Ready Reckoner for Credible Contingencies in NEW-SR corridor

S. No.	Case (A)	Limiting contingency (N-1) (B)	Limiting constraint (C)	ER-SR TTC (D)	WR-SR TTC (E)	NEW-SR/ SR Import TTC (F)	RM (G)	ATC (H)	TTC Change w.r.t. base case	Next Limiting Constraint
1	Base Case	Outage of 765/400 kV Maheshwaram single ICT	Overloading of 765/400 kV Maheshwaram other ICT	**6200**	**16100**	**22300**	1000	21300	**0**	N-1 of 765 kV Angul-Srikakulam D/C will lead to an Angular separation of 20 degrees between Angul & Srikakulam with TTC increment of 800 MW w.r.t. column 'F'
2	Outage of HVDC Talcher-Kolar Single Pole	Outage of 765/400 kV Maheshwaram single ICT	Overloading of 765/400 kV Maheshwaram other ICT	**5350**	**16100**	**21450**	1000	15400	**-850**	N-1 of 765 kV Angul-Srikakulam D/C will lead to an Angular separation of 20 degrees between Angul & Srikakulam with TTC increment of 170 MW w.r.t. column 'F'
3	Outage of Talcher-Kolar Bipole	Outage of one ckt of 765 kV Angul - Srikakulum DC	This will lead to an Angular separation of 20 degrees between Angul & Srikakulam	**4300**	**16100**	**20400**	1000	14500	**-1900**	Outage of 765/400 kV Maheshwaram single ICT will overload the other ICT with TTC increment of 700 MW w.r.t. column 'F'
4	Outage of HVDC Raigarh - Pugalur Monopole	Outage of 765/400 kV Maheshwaram single ICT	Overloading of 765/400 kV Maheshwaram other ICT	**6000**	**15050**	**21050**	1000	15000	**-1250**	N-1 of 765 kV Angul-Srikakulam D/C will lead to an Angular separation of 20 degrees between Angul & Srikakulam with TTC increment of 100 MW w.r.t. column 'F'
5	Outage of HVDC Raigarh - Pugalur Bipole	Outage of one ckt of 765 kV Angul - Srikakulum DC	This will lead to an Angular separation of 20 degrees between Angul & Srikakulam	**6000**	**13500**	**19500**	1000	13700	**-2800**	Outage of 765/400 kV Maheshwaram single ICT will overload the other ICT with TTC increment of 800 MW w.r.t. column 'F'
6	Outage of HVDC Raigarh - Pugalur Bipole 1 & 2	Outage of one ckt of 765 kV Angul - Srikakulum DC	Overloading of other ckt of 765 kV Angul - Srikakulum DC	**6000**	**10300**	**16300**	1000	10700	**-6000**	N-1 of 765 kV Wardha - Nizamabad D/C will overload the other ckt with TTC increment of 1000 MW w.r.t. column 'F'
7	Outage of Gazuwaka Block- 1 (Flow on other block increased to 500 MW)	Outage of 765/400 kV Maheshwaram single ICT	Overloading of 765/400 kV Maheshwaram other ICT	**6100**	**16100**	**22200**	1000	16200	**-100**	N-1 of 765 kV Angul-Srikakulam D/C will lead to an Angular separation of 20 degrees between Angul & Srikakulam with TTC increment of 600 MW w.r.t. column 'F'
8	Outage of Gazuwaka Block -1 & 2	Outage of one ckt of 765 kV Angul - Srikakulum DC	This will lead to an Angular separation of 20 degrees between Angul & Srikakulam	**5700**	**15950**	**21650**	1000	15700	**-650**	Outage of 765/400 kV Maheshwaram single ICT will overload the other ICT with TTC increment of 100 MW w.r.t. column 'F'
9	Outage of Bhadrawati Block - 1	Outage of 765/400 kV Maheshwaram single ICT	Overloading of 765/400 kV Maheshwaram other ICT	**6150**	**15400**	**21550**	1000	15250	**-750**	Outage of 765/400 kV Maheshwaram single ICT will overload the other ICT with TTC increment of 1300 MW w.r.t. column 'F'
10	Outage of Bhadrawati Block -1 & 2	Outage of 765/400 kV Maheshwaram single ICT	Overloading of 765/400 kV Maheshwaram other ICT	**6100**	**14700**	**20800**	1000	14200	**-1500**	N-1 of 765 kV Wardha - Nizamabad D/C will overload the other ckt with TTC increment of 1700 MW w.r.t. column 'F'
11	Outage of one circuit of 765 kV Wardha-Nizamabad D/C	Outage of one ckt of 765 kV Angul - Srikakulum DC	This will lead to an Angular separation of 20 degrees between Angul & Srikakulam	**6000**	**15700**	**21700**	1000	15700	**-600**	Tripping of a monopole of HVDC Raigarh - Pugalur will overload the other circuit of 765 Wardha - Nizamabad D/C with TTC increment of 150 MW w.r.t. column 'F'
12	Outage of both circuits of 765 kV Wardha-Nizamabad D/C	Outage of one ckt of 765 kV Angul - Srikakulum DC	This will lead to an Angular separation of 20 degrees between Angul & Srikakulam	**6000**	**13400**	**19400**	1000	13200	**-2900**	N-1 of 765 kV Solapur - Raichur DC will overload the other circuit with TTC increment of 2400 MW w.r.t. column 'F'
13	Outage of any one circuit of 765 kV Srikakulam-Vemagiri D/C	Outage of 765/400 kV Maheshwaram single ICT	Overloading of 765/400 kV Maheshwaram other ICT	**5800**	**16100**	**21900**	1000	15850	**-400**	N-1 of 765 kV Wardha - Nizamabad D/C will overload the other ckt with TTC increment of 800 MW w.r.t. column 'F'
14	Outage of 765 kV Srikakulam- Vemagiri D/C	Outage of 765/400 kV Srikakulam single ICT	Overloading of 765/400 kV Srikakulam other ICT	**4350**	**14600**	**18950**	1000	14700	**-3350**	N-1 of 765 kV Wardha - Nizamabad D/C will overload the other ckt with TTC increment of 3000 MW w.r.t. column 'F'
15	Outage of 765 kV Raichur-Solapur S/C	Outage of 765/400 kV Maheshwaram single ICT	Overloading of 765/400 kV Maheshwaram other ICT	**6200**	**15950**	**22150**	1000	21150	**-150**	N-1 of 765 kV Angul-Srikakulam D/C will lead to an Angular separation of 20 degrees between Angul & Srikakulam with TTC increment of 400 MW w.r.t. column 'F'
16	Outage of 765 kV Raichur-Solapur D/C	Outage of any one circuit of 765kV Wardha - Nizamabad D/C	Overloading of the other circuit of 765kV Wardha - Nizamabad D/C	**6200**	**14600**	**20800**	1000	14500	**-1500**	N-1 of 765 kV Angul-Srikakulam D/C will lead to an Angular separation of 20 degrees between Angul & Srikakulam with TTC increment of 600 MW w.r.t. column 'F'
17	Outage of 765 kV Nizamabad - Maheshwaram S/C	Outage of one ckt of 765 kV Angul - Srikakulum DC	This will lead to an Angular separation of 20 degrees between Angul & Srikakulam	**6200**	**16100**	**22300**	1000	14950	**0**	Outage of 765/400 kV Raichur single ICT will overload the other ICT with TTC increment of 1300 MW w.r.t. column 'F'
18	Outage of 765 kV Nizamabad - Maheshwaram D/C	Outage of one ckt of 765 kV Angul - Srikakulum DC	This will lead to an Angular separation of 20 degrees between Angul & Srikakulam	**6200**	**16100**	**22300**	1000	11850	**0**	N-1 of 765 kV Angul-Srikakulam will overload the other circuit with TTC increment of 1650 MW w.r.t. column 'F'
19	Outage of one circuit of 765 kV Angul-Srikakulam D/C	Outage of HVDC Raigarh-Pugalur Monople	This will lead to an Angular separation of 20 degrees between Angul & Srikakulam	**5400**	**16100**	**21500**	1000	15500	**-800**	Outage of 765/400 kV Maheshwaram single ICT will overload the other ICT with TTC increment of 100 MW w.r.t. column 'F'
20	Outage of both circuits of 765 kV Angul-Srikakulam D/C	Outage of any one circuit of 765kV Wardha - Nizamabad D/C	Overloading of the other circuit of 765kV Wardha - Nizamabad D/C	**2650**	**16100**	**18750**	1000	12800	**-3550**	Outage of 765/400 kV Maheshwaram single ICT will overload the other ICT with TTC increment of 200 MW w.r.t. column 'F'
21	Outage of 765 kV Raichur - Solapur S/C along with 765 kV Wardha - Nizamabad S/C	Outage of HVDC Raigarh-Pugalur Monople	Overloading of the other circuit of 765kV Wardha - Nizamabad D/C	**6200**	**14800**	**21000**	1000	14500	**-1300**	N-1 of 765 kV Warora - Warangal D/C will owill lead to an Angular separation of 20 degrees between Angul & Srikakulam with TTC increment of 500 MW w.r.t. column 'F
22	Outage of 765 kV Raichur - Solapur S/C along with 765 kV Angul - Srikakulum S/C	Outage of HVDC Raigarh-Pugalur Monople	This will lead to an Angular separation of 20 degrees between Angul & Srikakulam	**5400**	**15700**	**21100**	1000	15050	**-1200**	Outage of one pole of HVDC Talcher - Kolar will lead to an Angular separation of 20 degrees between Angul & Srikakulam with TTC increment of 500 MW w.r.t. column 'F'

Ready Reckoner for Credible Contingencies in NEW-SR corridor										
S. No.	**Case (A)**	**Limiting contingency (N-1) (B)**	**Limiting constraint (C)**	**ER-SR TTC (D)**	**WR-SR TTC (E)**	**NEW-SR/SR Import TTC (F)**	**RM (G)**	**ATC (H)**	**TTC Change w.r.t. base case**	**Next Limiting Constraint**
23	Outage of 765 kV Wardha - Nizamabad S/C along with 765 kV Angul - Srikakulum S/C	Outage of HVDC Raigarh-Pugalur Monople	This will lead to an Angular separation of 20 degrees between Angul & Srikakulam	**5400**	**15000**	**20400**	1000	13000	**-1900**	Outage of one pole of HVDC Talcher - Kolar will lead to an Angular separation of 20 degrees between Angul & Srikakulam with TTC increment of 500 MW w.r.t. column 'F'
24	Outage of one pole of HVDC Talcher - Kolar along with one ckt of 765 kV Raichur - Solapur D/C	Outage of one ckt of 765 kV Angul - Srikakulum DC	This will lead to an Angular separation of 20 degrees between Angul & Srikakulam	**5300**	**15800**	**21100**	1000	15000	**-1200**	Outage of 765/400 kV Maheshwaram single ICT will overload the other ICT with TTC increment of 500 MW w.r.t. column 'F'
25	Outage of one circuit of 765 kV Warora - Warangal D/C	Outage of one ckt of 765 kV Angul - Srikakulum DC	This will lead to an Angular separation of 20 degrees between Angul & Srikakulam	**6200**	**15400**	**21600**	1001	20599	**-700**	N-1 of 765 kV Wardha - Nizamabad D/C will overload the other ckt with TTC increment of 150 MW w.r.t. column 'F'
26	Outage of both circuits of 765 kV Warora - Warangal D/C	Outage of any one circuit of 765kV Wardha - Nizamabad D/C	Overloading of the other circuit of 765kV Wardha - Nizamabad D/C	**6200**	**13150**	**19350**	1002	18348	**-2950**	Outage of one pole of HVDC Talcher - Kolar will lead to an Angular separation of 20 degrees between Angul & Srikakulam with TTC increment of 500 MW w.r.t. column 'F'
27	Outage of single circuits of 765 kV Warangal - C'Peta D/C	Outage of 765/400 kV Maheshwaram single ICT	Overloading of 765/400 kV Maheshwaram other ICT	**6200**	**15650**	**21850**	1003	20847	**-450**	N-1 of 765 kV Angul-Srikakulam D/C will lead to an Angular separation of 20 degrees between Angul & Srikakulam with TTC increment of 1600 MW w.r.t. column 'F'
28	Outage of both circuit of 765 kV Warangal - C'Peta D/C	Outage of 765/400 kV Maheshwaram single ICT	Overloading of 765/400 kV Maheshwaram other ICT	**6050**	**14500**	**20550**	1003	19547	**-1750**	N-1 of 765 kV Angul-Srikakulam D/C will lead to an Angular separation of 20 degrees between Angul & Srikakulam with TTC increment of 1600 MW w.r.t. column 'F'
29	Outage of single circuit of 765 kV Warangal - Maheswaram D/C	Outage of one ckt of 765 kV Angul - Srikakulum DC	This will lead to an Angular separation of 20 degrees between Angul & Srikakulam	**6200**	**16100**	**22300**	1004	21296	**0**	NO IMPACT
30	Outage of both circuit of 765 kV Warangal - Maheswaram D/C	Outage of one ckt of 765 kV Angul - Srikakulum DC	This will lead to an Angular separation of 20 degrees between Angul & Srikakulam	**6200**	**16100**	**22300**	1004	21296	**0**	NO IMPACT
31	Outage of one circuit of 765 kV Kurnool - Maheswaram D/C	Outage of 765/400 kV Maheshwaram single ICT	Overloading of 765/400 kV Maheshwaram other ICT	**6100**	**15300**	**21400**	1005	20395	**-900**	N-1 of 765 kV Angul-Srikakulam D/C will lead to an Angular separation of 20 degrees between Angul & Srikakulam with TTC increment of 1800 MW w.r.t. column 'F'
32	Outage of both circuits of 765 kV Kurnool - Maheswaram D/C	Outage of 765/400 kV Maheshwaram single ICT	Overloading of 765/400 kV Maheshwaram other ICT	**5800**	**13800**	**19600**	1005	18595	**-2700**	N-1 of 765 kV Angul-Srikakulam D/C will lead to an Angular separation of 20 degrees between Angul & Srikakulam with TTC increment of 3500 MW w.r.t. column 'F'
33	Outage of both circuits of 765 kV Nizamabad - Maheswaram D/C	Outage of one ckt of 765 kV Angul - Srikakulum DC	This will lead to an Angular separation of 20 degrees between Angul & Srikakulam	**6200**	**16100**	**22300**	1005	21295	**0**	NO IMPACT
34	Outage of 400 kV Jeypore - G'waka S/C (HVDC Power Order kept at 350 MW) - *Actual Restriction to be Confirmned in the Real-time	Outage of 765/400 kV Maheshwaram single ICT	Overloading of 765/400 kV Maheshwaram other ICT	**6000**	**16100**	**22100**	1000	21100	**-200**	N-1 of 765 kV Angul-Srikakulam D/C will lead to an Angular separation of 20 degrees between Angul & Srikakulam with TTC increment of 400 MW w.r.t. column 'F'
35	Outage of 400 kV Jeypore - Bolangir S/C	Outage of 765/400 kV Maheshwaram single ICT	Overloading of 765/400 kV Maheshwaram other ICT	**6200**	**16100**	**22300**	1000	21300	**0**	N-1 of 765 kV Angul-Srikakulam D/C will lead to an Angular separation of 20 degrees between Angul & Srikakulam with TTC increment of 400 MW w.r.t. column 'F'
36	Outage of 400 kV Jeypore - Indravati S/C	Outage of 765/400 kV Maheshwaram single ICT	Overloading of 765/400 kV Maheshwaram other ICT	**6200**	**16100**	**22300**	1000	21300	**0**	N-1 of 765 kV Angul-Srikakulam D/C will lead to an Angular separation of 20 degrees between Angul & Srikakulam with TTC increment of 400 MW w.r.t. column 'F'
37	Outage of 400 kV Indravati - Rengali S/C	Outage of 765/400 kV Maheshwaram single ICT	Overloading of 765/400 kV Maheshwaram other ICT	**6200**	**16100**	**22300**	1000	21300	**0**	N-1 of 765 kV Angul-Srikakulam D/C will lead to an Angular separation of 20 degrees between Angul & Srikakulam with TTC increment of 400 MW w.r.t. column 'F'
38	Outage of 765 kV Aurangabad- Solapur S/C	Outage of 765/400 kV Maheshwaram single ICT	Overloading of 765/400 kV Maheshwaram other ICT	**6200**	**16100**	**22300**	1000	21300	**0**	NO IMPACT

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39	Outage of 765 kV Aurangabad- Pagdhe S/C	Outage of 765/400 kV Maheshwaram single ICT	Overloading of 765/400 kV Maheshwaram other ICT	**6200**	**16100**	**22300**	1000	21300	**0**	NO IMPACT
40	Outage of 765 kV Aurangabad-Pune S/C	Outage of 765/400 kV Maheshwaram single ICT	Overloading of 765/400 kV Maheshwaram other ICT	**6200**	**16100**	**22300**	1000	21300	**0**	NO IMPACT
41	Outage of 765 kV Vemagiri- Chilkaluripeta S/C	Outage of 765/400 kV Maheshwaram single ICT	Overloading of 765/400 kV Maheshwaram other ICT	**6200**	**16100**	**22300**	1000	21300	**0**	NO IMPACT
42	Outage of 765 kV Vemagiri- Chilkaluripeta D/C	Outage of any one circuit of 400 kV Vemagiri (PG) - Vemagiri D/C	Overloading of other circuit of 400 kV Vemagiri (PG) - Vemagiri D/C	**5600**	**15100**	**20700**	1000	19700	**-1600**	N-1 of 2x1500 MVA, 765/400 kV Vemagiri PG will overload the other ICT with TTC increment of approx. 1000 MW w.r.t. column 'F'
43	Outage of 765 kV Gadarwara- Warora S/C	Outage of 765/400 kV Maheshwaram single ICT	Overloading of 765/400 kV Maheshwaram other ICT	**6200**	**16100**	**22300**	1000	21300	**0**	NO IMPACT
44	Outage of 765 kV Gadarwara- Warora D/C	Outage of one ckt of 765 kV Angul - Srikakulum DC	This will lead to an Angular separation of 20 degrees between Angul & Srikakulam	**6200**	**15500**	**21700**	1000	20700	**-600**	N-1 of 765 kV Wardha - Nizamabad D/C will overload the other ckt with TTC increment of 1000 MW w.r.t. column 'F'
45	Outage of 765 kV Warora- Rajnandgaon S/C	Outage of 765/400 kV Maheshwaram single ICT	Overloading of 765/400 kV Maheshwaram other ICT	**6200**	**16100**	**22300**	1000	21300	**0**	NO IMPACT
46	Outage of 765 kV Warora- Rajnandgaon D/C	Outage of one ckt of 765 kV Angul - Srikakulum DC	This will lead to an Angular separation of 20 degrees between Angul & Srikakulam	**6200**	**15300**	**21500**	1000	20500	**-800**	N-1 of 765 kV Wardha - Nizamabad D/C will overload the other ckt with TTC increment of 400 MW w.r.t. column 'F'
47	Outage of any one Circuit of Cuddapah - Thiruvalam D/C	Outage of 765/400 kV Maheshwaram single ICT	Overloading of 765/400 kV Maheshwaram other ICT	**6200**	**16100**	**22300**	1000	21300	**0**	NO IMPACT
48	Outage of Both Circuits of Cuddapah - Thiruvalam D/C	Outage of 765/400 kV Maheshwaram single ICT	Overloading of 765/400 kV Maheshwaram other ICT	**6200**	**15900**	**22100**	1000	21100	**-200**	N-1 of 765 kV Angul-Srikakulam D/C will lead to an Angular separation of 20 degrees between Angul & Srikakulam with TTC increment of 400 MW w.r.t. column 'F'
49	Outage of 765 kV Durg-Rajnandgaon S/C	Outage of 765/400 kV 1500 MVA single ICT at Nizamabad	Overloading of other 765/400 kV 1500 MVA ICT at Nizamabad	**6200**	**16100**	**22300**	1000	21300	**0**	NO IMPACT
50	Outage of 765 kV Durg-Rajnandgaon D/C	Outage of 765/400 kV 1500 MVA single ICT at Nizamabad	Overloading of other 765/400 kV 1500 MVA ICT at Nizamabad	**6200**	**16100**	**22300**	1000	21300	**0**	NO IMPACT
51	Outage of 765 kV Warora-New Parli S/C	Outage of one ckt of 765 kV Angul - Srikakulum DC	This will lead to an Angular separation of 20 degrees between Angul & Srikakulam	**6200**	**15950**	**22150**	1000	21150	**-150**	Outage of 765/400 kV Maheshwaram single ICT will overload the other ICT with TTC increment of 700 MW w.r.t. column 'F'
52	Outage of 765 kV Warora-New Parli D/C	Outage of one ckt of 765 kV Angul - Srikakulum DC	This will lead to an Angular separation of 20 degrees between Angul & Srikakulam	**6200**	**15650**	**21850**	1000	20850	**-450**	Outage of 765/400 kV Maheshwaram single ICT will overload the other ICT with TTC increment of 700 MW w.r.t. column 'F'
53	Outage of 765 kV New Parli-Solapur S/C	Outage of 765/400 kV Maheshwaram single ICT	Overloading of 765/400 kV Maheshwaram other ICT	**6200**	**16100**	**22300**	1000	21300	**0**	NO IMPACT
54	Outage of 765 kV New Parli-Solapur D/C	Outage of 765/400 kV Maheshwaram single ICT	Overloading of 765/400 kV Maheshwaram other ICT	**6200**	**15850**	**22050**	1000	21050	**-250**	N-1 of 765 kV Angul-Srikakulam D/C will lead to an Angular separation of 20 degrees between Angul & Srikakulam with TTC increment of 400 MW w.r.t. column 'F'
55	Outage of 765 kV Seoni-Bilaspur S/C	Outage of one ckt of 765 kV Angul - Srikakulum DC	This will lead to an Angular separation of 20 degrees between Angul & Srikakulam	**6200**	**16100**	**22300**	1000	21300	**0**	NO IMPACT
56	Outage of 765 kV Seoni-Bilaspur D/C	Outage of one ckt of 765 kV Angul - Srikakulum DC	This will lead to an Angular separation of 20 degrees between Angul & Srikakulam	**6200**	**16100**	**22300**	1000	21300	**0**	NO IMPACT
57	Outage of 765 kV Seoni-Wardha S/C	Outage of one ckt of 765 kV Angul - Srikakulum DC	This will lead to an Angular separation of 20 degrees between Angul & Srikakulam	**6200**	**16100**	**22300**	1000	21300	**0**	NO IMPACT

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58	Outage of 765 kV Seoni-Wardha D/C	Outage of one ckt of 765 kV Angul - Srikakulum DC	This will lead to an Angular separation of 20 degrees between Angul & Srikakulam	**6200**	**16100**	**22300**	1000	21300	**0**	NO IMPACT
59	Outage of 765 kV Durg-Wardha D/C	Outage of one ckt of 765 kV Angul - Srikakulum DC	This will lead to an Angular separation of 20 degrees between Angul & Srikakulam	**6200**	**15600**	**21800**	1000	20800	**-500**	Outage of 765/400 kV Maheshwaram single ICT will overload the other ICT with TTC increment of 1000 MW w.r.t. column 'F'
60	Outage of a single D/C of 765 kV Wardha-Aurangabad Q/C	Outage of 765/400 kV Maheshwaram single ICT	Overloading of 765/400 kV Maheshwaram other ICT	**6200**	**16100**	**22300**	1000	21300	**0**	NO IMPACT
61	Outage of both the D/C of 765 kV Wardha-Aurangabad Q/C	Outage of any one of the two circuits of 765 kV Wardha - Nizamabad D/C	Overloading of other circuit of 765 kV Wardha - Nizamabad D/C	**6050**	**14600**	**20650**	1000	19650	**-1650**	Outage of 765/400 kV Maheshwaram single ICT will overload the other ICT with TTC increment of 1700 MW w.r.t. column 'F'
62	Outage of 765/400 kV single ICT at Nizamabad	Outage of 765/400 kV Maheshwaram single ICT	Overloading of 765/400 kV Maheshwaram other ICT	**6150**	**15550**	**21700**	1000	20700	**-600**	N-1 of 765 kV Angul-Srikakulam D/C will lead to an Angular separation of 20 degrees between Angul & Srikakulam with TTC increment of 400 MW w.r.t. column 'F'
63	Outage of 765/400 kV single ICT at Maheshwaram	Outage of one ckt of 765 KV Kurnool-Maheshwaram-D/C	Overloading of 765/400 kV Maheshwaram other ICT	**6150**	**15450**	**21600**	1000	20600	**-700**	Over-loading of the other 765/400 kV ICT at Maheswaram under N-1 tripping of one pole of HVDC Raigarh-Pugalur with TTC increment of 150 MW w.r.t. column 'F'
64	Outage of 765/400 kV single ICT at Srikakulam	Outage of 765/400 kV Maheshwaram single ICT	Overloading of 765/400 kV Maheshwaram other ICT	**6150**	**16100**	**22250**	1000	21250	**-50**	N-1 of 765 kV Angul- Srikakulam D/C under N-1 of other circuit with TTC increment of 150 MW w.r.t. column 'F'
65	Outage of 765/400 kV single ICT at Vemagiri	Outage of 765/400 kV Maheshwaram single ICT	Overloading of 765/400 kV Maheshwaram other ICT	**6150**	**15950**	**22100**	1000	21100	**-200**	N-1 of 765 kV Angul- Srikakulam D/C under N-1 of other circuit with TTC increment of 1250 MW w.r.t. column 'F'
66	Disconnection of Complete Eastern Grid	Outage of any one of the two circuits of 765 kV Wardha - Nizamabad D/C	Overloading of other circuit of 765 kV Wardha - Nizamabad D/C	**0**	**16300**	**16300**	1000	15300	**-6000**	Outage of 765/400 kV Maheshwaram single ICT will overload the other ICT with TTC increment of 700 MW w.r.t. column 'F'

Assumptions:

a) All India case with updated network and LGB has been taken for study purpose

b) HVDC flows considered are as under:-
HVDC Talcher - Kolar - 2000 MW (ER-SR),
HVDC Raigarh - Pugalur - 6000 MW(WR-SR),
HVDC G'waka - 650 MW(ER-SR)
HVDC Bhadrawati - 1000 MW(WR-SR)

c) The permissible limit considered for all 765 kV lines is 2750 MW (4173 MVA for 765 kV Angul - Srikakulam D/C as confirmed by the site). In case of 400 kV and below voltage level lines, thermal limit has been taken as permissible limit

Ready Reckoner for Credible Contingencies in NEW-SR corridor

Sensitivity of Important ICTs

Name of the Contingency	Sensitivity (%) On other ICT	Safe Limit on one ICT when both ICTs are in operation (MW)
Outage of 765/400 kV 1500MVA Maheshwaram single ICT	39.80	1073
Outage of 765/400 kV 1500MVA Vemagiri single ICT	59.00	932
Outage of 765/400 kV 1500MVA Raichur single ICT	55.40	965
Outage of 765/400 kV 1500MVA Srikakulam single ICT	78.80	842

Name of the Contingency	Sensitivity(%) on							
	765 kV Angul Srikakulam S/C	765 kV Wardha - Nizamabad S/C	765 kV Solapur - Raichur S/C	765 kV Warora - Warangal	765 kV Nizamabad-Maheshwaram	765/400 kV Maheshwaram ICT	765/400 kV Raichur ICT	765/400 kV Srikakulam ICT
Outage of one circuit of 765 kV Angul-Srikakulam DC D/C	-60.4%	-6.3%	-5.5%	-7.2%	-3.3%	-1.7%	-1.4%	5.2%
Outage of one circuit of 765 kV Wardha-Nizamabad D/C	-5.7%	-43.3%	-10.6%	-10.9%	18.4%	1.0%	-2.2%	-1.7%
Outage of one circuit of 765 kV Solapur - Raichur D/C	-3.8%	-8.5%	-51.5%	-9.3%	-5.7%	-1.2%	6.9%	-1.1%
Outage of one circuit of 765 kV Warora - Warangal D/C	-7.1%	-11.9%	-12.4%	-34.9%	-8.1%	2.2%	-2.4%	-1.7%

Sensitivity of HVDCs on Important Elements of NEW-SR corridor (All HVDCs considered in NEW to SR Direction)

HVDC Name	765 kV Angul Srikakulam S/C	765 kV Wardha Nizamabad S/C	765 kV Solapur - Raichur S/C	765 kV Warora - Warangal S/C	765 kV Nizamabad-Maheshwaram S/C	765/400 kV Maheshwaram Single ICT	765/400 kV Raichur ICT	765/400 kV Srikakulam Single ICT
HVDC Talcher - Kolar	-10.1%	-9.4%	-12.0%	-9.2%	-6.0%	-2.1%	-8.0%	-2.4%
HVDC Bhadravati	-6.1%	-14.2%	-12.0%	-12.7%	-1.0%	-7.0%	-3.0%	-1.7%
HVDC Gazuwaka	-20.4%	-9.4%	-8.0%	-10.0%	-4.0%	-3.6%	-2.4%	-11.8%
HVDC Raigarh - Pugalur	-9.6%	-10.9%	-12.8%	-10.7%	-6.5%	-2.5%	-7.2%	-2.3%

Note:- (+ve sensitivity indicate tripping of line, reduction in generation or decrease of HVDC Power Order will reduce the line flows, whereas -ve sensitivity indicates tripping of line, reduction in generation or decrease of HVDC Power Order will increase the line flows)