Status of margins available at existing ISTS substations (non RE) for proposed RE integration

All figures are in MW (as on 30-11-2024)

Name of station	Existing / UC/ Planned MVA Capacity	Capacity Allocated/ Under Process (MW)	Aditional Margin on existing / UC system		Line Bays required for RE integration		Additional Margin with ICT Augmentation		Line Bays required for RE integration		No. of Trfs required for RE integration	Remarks
			220kV level	400kV level	220kV level	400kV level	220kV level	400kV level	220kV level	400kV level		
Maharashtra												
Aurangabad 765/400/220kV	**2x1500MVA, 765/400kV 2x315MVA, 400/220kV**	0	0	0	0	0	0	0	0	0	0	Overloading in 220kV downstream network.
Kolhapur 400kV	**400kV Switching Station**	0	0	0	0	0	0	0	1	0	0	Overloading observed in 400kV Kolhapur (PG)-Kolhapur(MSETCL) D/c line.
Parli (PG) 400/220kV	**2x500MVA, 400/220kV**	300	0	0	0	0	0	0	0	0	0	300MW capacity has been allocated at Parli (PG) S/s. Overloading in 220kV downstream & Parli 400kV network.
		Total MAH:	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**
Madhya Pradesh												
Khandwa 400/220kV	**2x315+1x500MVA, 400/220kV**	300	0	0	0	0	0	0	0	0	0	300MW Stage-II connectivity & 300MW LTA from Masaya Solar at Khandwa has also been granted. Overloading in 220kV downstream network.
Indore 765/400/220kV	**2x500MVA, 400/220kV + (1x500MVA with sectionalisation at 220kV for RE injection)**	924.4	150.6	400	1	1	0	0	0		0	324.4MW LTA has been granted on 1x500MVA with sectionalisation at 220kV for RE injection & 600MW has been granted on 400kV bay
Jabalpur PS 765/400	**2x1500MVA 765/400kV**	0	0	0	0	0	0	0	0	0	0	765/400kV ICT overloading.
Rajgarh 400/220kV	**2x315MVA, 400/220kV+ (2x500MVA with sectionalisation at 220kV for RE injection)**	1092	0	0	3	0	155	0	1	0	2	**Margins at 220kV bay of Srpng**: 298.24MW has been granted / agreed for grant to M/s Sprng. Overloading in 220kV downstream network. **Margins at 400/220kV ICT-III& IV:** 793.6MW has been granted/agreed/received at extended 220kV bus of Rajgarh S/s through addl. 400/220kV, 500MVA ICT(s) for RE injection. **About 155MW FURTHER MARGINS EXIST FOR RE INJECTION AT RAJGARH S/s**
		Total MP:	**150.6**	**400**	**4**	**1**	**155**	**0**	**1**	**0**	**2**	**705.6**
Chhattisgarh												
Dharamjaygarh 765/400kV	**2x1500MVA 765/400kV**	0	0	900	0	1	0	0	0	0	0	765/400kV ICT overloading.
Champa 765/400kV	**6x1500MVA 765/400kV**	0	0	1500	0	2	0	0	0	0	0	765/400kV ICT overloading.
Bilaspur PS 765/400kV	**3x1500MVA 765/400kV**	0	0	1000		1	0	0	0	0	0	765/400kV ICT overloading.
		Total Chhat:	**0**	**3400**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**3400**
		Total WR	**150.6**	**3800**	**4**	**5**	**155**	**0**	**2**	**0**	**2**	**4105.6**

Status of margins available at existing ISTS substations (non RE) for proposed RE integration

All figures are in MW (as on 30-11-2024)

Name of station	Existing / UC/ Planned MVA Capacity	Capacity Allocated/ Under Process (MW)	Aditional Margin on existing / UC system		Line Bays required for RE integration		Additional Margin with ICT Augmentation		Line Bays required for RE integration		No. of Trfs required for RE integration	Remarks
			220kV level	400kV level	220kV level	400kV level	220kV level	400kV level	220kV level	400kV level		
Andhra Pradesh												
Kurnool (New) 765/400kV	**2X1500 MVA, 765/400 kV**	2714	0	0		1	0	250		0	1	
		Total AP:	**0**	**0**	**0**	**1**	**0**	**250**	**0**	**0**	**1**	**250**
Karnataka												
Hiriyur 400/220kV	**2x315 MVA, 400/220 kV + 1x500 MVA, 400/220 kV**	600.3	0	0	0		0	0		0	0	
		Total Kar:	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Kerala												
Palakkad (400/220kV)	**2x315 MVA, 400/220 kV + 1x500 MVA, 400/220 kV**	0	300	0	2	0	0	0	2	0	0	
		Total Ker:	**300**	**0**	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**300**
Tamil Nadu												
Pugalur(Existing) 400/230kV	**2X315 MVA + 1X500 MVA, 400/230 kV**	655	0	0			0	0			0	Pugalur(Existing) has been closed for all purpose regarding grant of Connectivity.
Malekottaiyur(Kalivendapattu) 400/230kV	**2X315 MVA + 1X500 MVA, 400/230 kV**	NIL	500	0	2		0	0		0	0	
Nagapattinam PS 765/400kV	**Charged at 400 kV**	NIL	0	1000		2	0	0		0	0	
		Total TN:	**500**	**1000**	**2**	**2**	**0**	**0**	**0**	**0**	**0**	**1500**
		Total SR	**800**	**1000**	**2**	**3**	**0**	**250**	**0**	**0**	**1**	**2050**
Rajasthan												
Chittorgarh 765/400kV	**765/400kV : 2x1500MVA**	NIL	0	0	**0**	**0**	0	0	0	0	0	
Ajmer 765/400kV	**765/400kV : 2x1500MVA**	NIL	0	0	**0**	**0**	0	0	0	0	0	
Bassi	**400/220 kV : 2x315MVA +1x500MVA**	NIL	0	0	**0**	**0**	0				0	220kV overloading
Bhiwadi	**400/220 kV : 3x315MVA**	NIL	0	0	**0**	**0**	0				0	220kV overloading
Kankroli	**400/220 kV : 3x315MVA**	NIL	0	0	**0**	**0**	0				0	220kV overloading
Kota	**400/220 kV : 2x315MVA**	NIL	0	0	**0**	**0**	0				0	220kV overloading
Bhinmal	**400/220 kV : 2x315MVA+1x315 MVA UC**	NIL	0	0	**0**	**0**	0	0	0	0	0	
Neemarana	**400/220 kV : 1x315MVA +1x500MVA**	NIL	300	0	**1**	**0**	0	0	0	0	0	
Sikar	**400/220 kV : 2x315MVA +1x500MVA**	NIL	0	0	**0**	**0**	0				0	220kV overloading
Jaipur (South)	**400/220 kV : 2x500MVA**	NIL	400	0	**1**	**0**	0	0	0	0	0	

Status of margins available at existing ISTS substations (non RE) for proposed RE integration

All figures are in MW (as on 30-11-2024)

Name of station	Existing / UC/ Planned MVA Capacity	Capacity Allocated/ Under Process (MW)	Aditional Margin on existing / UC system		Line Bays required for RE integration		Additional Margin with ICT Augmentation		Line Bays required for RE integration		No. of Trfs required for RE integration	Remarks
			220kV level	400kV level	220kV level	400kV level	220kV level	400kV level	220kV level	400kV level		
Kotputli	**400/220 kV : 2x315MVA+1X500MVA (Planned)**	NIL	150	0	**1**	**0**	0	0	0	0	0	
		Total RAJ	**850**	**350**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**1200**
Haryana												
Kaithal	**400/220 kV : 3X315MVA**	NIL	150	0	1	0	0	0	0	0	0	
Panchkula	**400/220 kV : 2X315MVA+500MVA**	NIL	0	0	0	0	500	0	0	1	1	
Bahadurgarh	**400/220 kV : 315MVA +500MVA+500MVA (UC)**	NIL	150	0	1	0	0	0	0	0	0	
Sonepat	**400/220 kV : 2x315MVA**	NIL	0	0	0	0	500	0	0	1	1	
Manesar	**400/220 kV : 2X500MVA**	NIL	250	0	1	0	0	0	0	0	0	
		Total HARY	**550**	**0**	**3**	**0**	**1000**	**0**	**0**	**2**	**2**	**1550**
Uttar Pradesh												
Kanpur(New)	**765/400 kV : 2x1500MVA+1x1500**	NIL	0	1250	0	1	0	0	0	0	0	220kV Not available
Fatehpur	**765/400kV : 2x1500MVA; 400/220 kV : 2X315MVA**	NIL	0	0	0	0	500	0	0	1	1	
Mainpuri	**400/220 kV : 2x315MVA +500MVA**	NIL	150	0	1	0	0	0	0	0	0	
Sohawal	**400/220 kV : 2x315MVA +500MVA**	NIL	100	0	1	0	0	0	0	0	0	
Lucknow (new)	**765/400 kV : 2x1500MVA**	NIL	0	500	0	1	0	0	0	0	0	
Balia	**765/400 kV : 2x1500MVA**	NIL	0	850	0	1	0	0	0	0	0	220kV Not available.
Bareilly(New)	**765/400 kV : 2x1500MVA**	NIL	0	500	0	1	0	0	0	0	0	
Varanasi	**765/400 kV : 2x1500MVA**	NIL	0	500	0	1	0	0	0	0	0	
		Total UP	**250**	**3600**	**2**	**5**	**500**	**0**	**0**	**1**	1	**4350**
		Total NR	**1650**	**3950**	**8**	**5**	**1500**	**0**	**0**	**3**	**3**	**7100**
Odisha												
Jeypore	**400/220kV: 2x630MVA**		500	0	0		0	0	0		0	
Keonjhar	**400/220kV: 2x315MVA**	0	300	0	1		0	0	0	0	0	

Status of margins available at existing ISTS substations (non RE) for proposed RE integration

All figures are in MW (as on 30-11-2024)

Name of station	Existing / UC/ Planned MVA Capacity	Capacity Allocated/ Under Process (MW)	Aditional Margin on existing / UC system		Line Bays required for RE integration		Additional Margin with ICT Augmentation		Line Bays required for RE integration		No. of Trfs required for RE integration	Remarks
			220kV level	400kV level	220kV level	400kV level	220kV level	400kV level	220kV level	400kV level		
Pandiabil	**400/220kV: 2x500MVA**	0	400	0	3		0	0	0	0	0	
Rengali	**400/220kV: 2x315MVA**	0	100	0	1		0	0	0	0	0	
Angul	**765/400: 4x1500MVA**	0	0	2500		2	0	0	0	0	0	
Total		**Total Od:**	**1300**	**2500**	**5**	**2**	**0**	**0**	**0**	**0**	0	**3800**
Jharkhand												
Chaibasa	**400/220kV: 2x315MVA**	0	400	0	2		0	0	0	0	0	
Daltonganj	**400/220kV: 2x315MVA**	0	400	0	1		0	0	0	0	0	
Ranchi	**400/220kV: 2x315MVA + 1x500MVA**		800		0		400	0	0		0	Additional 400MW would be available after commissioning of 3rd 400/220kV, 500MVA ICT at Ranchi (expected by Feb 2023)
Ranchi (New)	**765/400kV: 2x1500MVA**	0	0	900		1	0	0	0	0	0	
Chandwa	**400kV switching**		0	900		1	0	0	0	0	0	
Dhanbad	**400/200kV: 2x500MVA**		300									
Total		**Total Jh:**	**1900**	**1800**	**3**	**2**	**400**	**0**	**0**	**0**	0	**4100**
Bihar												
Banka	**400/132kV: 2x200MVA + 1x315MVA (existing) 400/220kV: 2x500MVA (under construction, expected by Oct 2024)**	0	100	0	1	0	400	0	0	0	0	100MW at 132kV level in the existing system and 400MW at 220kV level with the implementation of "Augmentation of 400/220kV, 2x500MVA ICT at Banka" Scheme expected by Oct 2024
Lakhisarai	**400/132kV: 2x200MVA + 1x315MVA**	0	200	0	1	0	0	0	0	0	0	132kV level
Motihari	**400/132kV: 2x200MVA + 1x315MVA**	0	500	0	1	0	0	0	0	0	0	132kV level
Chandauti	**400/220kV: 3x500MVA**	0	900	0	2	0	0	0	0	0	0	
Muzaffarpur	**400/220kV: 2x315MVA + 2x500MVA**	0	600	0	2	0	0	0	0	0	0	line corridor available for 2 lines
Saharsa	**400/220kV: 2x500MVA**	0	900	0	2	0	0	0	0	0	0	
Sitamarhi	**400/220kV: 2x500MVA**	0	900	0	2	0	0	0	0	0	0	
		Total Bihar:	**4100**	**0**	**11**	**0**	**400**	**0**	**0**	**0**	0	**4500**

Status of margins available at existing ISTS substations (non RE) for proposed RE integration

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Name of station	Existing / UC/ Planned MVA Capacity	Capacity Allocated/ Under Process (MW)	Aditional Margin on existing / UC system		Line Bays required for RE integration		Additional Margin with ICT Augmentation		Line Bays required for RE integration		No. of Trfs required for RE integration	Remarks
			220kV level	400kV level	220kV level	400kV level	220kV level	400kV level	220kV level	400kV level		
West Bengal												
Durgapur-B	**400/220kV: 3x315MVA**		0				300					220kV overloaded in present case under N-1. 300MW margin would be created after reconductoring of Durgapur - Parulia 220kV D/c line by DVC
Maithon-B	**400/220kV: 3x500MVA**		300									
Subhasgram	**400/220kV: 2x315MVA + 1x500MVA**	0	600	0	1		300	0	0	0	0	Additional 300MW would be available after commissioning of 6th 400/220kV, 500MVA ICT at Subhasgram by CESC (expected by 2024)
Jeerat-New	**765/400: 2x1500MVA**	0	0	2400		2	0	0	0	0	0	
Medinipur	**765/400: 2x1500MVA**	0	0	1500		1	0	0	0	0	0	
		Total WB:	**900**	**3900**	**1**	**3**	**600**	**0**	**0**	**0**	0	**5400**
		ER-Total	**8200**	**8200**	**20**	**7**	**1400**	**0**	**0**	**0**	**0**	**17800**
	All India	**All India Total**	**10800.6**	**16950**	**34**	**20**	**3055**	**250**	**2**	**3**	**6**	**31055.6**

Disclaimer

The margins indicated may vary depending on network topology, Load-Generation balance, etc. For any clarification/information, CTU may be contacted.