

Annexure-I (B)**Eastern Region:**

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
ER - 01	Eastern Region Strengthening Scheme-III	ISTS	SS					
	1. Sasaram-Daltonganj 400kV D/C line	ISTS	SS	400kV	D/C	260		Commissioned
	2. Mandhasal-Pattanaikya 400kV D/C line	ISTS	SS	400kV	D/C	100		Commissioned
	3. LILO of Kahalgaon-Biharsharif 400kV D/C line (1st line) at Lakhisarai	ISTS	SS	400kV	2xD/C	80		Commissioned
	4. LILO of Kahalgaon-Biharsharif 400kV D/C line (2st line) at Banka	ISTS	SS	400kV	2xD/C	70		Commissioned
	5. LILO of Meramundali-Jeypore 400kV S/C line at Bolangir	ISTS	SS	400kV	D/C	50		Commissioned
	6. LILO of Rangali-Baripada 400kV S/C line at Keonjhar	ISTS	SS	400kV	D/C	60		Commissioned
	7. LILO of one Ckt. of Baripada-Mendhasal 400kV D/C line at Dubri(OPTCL)	ISTS	SS	400kV	D/C	40		Commissioned
	8. LILO of Jamshedpur-Rourkela 400kV D/C line at Chaibasa	ISTS	SS	400kV	D/C	60		Commissioned
	9. Daltonganj(New) 2x315 MVA, 400/220 kV sub-station.	ISTS	SS	400/220kV	trf		630	Commissioned
	10. Lakhisarai(New) 2x200 MVA, 400/132 kV sub-station.	ISTS	SS	400/220kV	trf		630	Commissioned
	11. Banka(New) 2x200 MVA, 400/132 kV sub-station.	ISTS	SS	400/220kV	trf		630	Commissioned
	12. Bolangir(New) 2x315 MVA, 400/220 kV sub-station.	ISTS	SS	400/220kV	trf		630	Commissioned
	13. Keonjhar(New) 2x315 MVA, 400/220 kV sub-station.	ISTS	SS	400/220kV	trf		630	Commissioned

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	14. Chaibasa(New) 2x315 MVA, 400/220 kV sub-station.	ISTS	SS	400/220kV	trf		630	Commissioned
	15. Pattanaikya (New) 2x315 MVA, 400 / 220 kV sub-station	ISTS	SS	400/220kV	trf		630	Commissioned
ER - 02	Eastern Region Strengthening Scheme-IV	ISTS	SS					
	1. Additional 1X160MVA, 220/132kV Transformer with associated bays at 220/132kV Siliguri Substation	ISTS	SS	220/132kV	trf		160	Commissioned
	2. Replacement of 1X50MVA, 220/132kV Transformer by 1X160MVA, 220/132kV Transformer with associated bays at 220/132kV Birpara Substation	ISTS	SS	220/132kV	trf		110	Commissioned
	3. Installation of additional Bay/Breaker against 400kV Malda-Farakka-I feeder at Malda Substation	ISTS	SS	400kV	bay			Commissioned
	4. Replacement of 2X50MVA, 220/132kV Transformers by 2X160MVA, 220/132kV Transformers with associated bays at 400/220/132kV Malda Substation	ISTS	SS	220/132kV	trf		220	Commissioned
ER - 03	Eastern Region Strengthening Scheme-V	ISTS	ATS					
	1. Establishment of 400/220 kV, 2X500 MVA Rajarhat substation	ISTS	ATS	400/220kV	trf		1000	UC
	2. LILO of Subhashgram- Jeerat 400kV S/C line at Rajarhat	ISTS	ATS	400kV	D/C	40		UC
	3. Rajarhat-Purnea 400 kV D/c line (triple snowbird), with LILO of one circuit at Gokarna and other circuit at Farakka	ISTS	ATS	400kV	D/C	600		UC
ER - 04	Eastern Region System Strengening Scheme - VII	ISTS	ATS					
	1. Kharagpur - Chaibasa 400 kV D/c line	ISTS	ATS	400kV	D/C	300		UC
	2. Purulia PSS - Ranchi 400 kV D/c line	ISTS	ATS	400kV	D/C	200		UC

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
ER - 05	Eastern Region System Strengthening Scheme - VI	ISTS	ATS					
	1. LILO of Barh - Gorakhpur 400 kV D/c line at Motihari (2xD/c) (quad)	ISTS	ATS	400kV	2xD/C	200		UC
	2. Mujaffarpur - Darbhanga 400 kV D/c line with triple snow bird conductor	ISTS	ATS	400kV	D/C	120		UC
	3. 2x500 MVA 400 / 220 kV S/s at Darbhanga (GIS) with space for future extension	ISTS	ATS	400/220kV	trf		1000	UC
	4. 2x200 MVA 400 / 132 kV S/s at Motihari (GIS) with space for future extension	ISTS	ATS	400/132kV	trf		400	UC
	5. 2x80 MVAR Line reactors (switchable) at Motihari end (with 600 ohm NGR) for Barh-Motihari section	ISTS	ATS		reactor			UC
	6. 2x50 MVAR Line reactors (fixed) at Motihari end (with 400 ohm NGR) for Motihari - Gorakhpur section	ISTS	ATS		reactor			UC
ER - 06	ATS for Barh-II U 1,2 (1320 MW)	ISTS	ATS					
	Barh-II - Gorakhpur 400kV D/c line (quad)	ISTS	ATS	400kV	D/C	600		Commissioned
ER - 07	ATS for Nabi Nagar JV (Rly+NTPC) (1000MW)	ISTS	ATS					
	Nabinagar-Sasaram 400kV D/C line with twin lapwing	ISTS	ATS	400kV	D/C	160		Commissioned
ER - 08	ATS for New Nabi Nagar JV (Bihar+NTPC) (1980MW)	ISTS	ATS					
	1. Nabinagar-Gaya 400kV D/C (Quad) line	ISTS	ATS	400kV	D/C	240		UC
	2. Nabinagar-Patna 400kV D/C (Quad) line	ISTS	ATS	400kV	D/C	400		UC

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	3. Augumentation of Gaya 765/400kV 1x1500 MVA Transformer.	ISTS	ATS	765/400kV	trf		1500	UC
ER - 09	ATS for Muzzafarpur ext JV (390 MW)	STATE	ATS					
	Existing System will be adequate							Commissioned
ER - 10	Combined system for Bokaro Expansion(500 MW) & Koderma(2x500 MW)	ISTS	ATS					
	1. Bokaro Extn. - Koderma 400kV D/C line	ISTS	ATS	400kV	D/C	110		Commissioned
	2. Koderma - Gaya 400kV quad D/C line	ISTS	ATS	400kV	D/C	80		Commissioned
	3. Koderma- Biharsharif 400kV D/C (Quad) line	ISTS	ATS	400kV	D/C	200		Commissioned
ER - 11	Dedicated Transmission Sysytem for [Adhunik Power(540 MW), Corporate Power (Phase-I (540 MW) & Phase II (540MW)), Essar Power (1200 MW)]	DTL	ATS					
	Dedicated Transmission line for Adhunik Power (540 MW)	DTL	ATS					
	Adhunik TPS- Jamshedpur 400kV D/C line	DTL	ATS	400kV	D/C	10		Commissioned
	Dedicated Transmission line for Essar Power (1200 MW).	DTL	ATS					
	Essar Power - Jharkhand Pooling station 400kV Quad D/C line	DTL	ATS	400kV	D/C	80		UC
ER - 12	Common Sytem Strengthening for Phase-I Generation Projects in Jharkhand[(Adhunik Power(540 MW), Corporate (540MW), Essar Power(1200 MW)]-Part-A	ISTS	ATS					

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	1. Ranchi – Gaya 400 kV (Quad) line via pooling station proposed near Essar / Corporate generation project (Jharkhand Pool)	ISTS	ATS	400kV	D/C	400		UC
	2. Ranchi New (765/400kV S/s) - Dharamjaygarh / near Korba 765kV S/c	ISTS	ATS	765kV	S/C	350		Commissioned
	3. Establishment of 400kV Pooling Station (Jharkhand Pool) near Essar and Corporate generation projects. This will be a switching station without ICTs	ISTS	ATS	400kV				UC
	4. New 2x1500 MVA, 765/400 kV substation at Varanasi	ISTS	ATS	765/400kV	trf		3000	UC
	5. Gaya – Varanasi 765 kV S/c line	ISTS	ATS	765kV	S/C	250		UC
	6. Varanasi - Balia 765 kV S/c line	ISTS	ATS	765kV	S/C	150		UC
ER - 13	Common System Strengthening for Phase-I Generation Projects in Jharkhand[(Adhunik Power(540 MW), Corporate (540MW), Essar Power(1200 MW)]-Part-B	ISTS	ATS					
	1. New 2x1500 MVA, 765/400 kV substation at Kanpur	ISTS	ATS	765/400kV	trf		3000	UC
	2. Varanasi – Kanpur 765 kV D/c	ISTS	ATS	765kV	D/C	350		UC
	3. Kanpur – Jhatikra 765 kV S/c	ISTS	ATS	765kV	S/C	450		UC
	4. Kanpur (765/400kV) - Kanpur (Existing) 400kV D/C (Quad)	ISTS	ATS	400kV	D/C	70		UC
	5. Varanasi - Sarnath (UPPCL) 400kV D/c (quad)	ISTS	ATS	400kV	D/C	80		UC

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	6. LILO of Sasaram - Allahabad 400kV line at Varanasi	ISTS	ATS	400kV	D/C	25		UC
	7. Private Sector line: Dharamjaygarh – Jabalpur 765kV D/C line (2nd line) would be under the scope of private sector.	ISTS	ATS	765kV	D/C	820		UC
ER - 14	Dedicated Transmission System for Phase-I Generation Projects in Orissa[Sterlite TPP U 1&2, 3&4 (2400 MW), Monet Power (1050 MW), GMR(1050 MW), Nav Bharat (1050 MW), Ind Barat(700 MW), Jindal (1200MW), Lanco Babandh(4x660), Derang TPP (2x600 MW)]	DTL	ATS					
	Dedicated Transmission line for Sterlite TPP U 1&2, 3&4(2400MW)	DTL	ATS					
	Sterlite TPP - Jhasuguda 765/400kV Pooling station 2XD/c 400kV line	DTL	ATS	400kV	2xD/C	60		UC
	Dedicated Transmission line for Monet Power (1050 MW)	DTL	ATS					
	Monnet-Angul Pooling point 400 kV D/c line	DTL	ATS	400kV	D/C	35		UC
	Dedicated Transmission line for GMR(1050 MW)	DTL	ATS					
	GMR-Angul Pooling point 400 kV D/c line	DTL	ATS	400kV	D/C	60		Commissioned
	Dedicated Transmission line for Nav Bharat (1050 MW)	DTL	ATS					
	Navbharat TPP - Angul Pooling point 400 kV D/C(Quad) line	DTL	ATS	400kV	D/C	60		UC
	Dedicated Transmission line for Ind Barat(700 MW)	DTL	ATS					

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	Ind-Barath TPS-Jharsuguda 400 kV D/C line	DTL	ATS	400kV	D/C	40		UC
	Dedicated Transmission line for Jindal (1200MW)	DTL	ATS					
	Jindal TPP - Angul Pooling point 400 kV D/C line	DTL	ATS	400kV	D/C	35		Commissioned
	Dedicated Transmission line for Lanco Babandh(4x660MW)	DTL	ATS					
	Lanco-Angul Pooling point 400 kV 2xD/c line	DTL	ATS	400kV	2xD/C	40		UC
	Derang TPP (2x600 MW) (Private Sector)	DTL	ATS					
	Derang - Angul Pooling Point 400 kV D/c line	DTL	ATS	400kV	D/C	80		Commissioned
ER - 15	ATS for Phase-I Generation Projects in Orissa[Sterlite TPP U 1&2, 3&4 (2400 MW), Monet Power (1050 MW), GMR(1050 MW), Nav Bharat (1050 MW), Ind Barat(700 MW), Jindal (1200MW), Lanco(2640MW)]- Part-A	ISTS	ATS					
	1. Angul Pooling Station – Jharsuguda Pooling Station 765kV 2xS/c	ISTS	ATS	765kV	2xS/C	200		UC
	2. LILO of Rourkela – Raigarh 400kV D/c at Jharsuguda Pooling station	ISTS	ATS	400kV	2xD/C	40		Commissioned
	3. **LILO of Meramundali – Jeypore 400kV S/c line at Angul pooling station	ISTS	ATS	400kV	D/C	40		Commissioned
	4. **LILO of one ckt of Talcher - Meramundali 400kV D/c line at Angul pooling station	ISTS	ATS	400kV	D/C	30		Commissioned
	5. Establishment of 2x1500 MVA, 765/400kV Pooling Station at Jharsuguda	ISTS	ATS	765/400kV	trf		3000	Commissioned

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	6. Establishment of 4x1500MVA, 765/400kV Pooling Station at Angul	ISTS	ATS	765/400kV	trf		6000	Commissioned
	** These LILO would be later disconected when Angul PS is developed							
ER - 16	ATS for Phase-I Generation Projects in Orissa[Sterlite TPP U 1&2, 3&4 (2400 MW), Monet Power (1050 MW), GMR(1050 MW), Nav Bharat (1050 MW), Ind Barat(700 MW), Jindal (1200MW), Lanco(2640MW)]- Part-B	ISTS	ATS					
	1. Establishment of 765kV switching station at Dharamjaygarh / near Korba	ISTS	ATS	765kV				Commissioned
	2. Establishment of 765/400kV Pooling Station at Jabalpur	ISTS	ATS	765/400kV	trf		3000	Commissioned
	3. Jharsuguda Pooling Station – Dharamjaygarh / near Korba (WR) 765kV D/c	ISTS	ATS	765kV	D/C	380		Commissioned
	4. LILO of Ranchi – WR Pooling near Sipat 765kV S/c line at Dharamjaygarh / near Korba	ISTS	ATS	765kV	D/C	6		Commissioned
	5. Dharamjaygarh / near Korba – Jabalpur Pooling Station 765kV D/c line	ISTS	ATS	765kV	D/C	700		Commissioned
	6. Jabalpur Pooling Station – Jabalpur 400 kV D/c Quad line	ISTS	ATS	400kV	D/C	4		Commissioned
ER - 17	ATS for Phase-I Generation Projects in Orissa[Sterlite TPP U 1&2, 3&4 (2400 MW), Monet Power (1050 MW), GMR(1050 MW), Nav Bharat (1050 MW), Ind Barat(700 MW), Jindal (1200MW), Lanco(2640MW)]- Part-C	ISTS	ATS					
	1. Jabalpur Pooling Station – Bina 765kV D/c line	ISTS	ATS	765kV	D/C	500		Commissioned
	2. Bina – Gwalior 765kV S/c (3rd circuit)	ISTS	ATS	765kV	S/C	245		Commissioned

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	3. Gwalior - Jaipur 765kV S/c line (2nd circuit)	ISTS	ATS	765kV	S/C	260		Commissioned
	4. Jaipur - Bhiwani 765kV S/c line	ISTS	ATS	765kV	S/C	320		Commissioned
ER - 18	ATS for Phase-I Generation Projects in Orissa[Sterlite TPP U 1&2, 3&4 (2400 MW), Monet Power (1050 MW), GMR(1050 MW), Nav Bharat (1050 MW), Ind Barat(700 MW), Jindal (1200MW), Lanco(2640MW)]- Part-D	ISTS	ATS					
	1. Establishment of 2x1500MVA, 765/400kV Bhopal Pooling Station	ISTS	ATS	765/400kV	trf		3000	UC
	2. Jabalpur Pool – Bhopal – Indore 765kV S/c	ISTS	ATS	765kV	S/C	480		UC
	3. Bhopal New substation – Bhopal (M.P.) 400kV D/c (high capacity)	ISTS	ATS	400kV	D/C	60		UC
ER - 19	Dedicated Transmission System for Phase-I Generation Projects in Sikkim[Teesta – III HEP(1200MW), Teesta-VI(500 MW), Rangit-IV (120 MW), Chujachen (99MW), Bhasmey (51 MW), Jorethang Loop(96 MW), Rongnichu(96 MW)]	DTL	ATS					
	Dedicated Transmission line for Teesta – III HEP(1200MW)	DTL	ATS					
	Teesta-III – Kishanganj 400kV D/c line with Quad Moose conductor	DTL	ATS	400kV	D/C	304		UC
	Dedicated Transmission line for Teesta-VI(500 MW)	DTL	ATS					
	Teesta-VI-Rangpo 220kV D/C(twin moose)	DTL	ATS	220kV	D/C	25		Commissioned

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	Dedicated Transmission line for Rangit-IV (120 MW)	DTL	ATS					
	Rangit-IV-New Melli 220kV D/C line	DTL	ATS	220kV	D/C	25		Commissioned
	Dedicated Transmission line for Chujachen HEP (99MW) (Gati)	DTL	ATS					
	LILO of Melli - Gangtok at Chujachen D/c (LILO point at Namthang)	DTL	ATS	132kV	D/C	80		Commissioned
	Dedicated Transmission line for Bhasmey (51 MW)	DTL	ATS					
	LILO of one ckt. Chujachen-Rangpo 132kV D/c at Bhasmey	DTL	ATS	132kV	D/C	20		Commissioned
	Dedicated Transmission line for Jorethang Loop(96 MW)	DTL	ATS					
	Jorrethang-New Melli 220kV D/Cline	DTL	ATS	220kV	D/C	30		UC
	Dedicated Transmission line for Rongnichu(96 MW)	DTL	ATS					
	Rongnichu-Rangpo 220 kV D/c line	DTL	ATS	220kV	D/C	40		UC
ER - 20	ATS for Phase-I Generation Projects in Sikkim[Teesta – III HEP(1200MW), Teesta-VI(500 MW), Rangit-IV (120 MW), Chujachen (99MW), Bhasmey (51 MW), Jorethang Loop(96 MW), Rongnichu(96 MW)]-Part-A	ISTS	ATS					
	1. Establishment of New 2x315 MVA, 400kV sub-station at Kishenganj	ISTS	ATS	400/220kV	trf		630	UC
	2. LILO of Siliguri (Existing) – Purnea 400kV D/c line(quad) at new pooling station at Kishenganj	ISTS	ATS	400kV	2xD/C	48		UC

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	3. LILO of Siliguri – Dalkhola 220kV D/c line at new pooling station at Kishenganj	ISTS	ATS	220kV	2xD/C	40		UC
ER - 21	ATS for Phase-I Generation Projects in Sikkim[Teesta – III HEP(1200MW), Teesta-VI(500 MW), Rangit-IV (120 MW), Chujachen (99MW), Bhasmey (51 MW), Jorethang Loop(96 MW), Rongnichu(96 MW)]-Part-B	ISTS	ATS					
	1(a). Establishment of 16x105MVA, 1 ph, 400/220kV and 3x100MVA 220/132kV, Gas Insulated Substation at Rangpo	ISTS	ATS	400/220kV	trf		1575	UC
	1(b). Establishment of 3x100MVA 220/132kV trf at Rangpo GIS	ISTS	ATS	220/132kV	trf		300	UC
	2. Establishment of 220kV Switching station at New Melli	ISTS	ATS	220kV				UC
	3. LILO of Teesta III – Kishenganj 400kV Quad D/c line (to be constructed through JV route) at Rangpo (Twin HTLS conductor)	ISTS	ATS	400kV	D/C	40		UC
	4. New Melli - Rangpo 220kV D/c line (with single HTLS conducto)	ISTS	ATS	220kV	D/C	44		UC
	5. LILO of Gangtok-Rangit 132kV S/c line at Rangpo and termination of Gangtok-Rangpo/Chujachen and Melli–Rangpo/Chujachen 132kV lines (constructed under part-A through LILO of Gangtok-Melli 132kV S/c line upto Rangpo) at Rangpo sub-station	ISTS	ATS	132kV	D/C	20		UC
	6. LILO of Existing Teesta V – Siliguri 400kV D/c line at Rangpo	ISTS	ATS	400kV	2xD/C	40		Commissioned
	7. Kishenganj- Patna (PG) 400kV D/c (quad) line	ISTS	ATS	400kV	D/C	400		UC
ER - 22	ATS for Raghunathpur (1200MW)	ISTS	ATS					
	1. LILO of one ckt of Maithon(PG)-Ranchi 400kV line at Rangunathpur (400kV D/C Lilo line)	ISTS	ATS	400kV	D/C	30		UC

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	2. Raghunathpur-Ranchi 400kV quad D/C line	ISTS	ATS	400kV	D/C	180		UC
ER - 23	Common Transmission System for import of power from DVC by NR	ISTS	ATS					
	1. Maithon - Gaya 400kV quad D/C line	ISTS	ATS	400kV	D/C	470		Commissioned
	2. Gaya - Sasaram 765kV S/C line	ISTS	ATS	765kV	S/C	148		Commissioned
	3. Gaya-Balia 765kV S/C	ISTS	ATS	765kV	S/C	235		Commissioned
	4. Balia-Lucknow 765kV S/C	ISTS	ATS	765kV	S/C	313		Commissioned
	5. LILO of both circuits of Allahabad - Mainpuri 400kV D/C line at Fatehpur 765/400kV sub-station of POWERGRID	ISTS	ATS	400kV	2xD/C	120		Commissioned
	6. Ranchi-WR Pooling 765kV S/C	ISTS	ATS	765kV	S/C			Commissioned
	7. Sasaram-Fatehpur(PG 765kV s/s) 765kV S/C line	ISTS	ATS	765kV	S/C	342		Commissioned
	8. Fatehpur(PG 765kV s/s) - Agra 765kV S/C line	ISTS	ATS	765kV	S/C	325		Commissioned
	9. Biharsharif – Sasaram(PG 765kV s/s) 400kV quad D/C line	ISTS	ATS	400kV	D/C	390		Commissioned
	10. 40% Series compensation of Barh-Balia 400kV quad D/C line at Balia end	ISTS	ATS	400kV				Commissioned
	11. 40% Series compensation of Biharsharif-Balia 400kV quad D/C line at Biharsharif /Balial end	ISTS	ATS	400kV				Commissioned

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	12. Lucknow 765/400kV new sub-station – Lucknow 400/220kV existing sub-station 400 kV quad 2xD/c line	ISTS	ATS	400kV	2xD/C	40		Commissioned
	13. Bareilly 765/400kV new sub-station – Bareilly 400/220kV existing sub-station 400 kV quad 2xD/c line (to match with NKSTPP System)	ISTS	ATS	400kV	2xD/C	60		Commissioned
	14. Ranchi 765/400kV new sub-station – Ranchi 400/220kV existing sub-station 400 kV quad 2xD/c	ISTS	ATS	400kV	2xD/C	110		Commissioned
	15. LILO of both circuits of Barh - Balia 400kV D/C quad line at Patna	ISTS	ATS	400kV	2xD/C	50		Commissioned
	16 Establishment of Gaya 765/400kV Substation with 3X1500 MVA transformers	ISTS	ATS	765/400kV	trf		4500	Commissioned
	17 Establishment of Sasaram 765/400kV Substation with 2X1500 MVA transformers	ISTS	ATS	765/400kV	trf		3000	Commissioned
	18 Establishment of Ranchi 765/400kV Substation with 2X1500 MVA transformers	ISTS	ATS	765/400kV	trf		3000	Commissioned
	19 Establishment of Fathepur 765/400kV Substation with 2X1500 MVA transformers	ISTS	ATS	765/400kV	trf		3000	Commissioned
	20 Establishment of Agra 765/400kV Substation with 2X1500 MVA transformers	ISTS	ATS	765/400kV	trf		3000	Commissioned
	21 Establishment of Balia 765/400kV Substation with 2X1500 MVA transformers	ISTS	ATS	765/400kV	trf		3000	Commissioned
	22 Establishment of Lucknow 765/400kV Substation with 2X1500 MVA transformers	ISTS	ATS	765/400kV	trf		3000	Commissioned
ER - 24	ATS for CESC Haldia (600 MW) (Private Sector)	ISTS	ATS					
	CESC Haldia-Subhasgram 400 kV D/C line	ISTS	ATS	400kV	D/C	60		Commissioned

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
ER - 25	ATS for Durgapur DPL New (U-8) (250 MW)	ISTS	ATS					
	DPL - Bidhannagar 400 kV D/c line	ISTS	ATS	400kV	D/C	80		Commissioned
ER - 26	System Strengthening Scheme in West Bengal	State	SS					
	1. LILO of Kolaghat-Baripada 400kV S/C line at Kharagpur	State	SS	400kV	D/C	20		Commissioned
	2. Chanditala - Kharagpur 400 kV D/c line	State	SS	400kV	D/C	240		UC
ER - 27	Eastern Region System Strengening Scheme - VIII	ISTS	SS					
	1. 2x125 MVAR bus reactor at Muzaffarpur (one 125MVAR reactor would be installed by replacing the existing 63MVAR bus reactor at Muzaffarpur, which shall be used as spare)	ISTS	SS	400kV	reactor			Commissioned
	2. 1x125 MVAR bus reactor at Rourkela	ISTS	SS	400kV	reactor			Commissioned
	3. 1x125 MVAR bus reactor at Indravati	ISTS	SS	400kV	reactor			Commissioned
	4. Replacement of existing 1x63MVAR bus reactor with 1x125 MVAR bus reactor at Jeypore (63 MVAR reactor thus released shall be used as spare reactor)	ISTS	SS	400kV	reactor			Commissioned
	5. Shifting of 2x50 MVAR line reactor from Patna end of 400kV Kahalgaon/Barh – Patna D/c line to Balia end of 400kV Patna-Balia D/c line.	ISTS	SS	400kV	reactor			Commissioned
	6. Addition of 1x500 MVA, 400/220kV ICT with associated bays at Subhashgram along with 2 nos. of 220kV equipped line bays	ISTS	SS	400/220kV	trf	500		Commissioned

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
ER - 28	Spare ICT /Reactors in ER	ISTS	SS					
	1. 1x315 MVA spare ICT at Biharshariff (Bihar)	ISTS	SS	400/220kV	trf		0	UC
	2. 1x315 MVA spare ICT at Durgapur(WB)	ISTS	SS	400/220kV	trf		0	UC
	3. 1x315 MVA spare ICT at Jamshedpur(Jharkhand)	ISTS	SS	400/220kV	trf		0	UC
	4. 1x315 MVA spare ICT at Rourkela(Orissa)	ISTS	SS	400/220kV	trf		0	UC
	5. 1x160 MVA Spare ICT at Baripada 02	ISTS	SS	220/132kV	trf		0	UC
	6 1x160 MVA Spare ICT at Siliguri	ISTS	SS	220/132kV	trf		0	UC
	7. 1x50 MVA Spare ICT at Gangtok (Sikkim)	ISTS	SS	132/66kV	trf		0	UC
	8. 1x80 MVAR Bus Reactor at Rourkela	ISTS	SS	400kV	reactor			UC
ER - 29	Eastern Region System Strengthening Scheme - IX	ISTS	SS	400kV	reactor			
	1. Installation of 1X125 MVAR Bus Reactor at Gazuwaka 400 kV (East) bus.	ISTS	SS	400kV	reactor			UC
	2. Installation of 2X125 MVAR Bus Reactor at Rengali.	ISTS	SS	400kV	reactor			UC
	3. Installation of 1X125 MVAR Bus Reactor at Maithon.	ISTS	SS	400kV	reactor			UC

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	4. Installation of 1X125 MVAR Bus Reactor in parallel with existing 50 MVAR (3X16.67) Bus Reactor at Biharsharif, using existing Reactor bay.	ISTS	SS	400kV	reactor			UC
	5. Installation of 2X125 MVAR Bus Reactor in parallel with existing 2X50 MVAR Bus Reactor at Jamshedpur.	ISTS	SS	400kV	reactor			UC
	6. Installation of 1X125 MVAR Bus Reactor in parallel with existing 1X50 MVAR Bus Reactor at Rourkela.	ISTS	SS	400kV	reactor			UC
	7. Installation of 2X125 MVAR Bus Reactor at Durgapur (Parulia). Out of 2X125 MVAR Bus Reactor, 1X125 MVAR Bus Reactor would be in parallel with existing 1X50 MVAR Bus Reactor, using existing Reactor bay.	ISTS	SS	400kV	reactor			UC
	8. Addition of 1X500 MVA, 400/220 kV ICT alongwith associated bays at Muzaffarpur 400/220 kV Substation	ISTS	SS	400/220kV	trf		500	UC
	9. Addition of 1X160 MVA, 220/132 kV ICT alongwith associated bays at Ara 220/132 kV Substation.	ISTS	SS	220/132kV	trf		160	UC
	10. Replacement of 2X315 MVA, 400/220 kV ICTs with 2X500 MVA, 400/220 kV ICTs at Maithon	ISTS	SS	400/220kV	trf		370	UC
	10. Procurement of one 500 MVA, Single Phase unit of 765/400 kV ICT for Eastern Region to be stationed at Gaya sub-station	ISTS	SS	765/400kV	trf		500	UC

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	11. Converting 2X80 MVAR Line Reactors at Gorakhpur end of Barh-II – Gorakhpur 400 kV Quad D/c line to 2X80 MVAR (Switchable) Line Reactors	ISTS	SS	400kV	reactor			UC
ER - 30	Eastern Region System Strengthening Scheme - X	ISTS	SS					
	Sagardighi TPS (West Bengal) – Berhampur (POWERGRID) 400kV D/c Line with high capacity HTLS conductor	ISTS	SS	400kV	D/C	100		UC
ER - 31	Eastern Region System Strengthening Scheme - XII	ISTS	SS					
	1. Installation of 1X125 MVAR Bus Reactor at Baripada with GIS bay.	ISTS	SS	400kV	Reactor			UC
	2. Installation of 1X125 MVAR Bus Reactor at Maithon with GIS bay	ISTS	SS	400kV	Reactor			UC
	3. Replacement of 2X315 MVA, 400/220 kV ICTs with 2X500 MVA, 400/220 kV ICTs at Purnea #	ISTS	SS	400/220kV	trf		370	UC
	4. Replacement of 2X315 MVA, 400/220 kV ICTs with 2X500 MVA, 400/220 kV ICTs at Patna #	ISTS	SS	400/220kV	trf		370	UC
	5. Replacement of 2X315 MVA, 400/220 kV ICTs with 2X500 MVA, 400/220 kV ICTs at Pusauli #	ISTS	SS	400/220kV	trf		370	UC
	6. Shifting of 1X315 MVA, 400/220 kV ICT from any suitable location (after replacement by 1x500MVA ICT) and install it at Jamshedpur 400/220 kV Substation as 3 rd ICT alongwith associated bays.	ISTS	SS	400/220kV	Replacement			UC
	7. Procurement of two 500 MVA, Single Phase unit of 765/400 kV ICT for Eastern Region to be stationed at Angul and Jharsuguda sub-station	ISTS	SS	765/400kV	trf		1000	UC

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	8. Spare 1 unit of 765kV, 110 MVAR Single Phase Reactor to be stationed at Sasaram	ISTS	SS	765kV	Reactor			UC
	9. Modification of 132kV bus arrangement at 220/132kV Siliguri Substation with GIS	ISTS	SS	132kV				UC
	# Out of the 6 nos. 315 MVA ICTs released from Purnea, Patna & Pusauli substations, one each would be kept as spare at Patna and Pusauli substation, one each would be diverted to Jamshedpur and Farakka substation and remaining 2x315 MVA, 400/220kV ICTs would be utilized as Regional Spare	ISTS	SS					UC
ER - 32	Eastern Region System Strengthening Scheme - XIII	ISTS	SS					
	1. Reconductoring of Farakka-Malda 400kV D/c with high capacity HTLS conductor	ISTS	SS	400kV	D/C	80		UC
ER - 33	Transmission System associated with Darlipalli TPS	ISTS	ATS					
	1. Darlipalli TPS – Jharsuguda P.S. 765kV D/c line	ISTS	ATS	765kV	D/C	80		Planned
ER - 34	Interconnection Link between India and Bangladesh (India portion)	ISTS	SS					
	LILO of Farakka-Jeerat 400kV S/c line at Behrampur Switching station	ISTS	SS	400kV	D/C	4		Commissioned
	Establishment of Behrampur Switching Station	ISTS	SS	400/220kV	sw			Commissioned
	Behrampur-Bheramara 400kV D/c line (Indian Portion)	ISTS	SS	400kV	D/C	80		Commissioned

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
ER - 35	Interconnection Link between India and Nepal (India portion)	ISTS	SS					
	400 kV Muzaffarpur (India) - Dhalkebar (Nepal) D/c Inik [Indian portion - 87 km by CPTC (JV); Nepal Portion - 39 km]	ISTS	SS	400kV	D/C	87		UC
ER - 36	ATS for Phunatsangchu St-I (1200 MW)	ISTS	ATS					
	1. Punatsangchu I - Lhamoizingkha (Bhutan Border) 400 kV 2xD/c line	ISTS	ATS	400kV	2xD/C			UC
	2. Lhamoizingkha (Bhutan Border) – Alipurduar 400kV D/C with Quad Moose Conductor	ISTS	ATS	400kV	D/C	200		UC
	3. LILO of 220 kV Bosochohu-II-Tsirang S/c line at Punatsangchu-I	ISTS	ATS	220kV	D/C			UC
	4. 3x105 MVA ICT at Punatsangchu	ISTS	ATS		trf		315	UC
	5. 1x80 MVAR Bus reactor at Punatsangchu	ISTS	ATS		reactor			UC
ER - 37	ATS for Punatsangchu St-II (990 MW)	ISTS	ATS					
	1. LILO of Punatsangchu I - Lhamoizingkha (Bhutan Border) 400 kV D/c line at Punatsangchu-II	ISTS	ATS	400kV	D/C	50		Planned
ER - 38	Indian Grid Strengthening for import of Bhutan surplus	ISTS	ATS					
	1. New 2x315 MVA ,400/220kV AC & HVDC S/S with ± 800 kV, 3000MW converter module at Alipurduar.	ISTS	ATS	400/220kV	trf		630	UC
	2. Extension of ± 800 kV HVDC station with 3000 MW inverter module at Agra	ISTS	ATS	± 800 kV	HVDC		3000	UC

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	3. LILO of ±800kV,6000MW Bishwanath Chariyali – Agra HVDC Bi-pole line at Alipurduar for parallel operation HVDC terminal with 400/220kV at Alipurduar	ISTS	ATS	±800kV	HVDC			UC
	4. LILO of Bongaigaon – Siliguri 400kV D/C Quad Moose line at Alipurduar	ISTS	ATS	400kV	2xD/C	20		UC
	5. Lhamoizingha/Sunkosh –Alipurduar 400kV D/C (1st) Quad moose line (Indian portion)	ISTS	ATS	400kV	2xD/C	25		UC
	7. LILO of Birpara-Salakati 220kV D/C line at Alipurduar	ISTS	ATS	220kV	D/C	90		UC
	8. Earth electrode line at Alipurduar HVDC terminal	ISTS	ATS					UC
	9. Earth electrode line at Agra HVDC terminal	ISTS	ATS					UC
ER - 39	Indian Grid Strengthening for import of Bhutan surplus	ISTS	ATS					
	Jigmeling (Bhutan) - Alipurduar 400kV D/c (Quad/HTLS)	ISTS	ATS	400kV	D/c	240		Planned
	Alipurduar – Siliguri 400kV D/c line with Quad moose conductor	ISTS	ATS	400kV	D/c	250		Planned
	Kishanganj – Darbhanga 400kV D/c line with Quad moose conductor	ISTS	ATS	400kV	D/c	440		Planned
ER - 40	Dynamic Reactive Compensator in Eastern Region - XI	ISTS	SS					
	1. At Rourkela. 2x125 MVAR MSR & +/- 300 MVAR STATCOM	ISTS	SS	400kV	reactor / capacitor			Planned

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	2. At Ranchi. 2x125 MVAR MSR & +/- 300 MVAR STATCOM	ISTS	SS	400kV	reactor / capacitor			Planned
	3. At Kishanganj. 2x125 MVAR MSR & +/- 300 MVAR STATCOM	ISTS	SS	400kV	reactor / capacitor			Planned
	4. At Jeypore. 2x125 MVAR MSR, 1x125 MVAR MSC & +/- 300 MVAR STATCOM	ISTS	SS	400kV	reactor / capacitor			Planned
ER - 41	Additional Reactive Compensation in Eastern Region: Addition of additional 1x125MVA Bus reactors at Banka, Bolangir, Baripada, Keonjhar, Durgapur, Chaibasa and Lakhisarai (Eastern Region Strengthening Scheme-XIV)	ISTS	ATS	400kV	reactor			
	Installation of 2x500 MVA Trf at Kishanganj	ISTS	ATS	400/220kV	trf		1000	Planned
ER - 42	Transformer Augmentation/Replacements in Eastern Region	ISTS	ATS					
	Augmentation of Transformation capacity at 400/220kV Baripada S/S (PG): Addition of 1x500MVA Transformer	ISTS	ATS	400/220kV	trf		500	UC
	Replacement of 1X100 MVA 220/132kV, 3rd ICT with 1X160 MVA, 220/132 kV ICT at Purnea 220/132 kV sub-station	ISTS	ATS	220/132kV	trf		60	UC
	Replacement of existing 100 MVA, 220/132kV ICTs with 1X160 MVA, 220/132 kV ICT at Siliguri 220/132 kV sub-station	ISTS	ATS	220/132kV	trf		60	UC
	Replacement of existing 100 MVA, 220/132kV ICTs with 1X160 MVA, 220/132 kV ICT at Birpara 220/132 kV sub-station	ISTS	ATS	220/132kV	trf		60	UC
ER - 43	765kV strengthening system in Eastern Region (Eastern Region Strengthening Scheme-XVIII)	ISTS	ATS					

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	1. Establishment of 765/400 kV new substations at Medinipur and, Jeerat (New).	ISTS	ATS	765/400kV	trf		6000	Planned
	2. Ranchi (New) – Medinipur 765kV D/c line	ISTS	ATS	765kV	D/C	520		Planned
	3. Medinipur – Jeerat (New) 765kV D/c line	ISTS	ATS	765kV	D/C	300		Planned
	4. Medinipur – Haldia New (NIZ) (WBSETCL) 400kV D/c line (quad/HTLS)	ISTS	ATS	400kV	D/C	160		Planned
	5. LILO of Chandithala – Kharagpur 400kV D/c line at Medinipur	ISTS	ATS	400kV	D/C	50		Planned
	6. Jeerat (New) – Subhasgram 400kV D/c line(quad/HTLS)	ISTS	ATS	400kV	D/C	150		Planned
	7. Jeerat (New) – Jeerat 400kV D/c line (quad/HTLS)	ISTS	ATS	400kV	D/C	20		Planned
	8. LILO of Jeerat – Subhasgram 400kV S/c line at Rajarhat	ISTS	ATS	400kV	S/C	20		Planned
ER - 44	ATS for Tilaiyya UMPP (4000MW)	ISTS	ATS					
	1. Tilaiyya UMPP - Balia 765 kV S/C line	ISTS	ATS	765kV	S/C	300		Planned
	2. Tilaiyya UMPP - Gaya 765 kV D/C line	ISTS	ATS	765kV	D/C	40		Planned
	3. LILO of one Ckt.of Tilaiyya UMPP - Balia 765 kV D/C line at Gaya	ISTS	ATS	765kV	D/C	20		Planned
ER - 45	ATS for Odisha UMPP Project (Immediate Evacuation System and Associated Strengthening in ER)	ISTS	ATS					
	1 Odisha UMPP – Sundergarh (Jharsuguda) 765kV 2xD/c line	ISTS	ATS	765kV	2xD/c	100		Planned

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	2 Odisha UMPP – Lapanga 400kV D/c line (quad/HTLS)	ISTS	ATS	400kV	D/c	300		Planned
	3 Odisha UMPP – Kesinga 400kV D/c line (quad/HTLS)	ISTS	ATS	400kV	D/c	500		Planned
	Associated System Strengthening: 800kV, 6000MW HVDC bipole line from Angul to Badarpur (NR)	ISTS	ATS	±800kV	HVDC	3000	6000	New
ER - 46	Dedicated Transmission System for Phase-II Generation Projects in Sikkim[Dikchu(96 MW), Panan(300 MW), Ting Ting(99 MW), Tashiding(97 MW)]	DTL	ATS					
	Dedicated Transmission line for Dikchu(96 MW)	DTL	ATS					
	1. Dikchu HEP - Gangtok 132 kV D/c with Zebra conductor	DTL	ATS	132kV	D/C	50		Planned
	2. Dikchu HEP - Mangan (PG) 132 kV D/c line with Zebra conductor	DTL	ATS	132kV	D/C	50		Planned
	Dedicated Transmission line for Panan(300 MW)	DTL	ATS					
	Panan-Mangan 400kV D/C line	DTL	ATS	400kV	D/C	25		Planned
	Dedicated Transmission line for Ting Ting(99 MW)	DTL	ATS					
	Tingting- Tashiding PS 220kV D/C line	DTL	ATS	220kV	D/C	20		Planned
	Dedicated Transmission line for Tashiding(97 MW)	DTL	ATS					
	Tashiding- Tashiding PS 220kV D/C line	DTL	ATS	220kV	D/C	20		Planned

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	Immediate Evacuation System (under the scope of Generation Developer)							
	Tashiding - Legship 220kV D/c line	DTL	ATS	220kV	D/C	110		
	Common Transmission System under the scope of Govt. of Sikkim							
	Establishment of 220kV substation at Legship	State	SS	220kV	D/C		320	
	Legship - New Melli 220kV D/c with twin moose conductor	State	SS	220kV	D/C	110		
ER - 47	ATS for Phase-II Generation Projects in Sikkim[Dikchu(96 MW), Panan(300 MW), Ting Ting(99 MW), Tashiding(97 MW)]-Part-A	ISTS	ATS					
	1. Establishment of 4x105MVA, Single Phase, 400/132kV pooling station at Mangan.	ISTS	ATS	400/132kV	trf		315	Planned
	2. LILO of Teesta-III – Kishenganj 400kV D/c line at Mangan	ISTS	ATS	400kV	2xD/C	20		Planned
	3. Mangan – Kishenganj 400kV D/c line with quad moose conductor	ISTS	ATS	400kV	D/C	310		Planned
	4. New Melli – Rangpo 220kV D/c with twin moose conductor (2nd line)	ISTS	ATS	220kV	D/C	44		Planned
ER - 48	ATS for Phase-II Generation Projects in Sikkim[Dikchu(96 MW), Panan(300 MW), Ting Ting(99 MW), Tashiding(97 MW)]-Part-B	ISTS	ATS					
	1. Establishment of 220kV Gas Insulated Pooling/Switching Station at Legship	SM	ATS	220kV	sw			Planned

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	2. Legship Pooling station – New Melli 220kV D/c with twin moose conductor	SM	ATS	220kV	D/C	30		Planned
ER - 49	Reconductoring of Overloaded Lines in Eastern Region	ISTS	ATS					
	1. Jeypore - Jaynagar 220kV D/c line	ISTS	ATS	220kV	D/C	70		New
	2. Maithon RB - Maithon 400kV D/c line	ISTS	ATS	400kV	D/C	20		New
	3. Maithon - Raghunathpur 400kV S/c line (LIL/Oed portion)	ISTS	ATS	400kV	S/C	30		New
ER - 50	ATS for Katwa TPS (2x660 MW)	DTL	ATS					
	Katwa TPS - Katwa New 400kV D/c Quad	DTL	ATS	400kV	D/C	30		New
ER - 51	ATS for Turga PSS (4x250 MW)	DTL	ATS					
	Turga PSS - Purulia New 400kV D/c Quad	DTL	ATS	400kV	D/C	50		New
ER - 52	Transmission System for Phase-II IPPs in Odisha							
	NSL Nagapatnam - Angul 400 kV D/c (Triple snowbird)	DTL	ATS	400kV	D/C	100		Planned
	OPGC – Jharsuguda 400 kV D/c (Triple Snowbird)	DTL	ATS	400kV	D/C	100		Planned
	Jharsuguda – Raipur Pool 765 kV D/c line	ISTS	ATS	765kV	D/C	600		Planned
	Addition of 2x1500MVA, 765/400kV ICT at Jharsuguda	ISTS	ATS	765/400kV	trf		3000	Planned

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	Addition of 2x1500MVA, 765/400kV ICT at Angul	ISTS	ATS	765/400kV	trf		3000	Planned
	Split bus arrangement at 400kV and 765kV bus in both Angul and Jharsuguda substations	ISTS	ATS					Planned
ER - 53	System Strengthening in West Bengal	STATE	SS					
	New Substation at Katwa New	STATE	SS	400/220kV	trf		1260	Planned
	Chanditala-Bakreswar 400kV D/c line	STATE	SS	400kV	D/C	300		Planned
	Chanditala-Katwa New 400kV D/c line	STATE	SS	400kV	D/C	200		Planned
	New Substation at Mayureswar	STATE	SS	400/132kV	trf		400	Planned
	New Substation at Burdwan	STATE	SS	400/132kV	trf		400	Planned
	LILO of Arambagh - Bidhannagar S/c line at Burdwan	STATE	SS	400kV	S/C	40		Planned
ER - 54	Eastern Region Strengthening Scheme –XV	ISTS	SS					
	1. Farakka – Baharampur 400kV D/C (Twin HTLS) line	ISTS	SS	400kV	D/C	80		Planned
	2. Removal of the existing LILO of Farakka – Jeerat S/c line at Baharampur	ISTS	SS	400kV	S/C	3		Planned
	3. LILO of Farakka – Jeerat 400 kV S/c line at Sagardighi	ISTS	SS	400kV	S/C	15		Planned
	4. LILO of Sagardighi – Subhasgram 400 kV S/c line at Jeerat	ISTS	SS	400kV	S/C	1		Planned

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
ER - 55	Eastern Region Strengthening Scheme –XVI							
	Banka (POWERGRID) – Deoghar (Jharkhand) 132kV D/c line	STATE	SS	132kV	D/C	90		Planned
ER - 56	Eastern Region Strengthening Scheme –XVII	ISTS	SS					
	1. Installation of 3rd 400/220 kV, 1x315 MVA ICT at Durgapur Substation	ISTS	SS	400/220kV	trf		315	Planned
	2. Replacement of 400/220 kV, 2x315MVA ICTs at Malda Substation with 400/220kV, 2x500 MVA ICTs	ISTS	SS	400/220kV	trf		370	Planned
	3. Installation of 3rd 400/220 kV, 1x315MVA ICT at New Siliguri Substation	ISTS	SS	400/220kV	trf		315	Planned
	4. Replacement of 400/220 kV, 2x315MVA ICTs at Jeypore Substation with 400/220 kV, 2x500MVA ICTs	ISTS	SS	400/220kV	trf		370	Planned
	5. Replacement of 400/220 kV, 2x315MVA ICTs at Rourkela Substation with 400/220 kV, 2x500MVA ICTs	ISTS	SS	400/220kV	trf		370	Planned
	6. Installation of 400/220 kV, 1x500 MVA ICT at Gaya Substation	ISTS	SS	400/220kV	trf		500	Planned
	7. 2x160MVA, 220/132kV ICT at Daltonganj substation	ISTS	SS	220/132kV	trf		320	Planned
ER - 57	Eastern Region Strengthening Scheme –XIX	ISTS	SS					
	1. 400/220kV, 2x500MVA ICT new substation at Dhanbad (Jharkhand)	ISTS	SS	400/220kV	trf		1000	Planned
	2. LILO of both circuits of Ranchi – Maithon-RB 400kV D/c line at Dhanbad	ISTS	SS	400kV	D/C	20		Planned

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	Dhanbad (Jharkhand)- Govindpur 220 kV line	STATE	SS	220 kV	D/C	170		Planned
	Dhanbad (Jharkhand)- Jainamore 220 kV line	STATE	SS	220 kV	D/C	120		Planned
ER-58	Immediate evacuation for North Karanpura (3x660MW) generation project of NTPC							
	North Karanpura – Gaya 400 kV D/c with quad moose conductor	ISTS	ATS	400 kV	D/C	460		Planned
	North Karanpura – Chandwa (Jharkhand) Pooling Station 400 kV D/c with quad moose conductor	ISTS	ATS	400 kV	D/C	200		Planned
	Installation of 2 nos. 50 MVAR line reactors at Sasaram end of Biharsharif - Sasaram 400 kV D/c (Quad) line (Part of Transmission System associated with DVC & Maithon RB Generation Projects Supplementary Scheme)							
	2x50 MVAR Reactors at Sasaram end of Biharsharif - Sasaram 400 kV D/c line.	ISTS	ATS	400 kV	reactor			Planned
ER-59	Daltonganj (PG)-Latehar (JUSNL) 220 kV D/C	STATE	SS	220 kV	D/C	120		Planned
	Daltonganj (PG)-Garwa (JUSNL) 220 kV D/C	STATE	SS	220 kV	D/C	120		Planned
	Daltonganj (PG)-Daltonganj (JUSNL) 132 kV D/C	STATE	SS	132 kV	D/C	10		Planned
	Daltonganj (PG)-Chatrapur / Lesliganj (JUSNL) 132 kV D/C	STATE	SS	132 kV	D/C	220		Planned
	Latehar-ESSAR 400 kV D/C line to Chandwa pooling station	STATE	SS	400 kV	D/C	60		Planned
	Tarkera (OPTCL)-Goelkera (Jharkhand) 132 kV S/c line	STATE	SS	132 kV	S/C	160		Planned

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	Sasaram - Ara 220 kV D/c line at Pusauli	STATE	SS	220 kV	D/C	10		Planned

Annexure-I (A)**North Eastern Region :**

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
NER - 01	ATS for Pare Dikrong HEP (110MW)	ISTS	ATS					
	1. LILO of RHEP-Nirjouli 132kV S/c line at Dikrong HEP	ISTS	ATS	132kV	D/C	20		UC
	2. LILO of one ckt of RHEP-Edavger 132kV D/c line at Dikrong HEP	ISTS	ATS	132kV	D/C	20		UC
	3. 2nd 315 MVA, 400/ 220 kV ICT at Misa	ISTS	ATS	400/220kV	trf		315	Commissioned
NER - 02	ATS for Kameng HEP (600MW)	ISTS	ATS					
	1. Kameng-Balipara 400kV D/c line	ISTS	ATS	400kV	D/C	110		UC
	2. Balipara-Bongaigaon (Quad) 400kV D/c line with 30 % FSC	ISTS	ATS	400kV	D/C	596		Commissioned
NER - 03	ATS for Lower Subansiri HEP (2000MW)	ISTS	ATS					
	1. Lower-Subansiri-Biswanath Chariyali(PP) 400 kV 2xD/C (Twin Lapwing) line	ISTS	ATS	400kV	2xD/C	674		UC
NER - 04	Combined Transmission system for Transfer of Power from NER to NR/WR	ISTS	ATS					
	1. Biswanath Chariyali – Agra ±800 kV, 6000 MW HVDC bi-pole line	ISTS	ATS	±800kV	HVDC	1971	3000	UC
	2. LILO of Ranganadi – Balipara 400kV D/C line at Biswanath Chariyali (Pooling Point)	ISTS	ATS	400kV	2xD/C	54		Commissioned
	3. Biswanath Chariyali – Biswanath Chariyali (AEGCL) 132 kV D/c	ISTS	ATS	132kV	D/C	32		UC
	4. Establishment of 400/132 kV Pooling Station at Biswanath Chariyali with 2x200MVA, 400/132/33 kV transformers alongwith associated bays.	ISTS	ATS	400/132kV	trf		400	Commissioned
	5. HVDC rectifier module of 3,000 MW at Biswanath Chariyali and inverter module of 3,000 MW capacity at Agra.	ISTS	ATS	±800kV	HVDC		3000	Commissioned
	6. Balipara-Biswanath Chariyali(PP) D/C	ISTS	ATS	400kV	D/C	130		UC
	7. Agra 400/ 220 kV S/s (1x315 MVA)	ISTS	ATS	400/220kV	trf		315	UC
NER - 05	Dedicated system for Bongaigaon TPP (3x250 MW) (Central Sector)	ISTS	ATS					
	Bongaigaon TPP - Bongaigaon (PG) 400 kV D/c line	ISTS	ATS	400kV	D/C	3		Commissioned

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
NER - 06	Combined ATS for Pallatana (726 MW) & Bongaigaon TPP(750MW)	ISTS	ATS					
	1. Silchar-Badarpur (PG) Switching Satation 132kV D/c line	ISTS	ATS	132kV	D/C	42		Commissioned
	2. Silchar-P. K. Bari (TSECL) 400kV D/c line (charged at 132 kV)	ISTS	ATS	400kV	D/C	244		Commissioned
	3. Silchar - Melriat New PG 400kV D/c line (charged at 132kV)	ISTS	ATS	400kV	D/C	320		Commissioned
	4. Silchar - Imphal 400kV D/c line (charged at 132kV)	ISTS	ATS	400kV	D/C	280		Commissioned
	5. Melriat (New)-Melriat (Mizoram) 132kV D/c line	ISTS	ATS	132kV	D/C	60		UC
	6. Silchar-Srikona (AEGCL) 132kV D/c line	ISTS	ATS	132kV	D/C	6		Commissioned
	7. Silchar-Hailakandi (AEGCL) 132kV D/c line	ISTS	ATS	132kV	D/C	50		UC
	8. LILO of Loktak-Imphal (PG) 132kV D/c line at Imphal (New)	ISTS	ATS	132kV	2xD/C	60		Commissioned
	9. LILO of one ckt of Kathalguri-Misa 400 kV D/C line at Mariani (New) (charged at 220 kV)	ISTS	ATS	400kV	D/C	2		Commissioned
	10. Mariani (New)-Mokokchung (PG) 220kV D/c line	ISTS	ATS	220kV	D/C	112		Commissioned
	11. Mokokchung (PG)-Mokokchung (Nagaland) 132kV D/c line with Zebra conductor	ISTS	ATS	132kV	D/C	2		Commissioned
	12. Passighat-Roing 132kV S/c on D/c line	ISTS	ATS	132kV	S/C on D/C	70		Commissioned
	13. Roing-Tezu 132kV S/c on D/c line	ISTS	ATS	132kV	S/C on D/C	60		Commissioned
	14. Tezu-Namsai 132 kV S/c on D/c line	ISTS	ATS	132kV	S/C on D/C	90		Commissioned
	15. Establishment of 400/132kV Silchar S/S (2x200 MVA)	ISTS	ATS	400/132kV	trf		400	Commissioned
	16. Establishment of Melriat 132/33kV S/S (upgradable to 400 kV) (2x50 MVA)	ISTS	ATS	132/33kV	trf		100	UC
	17. Establishment of 132/33kV Imphal (New) S/S (upgradable to 400 kV) (2x50 MVA)	ISTS	ATS	220/132kV	trf		100	Commissioned
	18. Establishment of Mariani 220 kV Switching Station (upgradable to 400 kV)	ISTS	ATS	220kV				Commissioned
	19. Establishment of Mokokchung 220/132kV S/S (7x10 MVA one spare)	ISTS	ATS	220/132kV	trf		100	Commissioned
	20. Establishment of Roing 132/33kV S/S (single phase 7x5 MVA one spare)	ISTS	ATS	132/33kV	trf		30	UC

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	21. Establishment of Tezu 132/33 S/S (single phase 7x5 MVA one spare)	ISTS	ATS	132/33kV	trf		30	UC
	22. Establishment of Namsai 132kV S/S (2x15 MVA)	ISTS	ATS	132/33kV	trf		30	UC
	23. Bus Reactor at Silchar (2x63 MVAR)	ISTS	ATS	400kV	reactor			Commissioned
	24. Bus Reactor at Bongaigaon (1x80 MVAR)	ISTS	ATS	400kV	reactor			Commissioned
	25. 50 MVAR line reactors in each ckt of Pallatana-Silchar 400 kV D/C line at Silchar end	ISTS	ATS	400kV	reactor			UC
	26. 63 MVAR line reactors in each ckt of Silchar-Bongaigaon 400 kV D/C line at Silchar and Bongaigaon ends	ISTS	ATS	400kV	reactor			UC
	27. 400/ 220kV (2x315 MVA transformers) at BTPS (NTPC)	ISTS	ATS	400/220kV	trf		630	Commissioned
	28. 400/ 132kV (2x200 MVA transformers) at Palatana	ISTS	ATS	400/132kV	trf		400	Commissioned
	29. 50 MVAR line reactors in each ckt of Pallatana-Silchar 400 kV D/C line at Pallatana end	ISTS	ATS	400kV	reactor			Commissioned
	30. 80 MVAR bus reactor at Pallatana GBPP	ISTS	ATS	400kV	reactor			Commissioned
	31. LILO of both ckts of Silchar - Bongaigaon 400kV D/C line at Guwahati New (Azara)	ISTS	ATS	400kV	2xD/C	80		UC
	32. Establishment of New Guwahati (Azara) 400/220kV substation (2x315 MVA)	ISTS	ATS	400/220kV	trf		630	Commissioned
	33. 63 MVAR line reactors in each ckt of Azara-Bongaigaon 400 kV D/C line at Azara end	ISTS	ATS	400kV	reactor			UC
	34. 63 MVAR bus reactor at Azara end	ISTS	ATS	400kV	reactor			UC
	35. LILO of both ckt of Agia - Guwahati 220 kV D/C at Guwahati New (Azara) PG	ISTS	ATS	220kV	2xD/C	80		UC
	36. LILO of one ckt of Silchar-Bongaigaon 400 kV D/C line at Byrnihat	ISTS	ATS	400kV	D/C	30		Commissioned
	37. Establishment of Byrnihat 400/220kV S/S (2x315 MVA)	ISTS	ATS	400/220kV	trf		630	Commissioned
	38. 63 MVAR line reactor at Byrnihat for Silchar-Byrnihat line	ISTS	ATS	400kV	reactor			Commissioned
	39. 63 MVAR bus reactor at Byrnihat	ISTS	ATS	400kV	reactor			Commissioned
	40. BTPS-(NTPC)-Bongaigaon S/S(PG) 400kV D/c line	ISTS	ATS	400kV	D/C	6		Commissioned
	41. Pallatana-silchar 400kV D/c line	ISTS	ATS	400kV	D/C	500		Commissioned

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	42. Silchar-Bongaigaon 400kV D/c line	ISTS	ATS	400kV	D/C	316		Commissioned
	43. Pallatana - Surajmani Nagar 400kV D/c line (charged at 132kV)	ISTS	ATS	400kV	D/C	70		Commissioned
NER - 07	ATS for New Umtru (40 MW)	State	ATS					
	1. New Umtru HEP - Norbong 132 kV D/c line	State	ATS	132kV	D/C	3		UC
NER - 08	ATS for Monarchak (105 MW)	State	ATS					
	1. Monarchak-Badarghat-Kumarghat-Badarpur Sw. Stn 132kV D/c line	State	ATS	132kV	D/C	175		UC
	2. Monarchak-Rabindra nagar 132kV D/c line	State	ATS	132kV	D/C	100		UC
	3. Establishment of Rabindra Nagar 132/33kV Substation (2x25 MVA)	State	ATS	132/33kV	trf		50	UC
	4. Establishment of Badarghat (Agartala New) 132/33kV Substation (2x25 MVA)	State	ATS	132/33kV	trf		50	UC
NER - 09	System Strengthening Scheme in Arunachal Pradesh (Phase-I)	State	SS					
	1. Khupi - Seppa 132kV S/c on D/C line	State	SS	132kV	S/C on D/C	60		Planned
	2. Seppa-Sagali 132kV S/c on D/C line	State	SS	132kV	S/C on D/C	105		Planned
	3. Sagali-Naharlagun 132kV S/c on D/C line	State	SS	132kV	S/C on D/C	45		Planned
	4. Naharlagun-Gerukamukh 132kV S/c on D/C line	State	SS	132kV	S/C on D/C	90		Planned
	5. Gerukamukh – Likabali 132kV S/c on D/C line	State	SS	132kV	S/C on D/C	60		Planned
	6. Likabali – Niglok 132kV S/c on D/C line	State	SS	132kV	S/C on D/C	75		Planned
	7. Niglok-Pasighat 132kV S/c on D/C line	State	SS	132kV	S/C on D/C	30		Planned
	8. Deomali – Khonsa 132kV S/c line	State	SS	132kV	S/C	40		Planned
	9. Khonsa – Changlong 132kV S/c line	State	SS	132kV	S/C	45		Planned

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
10.	Changlang – Jairampur 132kV S/c line	State	SS	132kV	S/C	60		Planned
11.	Jairampur - Miao 132kV S/c on D/C line	State	SS	132kV	S/C	40		Planned
12.	Miao - Namsai (PG) 132kV S/c on D/C line	State	SS	132kV	S/C on D/C	45		Planned
13.	Teju-Halaipani 132kV S/c on D/C line	State	SS	132kV	S/C on D/C	100		Planned
14.	Naharlagun-Banderdewa132kV S/c on D/C line	State	SS	132kV	S/C on D/C	25		Planned
15.	Seppa 132/33 kV S/s, 7x5 MVA (single phase-one spare)	State	SS	132/33kV	trf		30	Planned
16.	Sagali 132/33 kV S/s, 7x5 MVA (single phase-one spare)	State	SS	132/33kV	trf		30	Planned
17.	Naharlagun 132/33 kV S/s, 2x31.5 MVA	State	SS	132/33kV	trf		63	Planned
18.	Gerukamukh 132/33 kV S/s, 7x5 MVA (single phase-one spare)	State	SS	132/33kV	trf		30	Planned
19.	Likabali 132/33 kV S/s, 7x5 MVA (single phase-one spare)	State	SS	132/33kV	trf		30	Planned
20.	Niglok 132/33 kV S/s, 2x31.5 MVA	State	SS	132/33kV	trf		63	Planned
21.	Pasighat 132/33 kV (2nd S/s), 7x5 MVA (single phase-one spare)	State	SS	132/33kV	trf		30	Planned
22.	Khonsa 132/33 kV S/s, 7x5 MVA (single phase-one spare)	State	SS	132/33kV	trf		30	Planned
23.	Changlang 132/33 kV S/s, 7x5 MVA (single phase-one spare)	State	SS	132/33kV	trf		30	Planned
24.	Jairampur 132/33 kV S/s, 7x5 MVA (single phase-one spare)	State	SS	132/33kV	trf		30	Planned
25.	Miao 132/33 kV S/s, 7x5 MVA (single phase-one spare)	State	SS	132/33kV	trf		30	Planned

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	26. Halaipani 132/33 kV S/s, 4x5 MVA (single phase-one spare)	State	SS	132/33kV	trf		15	Planned
	27. Banderdewa 132/33 kV S/s, 2x25 MVA (single phase-one spare)	State	SS	132/33kV	trf		50	Planned
	28.Pasighat New (Napit)-Pasighat Old			132 kV	D/C		15	Planned
NER - 10	System Strengthening Scheme in Arunachal Pradesh (Phase-II)	State	SS					
	1. Palin-Koloriang 132kV S/c line	State	SS	132kV	S/C on D/C	75		Planned
	2. LILO of Daporijo-Along 132 kV D/C at Basar	State	SS	132kV	D/C	10		Planned
	3. Roing - Anini 132kV S/c line on D/C	State	SS	132kV	S/C on D/C	125		Planned
	4. Along - Reying 132kV S/c line on D/C	State	SS	132kV	S/C on D/C	40		Planned
	5. Along - Yingkiong 132kV S/c line on D/C	State	SS	132kV	S/C on D/C	101		Planned
	6. Establishment of Palin 132/33kV substation (7x5 MVA single Phase)	State	SS	132/33kV	trf		30	Planned
	7. Establishment of Koloriang 132/33kV Substation (7x5 MVA single Phase)	State	SS	132/33kV	trf		30	Planned
	8. Establishment of Basar 132/33kV Substation (7x5 MVA single Phase)	State	SS	132/33kV	trf		30	Planned
	9. Establishment of Yingkiong 132/33kV Substation (7x5 MVA single Phase)	State	SS	132/33kV	trf		30	Planned
	10. Establishment of Dambuk 132/33kV Substation (4x5 MVA single Phase)	State	SS	132/33kV	trf		15	Planned
	11. Establishment of Seijosa 132/33kV Substation 4x5 MVA single Phase)	State	SS	132/33kV	trf		15	Planned
	12. Establishment of Bameng 132/33kV Substation (4x5 MVA single Phase)	State	SS	132/33kV	trf		15	Planned

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	13. Ziro 132/33kV Substation (Aug.) (4x8 MVA)	State	SS	132/33kV	trf		24	Planned
	14. Daporijo 132/33kV Substation (Aug.) (2x12.5 MVA)	State	SS	132/33kV	trf		25	Planned
	15. Kambang 132/33kV Substation (4x5 MVA single Phase)	State	SS	132/33kV	trf		15	Planned
	16. Ziro - Palin 132kV S/c line	State	SS	132kV	S/C	75		Planned
	17. Along – Kambang	State	SS	132kV	S/C on D/C	40		Planned
	18. Kambang - Mechuka	State	SS	132kV	S/C on D/C	130		Planned
	19. Yingkiong - Tuting	State	SS	132kV	S/C on D/C	125		Planned
	20. Ziro (PG) - Ziro New	State	SS	132kV	S/C on D/C	4		Planned
	21. Tawang - Lumla	State	SS	132kV	S/C on D/C	40		Planned
	22. Daporijo - Nacho	State	SS	132kV	S/C on D/C	85		Planned
	23. Khonsa - Longding	State	SS	132kV	S/C on D/C	45		Planned
	24. Roing (PG) - Dambuk	State	SS	132kV	S/C on D/C	40		Planned
	25. Pasighat Old - Mariyang	State	SS	132kV	S/C on D/C	80		Planned
	26. Rilo - Seijosa	State	SS	132kV	S/C on D/C	60		Planned
	27. Seppa - Bameng	State	SS	132kV	S/C on D/C	60		Planned
	28. Chimpu (Itanagar)-Holongi	State	SS	132 kV	S/C on D/C		20	Planned
NER - 11	System Strengthening Scheme (World Bank) in Assam (Tranche-I)							

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	Rangia – Amingaon	State	SS	220kV	D/C	66		Planned
	Tinsukia – Behiating (New Dibrugarh)	State	SS	220kV	D/C	110		Planned
	Kahilipara – Guwahati Medical College (incl. 2kms. Cable)	State	SS	132kV	D/C	6		Planned
	Rupai-Chapakhowa (with 4KM river crossing via Dhola)	State	SS	132kV	S/C on D/C	48		Planned
	Dhemaji – Silapathar	State	SS	132kV	S/C on D/C	36		Planned
	Amingaon - Hazo	State	SS	132kV	D/C	32		Planned
	KAMAKHYA-PALTANBAZAR (UG CABLE)	State	SS	132kV	S/C	8		Planned
	LILO of one circuit of Rangia - Rowta at Tangla	State	SS	132kV	D/C	20		Planned
	LILO of Golaghat – Bokajan 132 kV S/c line at Sarupathar	State	SS	132kV	D/C	10		Planned
	Sonabil - Tezpur (New)	State	SS	132kV	D/C	30		Planned
	LILO of Jorhat (Gormur) – Nazira 132 kV S/c on D/c at Teok.	State	SS	132kV	S/C on D/C	10		Planned
	LILO of Kamalpur – Sishugram 132kV S/c line at Amingaon 220/132kV S/s	State	SS	132kV	D/C	10		Planned
	LILO of Kamalpur – Kamakhya 132kV S/c line at Amingaon 220/132kV S/s	State	SS	132kV	D/C	10		Planned
	New S/S							
	Amingaon (GIS)	State	SS	220/132kV	trf		320	Planned
	Behiating (New Dibrugarh)	State	SS	220/132kV	trf		200	Planned
	Guwahati Medical College (GIS)	State	SS	132/33kV	trf		100	Planned
	Chapakhowa (4x8.33 MVA)	State	SS	132/33kV	trf		25	Planned
	Silapathar	State	SS	132/33kV	trf		63	Planned
	Hazo	State	SS	132/33kV	trf		63	Planned
	Paltanbazar	State	SS	132/33kV	trf		100	Planned
	Tangla	State	SS	132/33kV	trf		63	Planned
	Sarupathar	State	SS	132/33kV	trf		50	Planned
	Tezpur New	State	SS	132/33kV	trf		100	Planned
	Teok	State	SS	132/33kV	trf		100	Planned
	S/S Augmentation	State	SS					
	Samaguri	State	SS	220/132kV	trf		320	Planned
	Dhaligaon	State	SS	132/33kV	trf		100	Planned
	Samaguri	State	SS	132/33kV	trf		40	Planned

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
NER - 12	System Strengthening Scheme (World Bank) in Manipur (Tranche-I)							
	Imphal - Ningthoukhong	State	SS	132kV	D/c	68		Planned
	LILO of Yurembam(Imphal-State) - Karong at Gamphajol	State	SS	132kV	D/C	12		Planned
	LILO of one circuit of Kongba – Kakching 132 kV D/c line (one ckt existing + other ckt under this scheme) at Thoubal 132/33kV substation	State	SS	132kV	D/C	10		Planned
	Stringing of Yaingangpokpi - Kongba 132kV 2nd ckt	State	SS	132kV	S/C	33		Planned
	Stringing of Kakching - Kongba 132kV 2nd ckt	State	SS	132kV	S/C	44.953		Planned
	Stringing of Kakching - Churachandpur 132kV 2nd ckt	State	SS	132kV	S/C	38		Planned
	Renovation of Yurembum – Karong - Mao(Manipur-Nagaland border) section of Yurembum-Karong-Kohima 132kV S/c line	State	SS	132kV	S/C	91		Planned
	New Sub-Station							
	Gamphajol	State	SS	132/33kV	trf		40	Planned
	S/S Augmentation							
	Ningthoukhong (2nd tfr)	State	SS	132/33kV	trf		20	Planned
	Rengpang (2nd tfr)	State	SS	132/33kV	trf		20	Planned
	Jiribam (2nd tfr)	State	SS	132/33kV	trf		20	Planned
	Kongba (2nd tfr)	State	SS	132/33kV	trf		20	Planned
NER - 14	System Strengthening Scheme (World Bank) in Mizoram (Tranche-I)	State	SS					
	Lungsen - Chawngte (charged at 33kV)	State	SS	132kV	S/C	75		Planned
	Chawngte - S. Bungtlang(charged at 33kV)	State	SS	132kV	S/C	80		Planned
	W. Phaileng - Marpara	State	SS	132kV	S/C on D/C	59		Planned
	New S/S							
	Lungsen New SUBSTATION	State	SS	132/33kV	trf		25	Planned
	W. Phaileng	State	SS	132/33kV	trf		25	Planned
	Marpara	State	SS	132/33kV	trf		25	Planned
	S/S Augmentation							
	Lunglei Bay Extn	State	SS	33kV	extn			Planned
	Lungsen Extn Bay Extn	State	SS	33kV	extn			Planned
	CHAWNGTE Extn Bay Extn	State	SS	33kV	extn			Planned

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	CHAWNGTE Extn Bay Extn	State	SS	33kV	extn			Planned
	S.BUNGLANG Extn Bay Extn	State	SS	33kV	extn			Planned
NER - 15	System Strengthening Scheme (World Bank) in Tripura (Tranche-I)							
	Rokhia-Rabindranagar	State	SS	132kV	D/C	48		Planned
	LILO of one circuit of Surajmaninaqar - Rokhia 132 kV D/c line at Gokulnagar	State	SS	132kV	D/C			Planned
	LILO of PK Bari-Ambasa at Monu	State	SS	132kV	D/C	8		Planned
	Kailasahar - Dharamnagar	State	SS	132kV	D/C	48		Planned
	Rabindranagar - Belonia	State	SS	132kV	D/C	80		Planned
	Udaipur - Bagafa	State	SS	132kV	D/C	64		Planned
	Bagafa - Belonia	State	SS	132kV	D/C	30		Planned
	Belonia - Sabroom	State	SS	132kV	D/C	84		Planned
	LILO of Agartala 79 Tilla - Dhalabil (Khowai) 132KV S/C LINE	State	SS	132kV	D/C	4		Planned
	Bagafa – Satchand 132 kV S/c on D/c line (utilizing the corridor of existing Bagafa – Satchand 66 kV line)	State	SS	132kV	S/C ON D/C	25		Planned
	Udaipur - Amarpur 132 kV D/c line	State	SS	132kV	D/C	52		Planned
	New S/S							
	Rabindra Nagar	State	SS	132/33kV	trf		100.00	Planned
	Gokul Nagar	State	SS	132/33kV	trf		100.00	Planned
	Monu	State	SS	132/33kV	trf		100.00	Planned
	Belonia	State	SS	132/33kV	trf		100.00	Planned
	Bagafa	State	SS	132/33kV	trf		100.00	Planned
	SABROOM	State	SS	132/33kV	trf		63.00	Planned
	MOHANPUR (HEZAMARA)	State	SS	132/33kV	trf		63.00	Planned
	SATCHAND	State	SS	132/33kV	trf		63.00	Planned
	Amarpur	State	SS	132/33kV	trf		63.00	Planned
	S/S Augmentation & transformer replacement							
	Kailashahar (Gournagar)	State	SS	132/33kV			100.00	Planned
	UDAIPUR	State	SS	132/33kV			100.00	Planned
	Ambasa	State	SS	132/33kV			31.50	Planned

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	Dhalabil(Khowai)	State	SS	132/33kV			63.00	Planned
	JIRANIA	State	SS	132/33kV			63.00	Planned
NER - 16	System Strengthening Scheme (World Bank) in Meghalaya (Tranche-I)							
	Killing (byrnihat) - Mawngap - New Shillong 220kV D/C line	State	SS	220kV	D/C	244		Planned
	LILO of both ckt of MLHEP-Khleriat 132kV D/c line at Mynkre	State	SS	132kV	D/C	34		Planned
	Phulbari - Ampati	State	SS	132kV	D/C	138		Planned
	New S/S							
	Mynkre	State	SS	132/33kV	trf		100	Planned
	Phulbari	State	SS	132/33kV	trf		100	Planned
	Mawngap (upgrading U/C 132 kV S/S to 220 kV GIS)	State	SS	220/132kV	trf		320	Planned
	New Shillong	State	SS	220/132kV	trf		320	Planned
	New Shillong	State	SS	132/33kV	trf		100	Planned
NER - 17	System Strengthening Scheme (World Bank) in Nagaland (Tranche-I)							
	LILO of Mokokchung (Nagaland) - Mariani (Assam) 132kV D/c line at Longnak	State	SS	132kV	D/C	1		Planned
	New Kohima – Mon (Naginimora) routed via Wokha and Mokokchung (to be charged at 132kV)	State	SS	220kV	S/C on D/C	92		Planned
	Tuensang - Longleng	State	SS	132kV	S/C on D/C	36		Planned
	New Kohima (Zadima) - New Secretariat Complex	State	SS	132kV	D/C	56		Planned
	LILO of Kohima-Wokha Line at new Kohima	State	SS	132kV	D/C	30		Planned
	LILO of Kohima – Meluri(Kiphire) 132kV D/c line at Pfutsero	State	SS	132kV	2xD/C	64		Planned
	Wokha – Mokokchung(Nagaland) routed via Zunheboto	State	SS	132kV	S/C on D/C	97		Planned
	New S/S							
	LONGNAK	State	SS	132/33kV	trf		50	Planned
	LONGLENG	State	SS	132/33kV	trf		20	Planned
	NEW SECRETARIAT COMPLEX KOHIMA (NEW) SUBSTATION	State	SS	132/33kV	trf		50	Planned
	Pfutsero	State	SS	132/33kV	trf		50	Planned
	ZUNHEBOTO	State	SS	132/33kV	trf		50	Planned

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	S/S Augmentation & transformer replacement							
	Wokha	State	SS	132/33kV	trf		25	Planned
NER - 18	Manhdhechu (720 MW)	ISTS	ATS					
	1. Mangdechu HEP-Goling 400kV 2XS/c line	ISTS	ATS	400kV	2xS/c	120		Planned
	2. Goling-Jigmeling 400kV D/c line	ISTS	ATS	400kV	D/c	140		Planned
	3. Jigmeling-Alipurduar 400kV D/c line(Quad)	ISTS	ATS	400kV	D/c	130		Planned
NER - 19	NER System Strengthening-II	ISTS	SS					
	1. LILO of 2 nd ckt of Silchar – Bongaigaon 400 kV D/c line at Byrnihat (MeECL)	ISTS	SS	400kV	D/C	10		Planned
	2. Biswanath Chariyali – Itanagar (Ar. Pradesh) 132 kV D/c line (Zebra Conductor)	ISTS	SS	132kV	D/C	190		Planned
	3. Silchar – Misa 400 kV D/c (quad) line.	ISTS	SS	400kV	D/C	400		Planned
	4. Ranganadi HEP – Nirjuli(PG) 132 kV D/c line with one ckt to be LILLOed at Itanagar (Ar. Pradesh) or Via Itanagar (Ar. Pradesh)	ISTS	SS	132kV	D/C	80		Planned
	5. Imphal (PG) – New Kohima (Nagaland) 400 kV D/c line (to be initially charged at 132 kV).	ISTS	SS	400kV	D/C	300		Planned
	6. 2 nd 400/220 kV, 315 MVA ICT at Balipara substation of POWERGRID	ISTS	SS	400/220kV	trf		315	Planned
	7. Replacement of existing 132/33 kV, 2X10 MVA ICT by 132/33 kV, 2X50 MVA ICT at Nirjuli sub-station of POWERGRID	ISTS	SS	132/33kV	trf		90	Planned
NER - 20	ATS for Khuitam(33 MW)	ISTS	ATS					
	Khuitam - Dinchang 132 kV D/c line	ISTS	ATS	132kV	D/C	400		Planned
NER - 21	Dedicated sysem for KSK Dibbin, Patel Hydro, Nafra, Khuitam	DTL	ATS					
	Dedicated System for KSK Dibbin	DTL	ATS					
	KSK Dibbin - Dinchang PP 220kV D/C line	DTL	ATS	220kV	D/C	60		Planned
	Dedicated System for Patel Hydro (Gongri+Sasankrong)	DTL	ATS					
	Saskngrong - Goongri 132kV D/c lline	DTL	ATS	132kV	D/C	60		Planned
	Goongri - Dinchang PP 220kV D/C line	DTL	ATS		D/C	60		Planned
	Dedicated System for SEW Nafra	DTL	ATS					
	Nafra - Dinchang PP 220kV D/C line	DTL	ATS	220kV	D/C	60		Planned
	Dedicated System for Adishankar Khuitam	DTL	ATS					

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	Kuitam - Dinchang PP 220kV D/C line	DTL	ATS	220kV	D/C	60		Planned
	Dedicated sysyem for KSK Dibbin, Patel Hydro, Nafra, Khuitam	ISTS	ATS					
	1. 440/220kV ,2x315 MVA Pooling station at Rangia/ Rowta	ISTS	ATS	400/220kV			630	Planned
	2. 440/220kV ,2x315 MVA Pooling station at Dinchang	ISTS	ATS	400/220kV			630	Planned
	3. LILO of Bongaigaon – Balipara 400kV D/C line at rangia/Rowta	ISTS	ATS	400kV	2xD/C	60		Planned
	4. Dinchang PP –Rangia/ Rowta 400kV D/C (quad) line	ISTS	ATS	400kV	D/C	120		Planned
NER - 22	Namrup +Ext (100 MW) (state sector)	State	ATS					
	1. LILO of Namrup –Tinsukia 220kV S/C line at Bodubi	State	ATS	220kV	D/C	20		UC
	2. Namrup – Tinsukia 220kV D/C line (existing)	State	ATS	220kV	D/C	80		Commissioned
	3. Namrup – Lakwa 132kV D/c line (existing)	State	ATS	220kV	D/C	60		Commissioned
NER - 23	Evacuation System for Demwe (1750MW), Tato-II (700MW), Kalai-II (1200MW) and GMR Londa	ISTS	ATS					
	1. 400kV pooling substation at Silapathar (Assam)	ISTS	ATS	400kV	Sw			New
	2. Demwe – Silapathar 400kV 2xD/c with High Capacity / HTLS conductor	ISTS	ATS	400kV	2xD/C	400		New
	3. Tato-II – Silapathar 400kV D/c line (High Capacity / HTLS)	ISTS	ATS	400kV	D/C	200		New
	4. Kalai-II – Silapathar 400kV D/c line (High Capacity / HTLS)	ISTS	ATS	400kV	D/C	200		New
	5. Silapathar – Bishwanath Chariali 400kV 2x D/c line (High Capacity / HTLS)	ISTS	ATS	400kV	2xD/C	920		New
	6. GMR Londa(225 MW) – Biswanath Chariali 400kV D/c line (High Capacity / HTLS)	ISTS	ATS	400kV	D/C	400		New
	7. Reconductoring of Biswanath Chariali – Balipara 400kV 2x D/c (twin moose) to high capacity / HTLS	ISTS	ATS	400kV	2xD/C	644		New
	8. LILO of Balipara - Bongaigaon 400kV D/c (quad) at Rangia (qith removal of FSC at Balipara)	ISTS	ATS	400kV	D/C	20		New
	9. Reconductoring of Balipara - Bongaigaon 400kV D/c (twin moose) to high capacity / HTLS	ISTS	ATS	400kV	D/C	600		New
NER - 24	Interconnection of NER with Bhutan	ISTS	ATS					
	Rangia/Rowta – Yangbari(Bhutan) 400KV 2x D/c line (quad)	ISTS	ATS	400kV	2xD/C	400		New

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
NER - 25	ATS for Tuirial HEP (2x30 MW)	ISTS	ATS					
	1.Tuirial-Kolasib 132 kV S/c (operated at 33 kV) - (existing)	State	ATS	132kV	S/C	40		Planned
	2. LILO of Jiribam-Aizwal 132 kV S/c at Tuirial HEP	State	ATS	132kV	D/C	20		Planned
NER - 26	Evacuation of power pooled from Bhutan and ArP at Rangia/Rowta to NR	ISTS	ATS					
	800kV HVDC from Rangia/Rowta to Gurdaspur (NR) (3000MW)	ISTS	ATS	±800kV	HVDC	4400	6000	New
NER - 27	NER System Strengthening-III							
	Installation of 2nd 400/220 kV, 315 MVA ICT at Bongaigaon substation	ISTS	SS	400/220kV	trf		315	Planned
	Replacement of existing 60MVA, 220/132kV ICT by 1x160 MVA 220/132 kV ICT at Kopili HEP	ISTS	SS	220/132kV	trf		100	Planned
	Replacement of existing 2x50MVA, 220/132kV ICTs by 2x160MVA, 220/132kV ICTs at Balipara sub-station	ISTS	SS	220/132kV	trf		220	Planned
NER - 28	NER System Strengthening-IV							
	1. Addition of 2x500 MVA, 400/200 kV ICT with GIS bays in the space vacated after removal of 4x105 MVA, 400/220 kV ICT at Misa sub-station of POWERGRID	ISTS	SS	400/220kV	trf		685	Planned
	2. 1x125 MVAR, 420kV bus reactor at Balipara (POWERGRID) sub-station	ISTS	SS	400kV	reactor			Planned
	3. 1x125 MVAR, 420kV bus reactor at Bongaigaon (POWERGRID) sub-station	ISTS	SS	400kV	reactor			Planned
	4. 2x315 MVA (7x105MVA single phase units), 400/132 kV ICTs at Imphal	ISTS	SS	400/132kV	trf		630	Planned
NER - 29	NER System Strengthening-V							
	1. Establishment of 2x315 MVA 400/132 kV S/s at Surajmaninagar	ISTS	SS	400/132kV	trf		630	Planned
	2. Establishment of 2x315 MVA 400/132 kV S/s at P.K.Bari	ISTS	SS	400/132kV	trf		630	Planned
	3. Surajmaninagar - P.K.Bari 400 kV D/c line	ISTS	SS	400kV	D/C			Planned
	4. AGTPP – P.K.Bari 132kV D/c line with high capacity HTLS conductor	ISTS	SS	132kV	D/C	110		Planned
	5. Surajmaninagar (TSECL) – Surajmaninagar (TBCB) 132kV line with high capacity / HTLS	state	SS	132kV	D/C	10		Planned

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	6. P.K.Bari (TSECL) – P.K.Bari (TBCB) 132kV D/c line with high capacity / HTLS	state	SS	132kV	D/C	10		Planned
NER - 30	NER System Strengthening-VI							Planned
	1. Establishment of 2x500 MVA 400/220 kV S/S at New Kohima along with 4 no. 400 kV line bays, 2x125 MVAR bus reactor	ISTS	SS	400/220kV	trf		1000	Planned
	2. Imphal – New Kohima 400 kV D/C line	ISTS	SS	400kV	D/C	290		Planned
	3. New Kohima – New Mariani 400kV D/c line	ISTS	SS	400kV	D/C	410		Planned
	4. 1x125 MVAR bus reactor (2nd) at Imphal (PG)	ISTS	SS	400kV	reactor			Planned
	5. Up-gradation of New Mariani substation to 400/220 kV with 2x500MVA transformer	ISTS	SS	400/220kV	trf		1000	Planned
	6. New Mariani-Mariani 220kV D/c line (high capacity Conductor)	State	SS	220kV	D/C	10		Planned
	7. Establishment of 220/132kV, 2x160MVA substation at Khumtai	State	SS	220/132kV	trf		320	Planned
	8. LILO of Samaguri – New Mariani 220kV 2xS/c lines at Khumtai	State	SS	220kV	2xS/C	10		Planned
	9. New Kohima (400/220kV TBCB) – New Kohima (220/132kV - Nagaland) 220kV D/c line with high capacity / HTLS conductor	State	SS	220kV	D/c	10		Planned
NER - 31	NER System Strengthening-VII							Planned
	1. Reconductoring of Imphal (POWERGRID) - Yurembam (State) 132 kV S/c line	ISTS	SS	132kV	S/c	15		Planned
	2. Installation of 400/132kV, 1x315MVA ICT (3rd) at Silchar S/s along with associated bays in GIS	ISTS	SS	400/132kV	trf		315	Planned
	3. 220kV, 1x31.5MVAR bus reactor at Mokukchung (POWERGRID) S/s	ISTS	SS	220kV	reactor			Planned
NER-32	LILO of Silchar-Byrnihat 400 kV line at Sonapur S/s	State	SS	400 kV	D/C	10		Planned
	2x80 MVAR bus reactors at Sonapur	State	SS	400 kV	reactor			Planned
	Establishment of 2x315 MVA 400/220 kV S/s at Sonapur S/s	State	SS	400/220kV	trf		630	Planned
	Misa-Shankardeb Nagar 220 kV D/C line	State	SS	220 kV	D/C	100		Planned

Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	132 kV Imphal (PG)-Yurembam 132 kV D/C line with high capacity conductor using ROW of existing 132 kV Imphal (PG)-Yurembam 132 kV S/C MSPCL line along with up gradation / modification of bay equipment at both ends.	State	SS	132	D/C	30		Planned
	Loktak DS - Rengpang 132 kV D/c	State	SS	132	D/C	40		Planned
	Loktak DS - Ningthoukhong 132 kV D/c	State	SS	132	D/C	40		Planned
	Thoubal S/S	State	SS	400/132	trf		630	Planned
	Imphal-Thoubal	State	SS	400 KV	D/C	50		Planned
	LILO of one circuit of Misa-Dimapur 220 kV D/C line at New Kohima	State	SS	220 kV	D/C	10		Planned
	220/132 kV New Kohima S/S	State	SS	220/132 KV	trf		320	Planned

Annexure-II(A)**Northern Region:**

Sl. No.	Scheme /details	ISTS/ STATE	ATS/SS / GEC	Voltage (kV)	Type	ckm	MVA	Present Status
NR-01	765kV system for Central Part of Northern Grid-Part-I	ISTS	SS					
	1. Agra - Meerut 765 kV S/c	ISTS	SS	765kV	S/C	260		Commissioned
	2. Agra - Jhatikra 765 kV S/c	ISTS	SS	765kV	S/C	240		Commissioned
	3. Jhatikra - Bhiwani 765 kV S/c	ISTS	SS	765kV	S/C	80		Commissioned
	4. Bhiwani – Moga 765 kV S/c	ISTS	SS	765kV	S/C	275		Commissioned
	5. LILO of both circuits of Mundka/Bawana – Bamnoui at Jhatikra	ISTS	SS	400kV	2xD/C	20		Commissioned
NR-02	765kV system for Central Part of Northern Grid-Part-II							
	1. Agra Substation extension Bay extension	ISTS	SS	765/400kV	bay			Commissioned
	2. Establishment of 765/400/220 kV substation at Jhatikra with 4x1500MVA 765/400 kV	ISTS	SS	765/400kV	trf		6000	Commissioned
	3. Augmentation of Moga & Meerut 400/220 kV substation to 765/400/220 kV susbtation with 2x1500MVA transformation capacity	ISTS	SS	765/400kV	trf		3000	Commissioned
	4. 240 MVAR Bus reactor at Jhatikra	ISTS	SS	765kV	reactor			Commissioned
NR-03	765kV system for Central Part of Northern Grid-Part-III	ISTS	SS					
	1. Meerut – Bhiwani 765 kV S/c	ISTS	SS	765kV	S/C	175		Commissioned
	2(a). Establishment of 765/400/220 kV substation at Bhiwani with 2x1000MVA 765/400 kV ICT	ISTS	SS	765/400kV	trf		2000	Commissioned
	2(b). Establishment of 2x315 MVA 400/220 kV ICT at Bhiwani	ISTS	SS	400/220kV	trf		630	Commissioned
	3. LILO of both circuits of Bawana/Bahadurgarh-Hissar 400 kV D/c at Bhiwani	ISTS	SS	400kV	2xD/C	60		Commissioned
	4. LILO of both circuits of Bareilly-Mandaula 400 kV D/c at Meerut	ISTS	SS	400kV	2xD/C	206		Commissioned
	5. Mandaula Bus split	ISTS	SS	400kV	bay			Commissioned
	6. Ballabgarh Bus split	ISTS	SS	400kV	bay			Commissioned
NR-04	NR System Strengthening Scheme-XIX	ISTS	SS					

Sl. No.	Scheme /details	ISTS/ STATE	ATS/SS / GEC	Voltage (kV)	Type	ckm	MVA	Present Status
	1. LILO of both circuits of Meerut – Kaithal 400 kV D/c (Quad HSIL) to create new 400/220 kV S/s at Bagpat	ISTS	SS	400kV	2xD/C	144		UC
	2. Bagpat 400/220 kV GIS s/s with 2x500 MVA transformation capacity	ISTS	SS	400/220kV	trf		1000	UC
	3. 80 MVAR Bus Reactor at Kaithal	ISTS	SS	400kV	reactor			Commissioned
	4. 125 MVAR Bus Reactor at Bagpat	ISTS	SS	400kV	reactor			UC
	System Strengthening in Northern Region for SASAN & MUNDRA (UMPP)	ISTS	SS					
	400KV D/C Agra - Sikar line (Q)	ISTS	SS	400kV	D/c			Commissioned
	400KV D/C Sikar - Jaipur line	ISTS	SS	400kV	D/c	336		UC
	400KV D/C Sikar - Ratnagarh line	ISTS	SS	400kV	D/c	150		Commissioned
	LILO of both ckt of Nathpa Jhakri - Abdullapur 400KV D/C (Tripal Snowbird) at Panchkula	ISTS	SS	400kV	D/c	40		Commissioned
	LILO of both ckt of Sikar (RVPN) - Ratnagarh 220KV D/C at Sikar	ISTS	SS	400kV	D/c	6		Commissioned
	Northern Regional Transmission Strengthening Scheme	ISTS	SS					
	400KV D/C Bhiwani - Jind line	ISTS	SS	400kV	D/c	150		Commissioned
	LILO of both ckt of 400KV D/C Balia - Lucknow line at Sohawal	ISTS	SS	400kV	D/c	50		Commissioned
	LILO of both ckt of 400KV D/C Dehradun - Bagpat line (QUAD) at Saharanpur	ISTS	SS	400kV	D/c	58		UC
	LILO of both ckt of 400KV D/C Lucknow - Bareilly line (PG) at Shahjahanpur	ISTS	SS	400kV	D/c	70		Commissioned
	LILO of both ckt of 400KV D/C Agra - Jaipur line at Jaipur	ISTS	SS	400kV	D/c	20		Commissioned
	Strengthening Scheme in Northern Region	ISTS	SS					
	LILO of 220KV D/C Jullandhur-Hamirpur line at Hamirpur (PG)	ISTS	SS	220 kV	D/c	25		UC
	Creation of 400/220KV S/Stn. in NCT of Delhi during 12th Plan Period (Part-A)	ISTS	SS					
	LILO of both ckt of Bawana - Mandola 400KV D/C line at Rajghat (Multi Ckt tower with twin/HTLS Cond.)	ISTS	SS	400 kV	D/c	15		UC
	LILO of one ckt of Bamnauli - Jattikalan 400KV D/C line at Dwarka-I (with twin/HTLS Cond.)	ISTS	SS	400 kV	D/c	45		UC

Sl. No.	Scheme /details	ISTS/ STATE	ATS/SS / GEC	Voltage (kV)	Type	ckm	MVA	Present Status
	Creation of 400/220KV S/Stn. in NCT of Delhi during 12th Plan Period (Part-B1)	ISTS	SS					
	LILO of both ckt of Bamnauli - Samaypur 400KV D/C line at Tughlakabad (with twin HTLS Cond.)	ISTS	SS	400 kV	D/c	25		UC
	Transmission System Associated with RAPP 7 & 8 - Part - B.	ISTS	SS					
	400KV D/C Kota - Jaipur (South) line (part of RAPP-Jaipur (S) 400KV D/C line with one ckt LILO at Kota).	ISTS	SS	400 kV	D/c	360		UC
		ISTS	SS					
NR-05	NR System Strengthening Scheme-XX	ISTS	SS					
	1. LILO of one circuit of Parbati PS – Amritsar 400 kV D/c to create new 400/220 kV S/s at Hamirpur	ISTS	SS	400kV	D/C	4		Commissioned
	2. Hamirpur 400/220 kV s/s with 2x315 MVA transformation capacity	ISTS	SS	400/220kV	trf		630	Commissioned
NR-06	NR System Strengthening Scheme-XXI	ISTS	SS					
	1. Lucknow – Bareilly 765 kV S/c (Ckt. No. 1)	ISTS	SS	765kV	S/C	270		Commissioned
	2. Bareilly–Kashipur 400 kV D/c (quad)	ISTS	SS	400kV	D/C	200		Commissioned
	3. Kashipur–Roorkee 400 kV D/c (quad)	ISTS	SS	400kV	D/C	330		Commissioned
	4. Roorkee–Saharanpur 400 kV D/c (quad)	ISTS	SS	400kV	D/C	78		UC
	5. Establishment of new 765/400 kV, 2x1500 MVA substation at Bareilly	ISTS	SS	765/400kV	trf		3000	Commissioned
	6. Bareilly – Bareilly 400 kV 2xD/c (quad)	ISTS	SS	400kV	2xD/C	80		Commissioned
NR-07	NR System Strengthening Scheme-XXII	ISTS	SS					
	1. Kishenpur – Samba 400 kV D/c	ISTS	SS	400kV	D/C	66		Commissioned
	3. Establishment of new 400/220 kV, 2x315 MVA substation at Samba	ISTS	SS	400/220kV	trf		630	Commissioned
NR-08	NR System Strengthening Scheme-XXIII	ISTS	SS					
	1. Augmentation of 400/220 kV transformation capacity by 2x500 MVA at Maharaniabagh	ISTS	SS	400/220kV	trf		1000	Commissioned

Sl. No.	Scheme /details	ISTS/ STATE	ATS/SS / GEC	Voltage (kV)	Type	ckm	MVA	Present Status
	2. Augmentation of 400/220 kV transformation capacity by 1x500 MVA at Lucknow	ISTS	SS	400/220kV	trf		500	Commissioned
	3. Augmentation of 400/220 kV transformation capacity by 1x500 MVA at Bahadurgarh	ISTS	SS	400/220kV	trf		500	Commissioned
NR-09	NR System Strengthening Scheme-XXIV	ISTS	SS					
	1. Dehradun – Abdullapur 400 kV D/c (Quad)	ISTS	SS	400kV	D/C	400		UC
	2. Dulhasti – Kishenpur 400 kV D/c (Quad) – Single Circuit Strung	ISTS	SS	400kV	S/C	100		UC
	3. 2 nos. of 63 MVAR line Reactors (one on each ckt) on Barh – Balia 400 kV D/c line at Balia end	ISTS	SS	400kV	reactor			Commissioned
NR-10	NR System Strengthening Scheme-XXV	ISTS	SS					
	1. Jaipur-Bhiwani 765kV S/c (2nd Ckt)	ISTS	SS	765kV	S/C	260		UC
	2. Bhiwani(PG)-Hissar 400kV D/c line	ISTS	SS	400kV	D/C	120		Commissioned
	3. LILO of 400kV D/c Moga-Bhiwadi line at Hissar	ISTS	SS	400kV	D/C	20		Commissioned
NR-11	NR System Strengthening Scheme-XXVI	ISTS	SS					
	Meerut-Moga 765kV S/c line	ISTS	SS	765kV	S/C	260		Commissioned
NR-12	NR System Strengthening Scheme-XXVII	ISTS	SS					UC
	1 LILO of 400kV Dehar-Panipat S/c line at Panchkula	ISTS	SS	400kV	D/C	20		UC
	2 LILO of 400kV Dehar-Bhiwani S/c line at Rajpura	ISTS	SS	400kV	D/C	25		UC
	3. TehriPP-Srinagar 400kV D/c line (Quad)	ISTS	SS	400kV	D/C	100		UC
	4. one 400kV line bay at kota(PG) for terminating Anta-Kota 400kV S/c line	ISTS	SS	400kV	bay			UC
	5. Two 220kV line bays at Chamera pooling point	ISTS	SS	220kV	bay			UC
NR-13	NR System Strengthening Scheme-XXVIII	ISTS	SS					
	1. Extend one 400kV D/c (Quad) Biharsharif-Sasaram line to Varanasi, Bypassing Sasaram	ISTS	SS	400kV	D/C	90		UC
	2. LILO of Gaya-Fathepur76kV S/c line at Varanasi	ISTS	SS	765kV	D/C	20		UC
	3. Sasaram-Allahabad Circuit may be from ER bus	ISTS	SS	400kV				UC
	4. Sasaram-Saranath 400kV S/c may be through HVDC back to Back	ISTS	SS	400kV	HVDC	30		UC

Sl. No.	Scheme /details	ISTS/ STATE	ATS/SS / GEC	Voltage (kV)	Type	ckm	MVA	Present Status
NR-14	NR Bus Reactor Schemes	ISTS	SS					
	1. 125 MVAR bus reactor at Gorakhpur	ISTS	SS	400kV	reactor			Commissioned
	2. 125 MVAR bus reactor at Allahabad	ISTS	SS	400kV	reactor			Commissioned
	3. 125 MVAR bus reactor at Mainpuri	ISTS	SS	400kV	reactor			Commissioned
	4. 125 MVAR bus reactor at Hissar	ISTS	SS	400kV	reactor			Commissioned
	5. 125 MVAR bus reactor at Jullandhar	ISTS	SS	400kV	reactor			Commissioned
	6. 125 MVAR bus reactor at Kankroli	ISTS	SS	400kV	reactor			Commissioned
	7. 125 MVAR bus reactor at Nallagarh	ISTS	SS	400kV	reactor			Commissioned
	8. 2X125 MVAR bus reactor at Vindhyachal(NR Bus)	ISTS	SS	400kV	reactor			Commissioned
	9. 80 MVAR bus reactor at Amritsar	ISTS	SS	400kV	reactor			Commissioned
NR-15	System Strengthening in NR (after delinking the scheme with North Karanpura Project)	ISTS	SS					
	1. Lucknow - Bareilly 765 kV S/c line (Ckt. No. 2)	ISTS	SS	765kV	S/C	270		Planned
	2. Bareilly - Meerut 765 kV S/C line	ISTS	SS	765kV	S/C	220		Planned
	3. Agra - Gurgaon 400 kV D/c line (quad)	ISTS	SS	400kV	D/C	440		Planned
	4. 2x500 MVA, 400/ 220 kV S/S Gurgaon	ISTS	SS	400/220kV	trf		1000	Planned
		ISTS	SS					
NR-16	ATS for Kishen Ganga (330MW)	ISTS	ATS					
	1. Kishenganga – Wagoora 220kV 2XD/c line	ISTS	ATS	220kV	D/C	120		UC
	3. Kishenganga- Amargarh 220kV D/c line	ISTS	ATS	220kV	D/C	100		UC
NR-17	ATS for Baghalihar II (450 MW)	ISTS	ATS					
	LILO of one ckt of 400kV Kishenpur-New Wanpoh D/c line at Baghalihar HEP	ISTS	ATS	400kV	D/C	20		Planned
NR-18	ATS for Parbati-II (800MW)	ISTS	ATS					
	1 Parbati II-Koldam (Quad) 1st ckt	ISTS	ATS	400kV	S/C	61		UC
	2 Parbati II-Koldam (Quad) 2nd ckt	ISTS	ATS	400kV	S/C	68		UC
	3 Parbati II- Koldam (Quad) D/c portion	ISTS	ATS	400kV	D/C	10		UC

Sl. No.	Scheme /details	ISTS/ STATE	ATS/SS / GEC	Voltage (kV)	Type	ckm	MVA	Present Status
NR-19	ATS for Rampur (412MW)	ISTS	ATS					
	1) LILO of 400 kV D/c Nathpa Jhakri - Nalagarh at Rampur	ISTS	ATS	400kV	2xD/C	40		Commissioned
	2) Ludhiana - Patiala 400kV D/c line	ISTS	ATS	400kV	D/C	160		Commissioned
	3) LILO of 400kV D/c Patiala -Hissar line at Kaithal	ISTS	ATS	400kV	D/C	40		Commissioned
NR-20	ATS for Koldam (800MW)	ISTS	ATS					
	1) Koldam-Ludhiana 400kV D/c	ISTS	ATS	400kV	D/C	306		UC
	2) Koldam-Nalagarh (Quad) 400kV D/c line	ISTS	ATS	400kV	D/C	90		Commissioned
		ISTS	ATS					
NR-21	ATS for Tidong-I (100 MW)							
	2x315 MVA (7x105 MVA units) 220/400 kV GIS Pooling Station at Jangi (with 4000 Amps. switchgear) (with space provision for 3rd ICT)	State	ATS	220kV	D/C		630	Planned
	Tidong – Jangi Pooling Station 220 kV D/c line	State	ATS			20		Planned
NR-22	ATS for Sorang(100 MW)	State	ATS					
	LILO of S/c Karcham Wangtoo - Abdullapur 400kV line at Sorang	State	ATS	400kV	D/C	20		Planned
		State	ATS					
NR-24	ATS for Kashang I, II, III (3x65 MW)	State	ATS					
	Kashang-Boghtu 220kV D/c line	State	ATS	220kV	D/C	50		Planned
NR-25	ATS for Sawara Kuddu (110 MW)	State	ATS					
	LILO of NathpaJhakri-Abdullapur 400kV D/c line at Sawara kuddu	State	ATS	400kV	2xD/C	20		Planned
		State	ATS					
NR-26								
	1. Sainj-Sainj Village(HPPTCL) 132kV D/c line	State	ATS	132kV	D/C	50		Planned
	2. LILO of 400kV Parbathi-II- Parbathi pooling point S/c line	State	ATS	400kV	D/C	20		Planned
	3. Establishment of Sainj 400 / 132 kV S/s (150 MVA)	State	ATS	400/132kV	trf		150	Planned
NR-27	ATS for Nabha - Rajpura TPS (2x700 MW)	State	ATS					
	1. Creation of 400/220 kV S/S near Nabha/Patiala with 2X315 MVA Transformers	State	ATS	400/220kV	trf		630	UC

Sl. No.	Scheme /details	ISTS/ STATE	ATS/SS / GEC	Voltage (kV)	Type	ckm	MVA	Present Status
	2. Muktsar - substation near Jullundhur 400 kV D/C via Tarantaran	State	ATS	400kV	D/C	480		UC
	3. Creation of 400/220 kV S/S near Tarantaran	State	ATS	400/220kV	trf		630	UC
	4. Nabha/Patiala - S/S near Jullundhur 400 kV D/C via Mohali	State	ATS	400kV	D/C	300		UC
	5. Creation of 400/220 kV S/S near Mohali	State	ATS	400/220kV	trf		630	UC
	6. Interconnection between 400 kV S/S near Jullundhur to Jullundhur S/S (PG)	State	ATS	400kV	D/C	20		UC
	7. Interconnection between 400 kV S/S near Taran Taran to Amritsar S/S (PG)	State	ATS	400kV	D/C	40		UC
NR-28	ATS for Talwandi Sabo (3x660 MW)	State	ATS					
	1. Talwandi Sabo - Muktsar 400kV D/c line	State	ATS	400kV	D/C	180		UC
	2. Muktsar - Patti – Nakodar 400kV D/c line	State	ATS	400kV	D/C	210		UC
	3. Talwandi Sabo - Dhuri 400kV D/c line	State	ATS	400kV	D/C	190		Commissioned
	4. Talwandi Sabo - Nakodar 400 kV D/C (one ckt to be LILoed at Moga 400kV PGCIL s/s)	State	ATS	400kV	D/C	150		Commissioned
	5. Establishment of 2X315 MVA Muktsar S/s	State	ATS	400/220kV	trf		630	UC
	6. Establishment of 2X315 MVA Patti S/s	State	ATS	400/220kV	trf		630	UC
	7. Establishmnet of 2X315 MVA Nakodar S/s	State	ATS	400/220kV	trf		630	Commissioned
NR-29	ATS for Govindwal Saheb (2x270 MW)	State	ATS					
	1. Gowindwal sahib - Ferozpur 220 kV D/c	State	ATS	220kV	D/C	120		UC
	2. Gowindwal sahib - Khasa (Amritsar) 220 kV D/c	State	ATS	220kV	D/C	160		UC
	3. Gowindwal sahib - Sultanpur Lodhi 220 kV D/c	State	ATS	220kV	D/C	120		UC
	4. Gowindwal sahib - Kapurthalahasa 220 kV D/c	State	ATS	220kV	D/C	120		UC
NR-30	Transmission System Associated with RAPP 7 & 8 - Part-A.	ISTS	ATS					
	400KV D/C RAPP - Kota line	ISTS	ATS	400kV	D/C	300		UC
						290		
NR-31	ATS for Ramgarh-II (160 MW)	State	ATS					
	1. Ramgarh- Dechu 220kV D/c line (commissioned)	State	ATS	220kV	D/C	35		Commissioned
	2. Dechu – Tinwari 220kV S/c line	State	ATS	220kV	S/C	30		Commissioned
	3. Dechu – Phalodi 220kv S/c line	State	ATS	220kV	S/C	50		Commissioned
	4. 220/132kV S/S at Dechu(new) (2x100MVA)	State	ATS	220kV			200	Commissioned

Sl. No.	Scheme /details	ISTS/ STATE	ATS/SS / GEC	Voltage (kV)	Type	ckm	MVA	Present Status
		State	ATS					
NR-32	Composite System for ATS for Chhabra TPSt-2 (500 MW) &Kalisindh (1200 MW)	State	ATS					
	1. Phagi (Jaipur South) 3000 MVA, 765/400kV S/S along with two sets of 765kV, 3x80 MVAR line reactors and 400kV 1x125 MVAR bus reactor	State	ATS	765kV			3000	UC
	2. 400/765 kV GSS at Anta (Baran) pooling Station with with two sets of 765kV, 3x80 MVAR line reactors	State	ATS	765kV			3000	UC
	3. Anta – Phagi (Jaipur South) 765kV 2xS/c line	State	ATS	765kV	2xS/C			Commissioned
	4. 400/220kV S/S GSS at Ajmer	State	ATS	400kV			630	
	5. Kalisindh – Anta Pooling Point at 400kV D/C (quad) line (for Kalisindh TPS)	State	ATS	400kV	D/C	200		Commissioned
	6. Chhabra – Anta Pooling Point at 400kV D/C (quad) line(for Chhabra TPS)	State	ATS	400kV	D/C			UC
	7. Phagi (Jaipur south) – Ajmer 400kV D/C line	State	ATS	400kV	D/C	210		UC
	8. Phagi (Jaipur south) –Heerapura 400kV D/C line	State	ATS	400kV	D/C	86		UC
	9. LILO of 220kV Ajmer – Beawer line at Ajmer(400/220kV) GSS.	State	ATS	220kV	D/C	10		UC
	10. LILO of 220kV Ajmer – Kishangarh line at Ajmer(400/220kV) GSS.	State	ATS	220kV	D/C	20		UC
	11. Kalisindh – Jhalawar 220kV D/C line (for Kalisindh TPS)	State	ATS	220kV	D/C			UC
		State	ATS					
NR-33	ATS for Tapovan Vishnugarh(520MW)	State	ATS					
	1. Tapovan Vishnugarh HEP- Kunwaripaas 400kV D/c line	State	ATS	400kV	D/C	40		UC
	2. LILO one ckt of Vishnu Prayag – Muzaffarnagar 400 kV D/c line at Kuwanri Pass	State	ATS	400kV	D/C	40		UC
	3. Kunwari Pass - Karanprayag 400kV D/c line	State	ATS	400kV	D/C	90		UC
	4. Karanprayag - Srinagar line 400kV D/c line	State	ATS	400kV	D/C	140		UC
	5. LILO of Kunwari Pass – Srinagar 400kV D/c line at Karanprayag	State	ATS	400kV	D/C	32		UC
		State	ATS					
NR-34	ATS for Singoli Bhatwari (99 MW)	State	ATS					
	LILO of Baramwari – Srinagar 220kV D/c line at Singoli Bhatwari	State	ATS	220kV	D/C	10		
		State	ATS					
NR-35	ATS for Phata Byong (76 MW)	State	ATS					
	LILO of Gaurikund Rambara -Barambari 132kV S/c at Phata Byong	State	ATS	132kV	D/C	20		UC
	Baramwari-Srinagar 220kV D/c line	State	ATS	220kV	D/C	140		UC

Sl. No.	Scheme /details	ISTS/ STATE	ATS/SS / GEC	Voltage (kV)	Type	ckm	MVA	Present Status
		State	ATS					
NR-36	Srinagar (330 MW) (Private Sevtor)	State	ATS					
	1. Srinagar - Kashipur 400kV D/c line	State	ATS	400kV	D/C	140		UC
	2. Srinagar-HEP - Srinagar 400kV D/c line	State	ATS	400kV	D/C	140		UC
	3. LILO of visgnuprayag-Muzaffarnagar 400kV line at srinagar	State	ATS	400kV	D/C	80		UC
NR-37	Combined ATS for Rihand STPP-III (2X500 MW) & Vindhyachal STPP -IV (2X500 MW) of WR	ISTS	ATS					
	1. Rihand-III- Vindhyachal Pool 765 kVD/c(initially to be operated at 400 kV)	ISTS	ATS	765kV	D/C	32		UC
	2. Vindhyachal-IV - Vindhyachal Pool 400 kV D/c (Quad)	ISTS	ATS	400kV	D/C	62		UC
	3. Vindhyachal Pool-Satna 765 kV 2xS/c	ISTS	ATS	765kV	2xS/C	237		UC
	4. Satna - Gwalior 765 kV 2xS/c	ISTS	ATS	765kV	2xS/C	360		UC
	5. Gwalior - Jaipur(South) 765 kV S/c	ISTS	ATS	765kV	S/C	300		UC
	6. Vindhyachal Pool-Sasan 765 KV S/c	ISTS	ATS	765kV	S/C	6		UC
	7. Establishment of 765/400kV, 2x1500 MVA S/s at Vindhyachal Pool	ISTS	ATS	765/400kV	trf		3000	UC
NR-38	Combined ATS for Bara TPS(1980MW), Karchana (1320MW) & Meja JV(1320MW)	State	ATS					
	1. Step-up of Bara generation to 765kV	State	ATS	765kV	bay			UC
	2. Bara switchyards to have 765kV and 400kV levels with 2x1500MVA (7x500 MVA, 1 phase units) 765/400 ICTs.	State	ATS	765/400kV	trf		3000	UC
	3. Establishment of 400kV substation at Reewa Road Allahabad with 400/220kV 2x315 MVA ICTs	State	ATS	400/220kV	trf		630	UC
	4. Step-up of Karchana and Meja generation to 400kV	State	ATS	400kV	bay			UC
	5. LILO of 400kV Obra-Panki line at Reewa Road Allahabad	State	ATS	400kV	D/C	20		UC
	6. Meja – Bara 400kV quad D/C line	State	ATS	400kV	D/C	50		UC
	7. Meja – Reewa Road (Allahabad) 400kV quad D/C line	State	ATS	400kV	D/C	60		UC
	8. Karchana – Bara 400kV quad D/C line	State	ATS	400kV	D/C	60		UC
	9. Karchana – Reewa Road Allahabad 400kV quad D/C line	State	ATS	400kV	D/C	60		UC
	10. Bara-Mainpuri 765kV 2xS/C lines	State	ATS	765kV	2xS/C	700		UC
	11. Mainpuri –G. Noida 765kV S/C	State	ATS	765kV	S/C	185		UC
	12. LILO of Agra - Meerut 765 kV S/C line of PGCIL at G. NOIDA	State	ATS	765kV	S/C	20		UC

Sl. No.	Scheme /details	ISTS/ STATE	ATS/SS / GEC	Voltage (kV)	Type	ckm	MVA	Present Status
13.	Hapur – G.Noida 765kV S/C line	State	ATS	765kV	S/C	70		UC
14.	New 765/400kV substation at Maipuri with 2x1000MVA (7x333 MVA, 1 phase units) ICTs	State	ATS	765/400kV	trf		2000	UC
15.	Mainpuri 765kV UPPCL – Mainpuri 400kV PGCIL 400kV quad D/C line	State	ATS	400kV	D/C	40		UC
16.	New 765/400 substation at G.Noida with 2x1500MVA (7x500MVA, 1 phase units) 765/400kV	State	ATS	765/400kV	trf		3000	UC
17.	2x315MVA 400/220kV ICTs at New 765/400kV substation at G.Noida	State	ATS	400/220kV	trf		630	UC
18.	Reewa Road Allahabad – Banda 400kV quad D/C line	State	ATS	400kV	D/C	190		UC
19.	Banda – Orai 400kV quad D/C line	State	ATS	400kV	D/C	180		UC
20.	Orai – Mainpuri 765kV UPPCL 400kV quad D/C line	State	ATS	400kV	D/C	150		UC
21.	Establishment of 400kV substation at Banda with 400/220kV 2x315 MVA ICTs	State	ATS	400/220kV	trf		630	UC
22.	Establishment of 400kV substation at Orai with 400/220kV 2x315 MVA ICTs	State	ATS	400/220kV	trf		630	UC
23.	Meja-Allahabad(PG) 400kV D/c line	State	ATS	400kV	D/C	110		UC
24.	Unnao-Mainpuri 765kV S/c line	State	ATS	400kV	D/C	175		UC
25.	Mainpuri-Hapur 765kV S/c line	State	ATS	400kV	D/C	250		UC
26.	Mainpuri – Aligarh 400 kV Quad D/c line	State	ATS	400 kV	D/C	240		UC
27.	Tanda-Gonda 400 kV Quad D/c line	State	ATS	400 kV	D/C	200		UC
28.	Gonda-Shahjahanpur 400 kV Quad D/c line	State	ATS	400 kV	D/C	460		UC
29.	LILO of Sarojininagar-Kursi Road line at Sultanpur Road 400kV Twin Moose	State	ATS	400 kV	D/C	40		UC
30.	LILO of Obra-Sultanpur line at Aurai 400 kV Twin Moose	State	ATS	400 kV	D/C	30		UC
31.	G.Noida - Sikanderabad line 400kV D/c Quad	State	ATS	400 kV	D/C	42		UC
32.	G.Noida - Noida (Sector-148) line 400kV D/c Quad	State	ATS	400 kV	D/C	90		UC
33.	Hapur - Dasna 400 kV D/c Quad Moose line	State	ATS	400 kV	D/C	46		UC
34.	Hapur - Ataur 400 kV D/c Quad Moose line	State	ATS	400 kV	D/C	112		UC
35.	LILO of Muradabad (PG)-Muradnagar(PG) 400 kV D/c Quad Moose line at Hapur	State	ATS	400 kV	D/C	142		UC
36.	LILO of Muradnagar-Muzzafarnagar 400 kV D/c Quad Moose line at Atuar	State	ATS	400 kV	D/C	142		UC

Sl. No.	Scheme /details	ISTS/ STATE	ATS/SS / GEC	Voltage (kV)	Type	ckm	MVA	Present Status
	37.LILO of Rishikesh-Kashipur 400 kV D/c Quad Moose line (PTCUL) at Nehtur	State	ATS	400 kV	D/C	202		UC
	38.Establishment of 400kV substation at Gonda with 400/220kV 2x315 MVA ICTs	State	ATS	400/220kV	trf		630	UC
	39.Establishment of 400kV substation at Gonda with 220/132 kV 2x100 MVA ICTs	State	ATS	220/132kV	trf		200	UC
	38.Establishment of 400kV substation at Sultanpur road, Lucknow with 400/220kV 2x500 MVA ICTs	State	ATS	400/220kV	trf		1000	UC
	39.Establishment of 400kV substation at Sultanpur road,Lucknow with 220/132 kV 2x160 MVA ICTs	State	ATS	220/132kV	trf		320	UC
	40.Establishment of 400kV substation at Aurai with 400/132 kV 2x200 MVA ICTs	State	ATS	400/132kV	trf		400	UC
	41.Establishment of 765kV substation at Hapur with 765/400 kV 2x1500 MVA ICTs	State	ATS	765/400kV	trf		3000	UC
	42.Establishment of 400kV substation at Hapur with 400/220 kV 2x 500 MVA ICTs	State	ATS	400/220kV	trf		1000	UC
	43.Establishment of 400kV substation at Ataur with 400/220 kV 2x500 MVA ICTs	State	ATS	400/220kV	trf		1000	UC
	44.Establishment of 400kV substation at Ataur with 220/33 kV 3x60 MVA ICTs	State	ATS	220/33 kV	trf		180	UC
	45.Establishment of 400kV substation at Sikandrabad with 400/220 kV 2x500 MVA ICTs	State	ATS	400/220kV	trf		1000	UC
	46.Establishment of 400kV substation at Nehtur with 400/132 kV 2x200 MVA ICTs	State	ATS	400/132kV	trf		400	UC
	47.Establishment of 400kV substation at Dasna with 400/132 kV 2x315 MVA ICTs	State	ATS	400/220kV	trf		630	UC
	48.Establishment of 400kV substation at Dasna with 220/132kV 2x100 MVA ICTs	State	ATS	220/132kV	trf		200	UC
	49.Establishment of 400kV substation at Indirapuram with 400/220 kV 2x500 MVA ICTs	State	ATS	400/220kV	trf		1000	UC
	50.Establishment of 400kV substation at Indirapuram with 220/33kV 3x60 MVA ICTs	State	ATS	220/33kV	trf		180	UC
NR-39	Lalitpur TPS (3x660 MW) (State Sector) (tentative)	State	ATS					

Sl. No.	Scheme /details	ISTS/ STATE	ATS/SS / GEC	Voltage (kV)	Type	ckm	MVA	Present Status
	1. Lalitpur – Agra –I 765kV S/C line (385km)	State	ATS	765kV	S/C	385		UC
	1. Lalitpur – Agra –I 765kV S/C line (385km)	State	ATS	765kV	S/C	385		UC
	3. Agra (UP)- agra(PG) 765kV S/C line (50km)	State	ATS	765kV	S/C	50		UC
	4. Lalitpur 765/220kV S/S (2x300) MVA	State	ATS	765/220kV	trf		600	UC
	5. Establishment of 765/400 kV, 2x1500 MVA, Agra (UP) substation	State	ATS	765/400 kV	trf			UC
	6. Establishment of 400/132 kV, 2x300 MVA Agra (South) substation	State	ATS	400/132kV	trf		600	UC
	7. LILO of one circuit of existing 400kV Agra (UP) – Agra (PG) 2xS/C line at 765/400 kV Agra (UP) (10 Km)	State	ATS	400kV		10		UC
	8.LILO of existing 400 kV Agra (UP) – Muradnagar S/C line at Agra (UP) 765/400 kV substation	State	ATS	400kV	S/C	20		UC
	9. Jhasi- Lalitpur – lalitpur switchyard 220kV D/C line (2x50 km)	State	ATS	220kV	D/C	100		UC
NR-43	ATS for Miyar HEP (120 MW)	State	ATS	400kV				
	400kv D/c line from Miyar to the site of 400kV pooling station near sisu/Gramphu pooling station	State	ATS	400kV	D/C			Planned
	From site of 400kV pooling station near sisu/Gramphu pooling station- Hamirpur 400kV D/c line	State	ATS	400kV				Planned
								Planned
	ATS for Seli HEP (400 MW)	State	ATS					
	LILO of Miyar-Hamirpur 400 kV D/c line at Seli	State	ATS	400kV	D/C			Planned
NR-44	Anpara D (1000 MW) (State Sector)	State	ATS					UC
	1. Anpara B - Anpara D 400 kV D/c line	State	ATS	400kV	D/C	10		UC
	2. Anpara C - Anpara D 765 kV S/c line	State	ATS	765kV	S/C	2		UC
	3. Anpara D - Unnao 765 kV S/c line	State	ATS	765kV	S/C	416		UC
	4. Anpara D 765 / 400 kV S/S (2x600 + 1000) MVA	State	ATS	765/400kV	trf		2200	UC
NR-45	Solar & New Wind Power Projects in Rajsthan(2650 MW) [Solar - 1400 MW; Wind - 1250 MW]	ISTS	GEC					
	1. 400/220 kV, 3 X 500 MVA and 220/132kV, 3x160 MVA with 132/33kV, 2x40/50 MVA Pooling Sub-Station GSS at Ramgarh (Jaisalmer)	ISTS	GEC	400/220kV	trf		1500	Planned

Sl. No.	Scheme /details	ISTS/ STATE	ATS/SS / GEC	Voltage (kV)	Type	ckm	MVA	Present Status
	alongwith 400kV, 1x125 MVAR, Bus Reactor and 2x50 MVAR line Reactor for 400kV D/C Ramgarh-Bhadla line							
2.	400/220 kV, 3 X 315 MVA and 220/132kV, 3x160 MVA with 132/33kV, 2x40/50 MVA Pooling Sub-Station GSS at Bhadla (Jodhpur) alongwith 400kV, 1x125 MVAR Bus Reactor and 4x50 MVAR, 400kV Line Reactors for Bhadla ends of 400kV D/C Bhadla-Bikaner line, 400kV LILO Jodhpur-Merta at Bhadla.	ISTS	GEC	400/220kV	trf		945	Planned
3.	Augmentation of 400kV GSS Akal by installation of 400/220 kV, 1 X 500 MVA Transformer alongwith 400kV, 2x50 MVAR Shunt Reactor (line type) for proposed 400kV Akal-Jodhpur (New) D/c line, and 1x125 MVAR 400 kV Bus Reactor.	ISTS	GEC	400/220kV	trf		500	Planned
4.	Augmentation of 400kV GSS Jodhpur (New)	ISTS	GEC					Planned
	(i) 2x50 MVAR, 400kV Shunt Reactor (line type) at 400kV GSS Jodhpur (New) for 400kV D/C Akal-Jodhpur(New) line	ISTS	GEC	400kV	reactor			Planned
	(ii) 400kV bays at Jodhpur (New) for LILO of both ckt. of 400kV D/C Raj West LTPS-Jodhpur line.	ISTS	GEC	400kV	bay			Planned
5.	Augmentation at 400kV GSS Barmer	ISTS	GEC					Planned
	(i) 1x125 MVAR, 400kV Shunt Reactor (Bus type) at 400kV GSS Barmer	ISTS	GEC	400kV	reactor			Planned
	(ii) 400kV bays for 400kV D/C Barmer-Bhinmal (PG) line	ISTS	GEC	400kV	bay			Planned
6.	Augmentation at 400kV GSS Bikaner	ISTS	GEC					Planned
	(i) 400kV Bays for 400kV D/C Bhadla-Bikaner line and 400kV D/C Bikaner-Sikar (PGCIL) line at Bikaner end of the lines	ISTS	GEC	400kV	bay			Planned
	(ii) 1x125 MVAR, 400kV Shunt Reactor (Bus type) at 400kV GSS Bikaner	ISTS	GEC	400kV	reactor			Planned
7.	400kV Interconnecting Lines :	ISTS	GEC	400kV				Planned
	(i) 400 kV D/C Ramgarh(Jaisalmer)-Akal (Jaisalmer) line (Twin Moose)	ISTS	GEC	400kV	D/C	120		Planned
	(ii) 400 kV D/C Ramgarh-Bhadla line (Twin Moose)	ISTS	GEC	400kV	D/C	150		Planned
	(iii) 400 kV D/C Bhadla-Bikaner line (Quad Moose)	ISTS	GEC	400kV	D/C	200		Planned
	(iv) 400 kV D/C line from 400/220kV Pooling Station Bhadla to LILO point at 400kV S/C Jodhpur-Merta line (Twin Moose)	ISTS	GEC	400kV	D/C	70		Planned
	(v) 400 kV D/C Bikaner-Sikar (PGCIL) line (Twin Moose)	ISTS	GEC	400kV	D/C	140		Planned
	(vi) 400 kV D/C Barmer-Bhinmal (PGCIL) line (Twin Moose)	ISTS	GEC	400kV	D/C	240		Planned
	(vii) LILO of both circuits of 400kV D/C Raj West-Jodhpur line at 400kV GSS Jodhpur (New) (Twin Moose)	ISTS	GEC	400kV	D/C	60		Planned
	(viii) 400kV D/C Akal-Jodhpur (New) line (Quad Moose)	ISTS	GEC	400kV	D/C	110		Planned

Sl. No.	Scheme /details	ISTS/ STATE	ATS/SS / GEC	Voltage (kV)	Type	ckm	MVA	Present Status
	8. 220kV GSS at Bap and associated lines:	ISTS	GEC					Planned
	(i) 220/132kV, 2x160 MVA	ISTS	GEC	220/132kV	trf		160	Planned
	(ii) 132/33kV, 2x40/50 MVA ICT	ISTS	GEC	132/33kV	trf		100	Planned
	(iii) LILO of 220kV Barsingsar LTPS-Phalodi line at at Bap	ISTS	GEC	220kV	D/C	20		Planned
	(iv) 220kV D/C Bap-Bhadla line	ISTS	GEC	220kV	D/C	20		Planned
	9. 220kV GSS at Kanasar and associated lines:	ISTS	GEC					Planned
	(i) 220/132kV, 2x160 MVA ICT	ISTS	GEC	220/132kV	trf		320	Planned
	(ii) 132/33kV, 2x40/50 MVA ICT	ISTS	GEC	132/33kV	trf		100	Planned
	(ii) 220kV D/C Bhadla- Kanasar line	ISTS	GEC	132kV	D/C	100		Planned
	(iii) LILO of 132kV PS1-PS2 line at proposed 220kV GSS at Kanasar	ISTS	GEC	132kV	D/C	50		Planned
	(iv) LILO of 132kV PS2-PS3 line at proposed 220kV GSS at Kansar	ISTS	GEC	132kV	D/C	40		Planned
	10. Up-gradation of PS No. 2 to 132kV Grid Substation with 132/33kV, 2x20/25 MVA Transformers with associated 132kV line	ISTS	GEC	132/33kV	trf		50	Planned
	11. Up-gradation of PS No. 3 to 132kV Grid Substation with 132/33kV, 2x20/25 MVA Transformers	ISTS	GEC	132/33kV	trf		50	Planned
	12. Charging of 132 kV line from PS_No.5 to PS_No.1 on 132 kV voltage level via 132 kV PS_No.2 GSS , 132 kV PS_No.3 GSS and 132kV PS_No.4 GSS	ISTS	GEC	132kV				Planned
	14. Up-gradation of PS No. 4 to 132kV Grid Substation with 132/33kV, 2x20/25 MVA Transformers	ISTS	GEC	132/33kV	trf		50	Planned
NR-46	SVCs in Northern Region							
	1. Ludhiana S/s - (+) 600 MVAR / (-) 400 MVAR	ISTS	SS	400kV	SVC			UC
	2. Kankroli S/s - (+) 400 MVAR / (-)300 MVAR	ISTS	SS	400kV	SVC			UC
	3. New Wanpoh S/s - (+) 300 MVAR / (-) 200 MVAR	ISTS	SS	400kV	SVC			UC
NR-52	ATS for Shree Cement Ltd (300 MW) (IPP)							
	1. LILO of one ckt of Kota – Merta 400kV D/c line at generation switchyard with 80 MVAR bus reactor	State	ATS	400kV	D/C	60		Commissioned
NR-54	ATS for Kotlibhel St-1 (215 MW)	State	ATS					
	Kotlibhel-Srinagar 220 kV D/c	State	ATS	220kV	D/C	300		Planned

Sl. No.	Scheme /details	ISTS/ STATE	ATS/SS / GEC	Voltage (kV)	Type	ckm	MVA	Present Status
NR-55	ATS for Tehri-II (1000MW)							
	1. Tehri PSP – Tehri Pooling Point (quad) 400kV S/c line	ISTS	ATS	400kV	S/C	14		UC
	2. Charging Tehri Pooling Point – Meerut line at 765kV/c line	ISTS	ATS	765kV	S/C			UC
	3. Establishment of 765/400 kV, 3x1500 MVA S/S at Tehri Pool (Due to Space constraints, Tehri Pooling stn. would be GIS)	ISTS	ATS	765/400kV	trf		4500	UC
	4. 765/400 kV, 1x1500 MVA substations at Meerut	ISTS	ATS	765/400kV	trf		1500	UC
	5. Modification of Series Capacitors for operation at 765 kV level at meerut	ISTS	ATS	765kV				UC
NR-60	Northern Region System Strengthening Scheme- NRSS XXX	ISTS	SS					
	1. Singrauli – Allahabad 400 kV S/c (due to ROW constraints, about 50 km section of Singrauli-Allahabad line to be strung on existing 400 kV D/c tower from Singrauli end).	ISTS	SS	400kV	S/C	220		UC
	2. Allahabad - Kanpur 400 kV D/c line	ISTS	SS	400kV	D/C	490		UC
NR-61	Dynamic Compensation (STATCOM) at Lucknow and Nalagarh	ISTS	SS					
	1. At Lucknow. 2x125 MVAR MSR, 1X125 MVAR MSC & +/- 300 MVAR STATCOM	ISTS	SS	400kV	STATCO M			UC
	2. At Nalagarh 2x125 MVAR MSR, 2X125 MVAR MSC & +/- 200 MVAR STATCOM	ISTS	SS	400kV	STATCO M			UC
NR-62	NR System Strengthening Scheme-XXIX	ISTS	SS					
	1. LILO of both circuits of Uri - Wagoora 400 kV D/c line at Amargarh (on multi-circuit towers)	ISTS	SS	400kV	2xD/C	40		UC
	2. Establishment of 7x105 MVA (1ph units.), with 400/220 kV GIS substation at Amargarh	ISTS	SS	400/220kV	trf		630	UC
	3. Jullandhar – Samba 400 kV D/c line	ISTS	SS	400kV	D/C	340		UC
	4. Samba -Amargarh 400 kV D/c line	ISTS	SS	400kV	D/C	500		UC
NR-63	NR System Strengthening Scheme-XXXI (Part-A)	ISTS	SS					
	1. Establishment of a 7X105MVA, 400/220 kV GIS substation at Kala Amb	ISTS	SS	400/220kV	trf		630	UC

Sl. No.	Scheme /details	ISTS/ STATE	ATS/SS / GEC	Voltage (kV)	Type	ckm	MVA	Present Status
	2. LILO of both circuits of Karcham Wangtoo – Abdullapur 400 kV D/c at Kala Amb	ISTS	SS	400kV	2XD/C	20		UC
	3. 40% Series Compensation on 400kV Karcham Wangtoo - Kala Amb quad D/c line at Kala Amb end	ISTS	SS	400kV	Series Capacitor			UC
NR-64	NR System Strengthening Scheme-XXXI (Part-B)	ISTS	SS					
	1. Kurukshetra - Malerkotla 400 kV D/c line	ISTS	SS	400kV	D/C	250		Planned
	2. Malerkotla - Amritsar 400 kV D/c line	ISTS	SS	400kV	D/C	360		Planned
NR-65	NR System Strengthening Scheme-XXXII	ISTS	SS					
	1. 400 kV Panchkula – Patiala D/c line (with 10 km on multi-circuits towers in forest area near Panchkula for accommodating 220 kV D/c line for power supply to Chandigarh)	ISTS	SS	400kV	D/C	240		UC
	2. 400 kV Lucknow (PG) – Kanpur (New)(PG) D/c line	ISTS	SS	400kV	D/C	180		UC
	3. LILO Dadri-Malerkotla line at Kaithal S/s (PG)	ISTS	SS	400kV	D/C	40		UC
	4. LILO of both circuits of RAPP – Kankroli 400 kV D/c line at Chittorgarh 400/220 kV substation of RRVPNL	ISTS	SS	400kV	2XD/C	80		UC
	5. Conversion of 50MVAR line reactors at Kankroli end of RAPP-Kankroli 400kV line into bus reactor at Kankroli (depending on layout these reactors may be controlled through single bay)	ISTS	SS	400kV	reactor			UC
	6. Augmentation of transformation capacity at 400/220 kV Ballabgarh substation by replacing existing 4x315 MVA ICTs with 4x500 MVA ICTs. The 4x315 MVA ICTs were agreed be kept as regional spares after refurbishment.	ISTS	SS	400/220kV	trf		2000	UC
	7. Augmentation of Transformation capacity at Mandola by replacing 4x315 MVA ICTs with 4x500 MVA ICTs. The dismantled 315 MVA ICTs were agreed to be maintained as regional spares after refurbishment.	ISTS	SS	400/220kV	trf		2000	UC
	8. Provision of 7x105 MVA, 400/220 kV ICT at Parbati Pooling station along with associated bays and two nos. of 220 kV line bays.	ISTS	SS	400/220kV	trf		315	UC
	9. Augmentation of 400/220kV, transformation capacity by 500MVA ICT(4th)at Sector-72 Gurgaon (PG) Substation	ISTS	SS	400/220kV	trf		500	UC
NR-66	Tr. system for Patran 400kV S/s	ISTS	SS					

Sl. No.	Scheme /details	ISTS/ STATE	ATS/SS / GEC	Voltage (kV)	Type	ckm	MVA	Present Status
	1. Establishment of new 400/220 kV GIS substation with 2x500 MVA ICTs at Patran	ISTS	SS	400/220kV	trf		1000	UC
	2. LILO of both circuits of Patiala-Kaithal 400kV D/c line	ISTS	SS	400kV	2XD/C	120		UC
NR-67	NR System Strengthening Scheme-XXXIII	ISTS	SS					
	1. Ballabgarh – Greater Noida (New) 400 kV D/c employing multi-circuit towers in 5 km stretch of the above line from Ballabgarh end	ISTS	SS	400kV	D/C	110		dropped
	2. Estb. of 2x500 MVA, 400/220 kV GIS substation at Greater Noida (New)	ISTS	SS	400/220kV	trf		1000	dropped
NR-68	NR System Strengthening Scheme-XXXIV	ISTS	SS					
	1. LILO of Agra – Bharatpur 220 kV S/c line at Agra (PG) alongwith 2 nos of 220kV line bays at Agra (PG) for termination of these lines.	ISTS	SS	220kV	D/C	40		UC
	2. 1x315 MVA, 400/220 kV ICT at Agra (PG) along with associated bay 400kV and 220kV bay for termination of ICT (ICT shall be from the spared ICTs available after replacement of ICTs at Ballabgarh / Mandaula)	ISTS	SS	400/220kV	trf		315	UC
	3. 1x315 MVA, 400/220 kV transformer at 400kV substation Kaithal along with associated bay 400kV and 220kV bay for termination of ICT (spared ICT available after replacement of ICTs at Ballabgarh / Mandaula S/s shall be installed)	ISTS	SS	400/220kV	trf		315	UC
	4. 2 nos., 220kV line bays at Kaithal S/s	ISTS	SS	220kV	bays			UC
	5. 2 nos. 220 kV line bays at 400/220 kV Bhinmal S/s (POWERGRID)	ISTS	SS	220kV	bays			UC
	6. LILO of Sarna- Hiranagar 220kV S/c at 400/220kV Samba S/s. The lines are to be terminated at existing 220kV line bays at Samba under present project)	ISTS	SS	220kV	D/C	40		UC
	7. LILO of one circuit of 400 kV Parbati Pooling Station – Amritsar D/c line at Jalandhar S/s (PG) along with 2 nos of 400kV line bays at Jalandhar(PG) for termination of these lines	ISTS	SS	400kV	D/C	40		UC
NR-69	NR System Strengthening Scheme-XXXV	ISTS	SS					
	Mohindergarh – Bhiwani 400 kV D/c line	ISTS	SS	400kV	D/C	110		Planned
NR-70	Comprehensive Strgthening in ISTS (NR) related to Wind Projects	ISTS	SS					

Sl. No.	Scheme /details	ISTS/ STATE	ATS/SS / GEC	Voltage (kV)	Type	ckm	MVA	Present Status
	1. Chittorgarh-Ajmer (New) 765 kV D/c	ISTS	SS	765kV	D/C	380		Planned
	2. Ajmer (New)-Suratgarh (New) 765 kV D/c	ISTS	SS	765kV	D/C	720		Planned
	3. Suratgarh (New)-Moga (PG) 765 kV D/c	ISTS	SS	765kV	D/C	460		Planned
	4. Chittorgarh-Chittorgarh (RVPN) 400 kV D/c (Quad)	ISTS	SS	400kV	D/C	40		Planned
	5. Ajmer (New)- Ajmer (RVPN) 400 kV D/c (Quad)	ISTS	SS	400kV	D/C	40		Planned
	6. Suratgarh (New)- Suratgarh 400 kV D/c (Quad)	ISTS	SS	400kV	D/C	40		Planned
	7. 2x1500 MVA, 765/400 kV sub-station each at Chittorgarh	ISTS	SS	765/400kV	trf		3000	Planned
	8. 2x1500 MVA, 765/400 kV sub-station each at Ajmer (New)	ISTS	SS	765/400kV	trf		3000	Planned
	9. 2x1500 MVA, 765/400 kV sub-station each at Suratgarh (New)	ISTS	SS	765/400kV	trf		3000	Planned
	Associated reactive compensation (Bus reactors & line reactors)	ISTS	SS	765kV	reactor s			Planned
NR-71	ATS for Tanda (2x660MW)	ISTS	ATS					
	1. Tanda - Sohawal 400kV D/c (Twin Moose) -90km	ISTS	ATS	400kV	D/C	160		Planned
	2. Sohawal - Lucknow (New) (PG) 400kV D/c - (Twin Moose) - 165km	ISTS	ATS	400kV	D/C	240		Planned
NR-72	ATS for Unchahar TPS(1x500MW)	ISTS	ATS					
	1. Unchahar – Fatehpur 400kV D/C line	ISTS	ATS	400kV	D/C	120		UC
NR-73	ATS for Ratle HEP (850 MW)	ISTS	ATS					
	1. LILO of Dulhasti-Kishenpur 400 kV D/c (Quad) line at Ratle	ISTS	ATS	400kV	D/C	140		Planned
	2. Kishenpur-Ratle 400 kv S/c Quad line	ISTS	ATS	400kV	S/C	132		Planned
NR-75	ATS for Bilhaur STPP (1320 MW)	State	ATS					
	1. Bilhaur TPP- Kanpur (PG) 400 kV D/c line	State	ATS	400kV	D/C	120		Planned
	NRSS-XXXVI along with LILO of Neemrana-Sikar 400 kV D/c line at Babai (RRVNL)	ISTS	SS					
	1. Koteswar Pooling Station-Rishikesh 400 kV D/C(HTLS) line	ISTS	SS	400 kV	D/C	235		Planned
	2. 2 Nos. of bays at 400kV Rishikesh S/s	ISTS	SS	400 kV				Planned
	3. LILO of one Ckt. of 400 kV D/c Sikar (PG) - Neemrana (PG) line at Babai (RRVNL)	ISTS	SS	400 kV	D/C	5		Planned
	4. Babai (RRVNL) - Bhiwani (PG) 400 kV D/C line	ISTS	SS	400 kV	D/C	260		Planned

Sl. No.	Scheme /details	ISTS/ STATE	ATS/SS / GEC	Voltage (kV)	Type	ckm	MVA	Present Status
	5. 2 Nos. of bays at 400 kV Babai (RRVNL) substation for LILO of one Ckt. of 400 kV D/c Sikar (PG) - Neemrana (PG) line at Babai (RRVNL)	ISTS	SS	400 kV	Bays			Planned
	6. 2 Nos. of bays at 400 kV Babai (RRVNL) substation for Babai (RRVNL) - Bhiwani (PG) 400 kV D/C line	ISTS	SS	400 kV	Bays			Planned
	Creation of new 400kV GIS Substations in Gurgaon and Palwal area as a part of ISTS	ISTS	SS					
	1. Aligarh-Prithala 400kV D/c HTLS line	ISTS	SS	400 kV	D/C	232		Planned
	2. Prithala- Kadarapur 400 kV D/c HTLS line	ISTS	SS	400 kV	D/C	112		Planned
	3. Kadarapur-Sohna Road 400 kV D/c HTLS line	ISTS	SS	400 kV	D/C	17		Planned
	4. LILO of Gurgaon-Manesar 400 kV D/c (Quad) line at Sohna Road S/s	ISTS	SS	400 kV	D/C	10		Planned
	5. Neemrana (PG)- Dhanonda (HVPNL) 400 kV D/c (HTLS) line**	ISTS	SS	400 kV	D/C	166		Planned
	6. Creation of 400/220 kV, 2X500 MVA GIS substation at Kadarapur in Gurgaon area	ISTS	SS	400 kV			1000	Planned
	7. Creation of 400/220 kV, 2X500 MVA GIS substation at Sohna Road in Gurgaon area	ISTS	SS	400 kV			1000	Planned
	8. Creation of 400/220 kV, 2X500 MVA GIS substation at Prithala in Palwal area	ISTS	SS	400 kV			1000	Planned
	9. 2 Nos. of 400 kV line bays at 400kV Dhanonda (HVPNL) substation	ISTS	SS	400 kV	Bays			Planned
	10. 125 MVAR Bus Reactor at each Kadarapur, Sohna Road & Prithala S/s.	ISTS	SS	400 kV	Reactor			Planned
	11. 8 Nos. of 220 kV line bays at Kadarapur, Sohna Road & Prithala S/s.	ISTS	SS	220 kV	Bays			Planned
	12. Provision for Future Expansion at all three Substations	ISTS	SS					Planned
	i) 2x500 MVA 400/220 kV ICTs	ISTS	SS					Planned
	ii) 4 Nos. of 400 kV line bays	ISTS	SS		Bays			Planned
	iii) 2 Nos. of ICT Bays at 400 kV side	ISTS	SS		Bays			Planned
	iv) 8 Nos. of 220 kV line bays	ISTS	SS		Bays			Planned
	v) 2 Nos. of ICT Bays at 220 kV side	ISTS	SS		Bays			Planned
	NRSS –XXXVIII	ISTS	SS					
	1. Creation of 400kV level at Aligarh(PG) by adding 2x1500MVA 765/400kV ICT alongwith associated bays	ISTS	SS	765/400kV			3000	Planned
	2. Two no. of 400kV line bays at Aligarh(PG) 765/400kV Substation for Aligarh-Prithala 400 kV D/c HTLS line	ISTS	SS		Bays			Planned

Sl. No.	Scheme /details	ISTS/ STATE	ATS/SS / GEC	Voltage (kV)	Type	ckm	MVA	Present Status
	3. Two no. of 400kV line bays at Neemrana(PG) 400/220kV Substation for Neemrana-Dhanonda 400kV D/c HTLS line	ISTS	SS		Bays			Planned
	NRSS XXXIX	ISTS	SS					
	400kV Rajghat – Maharaniabagh D/c line with HTLS conductor	ISTS	SS	400 kV	D/c		8	UC
	Two nos. of 400kV GIS bays each at Rajghat and Maharaniabagh	ISTS	SS	400 kV	Bays			UC
	RAPP Unit 7 &8	ISTS	ATS					
	RAPP Shujalpur 400kV D/c	ISTS	ATS	400 kV	D/c		260	Planned
	Green Energy Corridor Part A	ISTS	GEC					
	Rajasthan(Northern Region) <ul style="list-style-type: none"> • Ajmer (New)- Ajmer (RVPN) 400kV D/c (Quad) • Chittorgarh (New)- Chittorgarh (RVPN) 400kV D/c (Quad) • 2x1500 MVA, 765/400kV S/s at Chittorgarh • 2x1500 MVA, 765/400kV S/s at Ajmer (New) 	ISTS	GEC	400 kV 400kV 765/400kV 765/400kV	D/c D/c	114 50	3000 3000 1000	UC
	Green Energy Corridor Part B	ISTS	GEC					
	Gujarat (Western region) <ul style="list-style-type: none"> • 765/400/220kV (765/400 kV-2x1500 MVA & 400/220kV- 2x500MVA) S/s at Banaskanta • Banaskanta – Chittorgarh 765kV D/c • Banaskanta-Sankhari 400 kV D/c Rajasthan (Northern Region) <ul style="list-style-type: none"> • Chittorgarh – Ajmer(New) 765kV D/c 	ISTS	GEC	765/400/22 0kV 765/400/22 0kV 765kV 400kV 400kV	D/c	570 52 398	1000	UC
	Green Energy Corridor Part C	ISTS	GEC					
	Gujarat(Western region) <ul style="list-style-type: none"> • Establishment of 765/400/220kV (765/400 kV-2x1500 MVA & 400/220kV- 2x500MVA) sub-station at Bhuj Pool • Bhuj Pool – Banaskanta 765kV D/c 	ISTS	GEC	765/400/22 0kV 765kV	D/C	618	3000 1000	UC
	Green Energy Corridor Part D	ISTS	GEC					

Sl. No.	Scheme /details	ISTS/ STATE	ATS/SS / GEC	Voltage (kV)	Type	ckm	MVA	Present Status
	Northern Region (Rajasthan): Ø Ajmer (New)-Suratgarh (New) 765 kV D/c Ø Suratgarh (New)-Moga (PG) 765 kV D/c Ø 2x1500 MVA, 765/400 kV sub-station at Suratgarh (New) Associated reactive compensation (Bus reactors & line reactors)	ISTS	GEC	765kV 765kV 765/400kV		D/c D/c	3000	Planned
	Series reactors	ISTS	SS					
	Series bus reactors :-400 kV Mandaula substation; 400kV Ballabgarh substation Series Line reactors:- Dadri-Mandaula 400kV Ckt-I & II – 2 Nos	ISTS	SS	400kV	Reacto s			Planned
	Establishment of 220/66kV, 2x160MVA GIS S/s at UT Chandigarh along with 220kV D/c line from Chandigarh to 400/220kV Panchkula(PG)substation	ISTS	SS					
	Creation of 2x160MVA, 220/66 kV GIS S/s at Sector 47, UT Chandigarh 220kV D/c line from Sector 47 to 400/220kV Panchkula(PG) substation- 56 km	ISTS	SS	220/66 kV 220kV		112	320	Planned
	Augmentation of Transformation Capacity at Mainpuri & Sikar	ISTS	SS					
	a) Augmentation of Transformation Capacity at Mainpuri(PG) 400/220kV substation by 1x500 MVA capacity along with associated bays. b) Augmentation of Transformation Capacity at Sikar(PG)400/220kV substation by 1x500 MVA capacity along with associated bays and 2 nos. of 220 kV line bays as per requirement intimated by RRVNPL	ISTS	SS	400/220kV			500 500	Planned
	NRSS XXXVII	ISTS	SS					
	Creation of 400/220kV, 2X315MVA GIS at Jauljivi under ISTS LILO of both ckt. of 400kV Dhauliganga-Bareilly(PG) (presently charged at 220 kV) at 400/220kV Jauljivi S/s Charging of Jauljivi –Bareilly D/c line at 400kV level Diversion of Dhauliganga-Bareilly 400kV D/c line(operated at 220kV) at Bareilly end from CB Ganj to 400kV Bareilly(PG) S/s 125MVAr Bus Reactor at 400kV Jauljivi 400/220kV S/s	ISTS	SS	400/220kV 400kV 400kV		10 10	630	Planned

Sl. No.	Scheme /details	ISTS/ STATE	ATS/SS / GEC	Voltage (kV)	Type	ckm	MVA	Present Status
	Ultra Mega Solar Parks in Bhadla, Distt. Rajasthan	ISTS	GEC					
	Bhadla (PG) – Bikaner(PG) 765kV D/C line	ISTS	GEC	765kV	D/c	220		Planned
	Bhadla (PG)- Bhadla (RVPN) 400kV D/C (Quad) line	ISTS	GEC	400kV	D/c	30		Planned
	Establishment of Pooling Station at Bhadla (PG) (765/400kV : 3x1500MVA 400/220kV : 3x500MVA,)	ISTS	GEC	765/400kV 400/220kV			3000 1500	Planned
	2 nos. 400kV & 4 nos. 220kV line bays at Bhadla (PG) for interconnection of solar park interconnection	ISTS	GEC		Bays			Planned
	1x240 MVAr switchable line reactor at each end (each ckt) of 765kV Bhadla(PG)- Bikaner(PG) D/C line	ISTS	GEC		Reactor			Planned
	1x240 MVAr (765kV) & 1x125 MVAr (400kV) Bus reactors at Bhadla Pooling Station	ISTS	GEC		Reactor			Planned
	GHAVP Nuclear power plant (2X700MW) of M/s NPCIL in Haryana.	ISTS	ATS					
	Fatehabad - NPCIL generation 400kV D/c line	ISTS	ATS	400kV	D/C	30		Planned
	LILO of second circuit of Moga-Hisar 400kV D/c line at Fatehabad	ISTS	ATS	400kV	D/C	30		Planned
	LILO of both circuits of Moga-Hisar 400kV D/c line at NPCIL generation switchyard	ISTS	ATS	400kV	D/C	100		Planned
	Transmission Elements uder GEC for Himachal Pradesh							
	132 kV D/C Line from Tangnu Romai to 132/220 kV Sunda P.S	State	GEC	132 kV	D/C	24		Planned
	132/220 kV, 2x100 MVA GIS sub station at Dehan	State	GEC	132/220 kV			200	Planned
	220 kV D/C Line between Dehan and 400/220 kV sub station at Hamirpur (PGCIL)	State	GEC	220 kV	D/C	110		Planned
	132 kV D/C Line from Rupini to 132/220 kV Sunda P.S	State	GEC	132 kV		44		Planned
	66/220 kV, 80/100 MVA sub station at 132/220 kV Sunda sub station	State	GEC	66/220 kV			80	Planned
	Providing additional 132/220 kV, 100 MVA Transformer at 132/220 kV, 100 MVA GIS sub station at Charor (ADB funded) in Distt. Kullu	State	GEC	132/220kV	Xmer		100	Planned
	33/220 kV sub station at Heling by LILO of 220 kV Bvajoli Holi- Lahal D/C line	State	GEC	33/220 kV				Planned
	Additional 400/220 kV, 315 MVA transformer in the yard of 400/220 kV, 1x315 MVA GIS sub station at Pragatinagar	State	GEC	400/220 kV	Xmer		315	Planned
	Providing additional 33/132 kV, 31.5 MVA Transformer at 33/132 kV, 31.5 MVA GIS sub station at Pandoh in Distt. Mandi	State	GEC	33/132 kV	Xmer		31.5	Planned

Sl. No.	Scheme /details	ISTS/ STATE	ATS/SS / GEC	Voltage (kV)	Type	ckm	MVA	Present Status
	Construction of 33/132 kV, 2x31.5 MVA GIS sub station near Malana-II (100 MW) power house in Distt. Kullu.	State	GEC	33/132 kV			63	Planned
	Construction of 33/132 kV, 2x31.5 MVA GIS sub station Sarsadi by LILO of one circuit of 132 kV Barsaini-Charor D/C line in Distt. Kullu	State	GEC	33/132 kV			63	Planned
	Transmission Elements under GEC for Rajasthan							
	Construction of 400/220kV GSS at Jaisalmer-2 alongwith 2 Nos. bays at Barmer and 1 No. bay at Akal on Turnkey basis.	State	GEC	400/220 kV				Planned
	Construction of 400kV D/C Jaisalmer -2 -Barmer line - 130kms.	State	GEC	400kV	D/C	130		Planned
	Construction of 400kV D/C Barmer -Bhinmal(PGCIL) line-140kms.	State	GEC	400kV	D/C	140		Planned
	Construction of 400kV S/C Jaisalmer -2 - Akal Line -50kms.	State	GEC	400kV	S/C	50		Planned
	Construction of 220/132kV GSS at Kolayat alongwith 220kV extension Bays at existing 220kV GSS at Gajner on Turnkey basis.	State	GEC	220/132 kV				Planned
	Construction of 220/132kV GSS at Chatrail alongwith 2 Nos. 220kV extension Bays at 400/220kV GSS at Ramgarh on Turnkey basis.	State	GEC	220/132 kV				Planned
	Construction of 220/132kV GSS at Undoo alongwith 220kV extension Bays at 220kV GSS at Pokaran on Turnkey basis.	State	GEC	220/132 kV				Planned
	Construction of 220/132kV GSS at Pokaran on Turnkey basis	State	GEC	220/132 kV				Planned
	Construction of 220/132kV GSS at PS-1/Bajju alongwith 2 Nos. 220kV extension Bays at 400/220kV GSS at Bhadla on Turnkey basis	State	GEC	220/132 kV				Planned
	220 KV D/C Gajner (U/C 220 KV GSS)-Kolayat line	State	GEC	220 kV	D/C	62		Planned
	LILO of existing 132 KV S/C Kolayat-Bajju line at proposed 220 KV GSS Kolayat	State	GEC	132 kV	S/C	32		Planned
	LILO of existing 132 KV S/C PS1-Bajju line at proposed 220 KV GSS PS_1 / Bajju	State	GEC	132 kV	S/C	3.5		Planned
	LILO of both circuits of U/C 220 KV D/C Ramgarh GTPP – Dechu line at Pokaran (5kM D/C each x 2 = 10kM D/C)	State	GEC	220 kV	D/C	32		Planned
	LILO of existing 132 KV S/C Chandan-Pokaran line at proposed 220 KV GSS Pokaran	State	GEC	132 kV	S/C	43		Planned
	220 kV D/C interconnection at proposed 220 kV GSS Undoo to 220 kV GSS Pokaran	State	GEC	220 kV	D/C	95		Planned
	132 kV D/C interconnections at proposed 220 kV GSS Undoo	State	GEC	132 kV	D/C	1.5		Planned
	Construction of 5x20/25 MVA, 132/33 kV GSSs 132 kV D/C lines around 220 kV GSSs as per solar potential in respective areas	State	GEC	132 kV	D/C	125		Planned

Southern Region:

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
SR - 01	Transmission system associated with Krishnapatnam UMPP (5x800 MW)-Part-A & Part C (Delinked with Krishnapatnam UMPP, being implemented as System Strengthening scheme) Part A	ISTS	ATS					Commissioned
	1. TPCIL –Nellore Pooling Point (earlier as Krishnapatnam UMPP – Nellore) 400 kV, Quad D/C line	ISTS	ATS	400kV	D/C	70		Commissioned
	2. Nellore Pooling Point - Gooty (earlier as Krishnapatnam UMPP –Gooty) 400 kV, Quad D/C line with 63MVAR line reactors at each end on both circuits.	ISTS	ATS	400kV	D/C	620		Commissioned
SR - 02	Transmission system associated with Krishnapatnam – Part B (Delinked with Krishnapatnam UMPP, being implemented as System Strengthening scheme)	ISTS	SS					Commissioned
	1. Establishment of new 765/400 kV substation at , Raichur and Sholapur with 2x 1500 MVA ICTs and 1x 240 MVAR bus reactors at each S/S	ISTS	SS	765/400kV	trf		6000	Commissioned
	2. Establishment of new 765/400 kV substation (GIS) at Pune with 2x1500 MVA transformation capacity	ISTS	SS	765/400kV	trf		3000	Commissioned
	3. LILO of existing Raichur-Gooty 400kV Quad D/C line at Raichur(New) substations	ISTS	SS	400kV	D/C	10		Commissioned
	4. Raichur – Sholapur 765 kV S/c with 240 MVAR switchable line reactors at each end	ISTS	SS	765kV	S/C	208		Commissioned
	5. Sholapur – Pune 765 kV S/c with 240 MVAR switchable line reactors at each end	ISTS	SS	765kV	S/C	315		Commissioned
	6. LILO of Aurangabad- Pune 400 kV D/C at Pune(GIS) with 50 MVAR line reactor at Pune (GIS)	ISTS	SS	400kV	D/C	10		UC
7. LILO of Parli-Pune 400 kV D/C at Pune (GIS) with 50 MVAR line reactor at Pune (GIS).	ISTS	SS	400kV	D/C	10		UC	
SR - 03	Transmission System associated with KUMPP Part-C							Commissioned
	1. Establishment of new 765/400 kV substation at Kurnool with 2x 1500 MVA ICTs and 1x 240 MVAR bus reactors .	ISTS	ATS	765/400kV	trf		3000	Commissioned

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	2. LILO of Nagarjuna Sagar – Gooty 400 kV S/C line at Kurnool (New) substation.	ISTS	ATS	400kV	D/C	76		Commissioned
	3. Kurnool(new)-Kurnool (APTRANSCO) 400 KV D/C QUAD line.	ISTS	ATS	400kV	D/C	18		Commissioned
	4. Krishnapattnam UMPP – Kurnool (New) 400kV, Quad D/C line with 50MVAR line reactor at each end on both circuits. (DEFFERED)	ISTS	ATS	400kV	D/C	600		Commissioned
	5. Kurnool (New) – Raichur 765kV S/C line (DEFFERED)	ISTS	ATS	765kV	S/C	246		Commissioned
SR - 04	ATS for Pulichintala(2x30MW)	State	ATS					Commissioned
	1. 132Kv Pulichintala HEP-Chillakallu DC line	State	ATS	132kV	D/C	160		Commissioned
	2. 132Kv bay extensions at Chillakallu	State	ATS	132kV	bay			Commissioned
SR - 05	ATS for Lower Jurala U1-6(6X40MW)	State	ATS					UC
	1. 220Kv Lower Jurala HEP switchyard-220/132Kv Jurala S/S D/C line	State	ATS	220kV	D/C	50		UC
	2. 400Kv Veltoor -220Kv Jurala S/S ,220Kv D/C line	State	ATS	220kV	D/C	140		UC
SR - 06	Sri Damodaram Sanjeevaiah TPP (Krishnapatnam TPP) (2X800MW) (State Sector)	State	ATS					Commissioned
	1. Krishnapattnam - Nellore 400kV Quad D/C line	State	ATS	400kV	D/C	70		Commssioned
	2. Krishnapattnam - Chittoor 400kV Quad D/C line	State	ATS	400kV	D/C	310		Commssioned
SR - 07	ATS for Tuticorin JV(500 MW) (Central Sector)	ISTS	ATS					Commissioned
	Tuticorin – Madurai 400kV D/c line (Quad conductor)	ISTS	ATS	400kV	D/C	316		Commissioned
SR - 08	System Strengthening in SR-XII	ISTS	SS					UC
	1. Establishment of new 400/220 kV substation at Yelahanka with 2x500 MVA transformers and 1x63 MVAR bus reactor	ISTS	SS	400/220kV	trf		1000	UC
	2. LILO of Nelamangla-Hoody 400kV S/c line at Yelahanka 400kV S/S	ISTS	SS	400kV	D/C	17		UC
SR - 09	System Strengthening in SR-XIII	ISTS	SS					UC
	1. 400/220kV 2X500MVA substation at Madhugiri with upgrading this S/S to 765kV level in future and 1X63 MVAR bus reactor	ISTS	SS	400/220kV	trf		1000	Commissioned
	2. Gooty – Madhugiri 400kV D/C line	ISTS	SS	400kV	D/C	372		Commissioned
	3. Madhugiri – Yelahanka 400kV D/C Quad line	ISTS	SS	400kV	D/C	154		UC

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
SR - 10	System Strengthening in SR-XIV	ISTS	SS					UC
	1. Salem (New) – Somanahalli 400kV Quad D/C line.	ISTS	SS	400kV	D/C	240		UC
	2. 1x315 MVA 400/220kV Transformer Augmentation at Hosur 400/230 kV S/S	ISTS	SS	400/220kV	trf		315	Commissioned
SR - 11	System Strengthening in SR-XV	ISTS	SS					Commissioned
	Mysore – Kozhikode 400kV Quad D/C line	ISTS	SS	400kV	D/C	200		Commissioned
SR - 12	System Strengthening in SR-XVII	ISTS	SS					Commissioned
	1. New 400kV substation at Narendra (GIS) (GIS) (which shall be later upgraded to 765kV) (2x1500 MVA)	ISTS	SS	400/220kV	Trf		3000	Commissioned
	2. Narendra (GIS)-Kolhapur (GIS) 765kV D/C line (initially charged at 400kV)	ISTS	SS	765kV	D/C	400		Commissioned
	3. LILO of both circuits of existing Kolhapur –Mapusa 400kV D/C line at Kolhapur(GIS)	ISTS	SS	400kV	D/C	92		Commissioned
	4. Narendra (GIS)- Narendra (existing) 400kV D/C Quad line. -- about 20 km.	ISTS	SS	400kV	D/C	80		Commissioned
SR - 13	System Strengthening in SR-XVIII (Vijaywada Nellore-Thiruvalem-Sholingallur Corridor)	ISTS	SS					Commissioned
	1. Vijayawada – Nellore (AP) 400 kV D/C line with 63 MVAR line reactors at both ends of each circuit	ISTS	SS	400kV	D/C	700		Commissioned
	2. Nellore - Thiruvalem 400 kV D/C Quad line with 1x50 MVAR line reactors at both ends of each circuit.	ISTS	SS	400kV	D/C	400		Commissioned
	3. Thiruvalem – Melakottaiyur 400 kV D/C line	ISTS	SS	400kV	D/C	200		Commissioned
	4. LILO of existing Bangalore – Salem 400 kV S/C line at Hosur	ISTS	SS	400kV	D/C	100		Commissioned
SR - 14	System Strengthening in SR-XIX (Kurnool-Thiruvalem Corridor)	ISTS	SS					Commissioned
	1. Kurnool – Thiruvalem 765 kV D/c line line with 1x240 MVAR line reactors at both ends of each circuit.	ISTS	SS	765kV	D/C	700		Commissioned
	2. Provision of 2x1500 MVA, 765/400kV transformers at Thiruvalem.	ISTS	SS	765/400kV	trf		3000	Commissioned
	3. LILO of Kolar – Sriperumbudur 400 kV S/c line at Thiruvalem.	ISTS	SS	400kV	D/C	100		Commissioned

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
SR - 15	System Strengthening in SR for import of power from ER	ISTS	SS					UC
	1. Srikakulam PP- Vemagiri –II Pooling Station 765kV D/C line	ISTS	SS	765kV	D/C	700		UC
	2. Khammam (new)- Nagarjunn Sagar 400kV D/C line	ISTS	SS	400kV	D/C	300		UC
SR - 16	Dedicated Transmission line for Simhapuri(570MW)/ Meenakshi(900MW)	DTL	ATS					
	Simhapuri/Meenakshi –Nellore 400 kV D/C (quad) line alongwith associated bays	DTL	ATS	400kV	D/C	56		Commissioned
SR - 17	ATS for Krishnapattanam LTA Power Projects	ISTS	ATS					
	1. Establishment of 765/400 kV Nellore Pooling Station with 2X1500MVA transformer capacity	ISTS	ATS	765/400kV	trf		3000	Commissioned
	2. LILO of Simhapuri-Nellore 400 kV D/C quad line at Nellore Pooling station	ISTS	ATS	400kV	D/C	24		Commissioned
	3. Nellore Pooling Station – Kurnool 765 kV D/c line.	ISTS	ATS	765kV	D/C	600		Commissioned
SR - 18	Dedicated Transmission System for East Coast Energy Pvt. Ltd. project(1320 MW)[Srikakulam area]	DTL	ATS					UC
	1. Generation would be stepped up at 400kV.	DTL	ATS	400kV				UC
	2. Bus reactor of 1x125MVAR	DTL	ATS	400kV	reactor			UC
	3. East Coast Energy generation switchyard – Srikakulam Pooling Station 400kV D/C Quad line alongwith associated bays	DTL	ATS	400kV	D/C	100		UC
SR - 19	ATS for LTOA Projects in Srikakulam area[East Coast Energy Pvt. Ltd. project(1320 MW)]	ISTS	ATS					
	1. Establishment of 765/400kV Pooling Station in Srikakulam area with 2x1500 MVA 765/400kV transformer capacity	ISTS	ATS	765/400kV	trf		3000	UC
	2. Srikakulam Pooling station – Angul 765 kV D/C line(Initially Charged at 400kV)	ISTS	ATS	765kV	D/C	680		UC
	3. 765/400kV 1x1500 MVA transformer at Angul	ISTS	ATS	765/400kV	trf		1500	UC
	4. Angul – Jharsuguda 765 kV D/C line	ISTS	ATS	765kV	D/C	180		UC
	5. Jharsuguda - Dharamjaigarh 765 kV D/C line	ISTS	ATS	765kV	D/C	125		Commissioned

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	6. Associated 400 kV and 765kV bays at Srikakulam Pooling station, Angul, Jharsuguda and Dharamjaigarh 765/400kV S/Ss.	ISTS	ATS	765/400kV	bay			UC
SR - 20	ATS for Rayalseema St -III (U-6)	State	ATS					UC
	1. RSTPP Generation Switchyard- Chittoor 400kV D/C line	State	ATS	400kV	D/C	400		UC
SR - 21	ATS for Torangallu Jindal U3(300MW) (Private Sector)	State	ATS					UC
	1. Torangallu JSW -Gooty 400kV D/C line	State	ATS	400kV	D/C	220		UC
	2. LILO of RTPS- Guttur at Thorangallu JSW S/S	State	ATS	400kV	D/C	16		Commissioned
SR - 22	Kudgi Phase-I (3x800 MW) (Central Sector)	ISTS	ATS					UC
	1. Kudgi TPS – Narendra (New) 400 kV 2xD/C quad lines	ISTS	ATS	400kV	2xD/C	40		Commissioned
	2. Narendra (New) – Madhugiri 765 kV D/c line	ISTS	ATS	765kV	D/C	700		UC
	3. Madhugiri – Bidadi 400 kV D/c (quad) line.	ISTS	ATS	400kV	D/C	200		UC
SR - 23	ATS for Thottiar HEP (2X80MW)	State	ATS					UC
	1. Generation to be stepped up to 220kV for evacuation	State	ATS	220kV				UC
	2. upgrading the existing 110kV Kodakara S/S to 220kV	State	ATS	220kV				UC
	3. 220kV D/C line from switchyard to Kodakara S/S	State	ATS	220kV	D/C	90		UC
	4. LILO of Idukki-Kozikode 220kV/S/C line Kodakara	State	ATS	220kV	D/C	20		UC
SR - 24	ATS for Pallivasal HEP (60 MW)	State	ATS					UC
	Evacuation at lower level	State	ATS					UC
SR - 25	Dedicated Transmission System for Coastal Energen Pvt. Ltd. Project (Melamuruthur TPP) (2x600MW)	DTL	ATS					UC
	1. Generation would be stepped up at 400kV	DTL	ATS	400kV				UC
	2. Coastal Energen generation switchyard –Tuticorin Pooling Station 400kV D/C Quad line alongwith associated bays	DTL	ATS	400kV	D/C	50		UC
SR - 26	Dedicated Transmission System for Ind-Barath Power (Madras) Ltd. Project(1320MW)	DTL	ATS					UC
	1. Generation would be stepped up at 400kV	DTL	ATS	400kV				UC

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	2. Ind-Barath Power generation switchyard –Tuticorin Pooling Station 400kV D/C Quad line alongwith associated bays	DTL	ATS	400kV	D/C	45		UC
SR - 27	ATS for Tuticorin LTA Power Projects in Tuticorin Area	ISTS	ATS					UC
	1. Establishment of 765 kV Pooling station in Tuticorin (initially charged at 400 kV)	ISTS	ATS	765kV-op-400kV				Commissioned
	2. LILO of both circuits of Tuticorin JV – Madurai 400 kV D/C Quad line at Tuticorin Pooling Station	ISTS	ATS	400kV	D/C	80		Commissioned
	3. Salem Pooling Station – Salem 400 kV D/C (quad) line.	ISTS	ATS	400kV	D/C	60		UC
	4.Tuticorin Pooling station – Salem Pooling station 765 kV D/C line (initially charged at 400 kV)	ISTS	ATS	765kV-op-400kV	D/C	820		UC
	5. Salem Pooling Station – Madhugiri Pooling Station 765 kV S/C line (initially charged at 400 kV)	ISTS	ATS	765kV-op-400kV	S/C	221		UC
	6. Associated 400 kV bays at Tuticorin Pooling station, Salem Pooling Station, Salem and Madhugiri.	ISTS	ATS	400kV	bay			UC
7 Establishment of 765 kV Pooling station in Salem (initially charged at 400 kV)	ISTS	ATS	765kV-op-400kV				UC	
SR - 28	Immediate Evacuation for IL&FS Tamil Nadu power company Ltd (1200 MW)							Commissioned
	1. Generation-Switchyard-Nagapattinam Pooling station 400kV D/c quad line	#REF!	#REF!	400kV	D/C	90		Commissioned
	2. 125 MVAR bus reactor at generation switchyard.	#REF!	#REF!		reactor			Commissioned
SR - 29	ATS for ISGS Projects in Nagapattinam and Cuddalore Area of Tamilnadu	ISTS	ATS					UC
	1. New 765/400kV Pooling Station at Nagapattinam (GIS)with sectionalisation arrangement to control short circuit MVA (initially charged at 400kV)	ISTS	ATS	765/400kV				Commissioned
	2. LILO of Neyveli – Trichy 400kV S/c line at Nagapattinam Pooling Station for initial arrangement which later shall be bypassed –about 20kms	ISTS	ATS	400kV	D/C	100		Commissioned

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	3. 2 nos. 400kV bays each at Nagapattinam Pooling Station and Salem for terminating Nagapattinam Pooling Station –Salem 765kV D/C line (initially charged at 400kV)being implemented under Tariff based bidding	ISTS	ATS	765kV-op-400kV	bay			UC
	4. 1 no. 400kV bay each at Salem and Madhugiri for terminating Salem- Madhugiri 765 kV S/C line - 2(initially charged at 400kV) being implemented under Tariff based bidding	ISTS	ATS	765kV-op-400kV	bay			UC
	5. 2 nos. 400kV bays each at Madhugiri and Narendra for terminating Madhugiri – Narendra 765kV D/C line (initially charged at 400kV) being implemented under Tariff based bidding	ISTS	ATS	765kV-op-400kV	bay			UC
	6. 2 nos. 400kV bays each at Kohlapur ,Padghe & Pune for terminating Kohlapur- Padghe 765kV D/C line (one circuit via Pune) (initially charged at 400kV) being implemented	ISTS	ATS	765kV-op-400kV	bay			UC
	7. Nagapattanam Pooling Station- Salem 765kV D/c line	ISTS	ATS	765kV-op-400kV	D/C	480		UC
	8. Salem - Madhugiri 765kV S/c line			765kV-op-400kV	S/C	220		UC
SR - 30	Kalapakkam PFBR (500MW) (Central Sector)	ISTS	ATS					UC
	1. Kakapakkam – Arni 230 kV D/C line	ISTS	ATS	230kV	D/C	213		UC
	2. Kakapakkam PFBR– Kanchepuram 230 kV D/C line	ISTS	ATS	230kV	D/C	161		UC
	3. Kakapakkam PFBR –Siruchri 230 kV D/C line	ISTS	ATS	230kV	D/C	72		UC
	4. Kakapakkam – MAPS 230 kV S/C cable	ISTS	ATS	230kV	S/C	10		UC
SR - 31	Wind projects in Tamil Nadu Phase I	State	ATS					UC
	1. Kanaraptyy (TN Wind) - Kayathar 400 KV, 400 kV D/C Twin Moose line.	State	ATS	400kV	D/C	120		UC
	2. Kayathar - Karaikudi 400 kV D/C Quad line	State	ATS	400kV	D/C	300		UC
	3. Karaikudi - Pugalur 400 kV D/C Quad line	State	ATS	400kV	D/C	340		Commissioned
	4. Establishment of Kayathar S/s with (a) 2x315 MVA 400/230 kV ICT	State	ATS	400/230kV	trf		630	UC

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	4. (b) 2x200 MVA 400/110kV ICT	State	ATS	400/110kV	trf		400	UC
	5. Pugalur – Malekottayur 400 kV D/C Quad line	State	ATS	400kV	D/C	340		Commissioned
	6. Tirunelveli (TNEB) (TN wind/Kanarapatty) 400/230 kV S/S (3x315 MVA)	State	ATS	400/230kV	trf		945	UC
	7. Tirunelveli (TNEB) - Tirunelveli (PG) 400kV D/c quad line	State	ATS	400kV	D/C	40		UC
	8. Five numbers of 230/33 kV wind energy substations at Marandai, Sayamalai, Vagaikulam, Kumarapuram, Sankaralingapuram and one 230/110 kV Samugarapuram substation with associated 230 kV lines connecting with the Kanarpatti 400 kV S/S. **This system was planned in 2007 for completion in 11th Plan. The system is yet to be completed.	State	ATS	230/33kV	trf		1000	UC
SR - 32	Wind projects in Tamil Nadu Phase-II	State	ATS					UC
	1. Thappagundu 400/110 KV (5x200MVA) S/s in Theni area	State	ATS	400/110kV	trf		1000	UC
	2. Anaikadavu S/s in Udumpet area with 400/230 kV, 2x315 MVA	State	ATS	400/230kV	trf		630	UC
	2. (b) 400/110 kV, 2x200 MVA ICT	State	ATS	400/110kV	trf		400	UC
	3. Rasipalayam S/s in Udumalpet area with (a) 400/230 kV, 2x315 MVA ICT	State	ATS	400/230kV	trf		630	UC
	3. (b) 400/110 kV, 2x200 MVA ICT	State	ATS	400/110kV	trf		400	UC
	4. Anaikadavu- Rasipalayam 400kV D/c line.	State	ATS	400kV	D/C	280		UC
	5. Thappagundu- Anaikadavu 400kV D/c with one ckt LILO at Udumalpet 400/220 kV (PGCIL) substation.	State	ATS	400kV	D/C	220		UC
	6. Rasipalayam -Singarapet 400kV 2xD/c line	State	ATS	400kV	2xD/C	600		UC
	7. Vagrai S/s with 400/230 kV, MVA ICT	State	ATS	400/230kV	trf		1000	UC
7. (b) 400/110 kV, MVA ICT	State	ATS	400/110kV	trf		400	UC	
8. Vagrai-Rasipalayam 400 kV D/c line	State	ATS	400kV	D/C	220		UC	

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	9. (a) Thennampatti 400/230 kV substation	State	ATS	400/230kV	trf		1000	UC
	9 (b) 400/110 kV, MVA ICT	State	ATS	400/110kV	trf		400	UC
	10. Thennampatti - Kayathar 400kV D/C line	State	ATS	400kV	D/C	320		UC
SR - 33	System for additional inter-connection with ISTS and increased reliability	State	ATS					UC
	1. LILO of one Rasipalayam -Singarapet 400kV D/c line at Salem 765/400kV (POWERGRID) substation	State	ATS	400kV	D/C	60		UC
	Wind projects in Andhra Pradesh (3150 MW)	State	ATS					UC
SR - 34	1. 400/220 kV Substation at Hindupur (3x315MVA)	State	ATS	400/220kV	trf		945	UC
	2. 400/220 kV Substation at Kondapuram (4x315MVA)	State	ATS	400/220kV	trf		1260	UC
	3. 400/220 kV Substation at Uravakonda (4x315MVA)	State	ATS	400/220kV	trf		1260	UC
	4. Uravakonda-Mahbubnagar 400 kV Quad DC Line	State	ATS	400kV	D/C	400		UC
	5. Uravakonda-Hindupur 400 kV DC Line	State	ATS	400kV	D/C	360		UC
	6. Uravakonda-Kondapur 400 kV DC Line	State	ATS	400kV	D/C	300		UC
	7. Kondapur – Kurnool 400kV quad DC line	State	ATS	400kV	D/C	500		UC
	8. Hindupur (400kV) S/S -Hindupur/ Gollapuram(existing) 220kV DC line	State	ATS	220kV	D/C	100		UC
	9. Uravakonda (400kV) S/S - Kalyandurg(existing) 220kV D/C line	State	ATS	220kV	D/C	120		UC
	10. Kondapur (400kV) S/S - Tadipatri(existing) 220kV D/C line	State	ATS	220kV	D/C	120		UC
	11. 220/132 kV, 2x100 MVA Substation at Jammalamadugu	State	ATS	220/132kV	trf		400	UC
	12. 220/132 kV, 2x100 MVA Substation at Penukonda	State	ATS	220/132kV	trf		400	UC
	13. 220/132 kV, 2x100 MVA Substation at Porumamilla	State	ATS	220/132kV	trf		400	UC
	14. Connectivity of Jammalamadugu, Penukonda and Porumamilla 220/132kV S/s with existing 132/33kV S/Ss	State	ATS	220/132kV				UC

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status	
SR - 35	Wind projects in Karnataka (400 MW)	State	ATS					UC	
	1. LILO of Munirabad - Davangere (Guttur) 400 kV S/C line at Doni	State	ATS	400kV	D/C	40		UC	
SR - 36	System Strengthening in SR - XX	ISTS	SS					UC	
	1. Augmentation of 1x500 MVA 400/220kV Transformer with associated 400kV & 220kV bays at each substations of (1) Hyderabad (Ghanapur), (2) Warangal, (3) Khammam, (4) Vijayawada, (5) Gooty, (6) Cuddapah, (7) Malekuttaiyur, (8) Somanahalli, (9) Mysore, (10) Pugalur and (11) Trichy.	ISTS	SS	400/220kV	trf			5500	UC
	2.Replacement of 2x315 MVA 400/220kV transformers at Narendra with 2x500 MVA transformers and utilize the replaced 2x315 MVA transformers as regional spare, location to keep the spare shall be decided later.	ISTS	SS	400/220kV	trf			1000	UC
	3. Conversion of 50 MVAR line reactors at Madakathara end on both circuits of Ellapally (Palakkad) – Madakathara (North Trissur) 400kV D/c line into switchable reactors by providing necessary switching arrangement.	ISTS	SS	400kV	Reactor				UC
	4. 2x125 MVAR Bus Reactor at Vijayawada 400kV substation.	ISTS	SS	400kV	Reactor				UC
SR - 37	System Strengthening in SR - XXI (Dynamic Recative Compensation in Southern Region)	ISTS	SS					UC	
	1. At Hyderabad. 2x125 MVAR MSR, 1X125 MVAR MSC & +/- 200 MVAR STATCOM	ISTS	SS	400kV	Reactor / Capacitor			UC	
	2. At Udumulpeta. 2x125 MVAR MSR, 1X125 MVAR MSC & +/- 200 MVAR STATCOM	ISTS	SS	400kV	Reactor / Capacitor			UC	
	3. At Trichy. 2x125 MVAR MSR, 1X125 MVAR MSC & +/- 200 MVAR STATCOM	ISTS	SS	400kV	Reactor / Capacitor			UC	
SR - 38	System Strengthening in SR - XXII	ISTS	SS					Commissioned	

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	1. Kurnool - Raichur 765 kV S/c line (2nd)	ISTS	SS	765kV	S/C	120		Commissioned
SR - 39	System Strengthening in SR - XXIII	ISTS	SS					UC
	1. Installation of 1x125 MVAR 400kV bus reactor at Gooty, Hassan, Khammam, Trivendrum, Nellore (existing), Narendra (New) and Nagarjunasagar 400/220 kV substation.	ISTS	SS	400kV	Reactor			UC
	2. Installation of 2x63 MVAR bus reactors at Yelahanka substation.	ISTS	SS	400kV	Reactor			UC
	3. Replacement of 63 MVAR bus reactor with 125 MVAR bus reactor at Narendra 400/220 kV substation.	ISTS	SS	400kV	Reactor			UC
	4. Provision of 1x80 MVAR switchable line reactors at Nellore pooling station on each ckt of Nellore pooling station – Gooty 400 kV Qaud d/c line.	ISTS	SS	400kV	Reactor			UC
	5. Provision of 400/220 kV, 1x500 MVA ICT at Madurai 400/200 kV substation	ISTS	SS	400/220kV	trf		500	UC
	6. Procurement of 1 Nos. 500 MVA, 765/400 kV spare ICT.	ISTS	SS	765/400kV	trf		500	UC
SR - 40	Wardha – Hyderabad 765 kV Link	ISTS	SS					UC
	1. Wardha – Hyderabad (Maheshwaram) 765kV D/c line with anchoring at Nizamabad 765/400kV substation	ISTS	SS	765kV	D/C	1080		UC
	2. Establishment of Nizamabad 765/400 kV GIS Pooling Station with 2x1500 MVA transformers	ISTS	SS	765/400kV	trf		3000	UC
	3. 1 no. 240 MVAR, 765 kV Bus Reactors at Nizamabad	ISTS	SS	765kV	Recator			UC
	4. Nizamabad – Dichpalli 400 kV D/c line.	ISTS	SS	400kV	D/C	200		UC
	5. 2 nos. 765kV bays each at Maheshwaram and Wardha for terminating Wardha – Hyderabad (Maheshwaram) 765kV D/c line with anchoring at Nizamabad	ISTS	SS	765kV	Bays			UC
	6. 1 no. 240 MVAR switchable line reactor at Maheshwaram and Wardha for both circuits of Wardha	ISTS	SS	765kV	Reactor			UC

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	– Hyderabad (Maheshwaram) 765kV D/c line with anchoring at Nizamabad							
	7. 4 nos. 765kV bays at Nizamabad for anchoring of Wardha – Hyderabad (Maheshwaram) 765kV D/c line	ISTS	SS	765kV	Bays			UC
	8. 1 no. 240 MVAR switchable line reactor at Nizamabad for both circuits of Wardha – Nizamabad 765kV D/c line and Nizamabad – Hyderabad (Maheshwaram) 765kV D/c line	ISTS	SS	765kV	Reactor			UC
SR - 41	Sub-station Works associated with Hyderabad (Maheshwaram) Pooling Station	ISTS	SS					UC
	1. Establishment of Maheshwaram (PG) 765/400 kV GIS substation with 2x1500 MVA transformers	ISTS	SS	765/400kV	trf		3000	UC
	2. LILO of Hyderabad – Kurnool 400 kV s/c line at Maheshwaram (PG) substation.	ISTS	SS	400kV	D/C	40		UC
	3. 2 nos. 240 MVAR, 765 kV Bus Reactors at Maheshwaram Pooling Station	ISTS	SS	765kV	Reactor			UC
SR - 42	Evacuation for Yeramaras(2x660 MW) and Edalapur (1X800 MW) Stg-I	ISTS	ATS					UC
	1. Establishment of Bellary 400kV pooling station near 'BTPS'	ISTS		400kV				UC
	2. Establishment of Gulbarga 400/220 kV substation 7x167 MVA(single phase) or 2x500 MVA.	ISTS		400/220kV	trf		1000	UC
	3. Yermarus TPS - Gulbarga 400 kV D/C line with quad moose conductor	ISTS		400kV	D/C	250		UC
	4. Establishment of Establish 400 KV switching station at Chikkanayakanahalli (C.N Halli) near “Loop in Loop Out” (LILO) point on the Nelamangala – Talaguppa 400kV lines to Hassan	ISTS		400kV	D/C	0		UC
	5. LILO of both the circuits of Nelamangala – Talaguppa 400kV lines to the proposed pooling station near CN Halli	ISTS		400kV	D/C	150		UC
	6. Terminate 400kV D/C line feeding 400/220 KV station at Hassan from Nelamangala – Talaguppa line at CN Halli 400kV pooling station	ISTS		400kV	D/C	50		UC

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	7. Yermarus TPS - Bellary Pooling Station 400kV D/C line with quad moose conductor	ISTS		400kV	D/C	80		UC
	8. Bellary Pooling Station - C.N.Hally 400kV D/C line with quad moose conductor	ISTS		400kV	D/C	200		UC
	9. Bellary Pooling Station - New Madhugiri (near Tumakur) 765/400kV station, 400kV D/C line with quad moose conductor	ISTS		400kV	D/C	200		UC
	10. Bellary TPS – Bellary Pooling Station 400kV D/C line with quad moose conductor	ISTS		400kV	D/C	50		UC
	11. De-link 400kV S/C line running between RTPS-BTPS-JSW-Guttur with 'BTPS' and JSW Bus so as to retain direct connectivity between RTPS and Guttur	ISTS		400kV	D/C	20		UC
	12.JSW TPS – Bellary Pooling Station 400kV D/C line with quad moose conductor	ISTS		400kV	D/C	100		UC
SR - 43	Evacuation for Yeramaras(2x660 MW) and Edalapur (1X800 MW) Stg-II	ISTS	ATS					UC
	1. Edlapur TPS - Bellary Pooling Station 400kV D/C line with quad moose conductor			400kV	D/C	100		UC
	2. Edlapur TPS - Yermarus TPS 400kV D/C line with quad moose conductor			400kV	D/C	100		UC
	3. Tumakur (New Madhugiri) - Bastipura (Mysore) 400kV D/C line with quad moose conductor			400kV	D/C	300		UC
SR - 44	Transmission System for Connectivity for NCC Power Projects Ltd. (1320 MW)	ISTS	ATS					UC
	1. NCC Generation Switchyard-Nellore Pooling Station 400 kV (quad) D/c line	ISTS	ATS	400kV	D/C	100		UC
	2. 2 nos. 400 kV line bays at Nellore Pooling Station for termination of the line	ISTS	ATS	400kV	Bays			UC
SR - 45	Contingency Arrangement for Transmission of Power from IL&FS Generation Project	ISTS	ATS					Commissioned

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	1. LILO of 2nd circuit of Neyveli – Trichy 400kV line at Nagapattinam Pooling Station.	ISTS	ATS	400kV	D/C	30		Commissioned
	2. Strengthening of Neyveli TS-II to Neyveli TS-I expansion 400kV link with higher capacity conductor	ISTS	ATS	400kV	D/C	20		Commissioned
SR - 46	ATS FOR ETPS EXPANSION – 1X660MW	ISTS	ATS					Planned
	1. 400kV DC Quad connectivity from ETPS Expansion switchyard to the 765/400kV Pooling station at North Chennai. (Generation at 400kV level)	ISTS	ATS	400kV	D/C	40		Planned
	2. 1X125 MVAR,420kV Bus Reactor at generation switchyard.	ISTS	ATS	400kV	reactor			Planned
SR - 47	ATS FOR ENNORE SEZ (NCTPS Stage-IV) – 2X660MW	ISTS	ATS					Planned
	1. 400kV DC Quad connectivity from Ennore SEZ switchyard to the 765/400kV Pooling station at North Chennai. (Generation at 400kV level)	ISTS	ATS	400kV	D/C	40		Planned
	2. 400kV DC Quad inter link between the ETPS Expansion and Ennore SEZ switchyard for reliability.	ISTS	ATS	400kV				Planned
	3. 2X125MVAR, 420kV Bus Reactors at generation switchyard	ISTS	ATS	400kV	reactor			Planned
SR - 48	ATS FOR NCTPS Stage III – 1X800MW	ISTS	ATS					Planned
	1.765kV DC line from NCTPS Stage III switchyard to the North Chennai Pooling station. (Generation at 765kV level)	ISTS	ATS	765kV	D/C	60		Planned
	2. 1X240MVAR,765kV Bus Reactor at generation switchyard	ISTS	ATS	765kV	reactor			Planned
SR - 49	ATS FOR ETPS Replacement – 1X660MW	ISTS	ATS					Planned
	1.765kV DC line from ETPS Replacement switchyard to North Chennai Pooling station. (Generation at 765kV level)	ISTS	ATS	765kV	D/C	60		Planned
	2.765kV DC inter link to NCTPS Stage-III for reliability.	ISTS	ATS	765kV				Planned
	3.1X240MVAR, 765kV Bus Reactor at generation switchyard.	ISTS	ATS	765kV	recator			Planned
SR - 50	ATS for M/S.OPG Power generation Ltd.- 2X360MW : (By OPG)	ISTS	ATS					Planned
	1. 400kV DC line to the North Chennai Pooling station.	ISTS	ATS	400kV	D/C	60		Planned

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	2. 2X80 MVAR ,420kV Bus Reactor at the generation switchyard.	ISTS	ATS	400kV	reactor			Planned
SR - 51	Common Transmission system for above generation projects in Chennai area	ISTS	ATS					Planned
	Establishment of 765/400kV Pooling Station in North Chennai area	ISTS	ATS					Planned
	1. 765kV DC line from North Chennai 765kV pooling station to Ariyalur 765/400kV SS	ISTS	ATS	765kV	D/C	150		Planned
	2. Second 765kV DC line from North Chennai 765kV pooling station to Ariyalur 765/400kV SS	ISTS	ATS	765kV	D/C	150		Planned
	3. 1x240 MVAR, 765kV switchable line reactors in each line at both ends	ISTS	ATS	765kV	Reactor			Planned
	4. 400kV DC line from North Chennai Pooling station to Pulianthope 400/230kV SS	ISTS	ATS	400kV	D/C	200		Planned
	5. 500MVA, 400/400kV Phase Shifting transformer (PST) at the Pooling station to control the power flow on the Pooling station – Pulianthope 400kV DC line	ISTS	ATS	400kV	PST	500		Planned
SR - 51-A	Establishment of 765/400kV Sub Station in Ariyalur (near Villupuram)	ISTS	ATS					Planned
	1. 2X1500MVA, 765/400kV ICTs	ISTS	ATS	765/400kV	trf	3000		Planned
	2. 765kV DC line from Ariyalur 765/400kV SS to the Thiruvalem PGCIL 765/400kV SS.	ISTS	ATS	765kV	D/C	400		Planned
	3. 1x240 MVAR, 765kV switchable line reactors in each line at both ends	ISTS	ATS	765kV	Reactor			Planned
	4. LILO of both the circuits of Pugalur – Kalivantapattu 400kV DC Quad line at Ariyalur	ISTS	ATS	400kV	D/C	100		Planned
	5. 2X240MVAR, 765kV Bus Reactor at 765kV bus of Ariyalur 765/400kV SS	ISTS	ATS	765kV	Reactor			Planned
	6. Provision for 420kV bus reactor at 400kV bus	ISTS	ATS	400kV	Reactor			Planned
SR - 51-B	Establishment of 765/400kV SS in Coimbatore Region	ISTS	ATS					Planned
	1. 2X1500MVA, 765/400kV ICTs	ISTS	ATS	765/400kV	trf	3000		Planned
	2. 765kV DC line to Ariyalur 765/400kV SS	ISTS	ATS	765kV	D/C	400		Planned

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	3. 240 MVAR, 765kV switchable line reactors in each line at both ends	ISTS	ATS	765kV	Reactor			Planned
	4. Provision for bus reactor at 400kV bus for future requirement	ISTS	ATS	400kV	Reactor			Planned
SR - 51-C	ATS for proposed power plants at Udangudi (2x660 MW + 1x 800MW)	ISTS	ATS					Planned
	1. 400kV DC Quad line from Udangudi to the Kayathar 400kV SS	ISTS	ATS	400kV	D/C	150		Planned
	2. 400kV DC line from Udangudi to Samugarengapuram 400/230-110 kV SS	ISTS	ATS	400kV	D/C	150		Planned
	3. 400kV Quad DC line from Udangudi to Ottapidaram 400/230-110kV SS	ISTS	ATS	400kV	D/C	160		Planned
	4. Ottapidaram 400/230-110 kV Substation with 2x 315MVA, 400/230kV ICTs	ISTS	ATS	400/220kV	trf		630	Planned
	5. 2x200 MVA, 400/110 kV ICTs.	ISTS	ATS	400/110kV	trf		400	Planned
	6. 400 kV DC Quad line from Ottapidaram to Udangudi Switchyard	ISTS	ATS	400kV	D/C	200		Planned
	7. 400 kV D/C Quad line from Ottapidaram to Kamuthi 400/230-110 kV Substation	ISTS	ATS	400kV	D/C	200		Planned
	8. LILO of TSipcot – Kavanoor 230kV SC line at Ottapidaram	ISTS	ATS	230kV	S/C	50		Planned
	9. 230kV DC line from Udangudi to Indbharath generation switchyard (2x150 MW)	ISTS	ATS	230kV	D/C	100		Planned
	10. LILO of TSipcot – Savasapuram 230kV SC feeder at Ottapidaram	ISTS	ATS	230kV	S/C	50		Planned
	11. Kamuthi 400/230-110 kV Substation for Solar Power injection with 3x 315MVA 400/230kV ICTs	ISTS	ATS	400/220kV	trf		630	Planned
	12. 2x200 MVA, 400/110kV ICTs	ISTS	ATS	400/110kV	trf		400	Planned
	13. 400 kV DC Quad line from Kamudhi SS to Karaikudi 400kV PGCIL SS	ISTS	ATS	400kV	D/C	140		Planned
	14. 230kV DC line from Kamudhi SS to Muthuramalingapuram 230kV SS.	ISTS	ATS	230kV	D/C	50		Planned
15. 230kV DC line from Kamudhi SS to Kavanoor 230kV SS	ISTS	ATS	230kV	D/C	50		Planned	

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
SR - 52	TANTRANSCO Proposals for 400 KV Substations, as System Strengthening.	ISTS	SS					Planned
SR - 52- A	A.Establishment of Samugarengapuram 400/230-110 KV Substation							
	1. Samugarengapuram 400/230-110 KV wind Substation with 2x 315MVA,400/230kV ICTs	ISTS	SS	400/230kV	trf		630	Planned
	2. 2x200 MVA, 400/110kV ICTs	ISTS	SS	400/110kV	trf		400	Planned
	3. 400 kV D/C line from Udangudi Switchyard	ISTS	SS	400kV	D/C	150		Planned
	4. LILO of Kudankulam – SRPudur 230kV SC line	ISTS	SS	230kV	S/C	50		Planned
	5. LILO of Udayathur – Sankaneri 230kV SC line	ISTS	SS	230kV	S/C	50		Planned
	6. 230kV DC line to proposed Muppandal 230kV SS	ISTS	SS	230kV	S/C	100		Planned
SR - 52- B	B.Establishment of Padukottai 400/230-110 KV Substation							
	1. Pudukottai 400/230-110 kV Substation with 2x 315MVA,400/230kV ICTs	ISTS	SS	400/230kV	trf		630	Planned
	2. 2x200 MVA, 400/110kV ICTs	ISTS	SS	400/110kV	trf		400	Planned
	3. LILO of both 400kV Karaikudi – Pugalur TANTRANSCO DC Quad line	ISTS	SS	400kV	D/C	100		Planned
	4. 230kV SC line to Karambium 230kV SS	ISTS	SS	230kV	S/C	100		Planned
	5. 230kV SC line to Pudukottai 230kV SS	ISTS	SS	230kV	S/C	120		Planned
	6. 230kV SC line to Tuvakudi (BHEL) 230kV SS	ISTS	SS	230kV	S/C	140		Planned
SR - 52- C	C.Establishment of Turaiyur 400/230-110 KV Substation							
	1. Turaiyur 400/230 kV Substation with 2x 315MVA, 400/230kV ICTs	ISTS	SS	400/230kV	trf		630	Planned
	2. LILO of one of the NLC – Pugalur 400 kV PGCIL line at Turaiyur	ISTS	SS	400kV	S/C	50		Planned
	3. 400 kV D/C line from Turaiyur to Mangalapuram 400 kV Substation	ISTS	SS	400kV	D/C	140		Planned
	4. 230kV SC line to Perambalur 230kV SS	ISTS	SS	230kV	S/C	50		Planned
	5. 230kV SC line to Samayapuram 230kV SS	ISTS	SS	230kV	S/C	60		Planned
	6. 230kV SC line to sanctioned Jambunathapuram 230kV SS	ISTS	SS	230kV	S/C	70		Planned
7. 230kV SC line to the sanctioned Poyyur 230kV SS	ISTS	SS	230kV	S/C	60		Planned	

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
SR - 52-D	D.Establishment of Kolapalur 400/230-110 KV Substation							
	1. Kolapalur 400/230-110 kV Substation with 2x 315MVA,400/230kV ICTs	ISTS	SS	400/230kV	trf		630	Planned
	2. 2x200 MVA, 400/110kV ICTs	ISTS	SS	400/110kV	trf		400	Planned
	3. LILO of one of the 400 kV MTPS Stage III – Karmadai TANTRANSCO line at Kolapalur	ISTS	SS	400kV	S/C	50		Planned
	4. 400 kV D/C line from Kolapalur to Rasipalayam 400 kV Substation	ISTS	SS	400kV	D/C	200		Planned
	5. 230kV SC line from Karmadai to Thingalur 230kV SS	ISTS	SS	230kV	S/C	60		Planned
	6. 230kV SC line from Karmadai to Anthiyur 230kV SS	ISTS	SS	230kV	S/C	100		Planned
	7. 230kV SC line from Karmadai to Shenbagapudur 230kV SS	ISTS	SS	230kV	S/C	90		Planned
	8. LILO of Gobi – Pallakapalayam 230kV feeder	ISTS	SS	230kV	S/C	80		Planned
9. LILO of Karmadai – Ingur 230kV line at Karmadai	ISTS	SS	230kV	S/C	100		Planned	
SR - 52-E	E.Establishment of Managalapuram 400/230-110 KV Substation							
	1. Mangalapuram 400/230 KV Substation with 2x 315 MVA, 400/230 kV ICTs	ISTS	SS	400/230kV	trf		630	Planned
	2. LILO of both the Ariyalur – Pugalur 400 kV D/C Quad line at Mangalapuram	ISTS	SS	400kV	D/C	100		Planned
	3. LILO of Salem – Singapuram 230kV SC line at Mangalapuram	ISTS	SS	230kV	D/C	50		Planned
	4. LILO of Deviakurichi – Valayapatty 230 kV feeder at Mangalapuram	ISTS	SS	230kV	D/C	60		Planned
	5. 230 kV SC line from Mangalapuram to Thammampatty 230 kV SS	ISTS	SS	230kV	S/C	60		Planned
6. 230 kV SC line from Mangalapuram to Udayapatty 230 kV SS	ISTS	SS	230kV	S/C	80		Planned	
SR - 52-F	F.Establishment of Sholingur 400/230-110 KV Substation							
	1. Sholingur 400/230-110 KV Substation with 2x 315MVA, 400/230 kV ICTs	ISTS	SS	400/230kV	trf		630	Planned

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	2. 2x200 MVA, 400/110kV ICTs	ISTS	SS	400/110kV	trf		400	Planned
	3. LILO of Sriperumbudur- Tiruvalam - Kolar 400 kV S/C PGCIL line. (In between Sriperumbudur & Tiruvalam 400kV Substation)	ISTS	SS	400kV	D/C	70		Planned
	4. LILO of Thiruvalam – Mosur 230 kV feeder at Sholingur	ISTS	SS	230kV	S/C	80		Planned
	5. LILO of SVChatram – Arni 230 kV feeder at Sholingur	ISTS	SS	230kV	S/C	90		Planned
	6. 230 kV DC line from Sholingur to Pattaraiperumbudur 230 kV SS	ISTS	SS	230kV	D/C	150		Planned
SR - 52-G	G.Establishment of Pulianthope 400/230-110 KV Substation							
	1. Pulianthope 400/230 kV Substation with 3x 315MVA, 400/230kV ICTs	ISTS	SS	400/230kV	trf		630	Planned
	2. 400 kV DC Quad line from Pulianthope to North Chennai Pooling Station	ISTS	SS	400kV	D/C	150		Planned
	3. 400 kV DC line from Pulianthope to Manali 400/230-110 kV Substation	ISTS	SS	400kV	D/C	180		Planned
	4. 230 kv SC cable link to Tondiarpet 230 kV SS	ISTS	SS	230kV	S/C	70		Planned
	5. 230 kv SC cable link to Basinbridge 230 kV SS	ISTS	SS	230kV	S/C	60		Planned
	6. 230 kv SC cable link to Vysarpadi 230 kV SS	ISTS	SS	230kV	S/C	80		Planned
	7. 230 kv SC cable link to CMRL Central 230kV SS	ISTS	SS	230kV	S/C	70		Planned
SR - 52-H	H.Establishment of Mylapore 400/230-110 KV Substation							
	1. Mylapore 400/230 kV Substation with 2x 315MVA, 400/230 kV ICTs	ISTS	SS	400/230kV	trf		630	Planned
	2. 400 kV SC cable from Mylapore to Pulianthope 400/230 kV SS	ISTS	SS	400kV	S/C	100		Planned
	3. 400 kV SC cable from Mylapore to Guindy 400 kV SS	ISTS	SS	400kV	S/C	120		Planned
SR - 52-I	I.Establishment of Palavadi 400/230-110 KV Substation							
	1. Palavadi (Singarapet) 400/230-110 KV Substation	ISTS	SS	400kV				Planned
	2. 400 kV DC quad line from Singarapet to MTPS Stage III	ISTS	SS	400kV	D/C	200		Planned

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	3. 400 kV DC quad line from Singarapet to Tiruvalam 400 KV SS	ISTS	SS	400kV	D/C	300		Planned
	4. 400 kV quad 2XDC line from Singarapet to Rasipalayam 400 kV Substation	ISTS	SS	400kV	2xD/C	800		Planned
	5. LILO of Karimangalam - MALCO 230kV SC line at Singarapet	ISTS	SS	230kV	S/C	100		Planned
	6. 230kV line from Singarapet to Gurubarahally 230kV SS.	ISTS	SS	230kV	S/C	100		Planned
	7. 230kV DC line from Singarapet to Udanapally 230kV SS	ISTS	SS	230kV	D/C	200		Planned
SR - 52- J	Kayathar – Koilpatty (Tuticorin Pooling point) 400kV DC Quad line	ISTS	SS		D/C			Planned
	1. Kayathar – Koilpatty (Tuticorin Pooling point) 400kV DC Quad line	ISTS	SS	400kV	D/C	200		Planned
SR - 52- K	Pavoorchatram 400kV SS (Tennampatty 400kV SS)	ISTS	SS					Planned
	1. LILO of Kodikurichi – Veeranam 230kV line at Pavoorchatram	ISTS	SS	230kV	D/C	100		Planned
	2. Establishment of Pavoorchatram 400kV S/s	ISTS	SS	400/230kV	trf		630	Planned
SR - 53	Transmission System for evacuation of power from 2x500 MW Neyveli Lignite Corp. Ltd. TS-I (Replacement) (NNTPS) in Neyveli	ISTS	ATS					Planned
SR - 53- A	Transmission System for Connectivity	ISTS	ATS					Planned
	1. 7x167 MVA (single phase), 400/220 kV transformers at generation switchyard (by NLC)	ISTS	ATS	400/220kV	trf		1169	Planned
	2. 1x80 MVAR Bus Reactor at generation switchyard (by NLC)	ISTS	ATS	400kV	Reactor			Planned
	3. LILO of existing Neyveli TS-II – Pondycherry 400 kV SC at NNTPS	ISTS	ATS	400kV	S/C	80		Planned
SR - 53- B	Transmission System for LTA (as an ISTS)	ISTS	ATS					Planned
	1. NNTPS switchyard – Villupuram (Ginjee) 400kV D/c line	ISTS	ATS	400kV	D/C	200		Planned
	2. LILO of Neyveli - Pondicherry 400kV S/c line at NNTPS	ISTS	ATS	400kV	S/C	50		Planned
	3. 2 nos. of line bays at Ariyalur (Villupuram) substation for terminating NNTPS switchyard – Ariyalur (Villupuram) 400kV D/c line	ISTS	ATS	400kV	bays			Planned

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
SR - 53- C	System Strengthening in Tamil Nadu	ISTS	SS					Planned
	1. Establishment of new 230/110kV, 3x160 MVA or 4x100 MVA S/S at Neyveli (by TNEB)	ISTS	SS	230/110kV	trf		480	Planned
	2. Shifting of the 230kV (3 nos) and 110kV(7 nos) lines owned by TNEB emanating from the existing Neyveli TS-I switchyard to Neyveli 230kV SS (by TNEB)	ISTS	SS	230kV				Planned
	3. LILO of both circuits of Neyveli TS-I – Neyveli TS-II 230kV DC line at NNTPS Switchyard (by NLC)	ISTS	SS	230kV	D/C	100		Planned
	4. NNTPS switchyard – Neyveli(TANTRANSCO 230kV S/S), 230kV DC line with HTLS conductor (by TNEB)	ISTS	SS	230kV	D/C	150		Planned
	5. Neyveli TPS-II - Neyveli(TANTRANSCO 230kV S/S), 230kV D/C line with HTLS conductor (by TNEB)	ISTS	SS	230kV	D/C	150		Planned
	6. 2x500 MVA ICTs at Villupuram (Ginjee) 400kV S/S	State	SS	400/220kV	trf		1000	Planned
SR - 54	System for increasing capacity of Inter-State Transmission system for import of power into SR	ISTS	SS					Planned
SR - 54- A	Additional inter-regional AC link for import into SR i.e. Warora – Warangal and Chilakaluripeta - Hyderabad - Kurnool 765kV link”	ISTS	SS					Planned
	1. Establishment of 765/400kV substation at Warangal (New) with 2x1500 MVA transformer	ISTS	SS	765/400kV	trf		3000	Planned
	2. 2x240 MVAR bus reactors at Warangal (New) 765/400 kV SS	ISTS	SS	765kV	Reactor			Planned
	3. Warora Pool -Warangal (New) 765 kV DC line	ISTS	SS	765kV	D/C	600		Planned
	4. 240 MVAR switchable line reactor at both ends.	ISTS	SS	765kV	Reactor			Planned
	5. Warangal (New) –Hyderabad 765 kV DC line	ISTS	SS	765kV	D/C	200		Planned
	6. 240 MVAR switchable line reactor at Warangal end	ISTS	SS	765kV	Reactor			Planned
	7. Warangal (New) – Warangal (existing) 400 kV (quad) DC line.	ISTS	SS	400kV	D/C	100		Planned
	8. Hyderabad– Kurnool 765 kV D/c line	ISTS	SS	765kV	D/C	600		Planned
	9. 240 MVAR switchable line reactor at Kurnool end	ISTS	SS	765kV	Reactor			Planned
	10. Warangal (New) – Chilakaluripeta 765kV DC line	ISTS	SS	765kV	D/C	600		Planned
11. 240 MVAR switchable line reactor at both ends.	ISTS	SS	765kV	Reactor			Planned	
SR - 54- B	Strengthening of transmission system beyond Vemagiri	ISTS	SS					Planned

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	1. Vemagiri-II – Chilakaluripeta 765kV DC line	ISTS	SS	765kV	D/C	600		Planned
	2. 240 MVAR switchable line reactor at both ends.	ISTS	SS	765kV	Reactor			Planned
	3. Chilakaluripeta – Cuddapah 765kV DC line	ISTS	SS	765kV	D/C	600		Planned
	4. 240 MVAR switchable line reactor at both ends.	ISTS	SS	765kV	Reactor			Planned
	5. Chilakaluripeta – Narsaraopeta 400kV (quad) DC line	ISTS	SS	400kV	D/C	400		Planned
	6. Cuddapah – Madhugiri 400kV (quad) DC line	ISTS	SS	400kV	D/C	500		Planned
	7. 80 MVAR switchableline reactor at both ends.	ISTS	SS	400kV				Planned
	10. Srikaukulam Pooling Station – Garividi 400 kV (Quad) D/c line	ISTS	SS	400kV	D/C	250		Planned
	11. 80MVAR switchable line reactor at Garividi end.	ISTS	SS	400kV	Reactor			Planned
	12. Establishment of 765/400kV substation at Chilakaluripeta with 2x1500 MVA transformers	ISTS	SS	765/400kV	trf		3000	Planned
	13. 2x240 MVAR bus reactor at Chilakaluripeta 765/400kV SS	ISTS	SS	765kV	Reactor			Planned
SR - 54- C-A	Scheme-I : HVDC Bipole link between Western region (Raigarh, Chhattisgarh) and Southern region (Pugalur, Tamil Nadu)- Madakathara/ North Trichur (Kerala)	ISTS	ATS					UC
	1. ± 800 kV Raigarh(HVDC Stn) – Pugalur(HVDC Stn) HVDC Bipole link with 6000 MW capacity.	ISTS	SS	±800kV	HVDC	1840		UC
	2. Establishment of Raigarh HVDC Stn and Pugalur HVDC Stn with 6000 MW HVDC terminals	ISTS	ATS	±800kV	HVDC		12000	UC
SR - 54- C-B	Scheme-II :HVDC Bipole link between Western region (Raigarh, Chhattisgarh) and Southern region (Pugalur, Tamil Nadu)- Madakathara/ North Trichur (Kerala)							UC
	1. Pugalur HVDC Station – Pugalur (Existing) 400kV (quad) DC line.	ISTS	ATS	400kV	D/C	116		UC
	2. Pugalur HVDC Station – Arasur 400kV (quad) DC line	ISTS	ATS	400kV	D/C	120		UC
	3. 80 MVAR switchable line reactor at Arasur end.	ISTS	ATS	400kV	Reactor			UC
	4. Pugalur HVDC Station – Thiruvalam 400kV (quad) DC line	ISTS	ATS	400kV	D/C	780		UC
	5. 1x80MVAR switchable line reactor at both ends.	ISTS	ATS	400kV	Reactor			UC
	6. Pugalur HVDC Station – Edayarpalayam 400 kV (quad) DC	ISTS	ATS	400kV	D/C	114		UC

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	7. 1x63MVAR switchable line reactor at Edayarpalayam end.	ISTS	ATS	400kV	Reactor			UC
	8. Edayarpalayam – Udumulpeta 400 kV (quad) DC line.	ISTS	ATS	400kV	D/C	108		UC
SR - 54-C-C	Scheme-III : HVDC Bipole link between Western region (Raigarh, Chhattisgarh) and Southern region (Pugalur, Tamil Nadu)- Madakathara/ North Trichur (Kerala)							UC
	1. Establishment of VSC based 2000 MW HVDC link between Pugalur and North Trichur* (Kerala)			±320kV	HVDC	250	4000	UC
	2. LILO of North-Trichur – Cochin 400 kV (Quad) D/c line at North Trichur HVDC Stn.			400kV	D/C	6		UC
SR - 55	Mangalore (UPCL)–Kasargode-Kozhikode 400 kV link	ISTS	SS					Planned
	1. Mangalore (UPCL)–Kasargode 400 kV D/c Quad line	ISTS	SS	400kV	D/C	220		Planned
	2. Kasargode - Kozhokode, 400kV quad D/c line,	ISTS	SS	400kV	D/C	360		Planned
	3. Establishment of 2x500 MVA, 400/220 kV GIS substation at Kasargode	ISTS	SS	400/220kV	trf		1000	Planned
SR - 56	Connectivity lines for Maheshwaram (Hyderabad) 765/400kV Pooling S/s.	ISTS	SS					UC
	1. Maheshwaram (PG) – Mahboob Nagar 400 kV D/C line	ISTS	SS	400kV	D/C	200		UC
	2. Nizamabad – Yeddumailaram (Shankarapalli) 400 kV D/C line	ISTS	SS	400kV	D/C	400		UC
SR - 57	SRSS-XXIV							UC
	1 Establishment of 765/400kV substation at Cuddapah with 2x1500 MVA transformers			765/400kV	trf		3000	UC
	2. 2x240 MVAR bus reactor at Cuddapah 765/400kV SS	ISTS	ATS	765kV	Reactor			UC
	3. LILO of Kurnool-Thiruvalam 765 kV D/c at Cuddapah along with associated bays			765kV	D/C	100		UC
	4. Cuddapah-Hindupur 400 kV (Quad) D/C line alongwith associated bays and 80 MVAR switchable line reactor at Hindupur end (Hindupur S/s to be implemented by APTRANSCO)			400kV	D/C	360		UC
	5. 80 MVAR switchable line reactor at Hindupur end.			400kV	400kV			UC

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
SR - 57	Additional System for import of Power from Eastern Region	ISTS	SS					New
	1. Angul - Srijkakulam 765 kV 2nd D/c line	ISTS	SS	765kV	D/C	600		New
	2. Srikakulam - Vemagiri 765 kV 2nd D/c line	ISTS	SS	765kV	D/C	600		New
	3. Vemagiri - C'Peta 765 kV D/c line	ISTS	SS	765kV	D/C	600		New
SR - 58	Raigarh-Pugalur Scheme under Tamil Nadu scope							
	1. Establishment of 400/220kV substation with 2x500 MVA transformers at Edayarpalayam	ISTS	ATS	400/220kV	trf		1000	Planned
	2. 2x125 MVAR bus reactors at Edayarpalayam	ISTS	ATS	400kV	Reactor			Planned
SR - 59	Transmission System for Ultra mega solar park in Anantapur distt, AP - Part-A							UC
	1. Establishment of 3x500 MVA, 400/220 kV Substation at NP Kunta.	ISTS	ATS	400/220kV	trf		1500	UC
	2. LILO of 400 kV Kadapa(Cuddapah)-Kolar S/c at NP Kunta	ISTS	ATS	400kV	S/C	50		UC
	3. 2 Nos. of 220 kV bays at N.P Kunta	ISTS	ATS	220kV	bays			UC
	4. 1x125 MVAR Bus Reactor at N.P Kunta	ISTS	ATS	400kV	Reactor			UC
	5. +/- 100 MVAR STATCOM at N.P Kunta	ISTS	ATS	400kV	STATCOM			UC
SR - 60	Transmission System for Ultra mega solar park in Anantapur distt, AP - Part-B							UC
	1. LILO of Cuddapah-Hindupur 400 kV (Quad) D/c line at NP Kunta	ISTS	ATS	400kV	D/C	50		UC
	2. 6 nos. 220kV line bays at NP Kunta Pooling Station	ISTS	ATS	220kV	bays			UC
SR - 61	Transmission System for Ultra mega solar park in Anantapur distt, AP - Part-C							UC
	1. Augmentation of transformation capacity at NP Kunta station with 4th,1x500 MVA, 400/220kV transformer	ISTS	ATS	400/220kV	trf		500	UC
	2. 4 nos. 220kV line bays at NP Kunta Pooling Station	ISTS	ATS	220kV	bays			UC
SR - 62	Green Energy Corridors-ISTS-Part-A							UC
	1. Establishment of 2x500 MVA, 400/230 kV S/s at Tirunelveli Pooling Station	ISTS	SS	400/220kV	trf		1000	UC
	2. Tirunelveli Pooling Station-Tuticorin Pooling Station 400 kV 2x D/c (Quad) line	ISTS	SS	400kV	2xD/C	230		UC

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
SR - 63	NLC-Karaikal 230 kV D/c							UC
	1. NLC-Karaikal 220 kV D/c linei. (through LILO of the 230kV Neyveli- Bahour S/c line at Karaikal)	ISTS	ATS	220kV	D/C	190		UC
SR - 64	Constraints in 400 kV bays extensions at 400 kV Vemagiri S/s							UC
	1. LILO of both circuits of Gazuwaka/Simhadri-II-Vemagiri-I (AP) 400 kV D/c line at Vemagiri-II (PG).	ISTS	SS	400kV	D/C	30		UC
	2. Straighten LILO of Vijaywada (Nunna)-Simhadri-II/Gazuwaka 400 kV D/c line (by disconnecting the LILO at Vemagiri-I (AP)), so as to make Vijaywada (Nunna) - Vemagiri-II 400 kV D/c line.	ISTS	SS	400kV	D/C	20		UC
	3. Utilization of one LILO D/c portion (of Gazuwaka/Simhadri-II - Vijaywada (Nunna) at Vemagiri-I (AP)) for KV Kota-Vemagiri-I (AP) 400 kV D/c line	ISTS	SS	400kV	D/C	20		UC
	4. Second LILO D/c portion (of Gazuwaka/Simhadri-II - Vijaywada (Nunna) at Vemagiri-I (AP)) to be extended to Vemagiri-II (PG).	ISTS	SS	400kV	D/C	36		UC
SR - 65	Connectivity for Kudankulam 3&4 (2x1000MW) with interstate Transmission system.							UC
	1.Extension of Kudankulam APP Tirunelveli 400kV Quad D/c line to Tuticorin Pooling Station along with necessary bay modification works at Tuticorin Pooling station	State	SS	400kV	D/C	125		UC
SR-66	Transmission Scheme for Solar Power Park at Ghani/Panyam (1000 MW)							UC
	Phase-I Works:							
	26							
	1) 400/220kV Substation at Gani/Panyam – 3x500 MVA.	State	ATS	400/220kV	Trf		1500	UC
	2) 400kV QMDC Line from Kurnool to proposed 400kV Gani/Panyam SS.	State	DTL	400kV	D/C	35		UC
	3) 400kV Bay Extensions at Kurnool SS – 2 Nos.	State	ATS	400kV	bays			UC
	Phase-II works :							
4) 400kV QMDC Line from Jammalamadugu/ Kondapuram to the proposed 400kV Gani/Panyam SS	State	SS	400kV	D/C	90		UC	

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
SR-67	Transmission Evacuation Scheme for 1000MW Wind Power at Aspiri							UC
	1) 400/220kV Substation with 3x315 MVA	State	ATS	400/220kV	Trf		945	UC
	2) 400kV QMDC line from Aspiri to 400kV Uravakonda SS.	State	ATS	400kV	D/C	156		UC
SR-68	Transmission Evacuation Scheme for Manuguru (4x270 MW) TPS							Planned
	i) Manuguru TSGENCO plant switchyard to proposed 400/220kV Bommanapalli SS with Quad Moose 400 kV DC line.	State	ATS	400kV	D/C	160		Planned
	ii) 1x125 MVAR Bus reactor at Manuguru switchyard	State	ATS	400kV	Reactor			Planned
SR-69	Transmission Evacuation Scheme for Kothagudem VII(1x800MW) TPS							
	i) KTPS Stage VII switchyard to proposed 400/220kV Bommanapalli SS with Quad Moose 400kVDC line.	State	ATS	400kV	D/C	76		Planned
	ii) 1x125 MVAR Bus reactor at KTPS Stage VII switchyard	State	ATS	400kV	Reactor			Planned
	Common transmission system for Manuguru(4x270 MW) TPS and Kothagudem VII(1X800MW) TPS							
	1-From proposed 400/220kV Bommanapalli SS to upcoming Suryapet 400/220/132kV SS by Quad Moose 400kV DC line	State	ATS	400	DC	250		Planned
	2-From proposed 400/220kV Bommanapalli SS to proposed 400/220kV Jangaon SS by Quad Moose 400kV DC line –about 120kms	State	ATS	400	DC	240		Planned
	3-From proposed 400/220kV Jangaon SS to proposed 400kV Tippapur LI SS by Quad Moose 400kV DC line – about 70kms.	State	ATS	400	DC	140		Planned
	4-From proposed 400/220kV Bommanapalli SS to proposed 220/132kV Kallur SS by Single Moose 220kV DC line-about 70kms	State	ATS	220	DC	140		Planned
	5-From proposed 400/220kV Bommanapalli SS to proposed 220/132kV Pedagogathi SS by Single Moose 220kV DC line-about 110kms	State	ATS	220	DC	220		Planned

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	6-From proposed 400/220kV Bommanapalli SS to proposed 220/132kV Bommanapalli SS by Single Moose 220kV DC line	State	ATS	220	DC	20		Planned
	7-From Proposed 400/220 kV Jangaon SS to Upcoming 220/132 kV Jangaon SS by Single Moose 220kV DC Line – about 15 kms	State	ATS	220	DC	30		Planned
	8-From Proposed 400/220 kV Jangaon SS to Existing 220/132 kV Husnabad SS by Single Moose 220kV DC Line – about 60 kms	State	ATS	220	DC	120		Planned
	9-From Proposed 400/220 kV Jangaon SS to Existing 220/132 kV Bhongiri SS by Single Moose 220kV DC Line – about 70 kms	State	ATS	220	DC	140		Planned
SR-70	Damaracherla Transmission Scheme							Planned
	a) Proposed Damaracherla Switchyard to Proposed 400/220/132 kV Choutuppal SS by Quad Moose Dc Line	State	ATS	400/220/132 kV	D/C	300		Planned
	b) Proposed Damaracherla Switchyard to Proposed 400/220kV DindiSS by Quad Moose Dc Line	State	ATS	400/220kV	D/C	280		Planned
	c) Proposed Damaracherla Switchyard to Proposed 400/220 kV Maheswaram(TSTRANSCO) SS by Quad Moose Dc Line	State	ATS	400/220kV	D/C	310		Planned
	d) Proposed Damaracherla Switchyard to Proposed 400/220kV Jangaon SS (Jangaon SS is included in the Manuguru and KTPS VII Evacuation Scheme) by Quad Moose Dc Line	State	ATS	400/220kV	D/C	310		Planned
	e) From Proposed 400/220/132 kV Choutuppal SS to Upcoming 220/33 kV Hayatnagar SS by Single Moose DC Line	State	ATS	220/33kV	D/C	100		Planned
	f) From Proposed 400/220/132 kV Dindi SS to Upcoming 220/33 kV Thimmajipet SS by Single Moose DC Line	State	ATS	400/220/132kV	D/C	100		Planned
	g) From Proposed 400/220/132 kV Dindi SS to proposed 220/132 kV Nagarkurnool SS by Single Moose DC Line	State	SS	220/132 kV	D/C	120		Planned
	h) From Proposed 400/220/132 kV Dindi SS to Existing 220/33 kV KM Pally SS by Single Moose DC Line	State	SS	400/220/132kV	D/C	120		Planned
	i) 400/220 kV Dindi SS with 3 x 500 MVA	State	SS	400/220kV	Trf		1500	Planned

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	j) 400/220/132 kV Choutuppal SS with 3 x500 MVA+2 x 100 MVA	State	SS	400/220/132kV	Trf		1700	Planned
	k) 220/132 kV Nagarkurnool SS with 2x100 MVA	State	SS	220/132kV	Trf		200	Planned
	l) 2X125 MVAR Bus reactor at Damercherla switchyard	State	ATS		Reactor			Planned
SR-71	Transmission system for i) evacuation of power from 1 x 800 MW VTS Extnplant of APGENCO at Vijayawada							Planned
	a) 400kV VTS- Sattenpalli Quad Moose DC line.	State	SS	400kV	D/C	120		Planned
	b) 1x125MVAR Bus reactor at VTPS Extn.	State	SS	400kV	Reactor			Planned
SR-72	Transmission system for evacuation of power from 400kV ring main around the proposed capital city of Andhra Pradesh							Planned
	I) Elluru 400/220 kV substation, 2x315 MVA (To be upgraded to 765 kV with Pudimadaka) :							Planned
	i) Keep provision for 400/220 kV transformer with 2x500 MVA rating for future use.	State	SS	400/220kV	Trf		1000	Planned
	ii) Existing 132 kV Elluru to be upgraded to 220kV and will be connected with Elluru 400/220kV S/S.	State	SS	220kV	SS			Planned
	iii) Provision of D/C 220kV outlet from Elluru 220kV S/S.	State	SS	220kV	D/C			Planned
	iv) LILO of Vemagiri-I Sattenpali 400 kV DC twin lines at Elluru 400 kV substation.	State	SS	400kV	D/C	20		Planned
	v) LILO of Vemagiri-Nunna 220kV DC line at 220/132kV Elluru.	State	SS	220kV	D/C	20		Planned
	vi) LILO of Elluru(existing)-Pedavegi 132kV at proposed 220/132kV Elluru SS.	State	SS	132kV	D/C	20		Planned
	vii) 1x125MVAR Bus reactor at Elluru 400/220 kV substation	State	SS	400/220kV	Reactor			Planned
	II) Gudivada 400/220/132 kV, 2x500 MVA substation.							Planned
	i) LILO of existing Nunna- Guduwada 220kVDC line at Guduwada 400/220/132kV.	State	SS	220kV	D/C	6		Planned
	ii) LILO of 220kV Guduwada- Guduwada 400/220/132kV DC line at Gannavaram.	State	SS	220kV	D/C	20		Planned
	iii) Guduwada 400/220/132kV- Machhlipatnam 220kV DC line.	State	SS	220kV	D/C	46		Planned
	iv) Elluru - Gudivada 400 kV DC Quad line.	State	SS	400kV	D/C	45		Planned

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	v) Gudivada – C Peta 400 kV DC Quad line.	State	SS	400kV	D/C	206		Planned
	vi) 1x125MVAR Bus reactor at Gudivada 400/220/132 kV substation	State	SS	400/200/132	Reactor			Planned
	III) Sattenpalli 400/220kV S/S							Planned
	i) 2 x 315 existing transformer to be augmented by 2 x 500 MVA substation.	State	SS	400/220kV	Trf		1000	Planned
	ii) Sattenpalli- Guntur 220kV DC line.	State	SS	220kV	D/C	40		Planned
	iii) 1x125MVAR Bus reactor at Sattenpalli 400/220kV S/S	State	SS	400/220kV	Reactor			Planned
	IV) 400/220kV substation at CPeta by APTRANSCO – as a new substation close to 765/400kV CPeta (under ISTS) or as 400kV bus extension at proposed 765/400kV CPeta (ISTS) for erecting CPeta 400/220 kV, 2x500 MVA transformer							Planned
	i) CPeta 220/132kV, 2x100 MVA S/S.	State	SS	220/132kV	Trf		200	Planned
	ii) 220kV DC line from CPeta 220/132kV to CPeta 400/220 kV.	State	SS	220kV	D/C	40		Planned
	iii) 2 nos of 220kV DC line for future from CPeta 400/220 kV	State	SS	220kV	D/C			Planned
	iv) LILO of Sattenpalli - VTS 400 kV DC line at Inavolu	State	SS	400kV	D/C	3		Planned
	v) 132 kV LILO (10.5 KM approx.) of existing 132 kV Chilakaluripeta – Nallapadu at proposed 220/132 kV Chilakaluripet SS	State	SS	132kV	D/C	10.5		Planned
	vi) 132 kV LILO (10.5 KM approx.) of existing 132 kV Chilakaluripeta – Mrippalem at proposed 220/132 kV Chilakaluripet SS.	State	SS	132kV	D/C	10.5		Planned
	vii) 1x125MVAR Bus reactor at 400/220kV substation at CPeta	State	SS	400/220kV	Bus Reactor			Planned
	V) Inavolu 400/220 kV, 2x500 MVA substation.							Planned
	i) Existing 132/33kV Tadepalli to be upgraded to 220/132/33 kV Tadepalli and further 220kV DC line to Inavolu.	State	SS	220kV	D/C	20		Planned
	ii) 220kV DC line to Malkapuram.	State	SS	220kV	D/C	140		Planned
	iii) 220kV DC line to Amravati.	State	SS	220kV	D/C	80		Planned

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	iv) Erection of 220/132/33 kV Amaravathi SS with 2 x 160 MVA PTRs.	State	SS	220/132/33kV	Trf		320	Planned
	v) 220 kV DC line (14 KM) from proposed 400/220 kV Inavolu SS to proposed 220/132/33 kV Amaravathi SS.	State	SS	220kV	D/C	14		Planned
	vi) 220 kV LILO (4 KM) of existing 3rd circuit of VTS – Tallapalli line at proposed 220/132/33 kV Amaravathi SS.	State	SS	220kV	D/C	4		Planned
	vii) Erection of 220/132/33 kV Malkapuram SS with 2 x 100 MVA PTRs.	State	SS	220/132/33	Trf		200	Planned
	viii) 220 kV DC line (6 KM) from proposed 400/220 kV Inavolu SS to proposed 220/132/33 kV Malkapuram SS.	State	SS	220	D/C	6		Planned
	ix) 220 kV DC line (12 KM) from proposed 220/132/33 kV Tadepalli SS to proposed 220/132/33 kV Malkapuram SS.	State	SS	220	D/C	12		Planned
	x) 220 kV DC LILO (5 KM) of existing VTS – Podili line at proposed 220/132/33 kV Malkapuram SS.	State	SS	220kV	D/C	5		Planned
	xi) Up-gradation of 132/33 kV Repalle SS to 220/132/33 kV Repalle SS with 2 x 100 MVA PTRs.	State	SS	220/132/33kV	Trf		200	Planned
	xii) 220 kV DC line (60 KM) from proposed 220/132 kV Guntur-2 SS to proposed 220/132/33 kV Repalle SS.	State	SS	220kV	D/C	60		Planned
	xiii) Erection of 132/33 kV Amaravathi SS with 2 x 50 MVA PTRs.	State	SS	132/33kV	Trf		100	Planned
	xiv) 132 kV DC line (5 KM) from proposed 220/132/33 kV Amaravathi SS to proposed 132/33 kV Amaravathi SS.	State	SS	132kV	D/C	5		Planned
	xv) Erection of 132/33 kV Achampeta SS with 2 x 50 MVA PTRs.	State	SS	132/33kV	Trf		100	Planned
	xvi) 132 kV DC line (32 KM) from proposed 220/132/33 kV Amaravathi SS to proposed 132/33 kV Achampeta SS.	State	SS	132kV	D/C	32		Planned
	xvii) Erection of 132/33 kV Dondapadu SS with 2 x 50 MVA PTRs.	State	SS	132/33kV	Trf		100	Planned
	xviii) 132 kV DC/SC line (15 KM) from proposed 220/132/33 kV Amaravathi SS to proposed 132/33 kV Dondapadu SS.	State	SS	132kV	DC/SC	15		Planned

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	I) For Sricity SEZ :							
	i) Up-gradation of 220/132KV Rachagunneri SS to 400/220/132KV SS Rachagunneri with 2 x 315 MVA.	State	SS	400/132/33 kV	Trf		630	Planned
	ii) 400KV QMDC LILO of (45KM) 400KV SS Chittoor – 400KV APGENCO Krishnapatnam.	State	SS	400kV	D/C	90		Planned
	iii) Up-gradation of 132/33KV Cherivi SS to 220/132/33KV Chervi SS with 2 x 160 MVA.	State	SS	220/132/33 kV	Trf		320	Planned
	iv) Erection of 220 KV DC line (50KM) from 400KV SS Rachagunneri to 220KV SS at Chervi in Chittoor district.	State	SS	220kV	D/C	100		Planned
	v) Erection of 220KV DC line (30KM) from 220KV SS Sulluripet to 220KV SS Chervi in Chittoor District.	State	SS	220kV	D/C	60		Planned
	vi) Erection of 132/33KV SS at Yerpedu with 2 x 80MVA.	State	SS	132/33kV	Trf		160	Planned
	vii) Erection of 132KV DC line (5KM) from 400/220/132KV SS at Rachagunneri SS to proposed 132KV Yerpedu SS.	State	SS	132kV	D/C	10		Planned
	II) APIIC SEZ :							Planned
	i. Up-gradation of existing 132/33 kV Menakuru SS to 220/132/33 kV Menakuru SS with 2 x 100 MVA PTRs.	State	SS	220/132/33kV	Trf		200	Planned
	ii. 220 kV DC line (40 KM) from proposed 400/220/132 kV Rachagunneri SS to proposed 220/132/33 kV Menakuru SS.	State	SS	220kV	D/C	80		Planned
	iii. 132 kV LILO (15 KM) of existing 132 kV Naidupet – Gudur line to proposed 220/132/33 kV Menakuru SS.	State	SS	132kV	D/C	30		Planned
SR-74	Transmission schemes of KPTCL for renewable energy generation projects							Planned
	Group – I							
	1. Establishing 2 x 500 MVA, 400/ 220 kV Sub station at Gadag(Doni) in Mundaragi Taluk, Gadag District.							Planned
	(i) Establishing 2 x 500 MVA, 400/ 220 kV Sub station at Gadag(Doni) in Mundaragi Taluk, Gadag District.	State	SS	400/220kV	Trf		1000	Planned
	(ii) Construction of 400 kV LILO line with Twin Moose ACSR conductor from 400 kV Guttur-Guddadahalli SC line to Proposed 400/220 kV S/S at Gadag(Doni) for a distance of 26.798 kms in Gadag District.	State	SS	400kV	S/C	54		Planned

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	(iii) Construction of 220 kV DC LILO line from 220 kV Gadag-Lingapur DC line to proposed 400/220 kV Gadag(Doni) S/S for a distance of 2.775 Kms in Mundaragi Taluk, Gadag District	State	SS	220kV	S/C	5		Planned
	2. Construction of 220 kV SC line from 400kV Hiriyyur (PGCIL) sub station to 220/66/11kV Hiriyyur sub station and Construction of 220kV DC line from 220/66/11kV Chitradurga sub station to 220/66/11kV Hiriyyur sub station in existing corridor in Chitradurga District.							Planned
	(i) Construction of 220 kV SC line on DC towers from existing 400kV PGCIL station Beerenahalli to existing 220/66/11kV SRS at Hiriyyur in Chitradurga Dist in existing corridor of 220kV SC line from Hoysalakatte to 220/66/11 kV sub station Hiriyyur (partly in new corridor i.e from PGCIL point to link 220 kV S/C line from Hoysalakatte to 220/66/11kV SRS at Hiriyyur)	State	SS	220kV	S/C	74		Planned
	(ii) Construction of 220 kV DC line on DC towers from existing 220/66 kV Sub-Station Chitradurga to existing 220/66 kV Sub-Station Hiriyyur in Chitradurga Dist in existing corridor (partly in new corridor from LILO point to 220 kV sub station Chitradurga) for a distance of 37.461Kms.	State	SS	220kV	D/C	76		Planned
	(iii) Construction of Two Nos of 220 kV Terminal bays at 220/66/11 kV Chitradurga Sub-Station in Chitradurga Taluk and District.	State	SS	220kV	Bays			Planned
	(iv) Construction of Two Nos of 220 kV Terminal bays at 220/66/11 kV Hiriyyur Sub-Station in Hiriyyur Taluk and Chitradurga District.	State	SS	220kV	Bays			Planned
	3. Establishing 2 x 500 MVA, 400/220 kV Sub station at Jagalur in Jagalur Taluk, Davanagere District.							Planned
	(i) Establishing 2 x 500 MVA, 400/220 kV GIS Sub station at Jagalur in Jagalur Taluk, Davanagere District.	State	SS	400/220kV	Trf		1000	Planned
	(ii) Construction of 400kV Multi circuit Quad Moose ACSR line for a length of 40kms from proposed 400/220kV Jagalur substation to LILO the proposed	State	SS	400kV	M/C	40		Planned

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	BTPS-CNHalli DC line at the rate of Rs.350.00Lakhs per km.							
	(iii) Construction of 220kV Drake ACSR line for a length of 40kms from proposed 400/220kV Jagalur substation to 220/66kV Thallak substation at the cost of Rs.60.00Lakhs per km.	State	SS	220kV	SC	40		Planned
	(iv) Construction of 220kV Drake ACSR line for a length of 50kms from proposed 400/220kV Jagalur substation to proposed 220/66/11kV Kudligi substation at the cost of Rs.60.00Lakhs per km.	State	SS	220kV	D/C	50		Planned
	(v) Construction of 4Nos of 220kV line terminal bays(2 Nos each at 220/66kV Thallak and prop 220/66/11kV Kudligi substations) at the cost of Rs:150.00 Lakhs per TB.	State	SS	220kV	Bays			Planned
	(vi) Construction of 220kV DC line for a route length of 50kms from Jagalur to Chitradurga at the cost of Rs.60.00 Lakhs per km	State	SS	220kV	D/C	100		Planned
	4. Construction of 220kV DC line for a length of 26kms from 220kV Bidnal substation to LILO one of the circuits of 220kV Narendra-Haveri DC line, in Haveri and Dharwad districts.	State	SS					Planned
	Group – II							
	5. Establishing 2x100MVA 220/66 kV and 1x8MVA 66/11kV sub station at Shivanasamudra, Malavalli taluk, Mandya district.	State	SS					Planned
	(i) Construction of 220kV DC line for a distance of 1.5kms to link to 220kV line connecting 220kV T.K.halli substation at the cost of Rs.60.00Lakhs per km.	State	SS	220kV	D/C	3		Planned
	(ii) Construction of 220kV DC line for a distance of 1.5kms to link to 220kV line connecting 220kV Madhuvanahalli substation at the cost of Rs.60.00Lakhs per km.	State	SS	220kV	D/C	3		Planned

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	(iii) Construction of 220kV DC Drake ACSR line for a length of 76kms in the existing 220kV Hootagally-Vajamangala-T.K.Halli SC line corridor including LILO to 220/66/11kV Vajamangala substation at the cost of Rs.60.00 Lakhs per km	State	SS	220kV	D/C	152		Planned
	(iv) Construction of 220kV line terminal bays-4Nos (one each at 220kV Hootagally and T.K.halli and two nos at Vajamangala) at the cost of Rs.150.00 Lakhs per TB.	State	SS	220kV	Bays			Planned
	(v) Construction of 5kms of 66kV DC coyote ACSR lines to link M2 line,T.K.halli line,SFC line,Kollegala line,Madhuvanahalli lines to proposed 220/66/11kV Shivanasamudram substation near existing SFC substation at the cost of Rs.30.00Lakhs per kms.	State	SS	66kV	D/C	10		Planned
	(vi) Establishing 2x100MVA 220/66 kV and 1x8MVA 66/11kV sub station at Shivanasamudra, Malavalli taluk, Mandya district	State	SS	220/66kV & 66/11kV	Trf		208	Planned
	6. Establishing 2 x 100 MVA, 220/110 KV & 1x10 MVA, 110/11 KV Sub station at Mughalkod in Raibag Taluk, Belgaum District.	State	SS					Planned
	(i) Establishing 2 x 100 MVA, 220/110 KV & 1x10 MVA, 110/11 KV Sub station at Mughalkod in Raibag Taluk, Belgaum District.	State	SS	220/110kV & 110/11kV	Trf		210	Planned
	(ii) Construction of 110kV DC for a length of 5kms to link 220/110/11kV Mughalkod to 110/11kV Itnal substation at the rate of Rs.40 Lakhs per km.	State	SS	110kV	D/C	10		Planned
	(iii) Construction of 110kV DC for a length of 10kms to link 220/110/11kV Mughalkod to link to lines connecting Hidkal and Sultanpur substations at the rate of Rs.40 Lakhs per km.	State	SS	110kV	D/C	20		Planned
	(iv) Construction of 110kV DC for a length of 15kms to link 220/110/11kV Mughalkod to lines connecting Mudalagi and Hunsyal substations at the rate of Rs.40 Lakhs per km.	State	SS	110kV	D/C	30		Planned
	(v) Construction of 110kV DC for a length of 15kms to link 220/110/11kV Mughalkod to lines connecting	State	SS	110kV	D/C	30		Planned

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	Kuligod and Saidapur substations at the rate of Rs.40 Lakhs per km.							
	(vi) Construction of 220kV DC line LILO Ghataprabha-Chikkodi for a route length of 40kms at a cost of Rs 60.00 Lakhs per km	State	SS	220kV	D/C	80		Planned
	Group – III							
	7- Establishing 2x100MVA 220/66 kV and 1x12.5MVA 66/11kV sub station at Hosadurga, Hosadurga taluk, Chitradurga district.							Planned
	(i) Construction of 220kV DC line for a length of 45kms from proposed 220/66/11kV Hosadurga substation to 400/220kV CN Halli substation at the cost of Rs.60.00Lakhs per km.	State	SS	220kV	D/C	90		Planned
	(ii) Construction of 220kV line terminal bays-2Nos at 400/220kV CN Halli substation at the cost of Rs.150.00 Lakhs per TB	State	SS	220kV	Bays			Planned
	(iii) Construction of 66kV DC line for a length of 2kms from proposed 220/66/11kV Hosadurga substation to LILO 66kV SC Bagur-Ramagiri SC line at the cost of Rs.30.00Lakhs per km.	State	SS	66kV	D/C	4		Planned
	(iv) Construction of 66kV DC line for a length of 10kms from proposed 220/66/11kV Hosadurga substation to 66/11kV Hosadurga substation in existing corridor at the cost of Rs.30.00Lakhs per km.	State	SS	66kV	D/C	20		Planned
	(v) Construction of 66kV DC line for a length of 15kms from proposed 220/66/11kV Hosadurga substation to 66/11kV Halurameshwara substation in existing corridor at the cost of Rs.30.00Lakhs per km.	State	SS	66kV	D/C	30		Planned
	(vi) Establishing 2x100MVA 220/66 kV and 1x12.5MVA 66/11kV sub station at Hosadurga, Hosadurga taluk, Chitradurga district.	State	SS	220/66kV & 66/11kV	Trf		200	Planned
	(vii) Construction of 2 Nos 66kV TBs at 66/11kV Halurameshwara(2 Nos) at the cost of Rs.35Lakhs per TB.	State	SS	66kV	Bays			Planned

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
SR-75	Transmission System for Tumkur (Pavagada) Ultra Mega Solar Park (2000MW)							Planned
	Phase-I (1000MW)							
	(i) LILO of 400kV Gooty – Tumkur (Vasantnarsapur) D/c at Tumkur (Pavagada) Pooling station	ISTS	ATS	400kV	D/C	50		Planned
	(ii) Tumkur (Pavagada) Pooling station - Hiriyyur 400 kV D/c(as part of Tumkur (Pavagada) Pooling station - Mysore line)	ISTS	ATS	400kV	D/C	232		Planned
	(iii) LILO of 400kV Bellary Pool – Tumkur (Vasantnarsapur) D/c (Quad)(both circuits)[KPTCL line] at Tumkur (Pavagada) Pooling station.	ISTS	ATS	400kV	D/C	80		Planned
	(iv) 3x500 MVA, 400/220KV Pooling station at Tumkur(Pavagada) .	ISTS	ATS	400/220kV	Trf		1500	Planned
	(v) 1x125MVAR bus reactor at 400/220KV Tumkur (Pavagada) Pooling station	ISTS	ATS	400/220kV	Reactor			Planned
	(vi) 220kV Bays(8 Nos) at Tumkur (Pavagada) PS for interconnection with solar project	ISTS	ATS	220kV	Bays			Planned
	Phase-II(1000MW)							
	(i) Hiriyyur – Mysore 400 kV D/c line\$	ISTS	ATS	400kV	D/C	496		Planned
	(ii) Tumkur (Pavagada) Pooling station- Devanahally (KPTCL) 400kV D/c (Quad)	ISTS	ATS	400kV	D/C	250		Planned
	(iii) Augmentation of 2x500 MVA, 400/220KV transformer at Tumkur (Pavagada) Pooling station	ISTS	ATS	400/220kV	Trf		1000	Planned
	(iv) 1x125MVAR bus reactor (2nd) at Tumkur (Pavagada) Pooling Station	ISTS	ATS	400/220kV	Reactor			Planned
	(v) Third 400/220 kV, 1x500 MVA transformer at Tumkur (Vasantnarsapur)	ISTS	ATS	400/220kV	Trf		1000	Planned
	(vii) 1x80 MVAR switchable Line reactor at Mysore end of Hiriyyur- Mysore D/c for each circuit.	ISTS	ATS	400kV	Reactor			Planned
(viii) 8 nos. 220kV line Bays at 400/220kV Tumkur (Pavagada) PS for Solar Interconnection	ISTS	ATS	220kV	Bays			Planned	
SR-76	2000 MW HVDC corridor to the State of Kerala							
	(i) 400kV Substations at Kottayam							
	1. Four 400 kV Line bays	State	SS	400kV	Bays			Planned

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	2. Six 220kV line bays	State	SS	220kV	Bays			Planned
	3. Two Transformer Bays with 2x315 MVA 400/220kV ICT's	State	SS	400/220kV	Bays			Planned
	4. LILO both circuits of 400kV Tirunelveli – Cochin East Quad Moose D/c feeder.	State	SS	400kV	D/C	40		Planned
	(ii) 400kV Substations at Kollam							
	1. Four 400kV Line bays	State	SS	400kV	Bays			Planned
	2. Six 220kV Line bays	State	SS	220kV	Bays			Planned
	3. two transformer bays with 2x315MVA 400/220kV ICT's	State	SS	400/220kV	Bays			Planned
	4. LILO one circuit of 400kV Tirunelveli – Edamon – Cochin East Quad Moose D/c feeder	State	SS	400kV	D/C	20		Planned
	(iii) 400kV Substations at Edamon							
	1. Six 400kV Line bays	State	SS	400kV				Planned
	2. Four spare 400kV Line Bays	State	SS	400kV				Planned
	3. Two transformer bays with 2x315MVA 400/220kV ICT's	State	SS	400/220kV	Bays			Planned
	4. LILO both circuits of under construction 400kV Tirunelveli – Cochin East Quad Moose D/c feeder	State	SS	400kV	D/C	50		Planned
	5. LILO of existing 400kV Tirunelveli – Trivandrum (North) Twin Moose D/c feeder	State	SS	400kV	D/C	50		Planned
	(iv) 400kV Substation at Kanhirode							
	1. 400kV S/s at Kanhirode with a transformer capacity of 2x315MVA	State	SS	400/132kV	Trf		630	Planned
	2. LILO the proposed 400kV Udappi- Kasarkode(Mylatti) – Kazhikode D/C feeder	State	SS	400kV	D/C	20		Planned
	(v) 400kV Substation at Ettumanoor							
	1. 400kV S/s at Ettumanoor with a transformer capacity of 2x315MVA	State	SS	400/132kV	Trf		630	Planned
	2. LILO-ing the proposed 400kV Edamon –Cochin East D/C feeder	State	SS	400kV	D/C	20		Planned
SR-77	220kV transmission System in Kerala							
	1. Projects planned under Green Corridor intra-State Scheme							

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	(i) 220kV Substation at Kottathara, Palakkad Dt							
	a. 220/33kV, 2x100MVA transformers	State	SS	220/33kV	Trf		200	Planned
	b. Two 220kV and four 110kV line bays	State	SS	220 & 110kV	Bays			Planned
	c. Construction of a 220kV D/c line to the 220kV substation planned at Vettathur.	State	SS	220kV	D/C	130		Planned
	(ii) 220kV Substation at Vettathur, Palakkad Dt							
	a. 220/110kV, 2x100MVA transformers	State	SS	220/110kV	Trf		200	Planned
	b. Two 220kV and four 110kV line bays	State	SS	220kV & 110kV				Planned
	c. LILO of existing 220kV Madakathara – Areekode feeder	State	SS	220kV	D/C	20		Planned
	(iii) 220kV Substation Kuyilimala, Idukki Dt							
	a. 220/110kV, 2x100MVA transformers	State	SS	220/110kV	Trf		200	Planned
	b. Two 220kV line bays.	State	SS	220kV	Bays			Planned
	c. LILO of 220kV Pallivasal – Idukki feeder	State	SS	220kV	D/C	20		Planned
	2- Projects planned under intra-State System Strengthening Scheme							
	(i) 220kV Substation at Neeleswaram, Kasargode Dt							
	a. 220/110kV, 2x200MVA transformers	State	SS	220/110	Trf		400	Planned
	b. Ten 220kV and eight 110kV line bays	State	SS	220 & 110 kV	Bays			Planned
	c. LILO of both circuits of existing 220kV Kanhirode – Mylatty 220kV D/c feeder	State	SS	220kV	D/C	20		Planned
	d. two 220kV D/c feeders along the RoW of existing 110kV lines using MCMV towers.	State	SS	220kV				Planned
	(ii) 220kV Substation at Thalassery, Kannur Dt							
	a. 220/110kV, 2x160MVA transformers	State	SS	220/110kV	Trf		320	Planned
	b. Eight 220kV and six 110kV line bays.	State	SS	220kV & 110kV	Bays			Planned
	c. LILO of existing 220kV Orkattery – Kanhirode feeder.	State	SS	220kV	D/C	20		Planned

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	d. construction of 220kV D/c feeders along the RoW of existing 110kV lines using MCMV towers.	State	SS	220kV	D/C			Planned
	(iii) 220kV Substation at Mundayad, Kannur Dt by upgradation of existing 110kV Substation							
	a. 220/110kV, 2x160MVA transformers	State	SS	220/110kV	Trf		320	Planned
	b. four 220kV line bays	State	SS	220kV	Bays			Planned
	c. construction of 220kV D/c feeders along the RoW of existing 110/66kV lines using MCMV towers from the proposed 220kV Substation, Thalassery and existing 220kV Substation, Kanhirode.	State	SS	220kV	D/C	30		Planned
	(iv) 220kV Substation at Kakkayam by upgradation of existing 110kV Substation							
	a. 220/110kV, 2x200MVA transformers	State	SS	220/110kV	Trf		400	Planned
	b. Four 220kV line bays	State	SS	220kV	Bays			Planned
	c. LILO of existing 220kV Areekode – Kaniampetta S/c feeder.	State	SS	220kV	S/C	20		Planned
	d. construction of 220kV D/c feeder along the RoW of existing 110kV D/c feeder using MCMV towers.	State	SS	220kV	D/C			Planned
	(v) 220kV Substation at Kunnamangalam, Kozhikode Dt by upgradation of existing 110kV Substation							
	a. 220/110kV, 2x100MVA transformers	State	SS	220/110kV	Trf		200	Planned
	b. four 220kV line bays	State	SS	220kV	Bays			Planned
	c. LILO of existing 220kV Areekode – Kanhirode feeder.	State	SS	220kV	D/C	20		Planned
	(vi) 220kV Substation at Elamkur, Malappuram Dt							
	a. 220/110kV, 2x100MVA transformers	State	SS	220/110kV	Trf		200	Planned
	b. two 220kV and four 110kV line bays.	State	SS	220 & 110kV	Bays			Planned
	c. LILO of existing 220kV Madakathara – Areekode feeder.	State	SS	220kV	D/C	20		Planned
	(vii) 220kV Substation Kunnamkulam, Thrissur Dt by upgradation of							

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	existing 110kV Substation							
	a. 220/110kV, 2x100MVA transformers	State	SS	220/110kV	Trf		200	Planned
	b. two 220kV line bays	State	SS	220kV	Bays			Planned
	c. LILO of proposed 220kV Madakathara – Nallalam feeder.	State	SS	220kV	D/C	20		Planned
	(viii) 220kV Substation Edappal, Malappuram Dt by upgradation of existing 110kV Substation							
	a. 220/110kV, 2x100MVA transformers	State	SS	220/110kV	Trf		200	Planned
	b. four 220kV line bays	State	SS	220kV	Bays			Planned
	c. LILO of proposed 220kV Madakathara – Malaparamba feeder	State	SS	220kV	D/C	20		Planned
	(ix) 220kV Substation at Panjal, Thrissur Dt							
	a. eight 220kV line bays	State	SS	220kV	Bays			Planned
	b. interlinking of 220kV Madakathara – Palakkad, Elappully – Madakathara, Shornur – Areekode and Madakathara – Areekode feeders	State	SS	220kV				
	(x) 220kV Substation Viyyur, Thrissur Dt by upgradation of existing 110kV Substation							
	a. 220/110kV, 2x100MVA transformers	State	SS	220/110kV	Trf		200	Planned
	b. four 220kV line bays	State	SS	220kV	Bays			Planned
	c. upgradation of existing 110kV Madakathara – Viyyur D/c feeder to 220kV D/c feeder	State	SS	220kV	D/C			Planned
	d. 220kV Substation North Parur planned by upgrading existing 66kV transmission system to 220/110kV MCMV system.	State	SS	220/110kV	M/CMV			Planned
	xi) 220kV Substation Chalakkudy, Thrissur Dt by upgradation of existing 110kV Substation							
	a. 220/110kV, 2x100MVA transformers	State	SS	220/110kV	Trf		200	Planned
	b. four 220kV line bays	State	SS	220kV	Bays			Planned
	c. LILO of one circuit of existing 220kV Lower Periyar – Madakathara D/c feeder	State	SS	220kV	D/C	20		Planned

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	d. 220kV Substation Aluva planned by upgrading existing 66kV transmission system to 220/110kV MCMV system.	State	SS	220/110kV	M/CMV			Planned
	(xii) 220kV Substation Aluva, Ernakulam Dt by upgradation of existing 110kV Substation			220kV				Planned
	a. 220/110kV, 2x200MVA transformers	State	SS	220/110kV	Trf		400	Planned
	b. six 220kV line bays	State	SS	220kV	Bays			Planned
	c. upgradation of existing 66kV Kalamassery – Aluva D/c feeder to 220kV D/c feeder.	State	SS	220kV	D/C	14		Planned
	d. 220kV Substations at Kothamangalam, Pallivasal and Chalakkudy planned by upgrading existing 66kV transmission system to 220/110kV MCMV system using the existing RoW.	State	SS	220/110kV	M/CMV			Planned
	(xiii) 220kV Substation North Parur, Ernakulam Dt by upgradation of existing 110kV Substation							
	a. 220/110kV, 2x100MVA transformers	State	SS	220/110	Trf		200	Planned
	b. four 220kV line bays.	State	SS	220kV	Bays			Planned
	c. upgradation of existing 66kV Aluva – North Parur D/c feeder to 220kV D/c feeder	State	SS	220kV	D/C	20		Planned
	d. 220kV Substation Viyyur planned by upgrading existing 66kV transmission system to 220/110kV MCMV system.	State	SS	220/110kV	MCMV			Planned
	(xiv) 220kV Substation Kaloor, Ernakulam Dt by upgradation of existing 110kV Substation							
	a. 220/110kV, 2x200MVA transformers	State	SS	220/110	Trf		400	Planned
	b. four 220kV line bays	State	SS	220kV	Bays			Planned
	c. construction of 220kV Bhramapuram – Kaloor D/c feeder	State	SS	220kV	D/C	20		Planned
	d. 220kV Substation, Kalamassery also planned by upgrading existing 110kV transmission system to 220/110kV MCMV system	State	SS	220/110kV	MCMV			Planned
	(xv) 220kV Substation Kothamangalam, Ernakulam Dt by upgradation of existing 66kV Substation							

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	a. 220/110kV, 2x100MVA transformers	State	SS	220/110kV	Trf		200	Planned
	b. four 220kV line bays	State	SS	220kV	Bays			Planned
	c. LILO of one circuit of 220kV Pallivasal – Aluva D/c feeder.	State	SS	220kV	D/C	20		Planned
	(xvi) 220kV Substation Pallivasal, Idukki Dt							
	a. 220/66kV, 2x50MVA transformers	State	SS	220/66kV	Trf		100	Planned
	b. four 220kV line bays	State	SS	220kV	Bays			Planned
	c. LILO of existing 220kV Udumalpet – Idukki S/c feeder.	State	SS	220kV	S/C	20		Planned
	d. 220kV Substations at Kothamangalam, Kuyilimala and Aluva are planned by upgrading existing 66kV transmission system to 220/110kV MCMV system.	State	SS	220/110kV	MCMV			Planned
	(xvii) 220kV Substation Ettumanoor, Kottayam Dt							
	a. 220/110kV, 2x100MVA transformers	State	SS	220/110kV	Trf		200	Planned
	b. four 220kV line bays	State	SS	220kV	Bays			Planned
	c. LILO of existing 220kV Pallom – Ambalamughal and Sabarigiri – Ambalamughal feeders	State	SS	220kV	D/C	20		Planned
	(xviii) 220kV Substation Eramalloor, Alleppey Dt							
	a. 220/110kV, 2x100MVA transformers	State	SS	220/110kV	Trf		200	Planned
	b. four 220kV line bays.	State	SS	220kV	Bays			Planned
	c. construction of a 220kV D/c feeder from Brahmapuram	State	SS	220kV	D/C			Planned
	d. 220kV Substation Punnappa is planned by upgrading existing 110kV transmission system to 220/110kV MCMV system.	State	SS	220/110kV	MCMV			Planned
	(xix) 220kV Substation Pathanamthitta by upgradation of existing 110kV Substation							
	a. 220/110kV, 2x100MVA transformers	State	SS	220/110kV	Trf		200	Planned
	b. four 220kV line bays	State	SS	220kV	Bays			Planned
	c. LILO of existing 220kV Sabarigiri – Edamon S/c feeder.	State	SS	220kV	S/C	20		Planned

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	d. 220kV Substation Edappon planned by upgrading existing 66kV transmission system to 220/110kV MCMV system.	State	SS	220/110kV	MCMV			Planned
	(xx) 220kV Substation Kakkad, Pathanamthitta Dt by upgradation of existing 110kV Substation							
	a. 220/110kV, 2x50MVA transformers	State	SS	220/110kV	Trf		100	Planned
	b. two 220kV line bays.	State	SS	220kV	Bays			Planned
	c. LILO of existing 220kV Sabarigiri – Pallom feeder.	State	SS	220kV	DC	20		Planned
	(xxi) 220kV Substation Parippally, Kollam Dt by upgradation of existing 110kV Substation							
	a. 220/110kV, 2x100MVA transformers	State	SS	220/110kV	Trf		200	Planned
	b. four 220kV line bays	State	SS	220kV	Bays			Planned
	c. upgradation of existing 110kV Kundara – Parippally D/c feeder to 220/110kV MCMV feeder.	State	SS	220/110kV	MCMV	30		Planned
	d. LILO of one circuit of existing 220kV Edamon – Pothencode D/c feeder along the RoW of existing 110kV network by upgrading it to 220/110kV MCMV system.	State	SS	220/110kV	MCMV	20		Planned
	(xxii) 220kV Substation Vizhinjam, Trivandrum Dt by upgradation of existing 66kV Substation							
	a. 220/110kV, 2x100MVA transformers	State	SS	220/110kV	Trf		200	Planned
	b. four 220kV line bays	State	SS	220kV	Bays			Planned
	c. construction of 220kV Kattakkada – Vizhinjam D/c feeder.	State	SS	220kV	D/C	40		Planned
SR-78	Maheshwaram(AP)							
	1- Establishment of Maheshwaram(AP) 400/220kV substation with 2x500 MVA transformers	State	SS	400/220	Trf		1000	UC
	2-Maheshwaram (PG) – Maheshwaram (AP) by bus extension or by short 400kV D/c line – by APTRANSCO	State	SS	400	DC	20		UC

S.No	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
	3-Maheshwaram (AP) – Yeddumailaram (Shankarapalli) 400kV D/c line (to be established by re-alignment of the 'LILO of Srisailam – Mamadipalli at Shankarapalli' and re-instating the Srisailam – Mamadipalli 400kV D/c line	State	SS	400	DC	158		UC
	4-LILO of Nizamabad – Yeddumailaram (Shankarapalli) 400kV D/c line at Narsapur	State	SS	400	DC	20		UC
SR-79	Power evacuation system from 1040 MW power plant of M/s Hinduja at Vishakapatnam							UC
	1-400kV twin moose D/c line from Kalpaka S/s to Hinduja (HNPCL) Switchyard	State	ATS	400	DC	60		UC
	2-A new 400/220kV KVKota S/s with 2x315MVA capacity	State	ATS	400/220			630	UC
	3- 400kV twin moose D/c line from HNPCL switchyard to the proposed KVKota S/s	State	ATS	400	DC	140		UC
	4 -A new 400/220kV KVKota S/s with 2x315MVA capacity	State	ATS	400/220	Trf		630	UC
	5-400kV twin moose D/c line from HNPCL switchyard to the proposed KVKota S/s	State	ATS	400	DC	120		UC
	6-A new 400/220kV KVKota S/s with 2x315MVA capacity	State	ATS	400/220			630	UC
	7-400kV twin moose D/c line from HNPCL switchyard to the proposed KVKota S/s	State	ATS	400	DC	390		UC
	8-400kV twin moose D/c line from proposed KVKota S/s to Vemagiri S/s	State	ATS	400	DC	200		UC

Annexure – II (B)

WR	Sl. No.	Scheme /details	ISTS / State / DTL	ATS / SS	Voltage (kV)	Type	ckm	MVA	Present Status
01	WR-1	Transformers for HVDC back-to-back (BTB) station at Bhadrawati							
		1. 3 nos. of spare converter transformers.	ISTS	SS	400kV	Converter Trf		234	UC
		2. 1×315 MVA ICT	ISTS	SS	400/220kV	trf		315	Commissioned
02	WR-2	Dynamic Recative Compensation in Western Region							
		1. At Aurangabad. 2x125 MVAR MSR, 1X125 MVAR MSC & +/- 300 MVAR STATCOM	ISTS	SS	400kV	reactor / capacitor			UC
		2. At Gwalior 2x125 MVAR MSR, 1X125 MVAR MSC & +/- 200 MVAR STATCOM	ISTS	SS	400kV	reactor / capacitor			UC
		3. At Satna. 2x125 MVAR MSR, 1X125 MVAR MSC & +/- 300 MVAR STATCOM	ISTS	SS	400kV	reactor / capacitor			UC
		4 At Solpaur. 2x125 MVAR MSR, 1X125 MVAR MSC & +/- 300 MVAR STATCOM	ISTS	SS	400kV	reactor / capacitor			UC
03	WR-3	Installation of Bus Reactor and ICT in Western Region							
		1. 1x125MVAR Bus Reactor at Bina substation	ISTS	SS	400kV	reactor			UC
		2. 1x1500MVA (4 th), 765/400kV transformer at Raigarh Pooling Station (near Tamnar)	ISTS	SS	765/400kV	trf		1500	UC
		3. 1x500 MVA (3 rd), 400/220 kV transformer at Damoh alongwith 2 nos. 220 kV bays	ISTS	SS	400/220kV	trf		500	UC
		4. 1x1500MVA (2 nd), 765/400kV transformer at Raipur Pooling Station	ISTS	SS	765/400kV	trf		1500	UC
		5. 2x500 MVA, 400/220 kV transformer at Vadodara alongwith 4 nos. 220 kV GIS bays	ISTS	SS	400/220kV	trf		1000	UC
		6. 2 nos. 63 MVAR switchable line reactors at Rajgarh for Rajgarh-Sardar Sarovar 400 kV D/c line.	ISTS	SS	400kV	reactor			UC
04	WR-4	ATS for KAPP Extn U-3,4, (1400MW)(Central sector)							

		1. Kakrapar NPP-Navsari 400kV D/C line	ISTS	ATS	400kV	D/C	400		UC
		2. Kakrapar NPP-Vapi 400kV D/C line	ISTS	ATS	400kV	D/C	340		UC
05	WR-5	ATS for Mundra UMPP(4000MW)-Part B (Strengthening in WR)							
		1. Gandhar-Navsari 400 kV D/C line	ISTS	ATS	400kV	D/C	212		Commissioned
		2. Navsari-Boisar 400 kV D/C line	ISTS	ATS	400kV	D/C	408		UC
		3. Wardha-Aurangabad 400 kV (Quad) D/c (with provision to upgrade at 1200 kV at later date)	ISTS	ATS	400kV	D/C	800		UC
		4. Aurangabad-Aurangabad (MSETCL) 400 kV D/C quad	ISTS	ATS	400kV	D/C	60		Commissioned
		5. LILO of both circuit of Kawas-Navsari 220 kV D/C at Navsari (PG)	ISTS	ATS	220kV	D/C	68		Commissioned
		6. Bachchau 400/220 kV, 2x315 MVA substation	ISTS	ATS	400/220kV	trf		630	Commissioned
		7. Navsari GIS 400/220 kV , 2x315 MVA	ISTS	ATS	400/220kV	trf		630	Commissioned
		8. Wardha 765/400 kV , 3x1500 MVA substation	ISTS	ATS	765/400kV	trf		4500	Commissioned
		12. 40% Fixed Series compensation each on Wardha - Aurangabad 400 kV D/c at Wardha end.	ISTS	ATS	400kV				UC
06	WR-6	ATS for Bhavnagar (2X250 MW)							
		1. BECL - Botad 220 kV D/C line	State	ATS	220kV	D/C	188		UC
		2. BECL - Sagapara 220 kv D/C line	State	ATS	220kV	D/C	82		UC
		3. LILO of Sarvakundla - Vartej 220 kV line at BECL	State	ATS	220kV	S/C	56		UC
07	WR-7	ATS for Sikka Ext. (2X250MW)							UC
		Sikka - Moti Paneli 220 kV D/C line with Al 59 cond.	State	ATS	220kV	D/C	156		UC
		LILO of bot ckt. of Jamnagar - Jetpur 220 kV D/C line at Sikka	State	ATS	220kV	D/C	240		UC
08	WR-8	Pipavav CCPP(2x351 MW) GSECL							
		1. PipavavTPS- Dhokadva 220kV D/c line	State	ATS	220kV	D/C	94		UC
		2. LiLO of both Savarkundla – Mahva220kV lines at Pipavav (GPPC)	State	ATS	220kV	2xD/C	174		Commissioned
		3. Mahuva – Sagapara 220kV D/C line	State	ATS	220kV	D/C	96		Commissioned
09	WR-9	Shapoorji Pallonji Energy Ltd. (SPEL) (1320 MW)							
		1. SPEL – Pirana 400kV D/c line	DTL	ATS	400kV	D/C	350		UC
		2. SPEL- Amreli 400kV D/c line	DTL	ATS	400kV	D/C	200		UC

10	WR-10	DGEN TPS -Torrent Power Ltd. (1200 MW)							
		1. DGEN TPS – Navsari 400kV D/c (triple snowbird)	DTL	ATS	400kV	D/C	200		Commissioned
		2. DGEN TPS-Vadodara 400 kV D/C (twin Moose)	ISTS	ATS	400kV	D/C	200		UC
		3. Navsari-Bhestan 220 kV D/C line	ISTS	SS	400kV	D/C	30		UC
11	WR-11	Vindhyachal –V (500 MW) (Central Sector)							
		1. Vindhyachal - Vindhyachal Pooling Station 400kV D/c (quad) line	ISTS	SS	400kV	D/C	20		UC
12	WR-12	ATS for Mauda STPS- II (2X660) MW							
		1. Mauda II - Betul 400kV D/C (Quad)	ISTS	ATS	400kV	D/C	420		UC
		2. Betul -Khandwa 400kV D/C(Quad)	ISTS	ATS	400kV	D/C	340		UC
		3. Khandwa-Indore 400kV D/C(second circuit)	ISTS	ATS	400kV	D/C	400		UC
		4. 400/220kV, 2X315 MVA S/S at Betul	ISTS	ATS	400/220kV	trf		630	UC
13	WR-13	ATS for Tiroda Adani Ph-1,Ph –II(1320MW+1320MW)							
		1.Tiroda (Gondia) - Warora 400 kV D/c line (quad)	State(JV)	ATS	400kV	D/C	180		Commissioned
		2.Tiroda-Koradi III 765 kV 2xS/c line	State(JV)	ATS	765kV	2xS/C	120		Commissioned
		3. Koradi-III - Akola-II 765 kV 2xS/c line	State(JV)	ATS	765kV	2xS/C	282		Commissioned
		4. Akola-II - Aurangabad III 765 kV 2xS/c line	State(JV)	ATS	765kV	2xS/C	210		Commissioned
		5. 2x1500 MVA, 765/400 kV ICT at Tiroda (Gondia)	State(JV)	ATS	765/400kV	trf		3000	Commissioned
		6. Aurangabad III-Aurangabad (PG) 765kV 2xS/C	State(JV)	ATS	765kV	S/C	60		UC
		7. Aurangabad III 765/400kV,2X1500MVA substation	State(JV)	ATS	765/400kV	trf		3000	UC
14	WR-14	ATS for IndiaBulls Realtech Ltd (Nasik) (5x270 MW)							
		1. Sinnar – Nasik 400kV D/C	DTL	ATS	400kV	D/C	240		UC
		2. Sinnar – Bableshwar 400kV quad D/C line	DTL	ATS	400kV	D/C	280		Commissioned
15	WR-15	ATS for Parli (Replacement) U-8 (250MW)							
		1. Parli-Nanded 220kV D/C line	State	ATS	220kV	D/C	220		Commissioned
		2. LILO of 220kV Parli GCR-Beed at Parli D/C line	State	ATS	220kV	D/C	40		UC

16	WR-16	ATS for Koradi-II (1980 MW)							
		Koradi-II – Koradi-III 400 kV quad D/C line	State	ATS	400kV	D/C	70		UC
		2x500MVA, 400/220 kV S/s at Koradi-II	State	ATS	400/220kV	trf		1000	UC
17	WR-17	Dedicated Transmission System for Generaion projects in Raigarh complex near Kotra							
		RKM Powergen Ltd (4x360MW)							
		RKM Powergen – Raigarh Pooling Station(near Kotra) 400kV D/c(Quad)	DTL	ATS	400kV	D/C	60		UC
		SKS Power Gen (Ch.) Ltd (4x300MW)							
		SKS Ispat - Raigarh Pooling Station (near Kotra) 400kV D/c(Quad)	DTL	ATS	400kV	D/C	70		commissioned
		DB Power (Ch.) Ltd (2X600MW)							
		DB Power – Raigarh Pooling Station (near Kotra) 400kV D/c (Quad)	DTL	ATS	400kV	D/C	50		commissioned
		Avantha Bhandar (Korba West) TPP(1X600MW)							
		Korba West – Raigarh Pooling Station 400kV D/c line	DTL	ATS	400kV	D/C	60		commissioned
		Athena Chhattisgarh Power Ltd. (2x600MW)							
		Athena Chhattisgarh – Raigarh Pooling Station(near Kotra) 400kV D/c(Quad)	DTL	ATS	400kV	D/C	70		UC
		Visa Power Ltd. (1x600+1x660MW)							
		Visa Power-Raigarh PS 400kV D/c (triple) line	DTL	ATS	400kV	D/C	70		UC
18	WR-18	Dedicated Transmission System for Generaion projects in Champa complex							
		Akaltara (KSK Mahanadi) Power Ltd (6X600MW)							
		KSK Mahanadi – Champa Pooling Station 400kV 2xD/c (Quad)	DTL	ATS	400kV	2xD/C	90		UC
		Dedicated Transmission line for Lanco Amarkantak Power(2X660MW)							
		Lanco - Champa Pooling Station 400kV D/c (Quad)	DTL	ATS	400kV	D/C	50		UC
		Balco Ltd (2x300MW)							
		Balco – Dharamjaygarh Pooling Station 400kV D/c	DTL	ATS	400kV	D/C	120		UC
		Vandana Vidyut Ltd. (4x135MW)							

		Vandana Vidyut – Daramjaygarh Pooling Station 400 kV D/C line	DTL	ATS	400kV	D/C	100		UC
19	WR-19	Combined ATS for Generation Projects located in Raigarh Complex near Kotra, Raigarh complex near Tamnar, Champa complex and Raipur complex of Chhattisgarh-Part-D							
		1. Wardha – Aurangabad (PG) 765kV D/c line.	ISTS	ATS	765kV	D/C	700		Commissioned
		2. Aurangabad(PG) – Boisar / Kharghar 400kV D/c (Quad) line.	ISTS	ATS	400kV	D/C	672		UC
		3. Augmentation of transformation capacity by 400/220kV, 1x500 MVA transformer at Boisar	ISTS	ATS	400/220kV	trf		500	Commissioned
		4. Establishment of 765/400kV 2x1500MVA Aurangabad (PG) S/s	ISTS	ATS	765/400kV	trf		3000	Commissioned
20	WR-20	Combined ATS for Generation Projects located in Raigarh Complex near Kotra, Raigarh complex near Tamnar, Champa complex and Raipur complex of Chhattisgarh-Part-E							
		1. Aurangabad (PG) – Padghe(PG) 765kV D/c line	ISTS	ATS	765kV	D/C	570		UC
		2. Padghe (PG) – Kudus(MSETCL) 400kV D/c (Quad) line.	ISTS	ATS	400kV	D/C	34		UC
		3. Vadodara – Asoj 400kV D/c(Quad) line.	ISTS	ATS	400kV	D/C	24		Commissioned
		4. Establishment of 765/400kV, 2x1500MVA Padghe(PG) S/s [GIS Substation]	ISTS	ATS	765/400kV	trf		3000	UC
21	WR-21	Combined ATS for Generation Projects located in Raigarh Complex near Kotra, Raigarh complex near Tamnar, Champa complex and Raipur complex of Chhattisgarh-Part-F							
		Raipur Pooling Station – Wardha 765kV 2nd D/c line	ISTS	ATS	765kV	S/C	760		UC
22	WR-22	Combined ATS for Generation Projects located in Raigarh Complex near Kotra, Raigarh complex near Tamnar, Champa complex and Raipur complex of Chhattisgarh-Part-I							
		1. A ±800kV, 6000 MW HVDC bipole between Champa Pooling Station (WR) – near Kurushetra (NR) in Haryana with metallic return (initially to be operated at 3000 MW).	ISTS	ATS	±800kV	HVDC	1800		UC
		2. Establishment of 3000 MW, ±800 kV HVDC bipole terminal each at Champa pooling station and near Kurushetra in Haryana with provision to upgrade the terminals to 6000 MW.	ISTS	ATS	±800kV	HVDC		6000	UC

		3. Kurukshetra(NR) - Jalandhar 400kV D/c(Quad) line (one ckt. via 400/220kV Nakodar S/s).	ISTS	ATS	400kV	D/C	300		Commissioned
		4. LILO of Abdullapur – Sonapat 400kV D/c(triple) at Kurukshetra	ISTS	ATS	400kV	2xD/C	60		Commissioned
		5. Establishment of 400/220kV, 2x500 MVA S/s at Kurukshetra	ISTS	ATS	400/220kV	trf		1000	UC
23	WR-23	System Strengthening in WR for Generation Projects in Western Region							
		1. Jabalpur – Bhopal -Indore 765kV S/c (quad bersimis)	ISTS	ATS	765kV	S/C	482		Commissioned
		2. Aurangabad – Dhule- Vadodara 765kV S/c (quad bersimis)	ISTS	ATS	765kV	S/C	499		Commissioned
		3. Bhopal (PG) –Bhopal (MPTCL) 400kV D/C quad line	ISTS	ATS	400kV	D/C	10		Commissioned
		4. Dhule (PG) – Dhule (MSETCL) 400kV D/C quad line	ISTS	ATS	400kV	D/C	20		UC
24	WR-24	Transmission system for Solar projects in Charanka Solar Park (950.5 MW)							
		1. (a) Charanka –Sankhari 400kV D/C line (ACSR Twin Moose)	State	ATS	400kV	D/C	130		UC
		1. (b) Charanaka 400/220 kV S/s (2x315 MVA)	State	ATS	400/220kV	trf		630	UC
		1. (c) 400 kV, 125 MVAR bus reactor at Charanka S/s	State	ATS	400kV	reactor			UC
		2. 220/66 kV ,8X100 MVA Charanka Pooling Station	State	ATS	220/66kV	trf		800	UC
		3. Charanka-Jangral 220kV D/C line (AI-59).	State	ATS	220kV	D/C	100		Commissioned
		4. Around 452kms 1Cx630 sq mm of 66 kV cable for interconnection of Solar Projects in each plot of the Solar Park with Pooling Station	State	ATS	66kV				Commissioned
25	WR-25	Transmission system for wind projects in Gujarat (4500 MW)							
		1. Jamanwada W/F S/S-Versana 220 kV D/C –(AAAC Moose conductor)	State	ATS	220kV	D/C	50		UC
		2. Nakhatarana W/F S/S-Versana 220 kV D/C (AAAC Moose conductor)	State	ATS	220kV	D/C	80		UC

		3. Vandiya W/F SS – Halvad (400 kV SS) 220 kV D/C line (Zebra conductor	State	ATS	220kV	D/C	60		UC
		4. Kanmer W/F SS – Halvad (400 kV SS) 220 kV D/C line (Zebra conductor)	State	ATS	220kV	D/C	50		UC
		5. Chotila W/F SS – Jasdan 220 kV D/C line (Zebra conductor	State	ATS	220kV	D/C	80		UC
		6. Malvan W/F SS – Chorania 220 kV D/C line (Zebra conductor)	State	ATS	220kV	D/C	60		UC
		7. Dhanki W/F SS – Bhatia 220 kV D/C line (Zebra conductor)	State	ATS	220kV	D/C	50		UC
		8. Bhanvad W/F SS- Bhomiyavadar 132 kV D/C line.	State	ATS	132kV	D/C	80		UC
		9. Tebhada W/F SS Nyara (Rajkot) 220 kV D/C line (AAAC Moose conductor)	State	ATS	220kV	D/C	60		UC
		10. Maliya W/F SS – Tankara 220 kV D/C line (Zebra conductor)	State	ATS	220kV	D/C	50		UC
		11. Rojmal W/F SS – Amreli 220 kV D/C line (AAAC Moose conductor)	State	ATS	220kV	D/C	80		UC
		12. Shapur W/F SS – Halvad (400 kV SS) 220 kV D/C line (AAAC Moose conductor)	State	ATS	220kV	D/C	60		UC
		13. Kodadha W/F SS – Tharad 220 kV D/C line (AAAC Moose conductor)	State	ATS	220kV	D/C	50		UC
		14. Patan W/F SS – Radhanpur 220 kV D/C line (Zebra conductor)	State	ATS	220kV	D/C	80		UC
26	WR-26	System Strengthening for wind projects in Gujarat (4500 MW)							
		1. Varsana-Halvad 400kV D/C Quad line along with 400/220kV, 2x315MVA Halvad substation.	State	ATS	400kV	D/C	220		UC
		Halvad 400/220kV New S/s			400/220kV	trf		630	Commissioned
		2. 220/66 kV, 100 MVA Tankara substation,	State	ATS	220/66kV	trf		100	Commissioned
		3. 220/132 kV, 200MVA Bhatia substation	State	ATS	220/132kV	trf		200	UC
		4. 220/66 kV, 100MVA Jasdan substation.	State	ATS	220/66kV	trf		100	UC
		5. 220/132kV, 100MVA Jasdan substation.	State	ATS	220/132kV	trf		100	UC
		6. Bhatia-Kalvad-Kangasiyali 220kV D/C line (AAAC Moose).	State	ATS	220kV	D/C	110		UC
		7. Morbi-Tankara-Chorania 220kV D/C line (AAAC Moose).	State	ATS	220kV	D/C	120		UC
		8. Varsana- Bhachau- Radhanpur 220kV D/C line (AAAC Moose).			220kV	D/C	100		UC
		9. Nakhatrana-Varsana 220kV D/C line (ACSR Zebra).			220kV	D/C	100		UC
		10. Bhatia(220kV)-Bhatia(132kV) 132 kV D/C line(ACSR Panther).			132kV	D/C	140		UC

27	WR-27	Transmission System for Essar Power Gujarat Limited (EPGL)	ISTS	ATS					
		1. Essar Power TPS –Bachau 400 kV D/c (triple) line	ISTS	ATS	400kV	D/C	380		UC
		2. 1x63 MVAR line reactor at Bachau end on both circuits of above line	ISTS	ATS	400kV	Reactor			UC
28	WR-28	Transmission System Associated with Gadawara STPS (2x800MW) of NTPC (Part-A)							
		1.Gadawara - Jabalpur Pool 765kV D/c line,	ISTS	ATS	765kV	D/C	203		UC
		2. Gadawara - Warora Pool 765kV D/c line	ISTS	ATS	765kV	D/C	640		UC
		3. LILO of all both circuits of Wardha - Parli (new) 400kV D/c line at Warora Pool,	ISTS	ATS	400kV	2xD/C	180		UC
		4.Establishment of 2x1500MVA, 765/400kV substation at Warora.	ISTS	ATS	765/400kV	trf		3000	UC
		1X 330 MVAR, 765 kV bus reactor at 765/400kV, 2x1500MVA Warora Pooling Station	ISTS	SS		Reactor			planned
		1X 330 MVAR, 765 kV bus reactor at 765 kV Gadawara STPS Switchyard	ISTS	SS		Reactor			planned
		1 X 330 MVAR line reactor for Gadawara STPS – Warora Pooling Station 765 kV D/c line both ends and both lines (Switchable at Gadawara end & fixed at Warora end)	ISTS	SS		Reactor			planned
		1 X 80 MVAR switchable line reactor for Warora Pool – Parli (PG) 400 kV D/c quad line at Warora for both lines	ISTS	SS		Reactor			planned
29	WR-29	Transmission System Associated with Gadawara STPS (2x800MW) of NTPC (Part-B) (WRSS - 15)							
		1. Warora Pool - Parli 765kV D/c line	ISTS	ATS	765kV	D/C	640		UC
		2.Parli - Solapur 765kV D/c line	ISTS	ATS	765kV	D/C	300		UC
		3.Parli(new) - Parli (PG) 400kV D/c (quad) line,	ISTS	ATS	400kV	D/C	40		UC
		4. Establishment of 2x1500MVA, 765/400kV substation at Parli (new).	ISTS	ATS	765/400kV	trf		3000	UC
		1X 330 MVAR, 765 kV bus reactor at 765/400kV, 2x1500MVA Parli (New) S/s	ISTS	SS					planned

		1 X 330 MVAR line reactor for Warora Pooling Station – Parli (New) 765kV D/c line both ends for both lines (Switchable at Warora end & fixed at Parli (new) end)	ISTS	SS					planned
30	WR-30	Solapur STPP(2x660MW) transmission system - Part A							UC
		1. Solapur STPP – Solapur (PG) 400kV 2nd D/c (Quad).	ISTS	ATS	400kV	D/C	22		UC
31	WR-31	Transmission System Associated with Lara STPS-I (2x800MW)							UC
		1. Lara STPS-I – Raigarh (Kotra) Pooling Station 400 kV D/c line	ISTS	ATS	400kV	D/C	36		UC
		2. Lara STPS-I – Champa Pooling Station 400 kV D/c (quad) line.	ISTS	ATS	400kV	D/C	224		UC
32	WR-32	Inter Regional System Strengthening for WR and NR Part - B							
		1. Establishment of 2x1000MVA 765/400 kV station at Orai	ISTS	SS	765/400kV	trf		2000	UC
		2. LILO of one circuit of Satna – Gwalior 765 kV line at Orai	ISTS	SS	765kV	D/C	70		UC
		3. Establishment of 2x1500MVA 765/400 kV station at Aligarh	ISTS	SS	765/400kV	trf		3000	UC
		3a. LILO of Agra – Meerut 765 kV line at Aligarh	ISTS	SS	765kV	D/C	35		UC
		4. Jabalpur Pooling Station – Orai 765kV D/c line	ISTS	SS	765kV	D/C	838		UC
		5. LILO of Kanpur – Jhatikara 765kV S/c line at Aligarh S/s	ISTS	SS	765kV	D/C	35		UC
		6. Orai – Aligarh 765 kV D/c line	ISTS	SS	765kV	D/C	540		UC
		7. Orai-Orai (UPPCL) 400kV D/c Quad – 20 km	ISTS	SS	400kV	D/C	76		UC
33	WR-33	Green Energy Corridor (GEC) ISTS Part B & C							
		1. Bhuj Pool–Banaskanta 765 kV D/c	ISTS	SS	765kV	D/C	600		UC
		2. Banaskanta -Chittorgarh 765 kV D/c	ISTS	SS	765kV	D/C	572		UC
		3. Banaskanta-Sankhari 400 kV D/c	ISTS	SS	400kV	D/C	52		UC
		4. Chittoragr (new) - Ajmer (new) 765 kV D/C line							
		4.establishment of 765/400/220kV (765/400 kV-2x1500 MVA & 400/220kV- 2x500MVA) substation at Bhuj Pool	ISTS	SS	765/400kV	trf		3000	UC
		4.establishment of 765/400/220kV (765/400 kV-2x1500 MVA & 400/220kV- 2x500MVA) substation each at Banaskanta			765/400kV	trf		3000	UC

34	WR-34	System Strengthening for IPPs in Chhattisgarh and other generation projects in WR							
		1. Gwalior - Morena 400kV D/c line.	ISTS	ATS	400kV	D/C	100		UC
		2. Establishment of 2x315MVA, 400/220kV substation at Morena,	ISTS	ATS	400/220kV	trf		630	UC
		3. Vindhyachal-IV & V STPP - Vindhyachal Pooling Station 400kV D/c (Quad) 2nd line	ISTS	ATS	400kV	D/C	30		UC
		4. Sasan UMPP - Vindhyachal Pooling Station 2nd 765kV S/c line,	ISTS	ATS	765kV	S/C	8		UC
		5. LILO of one circuit of Aurnagabad - Padghe 765kV D/c line at Pune,	ISTS	ATS	765kV	D/C	100		UC
		6. Raigarh (Kotra) - Champa Pool 765kV 2nd S/c line	ISTS	ATS	765kV	S/C	100		UC
		7.Champa Pool - Dharamjaigarh 765kV 2nd S/c line.	ISTS	ATS	765kV	S/C	50		UC
	3	1 X 125 MVAR bus reactor at 400/220kV, 2x315MVA Morena Substation							
35	WR-35	Additional System Strengthening for Chhattisgarh IPPs							
		1. Raipur Pool - Rajnandgaon 765kV D/c line	ISTS	S/S	765kV	D/C	300		UC
		2. Bilaspur Pool - Rajnandgaon 765kV D/c line			765kV	D/C	300		UC
		2.Rajnandgaon - Warora Pool 765kV D/c line	ISTS	S/S	765kV	D/C	400		UC
		4.Establishment of 765V substation at Rajnandgaon	ISTS	S/S	765kV	trf			UC
		1 X 330 MVAR, 765 kV bus reactor at765 kV Morena Substation Rajnandgaon Switching Station	ISTS	S/S					planned
	4	1 X 330 MVAR switchable line reactor for Rajnandgaon – Warora Pooling Station 765kV D/c for both lines at Rajnandgaon end	ISTS	S/S					planned
36	WR-36	ATS for Dhuvarn (Ext.(360MW)							
		1. LILO of Kasor-Vartej 220 kV S/c line at Dhuvarn	State	ATS	220kV	D/C	50		Planned
		2. LILO of Karamsad-Vartej 220 kV S/c line at Dhuvarn	State	ATS	220kV	D/C	60		Planned
37	WR-37	Essar Power MP Ltd. (Mahan Phase II) (600 MW) (Private Sector)							

		1. Bus extension of Mahan TPS phase-1 generation project to proposed generation project switchyard along with 1x125MVAR bus reactor (connectivity)	DTL	ATS	400kV				Planned
38	WR-38	Transmission System Associated with Vindhyachal –V							UC
		1. 2 nos. 765kV bays at Vindhyachal Pooling station & Jabalpur Pooling station	ISTS	ATS	765kV	bays			UC
		2. 1 X 330 MVAR, 765 kV line Reactor alongwith 850 Ohm NGR on both circuit at both endsof Vindhyachal PS - Jabalpur PS 765 kV D/C	ISTS	ATS	765kV	reactor			UC
		3. 1x1500MVA, 765/400kV ICT Vindhyachal Pooling Station	ISTS	ATS	765/400kV	trf		1500	UC
		4. Vindhyachal Pooling station - Jabalpur Pooling Station 765kV D/c line	ISTS	ATS	765kV	D/C			UC
39	WR-39	NPCIL Jaitapur (3480MW) (Central Sector)							
		1. Jaitapur - Kolhapur 765 kV D/C line. (connectivity)	ISTS	ATS	765kV	D/C		300	Planned
		2.Kolhapur - Solapur/Pune(GIS) 765kV D/c line			765kV	D/c		500	Planned
40	WR-40	Dedicated Transmission line for Karnataka Power Corp Ltd.(KPCL) 1600MW)							
		KPCL – Champa Pooling Station 400 kV D/C	DTL	ATS	400kV	D/C		120	UC
41	WR-41	Dedicated Line of Sarda Energy & Minerals(SEML) (350 MW)							
		Sarda Energy– Raigarh Pooling Station (near Tamnar) 400kV D/c line	DTL	ATS	400kV	D/C		100	UC
42	WR-42	Transmission System Associated with Barethi TPP (NTPC Ltd) (2640MW)							
		1. Barethi TPP -Orai 765kV D/c	ISTS	ATS	765kV	D/C		360	Planned
		2.Orai-Bareilly 765kV D/c	ISTS	ATS	765kV	S/C		500	Planned

53	WR-53	Western Region System Strengthening -16							
		(a) Installation of 2x500MVA, 400/220kV ICTs with associated bays at Parli (PG) switching station along with provision of six nos. of 220 kV bays	ISTS	SS	400/220kV	trf		1000	UC
		(c) Provision of two nos. of 220kV bays at Mapusa (Colvale) 400/220 kV substation	ISTS	SS	220kV	bays			UC
		(d) Installation of 500MVA, 400/220kV (3rd) ICT with associated bays at Satna (PG) S/s with provision of two nos. 220kV line bays	ISTS	SS	400/220kV	trf		500	UC
		(e) Provision of two nos. of 400 kV bays at 765/400kV Indore(PG) substation	ISTS	SS	400kV	bays			UC
58	WR-58	Western Region System Strengthening -17							
		1. Provision of 1x240 MVAR switchable line reactor at Pune GIS S/s end {for Aurangabad (PG) – Pune GIS 765kV S/C line, formed after LILO of one ckt of Aurangabad (PG) – Padghe (PG) 765kV D/C line at Pune GIS}.	ISTS	SS	400kV	reactor			UC
		2. Conversion of followings Fixed Line Reactor into Switchable Line Reactors / BUS Reactor.	ISTS	SS	400kV				
		a. Aurangabad (PG) – Aurangabad I (Waluj) 400kV D/c (Quad) line: 420kV 50 MVAR fixed line reactor at Aurangabad I (Waluj) to be converted into Switchable Line Reactor.	ISTS	SS	400kV	reactor			UC
		b. Itarsi – Indore (MPPTCL) 400kV 2xS/C lines: 420kV 50 MVAR fixed line reactors at both ends of each line are to be converted into switchable line reactors.	ISTS	SS	400kV	reactor			UC
		c. Bina (PG) – Shujalpur 400kV D/C line: 420kV 50 MVAR fixed line reactor at Shujalpur end is to be converted into switchable line reactor. The 420kV 63 MVAR line reactor installed at Bina (PG) end is already switchable.	ISTS	SS	400kV	reactor			UC
		d. 1x63 MVAR BUS Reactor at Bhadravati S/s: 420kV 63 MVAR fixed line reactor at Bhadravati end of Bhadravati – Dhariwal 400kV S/c line is to be converted into BUS Reactor at Bhadravati (NGR if any to be removed).	ISTS	SS	400kV	reactor			UC

60	WR-60	Transmission System for UMSPP at Radhanesda (Banaskantha)							
		Banaskantha (Radhanesda) Pooling Station - Banaskantha 400kV D/c line	ISTS	SS	400kV	D/C	100		planned
61	WR-61	Additional 400kV Feed to Goa							
		(i) LILO of one ckt. of Narendra (existing) – Narendra (New) 400kV D/c quad line at Xeldem	ISTS	SS	400kV	S/C	120		UC
		(ii) Xeldem – Mapusa 400kV D/c (quad) line	ISTS	SS	400kV	D/C	80		UC
		(iii) Establishment of 2x500MVA, 400/220kV substation at Xeldem	ISTS	SS	400/220kV	trf		1000	UC
		(iv) 2 nos of 400 kV line bays at Mapusa s/s (for Xeldem – Mapusa 400kV D/c (quad) line)	ISTS	SS	400kV	bays			UC
		(v) 1x80MVAR switchable line reactor along with 500 Ohms NGR and its auxiliaries at Narendra (New) S/s (for Narendra (New) –Xeldem 400kV (quad) line formed after LILO of one ckt of Narendra (existing) – Narendra (New) 400kV D/c quad line at Xeldem)	ISTS	SS	400	reactor			UC
62	WR-62	Measures to control Fault Level at pooling stations / substations in Chhattisgarh area							
		(i) Dharamjaygarh Pool section B - Raigarh (Tamnar) Pool 765kV D/c line	ISTS	SS	765kV	D/C	140		UC
		(ii) 2 nos of 765kV line bays at Section B of Dharamjaygarh Pool	ISTS	SS	765kV	bays			UC
		(iii) 2 nos of 765kV line bays at Raigarh (Tamnar) Pool	ISTS	SS	765kV	bays			UC
63		Connectivity of M/s LVTPL (2 X 660 MW)							
		Warora PS - LVTPL 765 kV D/C	ISTS	ATS	765 kV	D/C			planned
64		Powergrid works associated with Part-A of Transmission system for Gadarwara STPS of NTPC							UC
		a) 2 nos. 765 kV line bays at 765/400kV Jabalpur Pooling Station of POWERGRID {for Gadarwara STPS (NTPC) - Jabalpur PS 765 kV D/c}	ISTS	SS	765	bays			UC

67	Powergrid works associated with Additional System Strengthening Scheme Chhattisagrh IPPs Part-B								
	(a) 2 nos. 765 kV line bay at 765/400kV Raipur Pooling Station of POWERGRID {for Raipur PS(PG) – Rajnandgaon (TBCB) 765 kV D/c}	ISTS	SS	765 kV	bays				UC
68	Powergrid workds associated with Additional System Strengthening for Sipat STPS								
	(a) 3 nos. 765 kV line bays at 765/400kV Bilaspur Pooling Station of POWERGRID (1 no. for Sipat STPS(NTPC) - Bilapur PS(PG) 3rd 765kV S/c, 2 nos. for Bilaspur PS(PG)-Rajnandgaon(TBCB) 765 kV D/c)	ISTS	SS	765 kV	bays				UC
	(b) 2 nos. 240 MVAR, 765 kV switchable line reactors at 765/400kV Bilaspur PS end for Bilaspur PS(PG) - Rajnandgaon(TBCB) 765 kV D/c	ISTS	SS	765 kV	bays		240		UC
									UC
69	Bays for Transmission System Associated with DGEN Torrent Energy Ltd (1200MW)								
	(a) 2nos 400kV Bays at Vadodara (GIS)	ISTS	SS	400	bays				UC
	(b) 2nos 220kV Bays at Navsari (GIS)	ISTS	SS	220	bays				UC
70	Transmission System for DEL TPP (1320 MW)								
	(i) DEL TPP Switchyard – Khandwa pool 400kV D/c (Quad) line	ISTS	SS	400	D/C				Planned
71	Connectivity System for M/s Jinbhuvish Power Generations Pvt. Ltd. (JGPL) (600MW)								Planned
	(i) JGPL TPS Switchyard – Warora Pool 400kV D/c line (to be implemented through Tariff Base Competitive Bidding route)	ISTS	SS	400	D/C				Planned
72	Conectivity of Rewa Ultra Mega Solar Ltd Park								UC
	(a) RUMS Ltd. switchyard – Rewa Pooling Station 220kV 3xD/c line along with associated bays at Solar Park	State	ATS	220	3 X D/C				UC

73	Additional Transmission System Strengthening for Sipat STPS							UC
	(i) Sipat – Bilaspur Pooling Station 765 kV S/C line	ISTS	SS	765	S/C	25		UC
	(ii) Bilaspur Pooling Station - Rajnandgaon 765 kV D/C line	ISTS	SS	765	D/C	180		UC
	1 x 240 MVAR, 765 kV switchable line reactor for Bilaspur Pooling Station – Rajnandgaon 765kV D/c for both lines at Bilaspur end	ISTS	SS	765	Reactor			UC
74	Additional inter-Regional AC link for import into Southern Region i.e. Warora – Warangal and Chilakaluripeta - Hyderabad - Kurnool 765kV link							UC
	(i) Establishment of 765/400kV substations at Warangal (New) with 2x1500 MVA transformers and 2x240 MVAR bus reactors. 765/400kV	ISTS	SS	765/400	S/s			UC
	(ii) Warora Pool – Warangal (New) 765kV D/c line with 240 MVAR switchable line reactor at both ends. 765 KV D/C	ISTS	SS	765	D/C	350		UC
	(iii) Warangal (New) –Hyderabad 765 kV D/c line with 330 MVAR switchable line reactor at Warangal end.	ISTS	SS	765	D/C	160		UC
	(iv) Warangal (New) – Warangal (existing) 400 kV (quad) D/c line. 400KV D/C	ISTS	SS	400	D/C	10		UC
	(v) Hyderabad – Kurnool 765 kV D/c line with 240 MVAR switchable line reactor at Kurnool end. 765 KV D/C	ISTS	SS	765	D/C	170		UC
	(vi) Warangal (New) – Chilakaluripeta 765kV D/c line with 240 MVAR switchable line reactor at both ends.765 KV D/C	ISTS	SS	765	D/C	250		UC
	Cuddapah – Hoodi 400kV (quad) D/c line with 63 MVAR switchable line reactor at both ends. 400 KV D/C	ISTS	SS	400	D/C	200		UC
75	Common Transmission System for Phase-II Generation Projects in Odisha and Immediate Evacuation System for OPGC (1320 MW) Project in Odisha							UC
	(i) OPGC (IB TPS) – Jharsuguda (Sundargarh) 400kV D/C line with Triple Snowbird Conductor 400 kV D/C Length- 50 KM	ISTS	SS	400	D/C	50		UC
	Jharsuguda (Sundargarh)– Raipur Pool 765 kV D/C line	ISTS	SS	765	D/C	350		UC

76	Transmission System Strengthening in Madhya Pradesh under JICA							
1	LILO of one circuit of 400kV Khandwa - Rajgarh PGCIL D/C line at Chhegaon 400 kV Substation	State	SS	400	D/C	5.00		planned
2	400/220kV Additional Transformer at Bina 400kV S/S	State	SS	400/220	Trf		315	planned
3	400kV Bus Reactor at Chhegaon 400kV S/S	State	SS	400	reactor		1x125 MVAR	planned
	2 no. of 400 kV bays at 400/220 kV Chhegaon S/s	State	SS	400	bays			planned
1	Pithampur400-Super Corridor 220kV DCDS line (With Low Loss ACSR Conductor)	State	SS	220	D/C	50.00		planned
	2 no. of 220 kV bays at Pithampur400 kV S/s	State	SS	220	bays			planned
	Establishment of Super Corridor (Indore) 220/132kV GIS S/s with 2 no. of 220 kV bays	State	SS	220	bays			planned
	upgradation of Udaipura S/s from 132 kV to 220 kV S/s	State	SS		S/s			planned
	2 no. of 220 kV bays at 220 kV Udaipura S/s	State	SS	220	bays			planned
2	Charging/Upgradation of Chichli220 - Udaipura DCDS line on 220kV level	State	SS	220	S/s			planned
	2 no. of 220 kv bays at Chichli220 kV S/s	State	SS	220	bays			planned
3	Chhatarpur-Tikamgarh 220kV DCSS line (With Low Loss ACSR Conductor)	State	SS	220	S/C	110.00		planned
	1 no. of 220 kV bay at Chhataarpur	State	SS	220	bays			planned
	1 no. of 220 kV bay at Tikamgarh	State	SS	220	bays			planned
4	LILO of Bina220 - Ganjbasoda 220kV line at Bina(MPPTCL) 400kV S/s	State	SS	220	D/C	10.00		planned
	2 no. of 220 kV bays at Bina (MP) 400 kV S.s	State	SS	220	bays			planned
5	Rewa220 - Rewa UMSP - Sidhi 220kV DCDS line Rewa220 - Rewa UMSP 220kV DCDS line with Low Loss ACSR Conductor (30km) Rewa UMSP - Sidhi 220kV DCDS line (60km)	State	SS	220	D/C	90.00		planned
	2 no. of 220 kV bays at 220 kV at Rewa 220 kV S/s	State	SS	220	bays			planned
	2 no. of 220 kV bays at 220 kV at Sidhi 220 kV S/s	State	SS	220	bays			planned

		4 no. of 220 kV bays at 220kV Rewa UMSP S/s	State	SS	220	bays			planned
									planned
77		Transmission System Strengthening in Madhya Pradesh under GEC - I							
	(A)	System Strengthening Required for projects in Badwani District							planned
	1	220kV D/C line from Julwaniya 400kV S/s to Sendhwa 220kV S/s	State	SS	220	D/C	35.00		planned
	2	220/132kV S/s at Sendhwa	State	SS	220/132	S/s		1x160+1x63	planned
	5	2 Nos 220kV Feeder bays at Julwaniya 400kV S/s	State	SS	220	bays			planned
	(B)	System Strengthening Required for projects in Betul District		SS					planned
	1	220kV D/C line from Betul 220kV S/s to Gudgaon 220kV S/s	State	SS	220	D/C	35.00		planned
	2	220/132kV S/s at Gudgaon	State	SS	220/132	S/s		1x160+1x63	planned
	4	2 Nos 220kV Feeder bays at Betul 220kV S/s	State	SS	220	bays			planned
	(C)	System Strengthening Required for projects in Dhar District		SS					planned
	1	220kV D/C line from Badnawar 400kV S/s to Kanwan 220kV S/s	State	SS	220	D/C	20.00		planned
	2	220/132kV S/s at Kanwan	State	SS	220/132	S/s		1x160+1x63	planned
	3	220kV D/C line from Kanwan 220kV S/s to Dhar 220kV S/s	State	SS	220	D/c	35.00		planned
	6	2 Nos 220kV Feeder bays at Badnawar 400kV S/s	State	SS	220	bays			planned
	7	2 Nos 220kV Feeder bays at Dhar 220kV S/s	State	SS	220	bays			planned
	(E)	System Strengthening Required for projects in Mandsaur District		SS					planned
	1	400kV D/C line from Nagda 400kV S/s to Mandsaur 400kV S/s	State	SS	400	D/C	100.00		planned
	2	400/220kV S/s at Mandsaur	State	SS	400/220	S/s		2x315+2x160	planned
	3	1x125MVAR, 400kV Bus Reactor at 400kV S/s Mandsaur	State	SS	400	reactor		1x125 MVAR	planned
	4	LILo both circuits of Nagda - Neemuch 220kV line at Mandsaur 400kV S/s	State	SS	220	D/C	20.00		planned
	6	LILo both circuits of Badod-Kota-Modak 220kV line at Suwasara 220kV S/s	State	SS	220	D/c	20.00		planned
	7	220/132kV S/s at Suwasara	State	SS	220/132	s/s		2x160+1x63	planned
	8	220kV D/C line from Mandsaur 400kV S/s to Marut Shakti Pool 220kV S/s	State	SS	220	D/c	65.00		planned
	10	2 Nos 400kV Feeder bays at Nagda 400kV S/s	State	SS	400	bays			planned

	11	2 Nos 220kV Feeder bays at Marut Shakti Pool 220kV S/s	State	SS	220	bays			planned
	(F)	System Strengthening Required for projects in Neemuch District		SS					planned
	1	220kV D/C line from Neemuch 220kV S/s to Ratangarh 400kV S/s	State	SS	220	D/c	65.00		planned
	2	220/132kV S/s at Ratangarh 400kV S/s	State	SS	220/132	s/s		2x160+1x63	planned
	4	2 Nos 220kV Feeder bays at Neemuch 220kV S/s	State	SS	220	bays			planned
	(G)	System Strengthening Required for projects in Ratlam District		SS					planned
	1	220kV Interconnector between Sailana 400kV S/s and Ratlam Switching 220kV S/s	State	SS	220	S/c	25.00		planned
	2	220kV/132 S/s at Sailana 400kV S/s	State	SS	220	S/s		2x160+1x63	planned
	3	2nd Circuiting of Ratlam Switching - Daloda 220kV line	State	SS	220	S/c	72		planned
	4	LILO of Ratlam-Daloda 220kV line at Jaora 220kV S/s	State	SS	220	D/C	15.00		planned
	5	220/132kV S/s at Jaora (Upgradation)	State	SS	220/132	S/s		2x160 MVA	planned
	9	1 Nos 220kV Feeder bays at Ratlam Switching 220kV S/s	State	SS	220	bays			planned
	10	2 Nos 220kV Feeder bays at Ratlam Switching 220kV S/s	State	SS	220	bays			planned
	11	1 Nos 220kV Feeder bays at Daloda 220kV S/s	State	SS	220	bays			planned
	(H)	System Strengthening Required for projects in Rewa District		SS					planned
	1	LILO of one circuit of Satna(PGCIL) - Bina(PGCIL) 400kV line at Sagar 400kV S/s	State	SS	400	d/c	35.00		planned
	2	400/220kV S/s at Sagar (Upgradation)	State	SS	400/220	S/s		2x315	planned
	3	1x125MVAR, 400kV Bus Reactor at 400kV S/s Sagar	State	SS	400	reactor			planned
	(I)	System Strengthening Required for projects in Shajapur District		SS					planned
	1	400kV D/C line from Ashta 400kV S/s to Ujjain 400kV S/s	State	SS	400	D/c	100.00		planned
	2	400/220kV S/s at Ujjain	State	SS	400/220	S/s		2x315 + 2x160	planned
	3	1x125MVAR, 400kV Bus Reactor at 400kV S/s Ujjain	State	SS	400	reactor		1x125 MVAR	planned
	4	400kV D/C line from Nagda 400kV S/s to Ujjain 400kV S/s	State	SS	220	D/C	55.00		planned
	5	400kV D/C line from Indore(PGCIL) 765kV S/s to Ujjain 400kV S/s	State	SS	400	D/C	45.00		planned
	6	220kV D/C line from Rajgarh(B) 220kV S/s to Susner 220kV S/s	State	SS	220	D/C	72.00		planned
	7	LILO both circuits of Ujjain - Badod 220kV and Ujjain-Nagda 220K line at Ujjain 400kV S/s	State	SS	220	D/C	40.00		planned

