.8	15	FUNCTIONAL	-	-
			33 kV	POOTLY	6.8	5	FUNCTIONAL	-	-
7	132/33 kV	CHITAWA	33 kV	KALALI	7.7	5.5	FUNCTIONAL	-	-
			33 kV	ADAKSAR	5.7	4	FUNCTIONAL	-	-
			33 kV	NAGWARA	6	4	FUNCTIONAL	-	-
			33 kV	CHITAWA	8.6	6	FUNCTIONAL	-	-
8	132/33 kV	PADAMPUR	33kV	GHAMURWALI	10.2	8	FUNCTIONAL	-	-
			33kV	RAMAWALI	6	4	FUNCTIONAL	-	-
			33kV	RIDMALSAR	6.3	4.5	FUNCTIONAL	-	-
			33kV	DABLA	4	2.5	FUNCTIONAL	-	-
9	132/33kV	MALPURA	33 kV	LAMBA	1.8	1	FUNCTIONAL	-	-
			33 kV	PACHEWAR	1.5	1	FUNCTIONAL	-	-
			33 kV	BAORI	1.2	1	FUNCTIONAL	-	-
								-	-
10	220/132/33 kV	RENWAL	33 kV	RENWAL	7	5	FUNCTIONAL	-	-
			33 kV	DUNGARI	14.8	12	FUNCTIONAL	-	-
			33 kV	PACHKODIA	6	4.5	FUNCTIONAL	-	-
			33 kV	MINDA	7	5	FUNCTIONAL	-	-
11	132/33 kV	SUJANGARH	33 kV	BHADAL	10.5	8	FUNCTIONAL	-	-
								-	-
			33 kV	CHHAPAR	2	1	FUNCTIONAL	-	-
			33 kV	LADY	1	0.5	FUNCTIONAL	-	-
12	220/132/33 kV	MIA ALWAR	33 kV	O.P.H.	3	2	FUNCTIONAL	-	-
								-	-
			33 kV	DADAR	5.7	4	FUNCTIONAL	-	-
			33 kV	HALDEENA	13.7	11	FUNCTIONAL	-	-
13	220/132/33 kV	PILANI	33 kV	BAMBOLI	5.7	4	FUNCTIONAL	-	-
			33 kV	SADHOLI	5.7	4.5	FUNCTIONAL	-	-
								-	-
			33 kV	KHUDANIA	8.5	7	FUNCTIONAL	-	-
14	132/33 kV	BASSI	33 kV	BANGOTHARI	18	15	FUNCTIONAL	-	-
								-	-
			33 kV	BANSKHO	13.7	11	FUNCTIONAL	-	-
			33 kV	KACHOLIA	22	18	FUNCTIONAL	-	-
15	132/33 kV	MAKRANA	33 kV	NEVAR	10	8	FUNCTIONAL	-	-
								-	-
			33 kV	GAHCHIPURA	6	4	FUNCTIONAL	-	-
			33 kV	BHICHAWA	11	8	FUNCTIONAL	-	-
16	132/33 kV	RAI SINGH NAGAR	33 kV	BUDSU	8	6	FUNCTIONAL	-	-
								-	-
			33 kV	SANGRANA	3.5	2.0	FUNCTIONAL	-	-
			33 kV	BAJUWALA	3.0	2.0	FUNCTIONAL	-	-
17	132/33 kV	THANAGAJI OR	33 kV	RAI SINGH NAGAR	8.0	6.0	FUNCTIONAL	-	-
			33 kV	SAMEJHA	3.0	2.0	FUNCTIONAL	-	-
								-	-
			33 kV	TANAGAJI	6.9	5.0	FUNCTIONAL	-	-
			33 kV	NARAYANPUR	11.4	9.0	FUNCTIONAL	-	-
								-	-

			33 KV	HINSLA	2.3	1.5	FUNCTIONAL	-	-
			33 KV	KISHORI	6.3	5.0	FUNCTIONAL	-	-
	132/33 KV	TIJARA	33 KV	KHERLI	8.6	6.5	FUNCTIONAL	-	-
			33 KV	KATHUMER	14.3	12.5	FUNCTIONAL	-	-
			33 KV	GHATABHAWAR	14.3	12.0	FUNCTIONAL	-	-
			33 KV	BADANGARDI	8.6	6.5	FUNCTIONAL	-	-
								-	-
								-	-
	132/33 KV	KHERLI	33 KV	KHERLI	6.9	5.0	FUNCTIONAL	-	-
			33 KV	KATHUMER	9.7	8.0	FUNCTIONAL	-	-
			33 KV	HINSLA	6.3	5.0	FUNCTIONAL	-	-
			33 KV	KISHORI	8.6	7.0	FUNCTIONAL	-	-
							-	-	
	132/33 KV	BANSUR	33 KV	HARSAWA	13.7	11.0	FUNCTIONAL	-	-
			33 KV	LOHITI	13.7	11.0	FUNCTIONAL	-	-
			33 KV	CHATARPURA	22.9	18.0	FUNCTIONAL	-	-
			33 KV	NAWALPURA	12.6	10.5	FUNCTIONAL	-	-
			33 KV	BANSUR	3.4	2.5	FUNCTIONAL	-	-
									-
	18	132/33 KV	MUNDAWAR	33 KV	MATHORE	13.7	11.0	FUNCTIONAL	-
33 KV				MUNDAWAR	13.7	11.5	FUNCTIONAL	-	-
33 KV				HARSOLI	13.7	11.5	FUNCTIONAL	-	-
33 KV				MAINPUR	13.7	11.0	FUNCTIONAL	-	-
							-	-	
19	132/33 KV	BAYANA	33 KV	BAGREIN	13.7	11.0	FUNCTIONAL	-	-
			33 KV	BAYANA (R)	8.0	6.0	FUNCTIONAL	-	-
			33 KV	BIRAMPURA	13.7	11.0	FUNCTIONAL	-	-
									-
20	132/33 KV	NADBAI	33 KV	NADBAI-II	24.6	19.0	FUNCTIONAL	-	-
			33 KV	KATARA	9.1	7.0	FUNCTIONAL	-	-
			33 KV	BANI	3.4	2.5	FUNCTIONAL	-	-
			33 KV	MAHI	4.6	3.5	FUNCTIONAL	-	-
							-	-	
21	132/33 KV	BHUSAWAR	33 KV	NITHAR	16.0	13.5	FUNCTIONAL	-	-
			33 KV	SATHA	16.0	14.0	FUNCTIONAL	-	-
			33 KV	BHUSAWAR	11.4	9.5	FUNCTIONAL	-	-
			33 KV	NARULA	9.1	8.0	FUNCTIONAL	-	-
							-	-	
22	220/132/ 33 KV	K.G.BAS	33 KV	K.G.BAS	11.4	9.0	FUNCTIONAL	-	-
			33 KV	HARSOLI	13.7	11.0	FUNCTIONAL	-	-
			33 KV	CHIKANI	17.1	14.5	FUNCTIONAL	-	-
			33 KV	KAKRALI	5.7	4.0	FUNCTIONAL	-	-
							-	-	
23	132/33 KV	KELWARA	33 KV	BHAWARGARH	13.7	11.0	FUNCTIONAL	-	-
			33 KV	KELWARA	8.1	6.0	FUNCTIONAL	-	-
			33 KV	KHANDELA	4.9	3.0	FUNCTIONAL	-	-
			33 KV	KHEMLI PHATAK	11.0	9.0	FUNCTIONAL	-	-
			33 KV	PIPLE KHERI	4.6	3.0	FUNCTIONAL	-	-
			33 KV	SAHBAD	13.7	11.0	FUNCTIONAL	-	-
							-	-	
24	132/33 KV	SANGOD	33 KV	KANWAS	5.1	3.5	FUNCTIONAL	-	-
			33 KV	KUNDANPUR	12.6	10.0	FUNCTIONAL	-	-
			33 KV	GHANAHERA	9.4	8.0	FUNCTIONAL	-	-
			33 KV	BAPARWARA	10.3	8.0	FUNCTIONAL	-	-
			33 KV	KHANPUR	5.7	4.0	FUNCTIONAL	-	-
									-
25	132/33 KV	BUNDI	33 KV	DABLANA	10.3	8.0	FUNCTIONAL	-	-
			33 KV	RAMNAGAR	8.0	6.0	FUNCTIONAL	-	-
			33 KV	NAMANA	0.0	0.0	FUNCTIONAL	-	-
			33 KV	JAMEETPURA	9.8	7.5	FUNCTIONAL	-	-
			33 KV	HINDOLI	0.0	0.0	FUNCTIONAL	-	-
			33 KV	MANGALI	7.7	6.0	FUNCTIONAL	-	-
							-	-	

26	132/33 KV	DEOLI	33 KV	BANTHALI	4.0	3.0	FUNCTIONAL	-	-
			33 KV	JHAJPUR	10.9	8.0	FUNCTIONAL	-	-
			33 KV	HINDAULI	1.1	1.0	FUNCTIONAL	-	-
			33 KV	DEOLI	6.3	5.0	FUNCTIONAL	-	-
27	132/33 KV	J.RAMGARH	33 KV	J.RAMGARH	2.9	1.5	FUNCTIONAL	-	-
			33 KV	RAISAR	16.6	13.5	FUNCTIONAL	-	-
			33 KV	SAIPUR	8.6	6.0	FUNCTIONAL	-	-
								-	-
28	132/33 KV	HEMDA	33 KV	PIDAWA	13.7	11.0	FUNCTIONAL	-	-
			33 KV	HEMDA	12.1	10.0	FUNCTIONAL	-	-
			33 KV	SUNEL	11.0	9.0	FUNCTIONAL	-	-
			33 KV	SIRPOI	2.7	1.5	FUNCTIONAL	-	-
			33 KV	KHARPA KALAN	6.3	4.0	FUNCTIONAL	-	-
								-	-
29	132/33 KV	DUG	33 KV	DUG	13.7	11.0	FUNCTIONAL	-	-
			33 KV	GURADIA KALAN	9.1	8.0	FUNCTIONAL	-	-
			33 KV	GANGDHAR	13.7	11.0	FUNCTIONAL	-	-
								-	-
30	132/33 KV	NENWA	33 KV	NENWA	9.8	7.0	FUNCTIONAL	-	-
			33 KV	DEI	13.9	11.0	FUNCTIONAL	-	-
			33 KV	SAMIDHI	4.5	3.0	FUNCTIONAL	-	-
			33 KV	BANSI	16.5	13.0	FUNCTIONAL	-	-
								-	-
31	132/33 KV	BHERUNDA	33 KV	PADU	6.9	4.5	FUNCTIONAL	-	-
			33 KV	THANWALA	13.7	11.0	FUNCTIONAL	-	-
			33 KV	HARSOR	10.7	8.0	FUNCTIONAL	-	-
			33 KV	DEGANA	2.3	1.5	FUNCTIONAL	-	-
			33 KV	ALNIAWAS	10.2	8.0	FUNCTIONAL	-	-
			33 KV	BHERUNDA	1.7	1.0	FUNCTIONAL	-	-
								-	-
32	220/132/33 KV	BEAWAR	33 KV	BAR	11.4	9.0	FUNCTIONAL	-	-
			33 KV	BABRA	4.6	3.0	FUNCTIONAL	-	-
			33 KV	MASUDA	9.7	7.0	FUNCTIONAL	-	-
			33 KV	JAWAJA	5.4	3.5	FUNCTIONAL	-	-
								-	-
33	132/33 KV	AMET	33 KV	AMET	3.7	2.5	FUNCTIONAL	-	-
			33 KV	DEVGARH	4.9	3.5	FUNCTIONAL	-	-
			33 KV	GUGALI	8.7	6.5	FUNCTIONAL	-	-
			33 KV	SARDAR GARH	13.7	11.0	FUNCTIONAL	-	-
								-	-
34	132/33 KV	SURAJGARH	33 KV	KAKODA	17.7	15.0	FUNCTIONAL	-	-
			33 KV	KAJARA	10.3	8.0	FUNCTIONAL	-	-
			33 KV	SURAJGARH	10.6	8.5	FUNCTIONAL	-	-
								-	-
35	132/33 KV	KUMAWAS	33 KV	KUMAWAS	8.9	6.5	FUNCTIONAL	-	-
			33 KV	DEOGAON	12.1	10.0	FUNCTIONAL	-	-
			33 KV	KARI	6.9	5.0	FUNCTIONAL	-	-
			33 KV	BINJUSAR	13.3	11.0	FUNCTIONAL	-	-
								-	-
36	132/33 KV	MANDRELA	33 KV	MANDRELA	10.4	8.0	FUNCTIONAL	-	-
			33 KV	NORANGPURA	10.7	8.0	FUNCTIONAL	-	-
			33 KV	DABRI	1.1	0.5	FUNCTIONAL	-	-
								-	-
37	132/33 KV	MANDAWA	33 KV	HETAMSAR	5.1	3.5	FUNCTIONAL	-	-
			33 KV	NUWA	6.5	4.5	FUNCTIONAL	-	-
			33 KV	MUKANDGARH	12.6	10.0	FUNCTIONAL	-	-
			33 KV	SADINSAR	4.0	2.5	FUNCTIONAL	-	-
								-	-
38	132/33 KV	LOSAL	33 KV	LOSAL	14.6	11.5	FUNCTIONAL	-	-
			33 KV	BHIMA	4.8	3.0	FUNCTIONAL	-	-
			33 KV	JANA	3.7	2.5	FUNCTIONAL	-	-
								-	-

39	132/33 KV	BADANU	33 KV	BADANU-I	10.3	8.5	FUNCTIONAL	-	-
			33 KV	SUDSAR	9.7	7.0	FUNCTIONAL	-	-
			33 KV	SANWATSAR	11.2	8.5	FUNCTIONAL	-	-
			33 KV	LIKHMISAR	8.9	6.5	FUNCTIONAL	-	-
			33 KV	BIDASARIYA	9.1	7.0	FUNCTIONAL	-	-
			33 KV	BADANU-II	4.9	3.5	FUNCTIONAL	-	-
			33 KV	LALAM-DESAR	8.5	6.0	FUNCTIONAL	-	-
			33 KV	KUCHOR	4.6	3.0	FUNCTIONAL	-	-
40	132/33 KV	NOKHA	33 KV	KAKDA	13.7	11.0	FUNCTIONAL	-	-
			33 KV	SINGGURU	10.9	8.0	FUNCTIONAL	-	-
			33 KV	PANCHU	10.0	8.0	FUNCTIONAL	-	-
			33 KV	NOKHA CITY	5.7	4.0	FUNCTIONAL	-	-
			33 KV	BOODRA KI DHANI	10.3	8.0	FUNCTIONAL	-	-
			33 KV	JASRASAR	7.4	5.5	FUNCTIONAL	-	-
					1659.0	1289.5			
			Total Load Relief at 49.0 Hz		392				
			REQUIRED LOAD RELIEF =392 MW						

RAJASTHAN		Load Relief (MW)	Targeted Load Relief (MW)	% Load Relief implemented w.r.t. Target load Relief
1	Total Load relief at frequency 49.2Hz	1656.8	390	424.8
2	Total Load relief at frequency 49.0Hz	1659.0	392	423.2
3	Total Load Relief at frequency 48.8 Hz.	Not Implemented	406	0.0
4	Total Load Relief at frequency 48.6 Hz.	Not Implemented	408	0.0
5	Total Load releif at flat frequency	3315.7	1596	207.8

DETAILS OF FEEDERWISE EXPECTED LOAD RELIEF THROUGH AUTOMATIC UNDER-FREQUENCY RELAYS BASED LOAD-SHEDDING SCHEME

REGION – Northern Region

State: Punjab

Under-frequency Relays setting : 49.2Hz.

S.No.	Particulars of Sub-stations	Feeder Voltage (kV)	Particulars of feeder	Load Relief (MW)		UFR (Functional)	Target date for making if not yet functional	Remarks / constraints, if any
				Peak	Average			
1	220 kV Patti	66 kV	Harike	9.0		Functional	-	-
		66 kV	Sabraon	11.0		Functional	-	-
		66 kV	Pringiri	8.0	15.0	Functional	-	-
2	220 kV Wadala Granthian	66 kV	Udhanwal	29	18	Functional	-	-
3	220 kV Malout	66 kV	Gilzewala	35	12	Functional	-	-
4	220 kV Sadiq		J Tehal Singh Ckt	30		Functional	-	-
			Deep S Wala Ckt	25		Functional	-	-
			Sukhanwala Ckt	20	48	Functional	-	-
5	132 kV Malout	66 kV	Madhir/Abul Khurana	32	22	Functional	-	-
6	132 kV Boghpur	66 kV	Kandhal	12		Functional	-	-
		66 kV	Bholath	8	15	Functional	-	-
7	132 kV Jadla		Balachour line	28		Functional	-	-
			Karawar line	12	28	Functional	-	-
8	220 kV Goraya		I/C of 100 MVA, 220/66 kVT/F	80	58	Functional	-	-
9	220 kV Bahadurgarh	66 kV	Ghanaur	33	19	Functional	-	-
10	220 kV Dhuri	66 kV	Kanjla	18	11	Functional	-	-
11	220 kV Barnala	66 kV	Thuliwal	25		Functional	-	-
		66 kV	Dhaura	20	29	Functional	-	-
	Total load relief			435.0	275			
	Required load relief			400				

Under-frequency Relays setting : 49.0Hz.

S.No.	Particulars of Sub-stations		Particulars of feeder	Load Relief (MW)		UFR (Functional)	Target date for making if not yet functional	Remarks / constraints, if any
				Peak	Average			
1	220 kV Sunam	66 kV	Chajjli	75		Functional	-	-

		66 kV	Cheema	87	102	Functional	-	-
2	220 kV Malerkotla	66 kV	Maloud	60	40	Functional	-	-
3	220 kV Jagraon	66 kV	Sidhwan	30		Functional	-	-
		66 kV	Roomi	35		Functional	-	-
		66 kV	Lakha	38		Functional	-	-
		66 kV	Lopan/Rasulpur	49	100	Functional	-	-
4	220 kV Doraha		I/C of 20 MVA,220/66 kV T/F	15		Functional	-	-
			I/C of 160 MVA,220/66 kV T/F	20		Functional	-	-
		132 kV	Bilaspur	15	28	Functional	-	-
5	132 kV S Kalan		I/C of 20 MVA,132/11 kV T/F	28		Functional	-	-
			I/C of 12 MVA,132/11 kV T/F	10	12	Functional	-	-
6	220 kV Ghulal	66 kV	Khamano	17		Functional	-	-
		66 kV	ST Cotex	6		Functional	-	-
		66 kV	Bhaini	5		Functional	-	-
			I/C of 12 MVA,132/11 kV T/F	9	22	Functional	-	-
7	220 kV Gbr-3	66 kV	Chourwala	76	22	Functional	-	-
	Total load relief			575	326			
	Required load relief			402				

Under-frequency Relays setting : 48.8Hz.

S.No.	Particulars of Sub-stations		Particulars of feeder	Load Relief (MW)		UFR (Functional	Target date for making if not yet functional	Remarks / constraints, if any, in
				Peak	Average			
1	220 kV Tibber	66 kV	Chajil	7	3	Functional	-	-
2	220 kV KS Malhi	66 kV	Goraya	4	1	Functional	-	-
3	220 kV Khassa	66 kV	S A Khan	15		Functional	-	-
		66 kV	Raja Taal	8	12	Functional	-	-
4	220 kV Fatehgarh Churia	66 kV	Ajnala/Jhander	4		Functional	-	-
		66 kV	W Viram	2		Functional	-	-
		66 kV	Bhangali	1	7	Functional	-	-
5	220 kV Mansa	66 kV	Budhlada Ckt 1 & 2	50		Functional	-	-
		66 kV	Bhikhi	30		Functional	-	-
		66 kV	Dhalewan	25	62	Functional	-	-
6	220 kV Botianwala	66 kV	Thatha Sahib	30	12	Functional	-	-
7	220 kV Abohar		I/C of 12 MVA, 132/11kV T/F	9	4	Functional	-	-
8	132 kV Firozshah	66 kV	Mallanwal	32	14	Functional	-	-

9	220 kV K Jnga		Malsian	16		Functional	-	-
			Alewali	13		Functional	-	-
			Shahkot	18		Functional	-	-
			Malsian	23	38	Functional	-	-
10	132 kV N Shehar		Aur	40		Functional	-	-
			Rahon	40	22	Functional	-	-
11	132 kV Banga		Behram	85	18	Functional	-	-
12	220 kV Amloh		Bhadson	100	45	Functional	-	-
13	220 kV Sahnewal		Latala	7	2	Functional	-	-
14	132 kV Ropar		Behlopur	10	3	Functional	-	-
15	220 kV Patran		Khanauri	100		Functional	-	-
			Badshpur	118	100	Functional	-	-
16	220 kV Ablawal		Lung	20	12	Functional	-	-
	Total load relief			807	355			
	Required load relief			406				

Under-frequency Relays setting : 48.6Hz.

S.No.	Particulars of Sub-stations		Particulars of feeder	Load Relief (MW)		UFR (Functional)	Target date for making if not yet functional	Remarks / constraints, if any, in
				Peak	Average			
1	220 kV Kartarpur		Nadala	35		Functional	-	-
			Hamira	38		Functional	-	-
			Mustfapur	28	65	Functional	-	-
2	220 kV G-1		I/C of 100 MVA, 220/66 kV T/F	38		Functional	-	-
			I/C of 100 MVA, 220/66 kV T/F	38		Functional	-	-
			I/C of 100 MVA, 220/66 kV T/F	38	80	Functional	-	-
3	220 kV Dhandari		I/C of 100 MVA, 220/66 kV T/F	100		Functional	-	-
			I/C of 100 MVA, 220/66 kV T/F	100	170	Functional	-	-
	Total load relief			415	315			
	Required load relief			408				

PUNJAB		Load Relief (MW)	Targeted Load Relief (MW)	% Load Relief implemented w.r.t. Target load Relief
1	Total Load relief at frequency 49.2Hz	435.0	400	108.8
2	Total Load relief at frequency 49.0Hz	575.0	402	143.0

3	Total Load relief at frequency 48.8Hz	807.0	406	198.8
4	Total Load relief at frequency 48.6Hz	415.0	408	101.7
5	Total Load releif at flat frequency	2232.0	1616	138.1

Status as on 02.12.2013

DETAILS OF FEEDERWISE EXPECTED LOAD RELIEF THROUGH AUTOMATIC UNDER-FREQUENCY RELAYS BASED LOAD-SHEDDING SCHEME

REGION – Northern Region

State: Himachal Pradesh

UNDER FREQUENCY RELAY SETTING : 49.2 Hz

Sr. No.	Particulars of feeder	Load Relief (MW)		UFR (Functional or Non-functional)	Target date for making UFR functional if not yet functional	Remarks/Constraints, if any, in implementation
		Peak	Average			
1	132 kV sub-station In the premises of M/s ACC, Barmana	10	10	Functional	-	---
2	132 kV sub-station in the premises of M/s GACL, Darlaghat	10	10	Functional	-	---
3	220/66 kV sub-station In the premises of M/s GACL, Rauri	3.7	3.7	Functional	-	---
4	132 kV sub-station in the premises of M/s JAYPEE Cement, Baga	3.5	3.5	Functional	-	---
5	66 kV Sub-Station, Golthai of M/s. Sraj Fabrics	3	3	Functional	-	---
	Total Load Relief	30.2	30.2			
	Required Load Relief	77*				

UNDER FREQUENCY RELAY SETTING : 49.0 Hz

Sr. No.	Particulars of feeder	Load Relief (MW)		UFR (Functional or Non-functional)	Target date for making UFR functional if not yet functional	Remarks/Constraints, if any, in implementation
		Peak	Average			

1	132 kV sub-station In the premises of M/s ACC, Barmana	10	10	Functional		---
2	132 kV sub-staion in the premises of M/s GACL, Darlaghat	10	10	Functional	NA	---
3	220/66 kV sub- station In the premises of M/s GACL, Rauri	11.8	11.8	Functional	NA	---
4	132 kV sub-staion in the premises of M/s JAYPEE Cement, Baga	9	9	Functional	NA	---
	Total Load Relief	40.8	40.8			
	Required Load Relief	77*				

UNDER FREQUENCY RELAY SETTING : 48.8 Hz

Sr. No.	Particulars of feeder	Load Relief (MW)		UFR (Functional or Non-functional)	Target date for making UFR functional if not yet functional	Remarks/Constraints, if any, in implementation
		Peak	Average			
	Nil	Nil	Nil	Yet to implement	-	Not yet implemented
	Total Load Relief	0	0			
	Required Load Relief	78*				

UNDER FREQUENCY RELAY SETTING : 48.6 Hz

Sr. No.	Particulars of feeder	Load Relief (MW)		UFR (Functional or Non-functional)	Target date for making UFR functional if not yet functional	Remarks/Constraints, if any, in implementation
		Peak	Average			

1	220 kV sub-station, Kunihar 132 kV Kunihar Barotiwala Circuit -II	78	55	Functional	-	---
	Total Load Relief	78	55			
	Required Load Relief	78*				

df/dt RELAY:

Sr. No.	Particulars of feeder	Load Relief (MW)		Relay (Functional or Non-functional)	Target date for making relay functional if not yet functional	Remarks/Constraints, if any, in implementation
		Peak	Average			
1	132 kV Kunihar Barotiwala Circuit -I	90	36	Functional	-	Setting: 0.1 Hz/Sec.
2	132 kV Giri-Kalaamb Circuit	100	70	Functional	-	Setting: 0.3 Hz/Sec.
3	66 kV Baddi-Akanwali	20	10	Functional	-	Setting: 0.2 Hz/Sec.
	Total Load Relief	210	116			

* In the return in format 29, the Peak Demand met figure was invertantly intimated as 1672 MW submitted to CEA for the month of June, 2012

Name of State	Description	Peak Demand	Load Shedding Target for 4 stages (MW)				Total
			49.2 Hz	49.0 Hz	48.8 Hz	48.6 Hz	
Himachal Pradesh	As per CEA Data	1672	77	77	78	78	310
Himachal Pradesh	As per HPSEBL based on actual demand	1360	30.2	40.8	0	78	149

HIMACHAL		Load Relief (MW)	Targeted Load Relief (MW)	% Load Relief implemented w.r.t. Target load Relief
1	Total Load relief at frequency 49.2Hz	30.2	77	39.2
2	Total Load relief at frequency 49.0Hz	40.8	77	53.0
3	Total Load relief at frequency 48.8Hz	Not Implemented	78	0.0
4	Total Load relief at frequency 48.6Hz	78.0	78	100.0
5	Total Load releif at flat frequency	149.0	310	48.1

Status as on 02.12.2013

DETAILS OF FEEDERWISE EXPECTED LOAD RELIEF THROUGH AUTOMATIC UNDER-FREQUENCY RELAYS BASED LOAD-SHEDDING SCHEME

REGION : Northern Region

State: Uttarakhand

UNDER FREQUENCY RELAY SETTING : 49.2 Hz

S.No.	Particulars of Sub-stations	Particulars of feeder		Load Relief (MW)		UFR (Functional)	Target date for making if not yet	Remarks / constraints, if any, in
				Peak	Average			
1	132 kV Kashipur	33 kV	Kashipur Town	15		Functional	-	-
2	132 kV Roorkee	33 kV	Jhabreda	15		Functional	-	-
		33 kV	Kheramugal	20		Functional	-	-
	132 kV Jwalpur	33 kV	Bhattipur	20		Functional	-	-
3	132 kV Majra	33 kV	Doiwala	20		Functional	-	-
	Total Load Relief			90			-	-
	Required Load Relief			77			-	-

UNDER FREQUENCY RELAY SETTING : 49.0 Hz

S.No.	Particulars of Sub-stations	Particulars of feeder		Load Relief (MW)		UFR (Functional)	Target date for making if not yet	Remarks / constraints, if any, in
				Peak	Average			
1	132 kV Eldico Sitarganj	33 kV	Industrial Feeder	15		Functional	-	-
2	132 kV Roorkee	33 kV	Dhanuri	20		Functional	-	-
3	132 kV Bhagawanpur		2X40 MVA T/R	65		Functional	-	-

	Total Load Relief			100			-	-
	Required Load Relief			77			-	-

UTTARAKHAND		Load Relief (MW)	Targeted Load Relief (MW)	% Load Relief implemented w.r.t. Target load Relief
1	Total Load relief at frequency 49.2Hz	90.0	77.0	116.9
2	Total Load relief at frequency 49.0Hz	100.0	77.0	129.9
3	Total Load relief at frequency 48.8Hz	Not Implemented	78.0	0.0
4	Total Load relief at frequency 48.6Hz	Not Implemented	78.0	0.0
5	Total Load releif at flat frequency	190.0	310.0	61.3

Status as on 02.12.2013

DETAILS OF FEEDER WISE EXPECTED LOAD RELIEF THROUGH AUTOMATIC UNDER-FREQUENCY RELAYS BASED LOAD-SHEDING SCHEME							
REGION: NORTHERN REGION							
STATE:HARYANA							
Under frequency relay setting - 49.2 Hz							
Sr. No	Name of the S/Stn	Particular of feeder	Load relief (MW)		UFR (Functional or Non- Functional)	Target date for making UFR functional if not yet functional	Remarks / constraint, if any, in implementation
			Peak	Average			
I	TS Circle Hisar						
1	220KV Sirsa	132 kV Sirsa - Begu line	58	34	Functional	-	-
2	220KV Rania	132 kV Rania - Jiwan Nagar line	59	31	Functional	-	-
II	TS Circle Gurgaon					-	-
1	220KV Mohindergarh	132/11 kV, 10/16 MVA T-1 T/F, 132/33 kV, 10/16 MVA T-3 T/F (1st Jan to 31st March)	30	22	Functional	-	-
2	220KV Mohindergarh	132 kV Satnali (1st April to 30th June)	33	22.5	Functional	-	-
3	220KV Mohindergarh	132/33 kV, 10/16 MVA T-2 T/F(1st July to 30th September)	14.4	9	Functional	-	-
4	220KV Narnaul	132 kV Mundia Khera/Narnaul (1st October to 31st December)	33	22.5	Functional	-	-
5	220 kV Rewari	132/33 kV, 20/25 MVA T-5 T/F	25	17	Functional	-	-

III.	TS Circle Faridabad					-	-
1	220KV Palwal	66 KV Palwal-Mandkola CKT-I	12	6.5	Functional	-	-
2	220KV Palwal	66 KV Palwal-Mandkola CKT-II	12	6.5	Functional	-	-
3	220KV Palwal	66 KV Palwal-Hodal	30	16	Functional	-	-
IV	TS Circle, Karnal					-	-
1	400kV Panipat_BBMB	132 KV Sonapat -Sewah- KNL line	50	30	Functional	-	-
2	400kV Panipat_BBMB	33kV Sewah	10	5	Functional	-	-
		Total load relief	366	222			
		Required Load Relief	308				
Under frequency relay setting - 49 Hz							
I	TS Circle Hisar						
1	220kV Dadri_BB	100MVA, 220/132kV T/F at 220kV BBMB Dadri	74	54	Functional	-	-
2	220KV Bhiwani	132 kV Bhiwani - I.A Bhiwani line	29	22	Functional	-	-
II	TS Circle Gurgaon					-	-
1	220 kV S/stn BBMB Dadri	220 kV M/garh ckt-1	77	50	Functional	-	-
2	220 kV S/stn BBMB Dadri	220 kV Lula Ahir line	167	132	Functional	-	-
III.	TS Circle Faridabad					-	-
1	220KV Palwal	66 KV Palwal-Palwal CKT-I	24	14.5	Functional	-	-
2	220KV Palwal	66 KV Palwal-Palwal CKT-II	24	14.5	Functional	-	-
3	220KV Palwal	66 KV Palwal-Hatin	22	11.5	Functional	-	-
		Total load relief	417	299			
		Required Load Relief	309				

HARYANA		Load Relief (MW)	Targeted Load Relief (MW)	% Load Relief implemented w.r.t. Target load Relief
1	Total Load relief at frequency 49.2Hz	366	308.0	118.7
2	Total Load relief at frequency 49.0Hz	417	309.0	134.9
3	Total Load relief at frequency 48.8Hz	Not Implemented	312.0	0.0
4	Total Load relief at frequency 48.6Hz	Not Implemented	314.0	0.0
5	Total Load releif at flat frequency	783	1243.0	63.0

Status as on 02.12.2013

DETAILS OF FEEDERWISE EXPECTED LOAD RELIEF THROUGH AUTOMATIC UNDER-FREQUENCY RELAYS BASED LOAD-SHEDDING SCHEME

REGION : Northern Region

State: U.P.

Under-frequency Relays setting : 49.2 Hz.

S.No.	Name of S/S with step down voltage		Particulars of feeder	Load Relief (MW)		UFR (Functional or Non-functional)	Target date for making UFR functional if not yet functional	Remarks / constraints, if any, in implementation
				Peak	Average			
1	220KV Sitapur	220/132/33	33KV Sethia Oil Mill	2.00	1.5	Functional	-	-
2	132 KV NKN	132/33	33KV B.K.T.	18.00	13	Functional	-	-
3			33KV Vikas Nagar	12.00	9	Functional	-	-
4	132KV TRT	132/33	33KV TRT-2	6.00	5.25	Functional	-	-
5			33KV RDSO	11.00	10.1	Functional	-	-
6			33KV Mavaiya	1.00	0.8	Functional	-	-
7			33KV Abott Road	9.00	7.4	Functional	-	-
8			33KV Aishbag	10.00	8.75	Functional	-	-
9			33KV Rajaji puram-1	15.00	13.6	Functional	-	-
10			33KV Rajaji puram-2	10.00	8.05	Functional	-	-
11	220KV Hardoi	220/132/33	33KV Behta Gokul	13.00	10	Functional	-	-
12	132KV Kundan Road	132/33	33KV Kaba Khera	10.00	8	Functional	-	-
13	132KV Balrampur	132/33	33KV Balrampur	12.00	9	Functional	-	-
14	132KV Mankapur	132/33	33/11KV ITI Mankapur	10.50	8	Functional	-	-
15	132KV Bahraich	132/33	33KV Bashirganj	10.50	8	Functional	-	-
16	220KV Sultanpur	220/132/33	33KV Lambhuwa	13.00	10	Functional	-	-
17	220KV C.B.Ganj	220/132/33	33KV DD Puram	13.00	10	Functional	-	-

18		3	33KV DD Meerganj	13.00	10	Functional	-	-
19	220KV Shahjahanpur	220/132/33	33KV Roza	2.50	2	Functional	-	-
20	132KV Bhadohi	132/33	Rampur		54.6	Functional	-	-
21		132/33	Suriyawa		48.3	Functional	-	-
22	132KV Khalilabad	132/33	Molanapur		4	Functional	-	-
23		132/33	Hariharpur		12	Functional	-	-
24		132/33	Bakhira		20	Functional	-	-
25	220KV Basti	220/132/33	Nagar Bazar		3	Functional	-	-
26		220/132/33	Kalwalri		9.5	Functional	-	-
27		220/132/33	Mahsho		12	Functional	-	-
28		220/132/33	Dumariyaganj		5	Functional	-	-
29		220/132/33	Munderwa		5.5	Functional	-	-
30		220/132/33	Orwara		2.5	Functional	-	-
31		220/132/33	Saltawa		3.5	Functional	-	-
32	132KV Kauriram	132/33	Harpur		0.7	Functional	-	-
33		132/33	Gola bazar		6.3	Functional	-	-
34		132/33	Bansgaw		13.2	Functional	-	-
35		132/33	Unbal		6.3	Functional	-	-
36	132KV Anand Nagar	132/33	Anandnagar		3.5	Functional	-	-
37		132/33	Naugarh		3.5	Functional	-	-
38		132/33	Dhani		1.4	Functional	-	-
39		132/33	Mahraiganj		1	Functional	-	-
40		132/33	Nautanwa		14	Functional	-	-
41		132/33	Peepirganj		13.6	Functional	-	-
42	132KV Ghazipur	132/33	Dullahapur		9.4	Functional	-	-
43		132/33	Kasimabad		7.9	Functional	-	-

44	132KV Ghazipur	132/33	Hansrajpur		6.5	Functional	-	-
45		132/33	Maharajganj		2.8	Functional	-	-
46	132KV Zamania	132/33	Dildar Nagar		16.5	Functional	-	-
47		132/33	Taighat		10.8	Functional	-	-
48	132KV Handia	132/33	Amara		4	Functional	-	-
49		132/33	Dhanu Pur		13.8	Functional	-	-
50		132/33	Kathara		9.15	Functional	-	-
51		132/33	Bamaila		4.56	Functional	-	-
52	132KVBhupiamau	132/33	Arakala		4	Functional	-	-
53		132/33	Raniganj		3.5	Functional	-	-
54		132/33	Viswanath ganj		6.3	Functional	-	-
55		132/33	Chibila		4.9	Functional	-	-
56	132KV Kunda	132/33	Sandwa Chandrican		8.4	Functional	-	-
57		132/33	Kaudihar		11.9	Functional	-	-
58		132/33	Bihar		3.5	Functional	-	-
59		132/33	Jethwara		3.5	Functional	-	-
60	132KV Sarnath	132/33	Sangramgarh		4.9	Functional	-	-
61		132/33	Cholapur		14	Functional	-	-
62	220KV Fatehpur	132/33	Kaithi		15	Functional	-	-
63		220/132/33	Bahua		14.8	Functional	-	-
64	132KV Chunar	220/132/33	Hussain Ganj		1	Functional	-	-
65		132/33	Ahaura		9.95	Functional	-	-
66		132/33	Chunar		1.22	Functional	-	-
67		132/33	Padari		3.75	Functional	-	-
68		132/33	Narainpur		6.8	Functional	-	-
69	132KV Jigna	132/33	Jamalpur		2.72	Functional	-	-
70		132/33	Rampur lathia		3.4	Functional	-	-
71		132/33	Manda		8.75	Functional	-	-
72		132/33	Arjunpur		2.6	Functional	-	-
73		132/33	Hargarh		4.2	Functional	-	-
74		132/33	Vijaipur		3.5	Functional	-	-
75		132/33	Harahua		13	Functional	-	-
76		132/33	Pindra		18	Functional	-	-

77	132KV Gajokhar	132/33	Sindhora		3	Functional	-	-
78		132/33	Newada		7.5	Functional	-	-
79		132/33	Anei		9	Functional	-	-
80	220KV Phoolpur		Karnaipur		2.8	Functional	-	-
81			Phoolpur		11.2	Functional	-	-
82			Sikandra		7	Functional	-	-
83	132KV Lalganj	132/33	Thekma		11.2	Functional	-	-
84		132/33	Bardah		7.2	Functional	-	-
85		132/33	Muftiganj		5.6	Functional	-	-
86		132/33	Tarawa		11.9	Functional	-	-
87		132/33	Gosaie Bazar		2.1	Functional	-	-
88		132/33	Dev Gaon		3.5	Functional	-	-
89		132/33	Shukupura		7	Functional	-	-
90		132/33	Bansdih		8.4	Functional	-	-
91	132KV Ballia	132/33	Rewati		6.3	Functional	-	-
92		132/33	Chitbaragaon		7.35	Functional	-	-
93	132KV Bansi	132/33	Bansi		7.5	Functional	-	-
94		132/33	Pathara		2.5	Functional	-	-
95		132/33	Rudhali		7.5	Functional	-	-
96		132/33	Naugarh -I		6	Functional	-	-
97		132/33	Naugarh-II		0	Functional	-	-
98	132KV Deoria	132/33	Gauribazar		4.9	Functional	-	-
99		132/33	Rudrapur		8.7	Functional	-	-
100		132/33	Barahaj		6	Functional	-	-
101		132/33	Usara		5.2	Functional	-	-
102		132/33	Tarkulwa		13.3	Functional	-	-
103	132KV Kasia	132/33	Sirsia		4.9	Functional	-	-
104		132/33	Hata		7	Functional	-	-
105		132/33	Fazil Nagar		7.7	Functional	-	-
106	132KV Naini Complex	132/33	Bheerpur		6.4	Functional	-	-
107	132KV Raja Ka Talab	132/33	Sevapuri		10	Functional	-	-
108		132/33	Thatra		13	Functional	-	-
109		132/33	Jakkhini		3.5	Functional	-	-

110	132KV Aurai	132/33	Lalanagar		17.5	Functional	-	-
111		132/33	MaharajGanj		11.2	Functional	-	-
112		132/33	Kachhwa		54.88	Functional	-	-
113	132KV Deoria	132/33	Rudrapur		8.70	Functional	-	-
114	220KV Nanauta		220KV Nanauta	112.00	90	Functional	-	-
115	220KV Nehtaur		220KV Nehtaur	90.00	72	Functional	-	-
116	132KV Najibabad		132KV Najibabad	42.00	34	Functional	-	-
117	132KV Chutmalpur		132KV Chutmalpur	93.00	75	Functional	-	-
118	132KV Chandpur		132KV Chandpur	70.00	50	Functional	-	-
119	132 KV S/S Jahanabad	132/33	Naw Ranga		7.2	Functional	-	-
120		132/33	Amauli		15.54	Functional	-	-
121		132/33	Bakewar		6.06	Functional	-	-
122		132/33	Digraua		11.66	Functional	-	-
123		132/33	Babai		7.14	Functional	-	-
124	132 KV Saidpur	132/33	Nandganj		9.1	Functional	-	-
125		132/33	Parasani		2.8	Functional	-	-
126		132/33	Bhimpar		14.7	Functional	-	-
127	132 KV FCI	132/33	Bhathat		10.5	Functional	-	-
128	132 KV Shatrughanpur	132/33	Rajdhani		3.5	Functional	-	-
129		132/33	Chauri Chaura		6.3	Functional	-	-
130		132/33	Motiram Adda		2.8	Functional	-	-
131		132/33	Palipa		2.4	Functional	-	-

Total load relief 1392.98
Required load relief 551

Under-frequency Relays setting : 49.0 Hz.

S.No.	Name of S/S with step down voltage	Particulars of feeder	Load Relief (MW)		UFR (Functional or Non-functional)	Target date for making UFR functional if not yet functional	Remarks / constraints, if any, in implementation
			Peak	Average			

1	132KV Kundan Road	132/33	33KV Gokul Baba	16.00	12.00	Functional	-	-
2	132KV BLY-Town	132/33	33KV Nakatiya	16.00	12.00	Functional	-	-
3	33KV C.B.Ganj	220/132/33	33KV C.B.Ganj	16.00	12.00	Functional	-	-
4			33KV Quila	16.00	12.00	Functional	-	-
5			33KV Subhash Nagar	16.00	12.00	Functional	-	-
6	132KV Lakhimpur	132/33	3 KV Bhejam	18.00	15.00	Functional	-	-
7	132KV NKN	132/33	33KV Daliganj-I	21.00	15.00	Functional	-	-
8			33KV Daliganj-II	21.00	15.00	Functional	-	-
9			33KV Engg. College	16.00	11.00	Functional	-	-
10	132KV TRT	132/33	33KV TRT-I	16.00	14.35	Functional	-	-
11			33KV U.P.I.L.	18.00	16.30	Functional	-	-
12			33KV Vaid Steel-I	12.00	11.15	Functional	-	-
13			33KV Vaid Steel-II	12.00	11.40	Functional	-	-
14	132KV Ballia		Sonwani		8.75	Functional	-	-
15			Civil Lines		13.82	Functional	-	-
16	132KV Deoria		Deoria		9.80	Functional	-	-
17			Nath Nagar		3.50	Functional	-	-
18	132KV Kasia		Padrauna		10.10	Functional	-	-
19			Kushinagar		4.20	Functional	-	-
20			Ravindra Nagar		2.00	Functional	-	-
21	132KV Saidpur	132/33	Saidpur		8.40	Functional	-	-
22		132/33	Khanpur		11.20	Functional	-	-
23		132/33	Deboali		4.20	Functional	-	-
24	132KV Bina		Kota-II		4.10	Functional	-	-
25			Anpara-I		2.50	Functional	-	-
26	132KV Jigna		Manda		8.75	Functional	-	-
27	132KV Bhupiamau		Dahilamau		7.00	Functional	-	-
28			Babaganj		4.90	Functional	-	-
29			Karma Karamchand		2.80	Functional	-	-
30	132KV Handia		Handia		17.15	Functional	-	-
31	132KV Khalilabad		Oswal		6.00	Functional	-	-
32	132KV Bhadohi		Sarpatha		2.24	Functional	-	-
33			Bhadohi		54.60	Functional	-	-

34	132KV Aurai		Chilh		47.6	Functional	-	-
35	132KV Mau (Old)		Rahjaniya		11.5	Functional	-	-
36			Baktawarganj		11.5	Functional	-	-
37			Bhiti		10.43	Functional	-	-
38	220KV Baraut		220KV Baraut	110.00	91	Functional	-	-
39	220KV Muradnagar		220KV Muradnagar	75.00	60	Functional	-	-
40	220KV Khurja		220KV Khurja	235.00		Functional (blocked on 8.11.13)	-	-
41	132KV Mawana		132KV Mawana	75.00	60	Functional	-	-
42	132KV Jansath		132KV Jansath	55.00	46	Functional	-	-
43	220 KV Fatehpur	220/132/33	Fatehpur		12.46	Functional	-	-
44		220/132/33	Abu Nagar		11.03	Functional	-	-
45	132kv Chunar	132/33	Chunar		1.22	Functional	-	-
46	132KV Sarnath	132/33	Andharapul		13	Functional	-	-
47		132/33	Kashi-I		15	Functional	-	-
48		132/33	Kashi-II		15	Functional	-	-
49		132/33	Pandeypur		15	Functional	-	-
50	132 kv Ghazipur	132/33	Rauza		12.4	Functional	-	-
51		132/33	Prakash Nager		12.0	Functional	-	-
52	132kv Bhadohi	132/33	Sarpatha		2.24	Functional	-	-
53		132/33	Bhadohi		54.6	Functional	-	-
54	132 KV S/S Raja Ka Talab	132/33	Rohania		14.0	Functional	-	-
55		132/33	Lohta		7.5	Functional	-	-
56	132 KV S/S Manduadih, Varanasi	132/33	Varanasi-I		10.0	Functional	-	-
57		132/33	Varanasi-II		11.0	Functional	-	-
58		132/33	Varanasi-III		15.0	Functional	-	-
59		132/33	B.H.U.		13.0	Functional	-	-
60		132/33	Tarna		13.0	Functional	-	-
61		132/33	Dafi		10.0	Functional	-	-
62	132KV S/S Jaunpur	132/33	33kv Jaunpur Town		33.65	Functional	-	-
63		132/33	33KV Naiganj		3.15	Functional	-	-

Total load relief 987.49

Required load relief 554

Under-frequency Relays setting : 48.8 Hz.

S.No.	Name of S/S with step down voltage		Particulars of feeder	Load Relief (MW)		UFR (Functional or Non-functional)	Target date for making UFR functional if not yet functional	Remarks / constraints, if any, in implementation
				Peak	Average			
1	220KV Sitapur	220/132/33	33KV Talgaon	2.00	2.00	Functional	-	-
2	132KV Lakhimpur	132/33	33KV Sharda Nagar	20.00	18.00	Functional	-	-
3	132KV Lakhimpur	132/33	33KV Mela Ground	18.00	15.00	Functional	-	-
4	132KV Lakhimpur	132/33	33KV Laharpur	18.00	16.00	Functional	-	-
5	220KV Hardoi	220/132/33	33KV Pihani	13.00	10.00	Functional	-	-
6			33KV Itauli	3.50	2.90	Functional	-	-
7			33KV Beniganj	7.50	5.50	Functional	-	-
8			33KV Sursa	11.00	8.00	Functional	-	-
9			33KV Sawayajpur	13.00	9.80	Functional	-	-
10			33KV Chatiya	10.00	7.50	Functional	-	-
11	132KV Sonik	132/33	33KV Ajgain	21.00	16.00	Functional	-	-
12			33KV Purwa	7.00	5.00	Functional	-	-
13	132KV Kundan Road	132/33	33KV Safipur/Miyaganj	13.00	10.00	Functional	-	-
14	132KV Balrampur	132/33	33KV Tulsipur	17.00	13.00	Functional	-	-
15	132KV Mankapur	132/33	33KV Rehra	8.00	6.00	Functional	-	-
16	132KV Bahraich	132/33	33KV Gonda	9.00	7.00	Functional	-	-
17	132KV Nanpara	132/33	33KV Motipur	7.00	5.00	Functional	-	-
18	132KV Jagdishpur	132/33	33/11 Kv,5MVA T/F-I	4.50	3.35	Functional	-	-
19			33/11KV,5MVA T/F-II	4.00	3.05	Functional	-	-
20	220KV Sohawal	220/132/33	33KV Sohawal	7.00	5.00	Functional	-	-

21	132KV BLY-Town	132/33	33KV Shahdana	16.00	12.00	Functional	-	-
22			33KV Kutubkhana	16.00	12.00	Functional	-	-
23			33KV Sadar Cant.	6.50	5.00	Functional	-	-
24			33KV Doordarshan	9.00	6.00	Functional	-	-
25			33KV Distt.Court.	4.00	2.50	Functional	-	-
26	132KV Pilibhit	132/33	33KV Bhopatpur	8.00	6.00	Functional	-	-
27			33KV Majhola	16.00	12.00	Functional	-	-
28			33KV Puranpur	8.00	6.00	Functional	-	-
29			33KV Ramlila Ground	8.00	6.00	Functional	-	-
30			33KV Nakatadana	9.00	7.00	Functional	-	-
31			33KV Jahanabad	5.00	4.00	Functional	-	-
32	132KV Dohna	132/33	33KV Devraniya	13.00	10.00	Functional	-	-
33			33KV Avas Vikash	16.00	12.00	Functional	-	-
34			33KV Nawab ganj	16.00	12.00	Functional	-	-
35	220KV Shahjahanpur	220/132/33	33KV Tilhar	13.00	10.00	Functional	-	-
36			33KV Jalalabad	13.00	10.00	Functional	-	-
37			33KV Sindhauli	2.50	2.00	Functional	-	-
38			33KV Atsaliya	8.00	6.00	Functional	-	-
39			33KV Nigohi Road	2.50	2.00	Functional	-	-
40			33KV Hathora	9.00	7.00	Functional	-	-
41			33KV Jamaur	7.00	5.00	Functional	-	-
42	132 KV Shahjahanpur	132/66	66KV Katra	7.00	5.00	Functional	-	-
43			66KV Nigohi	4.00	3.00	Functional	-	-
44	220KV Basti		Purani Basti		6.50	Functional	-	-
45			Gandhi Nagar		3.00	Functional	-	-
46			Giddhi		7.57	Functional	-	-
47			Bade Ban		13.00	Functional	-	-
52	220KV Rewa Road		Naribari-I		16.00	Functional	-	-
53			Naribari-II		9.80	Functional	-	-
54			Shankargarh		10.00	Functional	-	-
55			Karelabagh		16.00	Functional	-	-
56			Indalpur		9.80	Functional	-	-
57			Jail Road		14.00	Functional	-	-
58			Someshwar Nath		5.6	Functional	-	-

59	132KV Naini Complex		Arail		5.6	Functional	-	-
60			Jail Road		8	Functional	-	-
61			Store		8.8	Functional	-	-
62			Cotton Mill		4.8	Functional	-	-
63	132KV Raja Ka Talab		Rohania		14	Functional	-	-
64			Lohta		7.5	Functional	-	-
65	132 KV Manduadih, Varanasi		Varanasi-I		10.0	Functional	-	-
66			Varanasi-II		11.0	Functional	-	-
67			Varanasi-III		15.0	Functional	-	-
68			B.H.U.		13.0	Functional	-	-
69			Bhadaini		15.0	Functional	-	-
70			Tarna		13.0	Functional	-	-
71			Dafi		10.0	Functional	-	-
72	220KV Shamli		220KV Shamli	75.00	60.00	Functional	-	-
73	132KV Amroha		132KV Amroha	65.00	55.00	Functional	-	-
74	132KV Purkazi		132KV Purkazi	35.00	27.00	Functional	-	-
75	132KV Deoband		132KV Deoband	85.00	68.00	Functional	-	-
76	132KV Bhoor		132KV Bhoor	50.00	40	Functional	-	-
77	132KV Hapur		132KV Hapur	120.00	93	Functional	-	-
78	132KV Dasna		132KV Dasna	45.00	40	Functional	-	-
79	132KV Bijnor		132KV Bijnor	75.00	60	Functional	-	-
80	132KV Khatauli		132KV Khatauli	30.00	25	Functional	-	-
81	132KV Partapur		132KV Partapur	50.00	40	Functional	-	-
82	132KV Siyana		132KV Siyana	37.00	30	Functional	-	-
83	220 KV Fatehpur	220/132/33	Bilinda (Thariyaon)		10.57	Functional	-	-
84		220/132/33	Ghazipur		12	Functional	-	-
85	132KV Malwa	132/33	Fatehpur		10.4	Functional	-	-
86		132/33	Bindki Road		11.2	Functional	-	-
87		132/33	UPSIDC		12	Functional	-	-
88	132KV Jigna	132/33	Manda		8.75	Functional	-	-
89		220/132/33	kandharapur		1.57	Functional	-	-

90	220KV Azamgarh	220/132/33	Bilariaganj		9.1	Functional	-	-
91		220/132/33	Jeanpur		8.4	Functional	-	-
92	132kv Bansi	132/33	Bansi		7.5	Functional	-	-
93		132/33	Pathara		2.5	Functional	-	-
94		132/33	Rudhali		7.5	Functional	-	-
95		132/33	Naugarh -I		6	Functional	-	-
96		132/33	Naugarh-II		0	Functional	-	-
97	132 KV Deoria	132/33	Gauribazar		4.9	Functional	-	-
98		132/33	Barahaj		6	Functional	-	-
99		132/33	Usara		5.2	Functional	-	-
100		132/33	Tarkulwa		13.3	Functional	-	-
101	132 KV Maharajganj	132/33	Siswa		5.6	Functional	-	-
102		132/33	Ghughli		3.65	Functional	-	-
103		132/33	Partawal		8	Functional	-	-
104		132/33	Nichlaul		7.3	Functional	-	-
105		132/33	Mithaura		0	Functional	-	-
106	132 KV Kasia	132/33	Sirsia		4.9	Functional	-	-
107		132/33	Hata		7	Functional	-	-
108		132/33	Fazil Nagar		7.7	Functional	-	-
109		132/33	Ramkola		10.5	Functional	-	-
110	132 KV FCI	132/33	Durga bari		13.3	Functional	-	-
111	132KV Robertsganj	132/33	Ghorawal		14	Functional	-	-
112		132/33	Pasahi		20	Functional	-	-
113		132/33	Naugarh		14	Functional	-	-

Total load relief **1368.41**
Required load relief **559**

Under-frequency Relays setting : 48.6 Hz.

			Load Relief (MW)		Target date	
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S.No.	Name of S/S with step down voltage		Particulars of feeder	Peak	Average	UFR (Functional or Non-functional)	Target date for making UFR functional if not yet functional	Remarks / constraints, if any, in implementation
1	220KV Sitapur	220/132/33	33KV Neri	14.00	11.00	Functional	-	-
2			33KV Misrikh	19.00	15.00	Functional	-	-
3			33KV Hussainganj	14.00	11.00	Functional	-	-
4			33KV Bhavanipur	14.00	11.00	Functional	-	-
5			33KV City-I	14.00	11.00	Functional	-	-
6			33KV Biswan	19.00	15.00	Functional	-	-
7	220KV Hardoi	220/132/33	132/33KV,40MVA T/F-I	42.00	28.00	Functional	-	-
8			132/33KV,40MVA T/F-II	42.00	28.00	Functional	-	-
9	220KV C.B. Ganj	220/132/33	33KV Parsa Khera	16.00	10.00	Functional	-	-
10	132KV BLY-Town	132/33	33KV BESU	16.00	12.00	Functional	-	-
11			33KV MES	9.00	6.00	Functional	-	-
12	132 KV	132/33	33KV Govind Ganj	13.00	10.00	Functional	-	-
13	Shahjahanpur	132/66	66 KV Banda	10.00	7.50	Functional	-	-
14	132KV Bhadohi		Parsipur		2.50	Functional	-	-
15	132KV Khalilabad		Industrial		10.00	Functional	-	-
16			Mukhlispur		0.50	Functional	-	-
17	220KV Basti		Kaili Hospital		0.50	Functional	-	-
18			Court		0.70	Functional	-	-
19	132KV Kauriram		Baranagar		0.56	Functional	-	-
20			Goyal edibels		1.00	functional	-	-
21	132KV Ghazipur		Mardah		0.50	functional	-	-
22			Talwal		7.20	functional	-	-
23	132KV Zamania		Chakka Bandh Pump Canal		5.00	functional	-	-
24			Bira Sarai P/C		2.00	functional	-	-
25	132KV Chunar		JHV		3.75	functional	-	-
26			Shantigopool		5.11	functional	-	-

27	132KV Gajokhar		Industrial		1.50	functional	-	-
28			Airport		1.00	functional	-	-
29			Neyardi		1.00	functional	-	-
30			Karkhiao		1.00	functional	-	-
31			Uttara		0.50	functional	-	-
32	132KV Bina		Bina-I		7.70	functional	-	-
33			Bina-II		7.70	functional	-	-
34			Kota-II		4.10	functional	-	-
35			Anpara-I (UPRVUNL)		2.94	functional	-	-
36	132KV Naini		Raymond		4.8	Functional	-	-
37	Complex		NIC-		4.8	Functional	-	-
38	132 KV Manduadih, Varanasi		D.L.W.		5	Functional	-	-
39			N.E.R Manduadih		0.8	Functional	-	-
40			NR CANTT.		1	Functional	-	-
41	132KV Mau (Old)		Hospital Bay		0.07	Functional	-	-
42	220KV Loni		220KV Loni	55.00	46.00	Functional	-	-
43	132KV Mohan Nagar		132KV Mohan Nagar	80.00	64.00	Functional	-	-
44	132KV I.A. GZB		132KV I.A. GZB	30.00	23.00	Functional	-	-
45	132KV BSR GZB		132KV BSR GZB	26.00	21.00	Functional	-	-
46	220KV Dadri		220KV Dadri	31.00	25.00	Functional	-	-
47	220KV Nara		220KV Nara	80.00	64.00	Functional	-	-
48	220KV Sikandrabad		220KV Sikandrabad	40.00	32.00	Functional	-	-
49	132KV Surajpur		132KV Surajpur	75.00	60.00	Functional	-	-
50	132KV Morta		132KV Morta	85.00	68.00	Functional	-	-
51	220KV Azamgarh		Mubarakpur		11.20	Functional	-	-
52	132kv Jaunpur		33 KV Hospital		0.49	Functional	-	-
53	132kv Machlishahar		Satahariya-I		2.80	Functional	-	-
54			Satahariya-II		5.60	Functional	-	-
55	132kv Deoria		Deoria		9.8	Functional	-	-
56			Rudrapur		8.7	Functional	-	-
57			Nath Nagar		3.5	Functional	-	-
58	132 KV Maharajganj		Anand Nagar		1.75	Functional	-	-
59			Padrauna		10.1	Functional	-	-

60	132kv Kasia		Kushinagar		4.2	Functional	-	-
61			Ravindra Nagar		2	Functional	-	-
62	132 kv Khalilabad		Industrial		2.5	Functional	-	-
63			Mukhlispur		10	Functional	-	-
64	132 KV FCI		Vikash Nagar		5.6	Functional	-	-
65			Air Force		4.5	Functional	-	-
66			City Feeder		11.2	Functional	-	-
67			Ankur Udyog		2.6	Functional	-	-
68			Rapti Nagar		9.8	Functional	-	-
69			Pipraich		9.6	Functional	-	-
70			J.C.C.		4.5	Functional	-	-
71			V.N. Dyer		2.1	Functional	-	-
72	132 KV Shatrughanpur		Sardar Nagar		0.5	Functional	-	-
73	132KV Robertsganj		Robertsganj		14	Functional	-	-
74			Churk II		0.4	Functional	-	-

Total load relief **799.17**
Required load relief **561**

U.P.		Load Relief (MW)	Targeted Load Relief (MW)	% Load Relief implemented w.r.t. Target load Relief
1	Total Load relief at frequency 49.2Hz	1393.0	551	252.8
2	Total Load relief at frequency 49.0Hz	987	554	178.2
3	Total Load relief at frequency 48.8Hz	1368	559	244.8
4	Total Load relief at frequency 48.6Hz	799	561	142.5
5	Total Load releif at flat frequency	4548	2225	204.4

Status as on 02.12.2013

Revised UFRs based automatic load shedding scheme i.e. at 49.2 hz, 49.0 hz, 48.8 hz & 48.6 hz.

S.No.	State	Peak Met during 2012-'13 (MW)(Source: CEA)	49.2 Hz.		49 Hz.		48.8 Hz.		48.6 Hz.		State wise load relief on implementation of revised frequency setting of UFRs at stages of 49.2 hz, 49.0 hz,		Remarks/Status
			Target (MW)	Implemented (MW)	Target (MW)	Implemented (MW)	Target (MW)	Implemented (MW)	Target (MW)	Implemented (MW)	Implemented Load Relief (MW)	Targeted Load Relief (MW)	
1	Chandigarh	340	16	0	16	0	16	0	16	0	0	64	Not yet implemented
2	Delhi	5642	258	297	259	353	262	429	263	1049	2127	1042	Scheme implemented at all four stages
3	Haryana	6725	308	366	309	417	312	0	314	0	782	1243	Scheme implemented only at 49.2 Hz. & 49.0 Hz.
4	Himachal Pradesh	1672	77	30.2	77	40.8	78	0	78	78	149	310	Scheme implemented at frequency stages 49.2 Hz., 49.0 Hz., & 48.6 Hz.
5	J&K	1817	83	0	84	0	84	0	85	0	0	336	Not yet implemented
6	Punjab	8751	400	435	402	575	406	807	408	415	2232	1616	Scheme implemented at all four stages
7	Rajasthan	8515	390	1657	392	1659	395	0	397	0	3316	1574	Scheme implemented only at frequency stages 49.2 Hz. & 49.0 Hz.
8	UP (Avg.MW Relief)	12048	551	1393	554	987	559	1368	561	799	4548	2225	Scheme implemented at all frequency stages
9	Uttarakhand#	1674	77	90	77	100	78	0	78	0	190	310	Scheme implemented only at frequency stages 49.2 Hz. & 49.0 Hz.
10	Total load Relief (MW) by all NR states at each stage of frequency setting at 49.2 hz, 49.0 hz, 48.8 hz & 48.6 hz.	47184	2160	4267	2170	4132	2190	2604	2200	2341	13344	8720	

	Not yet implemented
	Partially implemented