

State Load Despatch Center, Airoli (MSETCL) Statement I
Daily system Report for 19/Apr/2020 SUNDAY

I GENERATION (MUs)			II EXCHANGES (MUs)		
A) MSPGCL	Daily	Monthly	E) InterState Exchanges	Daily	Monthly
1) Thermal	60.881	1108.455	1) Gujrat	9.181	197.614
2) Hydro	9.076	343.814	2) Madhya Pradesh	13.408	294.470
3) Gas	6.726	132.310	3) Chattisgarh	6.990	146.040
Total MSPGCL	76.683	1584.579	4) Maharashtra	130.599	2356.713
B) 1) APML	66.843	1176.944	5) Goa (Amona)	0.000	0.000
2) JSWEL	16.832	286.450	Total	160.178	2994.837
3) VIPL	0.000	0.000	a) Mumbai Schedule	20.389	329.184
4) RPL(AMT)	0.000	0.000	b) Mumbai Drawl	21.428	277.172
5) WPCL	5.386	104.465	c) MSEDCL Bilateral *	62.769	981.997
6) Other IPP	7.342	154.996	Include PX	43.077	628.791
7) PGPL	0.000	0.000	d) Mumbai Bilateral *	20.389	329.184
C) 1) TPCL Thermal	7.429	228.342	Include PX	3.344	117.805
2) TPCL Hydro	6.064	76.771	Standby	0.000	0.000
3) TPCL Gas	3.815	61.916	H) ENERGY CATERED (MUs)		
4) AEML Thermal	8.973	203.368	1) MSEDCL	332.832	6379.633
D) STATE			2) Mumbai Discoms	47.708	847.567
1) Thermal	173.686	3263.020	TOTAL STATE	380.540	7227.200
(A1+C1+C4+(B1-B6))					
2) Hydro	15.140	420.585			
(A2+C2)					
3) Gas	10.541	194.226			
(A3+B7+C3)					
4) Wind	14.421	216.808			
6) SOLAR	6.575	137.726			
TOTAL STATE	220.363	4232.365			

* Displayed for information, not added in total.

DETAILS OF MAHARASHTRA STATE PEAK DEMAND(MW) Statement II

PARTICULARS	A. Morning Peak at 12 Hrs	B. Day Peak at 16 Hrs	C. Evening Peak at 22 Hrs	D. Night Minimum at 5 Hrs
MSPGCL Thermal	2335	2430	2748	2381
MSPGCL Hydro	370	592	300	152
MSPGCL Gas	276	266	284	289
MSPGCL Total Generation	2981	3288	3332	2822
Central Sector Receipt	7280	7840	5351	6389
WIND	599	395	739	718
CPP / IPP Thermal	3595	3895	4410	3768
CPP / IPP Gas	0	0	0	0
SOLAR	906	565	0	0
Exchange with Mumbai	-795	-822	-928	-887
MSEDCL DEMAND MET	14566	15161	12904	12810
Load Shedding	0	0	0	0
MSEDCL DEMAND	14566	15161	12904	12810
TPCL GENERATION	718	783	847	675
AEML GENERATION	374	373	373	374
MUMBAI DEMAND	1887	1978	2148	1936
STATE DEMAND MET	16453	17139	15052	14746
STATE DEMAND	16453	17139	15052	14746
Frequency (Hz)	49.99	49.96	49.98	50.03

FREQUENCY PARTICULARS

MAXIMUM FREQ.	MINIMUM FREQ.	AVERAGE FREQ.	FREQ. BELOW 49.2 Hz
50.23 Hz at 06.03 Hrs	49.83 Hz at 09.08 Hrs	50.02	0 % of Time(min)

Note : The report is based on Operational Data and is for statistical purpose only.

Shift Engineer

Shift Incharge

Daily and Progressive Generation,Maximum,Minimum for 19/Apr/2020

Generating unit	Generation			
	Daily (Mus)	Monthly (Mus)	Max (MW)	Min (MW)
Koradi				
Unit 6	0.00	0.00	0	0
Unit 7	0.00	0.00	0	0
Unit 8	0.00	112.89	0	0
Unit 9	0.00	112.84	0	0
Unit 10	0.00	108.90	0	0
Total	0.00	334.63		
Bhusawal				
Unit 3	0.00	0.00	0	0
Unit 4	0.00	0.00	0	0
Unit 5	0.00	0.00	0	0
Total	0.00	0.00		
Parli				
Unit 4	0.00	0.00	0	0
Unit 5	0.00	0.00	0	0
Unit 6	0.00	0.00	0	0
Unit 7	0.00	0.00	0	0
Unit 8	0.00	0.00	0	0
Total	0.00	0.00		
Chandrapur				
Unit 3	0.00	13.91	0	0
Unit 4	0.00	0.00	0	0
Unit 5	0.00	0.00	0	0
Unit 6	8.48	9.44	370	315
Unit 7	0.00	0.00	0	0
Unit 8	9.85	149.88	480	317
Unit 9	9.90	176.72	470	360
Total	28.23	349.95		
Paras				
Unit 3	5.60	100.88	250	187
Unit 4	5.70	89.55	254	199
Total	11.30	190.43		
Khaparkheda				
Unit 1	3.84	27.17	170	145
Unit 2	3.98	32.64	185	160
Unit 3	0.05	25.85	42	0
Unit 4	4.00	29.74	190	160
Unit 5	9.49	118.04	500	360
Total	21.35	233.44		
Nasik				
Unit 3	0.00	0.00	0	0
Unit 4	0.00	0.00	0	0
Unit 5	0.00	0.00	0	0
Total	0.00	0.00		
Uran				
All Units	6.73	132.31	293	264
Total	6.73	132.31		
PGPL				
Unit 1	0.00	0.00	0	0
Unit 2	0.00	0.00	0	0
Total	0.00	0.00		
PENCH (MS)				
Pench (MS)	0.29	2.63	49	0

Generating unit	Generation			
	Daily (Mus)	Monthly (Mus)	Max (MW)	Min (MW)
Total	0.29	2.63		
Koyna				
Stage 1-2	3.76	102.66	535	40
Stage 4	1.19	130.79	467	0
Stage 3	1.27	49.00	160	0
Total	6.21	282.45		
Hydro				
KDPH	0.89	16.22	37	37
VTRNA	0.00	0.00	0	0
TILLARI	0.42	8.03	60	0
BHTGR/VEER	0.00	0.00	0	0
BHIRA T.R.	0.40	3.57	80	0
RNGR+BHTSA	0.00	5.30	0	0
BHANDARDRA	0.46	10.13	31	13
ELDARY	0.36	5.20	15	14
SMLHY_PTN	0.35	12.91	24	12
GHATGHAR	0.00	0.00	0	0
Total	2.87	61.36		
Wind				
Total	14.42	216.81	0	0
Total	14.42	216.81		
CPP				
APML(Mus)	66.84	1176.94	0	0
JSWEL(Mus)	16.83	286.45	0	0
VIPL(Mus)	0.00	0.00	0	0
RPLAMT(Mus)	0.00	0.00	0	0
WPCL(Mus)	5.39	104.46	0	0
Other(Mus)	7.34	155.00	0	0
Total	96.40	1722.86		
SOLAR				
Total	6.58	137.73	0	0
Total	6.58	137.73		
Tata				
Trombay 5	7.43	173.52	310	309
Trombay 6	0.00	0.00	0	0
Trombay 7A	2.77	37.68	116	105
Trombay 7B	1.04	24.23	47	0
Trombay 8	0.00	54.82	0	0
TATA Hydro	6.06	76.77	382	120
Total	17.31	367.03		
AEML				
DTPS U-1&2	8.97	203.37	375	373
Total	8.97	203.37		

* Infirm Power			Summary			Summary		
Particulars	Daily (Mus)	Monthly	Particulars	Daily (Mus)	Monthly (Mus)	Particulars	Daily (Mus)	Monthly (Mus)
			MSPGCL Thermal	60.88	1108.46	MSPGCL Total	76.68	1584.58
			MSPGCL Thml+Gas	67.61	1240.76	Koyna 1,2 & 4 Total	4.94	233.45
			MSPGCL Hydro	9.08	343.81	State Total	220.36	4232.36

State Load Despatch Center,Airoli (MSETCL)

Annexure-2

Hourly Load Data As on 19/Apr/2020

TIME SR. NO.	MSPGCL GEN.			TOTAL	WIND	CPP / IPP		SOLAR	CS SHARE	CS RECPT	Mum. NET EXCH.	MSEDCL DEM. MET	LOAD SHEDDI NG	MSEDCL DEM. WITH LS	MUMBAI DEMAND	STATE DEMAND	FREQ. (Hz)
	THM	HY	GAS			THM	GAS										
1	2810	658	287	3755	1372	4257	0	0	6407	6061	-1186	14259	0	14259	2284	16543	50.02
2	2710	201	286	3197	1104	4061	0	0	6276	6094	-1103	13353	0	13353	2176	15529	50.03
3	2511	181	289	2981	1054	4060	0	0	6210	5662	-1011	12746	0	12746	2069	14815	50.02
4	2301	121	289	2711	1101	3911	0	0	6073	6098	-931	12890	0	12890	1988	14878	50.02
5	2381	152	289	2822	718	3768	0	0	6190	6389	-887	12810	0	12810	1936	14746	50.03
6	2778	230	290	3298	440	4123	0	0	7067	6815	-895	13781	0	13781	1927	15708	50.06
7	2555	612	291	3458	534	4230	0	26	7643	7074	-830	14492	0	14492	1858	16350	50.08
8	2533	249	288	3070	363	3970	0	180	7295	7425	-781	14227	0	14227	1809	16036	50.01
9	2653	204	276	3133	332	3927	0	441	6990	6884	-793	13924	0	13924	1831	15755	49.99
10	2668	287	293	3248	306	3827	0	652	7001	7100	-767	14366	0	14366	1854	16220	49.98
11	2510	297	269	3076	445	3779	0	833	7233	7112	-824	14421	0	14421	1869	16290	50.06
12	2335	370	276	2981	599	3595	0	906	7429	7280	-795	14566	0	14566	1887	16453	49.99
13	2329	259	265	2853	673	3713	0	930	7452	7509	-750	14928	0	14928	1900	16828	50.05
14	2319	249	274	2842	641	3732	0	895	7695	7764	-809	15065	0	15065	1928	16993	50.06
15	2340	382	264	2986	484	3760	0	644	7709	7806	-868	14812	0	14812	1976	16788	49.98
16	2430	592	266	3288	395	3895	0	565	7910	7840	-822	15161	0	15161	1978	17139	49.96
17	2416	588	277	3281	282	3895	0	341	7619	7821	-728	14892	0	14892	1919	16811	50.02
18	2409	741	268	3418	310	3903	0	136	6904	6685	-829	13623	0	13623	1840	15463	49.99
19	2514	549	281	3344	236	3950	0	26	5929	6167	-834	12889	0	12889	1800	14689	50.01
20	2694	830	280	3804	172	4308	0	0	5456	5493	-806	12971	0	12971	2015	14986	49.99
21	2768	605	284	3657	457	4419	0	0	5116	5117	-853	12797	0	12797	2080	14877	49.99
22	2748	300	284	3332	739	4410	0	0	5320	5351	-928	12904	0	12904	2148	15052	49.98
23	2590	212	274	3076	738	4424	0	0	6092	6125	-1112	13251	0	13251	2269	15520	50.01
24	2579	207	286	3072	926	4486	0	0	6563	6506	-1286	13704	0	13704	2368	16072	50.03
MUs	60.88	9.08	6.73	76.68	14.42	96.40	0.00	6.58	161.58	160.18	-21.43	332.83	0.00	332.83	47.71	380.54	50.02

NOTE : ALL VALUES IN MW

Mumbai Net Exch is shown with reference to MSETCL system and (-) sign indicates MSETCL periphery to Mumbai system.

State Load Despatch Center,Airoli (MSETCL) Statement-VI
Details of Generating Unit Outages/Trippings for 19/Apr/2020

Position as on 6.30 Hrs of 20/Apr/2020

Generating Company	Name of Generating Unit	Capacity	Tripped Date	Tripped Time	Sync.Date	Sync. Time	Reason of Outage	Expected Date
FORCED OUTAGE								
IPP	SWPGL U-1	135	16/02/2016	17.09		Continued.	No PPA.	
PGPL	PGPL U2	126	07/02/2017	17.30		Continued.	No Schedule	
PGPL	PGPL U1	262	07/02/2017	17.30		Continued.	No Schedule	
IPP	IEPL Unit 1	270	28/08/2018	21.26		Continued.	No PPA	
CPP	SWPGL U-4	135	15/12/2018	00.00		Continued.	No Schedule	
IPP	VIPL U-1	300	29/12/2018	00.30		Continued.	Coal Shortage	
IPP	VIPL U-2	300	17/01/2019	00.15		Continued.	Coal Shortage	
MSPGCL	Koradi Unit 7	210	27/08/2019	09.52		Continued.	Coal Flow Problem Due To Wet Coal.(Converted To Zero Schedule From 12.09.2019 At 10.00 hrs)	
MSPGCL	Bhusawal Unit 3	210	01/09/2019	17.56		Continued.	Zero Schedule from 18:00hrs of 28/09/2019	
MSPGCL	Koradi Unit 6	210	06/09/2019	15.41		Continued.	Zero Schedule By MSEDCL	
IPP	RPL(AMT) U-4	270	12/11/2019	00.00		Continued.	Zero Schedule By MSEDCL.	
MSPGCL	Nasik Unit 5	210	12/12/2019	10.25		Continued.	PA Fan Problem (Under Case 4 Bidding From 11.00Hrs DT. 13-12-2019)	
IPP	RPL(AMT) U-3	270	11/02/2020	18.00		Continued.	Zero Schedule By MSEDCL.	
IPP	RPL(AMT) U-5	270	11/02/2020	19.30		Continued.	Zero Schedule By MSEDCL.	
MSPGCL	Nasik Unit 3	210	17/02/2020	00:00		Continued.	C W PUMP High Vibrations(convert to Zero Schedule from 00.00Hrs DT. 18-02-2020)	
MSPGCL	Ghatghar Unit-1	125	18/02/2020	00.25		Continued.	Severe Hunting In Hydro Conduit Across MIV	
MSPGCL	Uran Unit 8	108	01/03/2020	20.57		Continued.	Gas shortage	
IPP	RPL(AMT) U-1	270	04/03/2020	19.30		Continued.	Zero Schedule By MSEDCL	
MSPGCL	Ghatghar Unit-2	125	09/03/2020	10:50		Continued.	Expansion joint leakage.	
IPP	RPL(AMT) U-2	270	09/03/2020	20.15		Continued.	Zero Schedule By MSEDCL	
MSPGCL	Parli Unit 6	250	21/03/2020	17.31		Continued.	Zero Schedule By MSEDCL	
MSPGCL	Parli Unit 7	250	22/03/2020	10.45		Continued.	Zero Schedule. (R S D FROM 10:45 TO 16:00 Hrs.)	
MSPGCL	Bhusawal Unit 4	500	22/03/2020	18.30		Continued.	Zero Schedule.	
MSPGCL	Bhusawal Unit 5	500	23/03/2020	01.13		Continued.	Zero schedule.	
MSPGCL	Parli Unit 8	250	23/03/2020	18.00		Continued.	Zero Schedule.	
MSPGCL	Nasik Unit 4	210	25/03/2020	19.45		Continued.	Reserve Shut Down.	
IPP	JSW (J) U2	300	26/03/2020	00.13		Continued.	No schedule.	
MSPGCL	Chandrapur Unit 4	210	26/03/2020	16.06		Continued.	Zero Schedule By MSEDCL	
MSPGCL	Chandrapur Unit 5	500	26/03/2020	20.29		Continued.	Zero Schedule By MSEDCL	
MSPGCL	Chandrapur Unit 7	500	28/03/2020	23.56		Continued.	Zero Schedule.	

State Load Despatch Center,Airoli (MSETCL) Statement-VI
Details of Generating Unit Outages/Trippings for 19/Apr/2020

Position as on 6.30 Hrs of 20/Apr/2020

Generating Company	Name of Generating Unit	Capacity	Tripped Date	Tripped Time	Sync.Date	Sync. Time	Reason of Outage	Expected Date
MSPGCL	Uran Unit 5	108	06/04/2020	13.23		Continued.	Gas shortage	
MSPGCL	Chandrapur Unit 3	210	10/04/2020	20.30		Continued.	Zero Schedule By MSEDCL	
TPC_G	Trombay 8	250	11/04/2020	16.55		Continued.	Zero Schedule.	
MSPGCL	Koradi Unit-8	660	12/04/2020	00.00		Continued.	Zero schedule.	
MSPGCL	Koradi Unit 9	660	12/04/2020	01.10		Continued.	Zero schedule.	
MSPGCL	Koradi Unit 10	660	12/04/2020	02.01		Continued.	Zero schedule.	
MSPGCL	Khaparkheda Unit 3	210	18/04/2020	01.00	19/04/2020	22.47	Boiler Tube Leakage	
MSPGCL	Koyana Unit 10	80	18/04/2020	04.15	19/04/2020	11.10	Governor Problem.	
TPC-G	Trombay 7B	60	19/04/2020	22.24	20/04/2020	02.39	Due To HP Control valve Closed.	
MSPGCL	Chandrapur Unit-8	500	19/04/2020	23.44	20/04/2020	04.34	Electrical Tripping.	

State Load Despatch Center,Airoli (MSETCL)
Details of Line outages/Trippings for 19/Apr/2020

Statement-VII

Position as on 6.30 Hrs of 20/Apr/2020

Name of Line	Inter State / Intra State	Tripped Date	Tripped Time	Sync. Date	Sync. Time	Outage Type	Reason of Outage
400 KV LINE Outages/Trippings							
Karad Solapur (PG)	InterState	03/05/2017	11:49		Continued.	PO	Line Converted As 220 Kv Solapur (PG)- Jeur From LOC 403
Dhule Sar'Sarovar I	InterState	30/03/2020	17.32		Continued.	HT	Over Voltage
Chandrapur Bhadravati IV	InterState	19/04/2020	02.14	19/04/2020	06.22	T	Distance Protection
Chandrapur Bhadravati III	InterState	19/04/2020	02.14	19/04/2020	05.37	T	Distance Protection
Karad - Jaigad - II	IntraState	23/03/2020	18.12		Continued.	HT	Over Voltage
Dhule- Bableshtar - I	IntraState	24/03/2020	20.20		Continued.	HT	Over Voltage
New Koyana - Dabhol-I	IntraState	25/03/2020	18.01		Continued.	T	Over Voltage
Kalwa - Talegaon(PG)	IntraState	28/03/2020	16.47		Continued.	HT	Over Voltage
Padghe - Kalwa-II	IntraState	06/04/2020	00.21		Continued.	HT	Over Voltage
Padghe - Nagothane - II	IntraState	07/04/2020	23.58		Continued.	EO	To attend Hot Spot
Babhaleshtar - Padghe-I	IntraState	13/04/2020	17.21		Continued.	HT	Over Voltage
Khadka-Aurangabad (Waluj)	IntraState	17/04/2020	17.22		Continued.	HT	Over Voltage
karad -kolhapur-I	IntraState	18/04/2020	17.44		Continued.	HT	Over Voltage
Warora -IEPL	IntraState	18/04/2020	18.02	19/04/2020	13.47	T	Over Voltage
Chandrapur-II - Nanded ckt I	IntraState	19/04/2020	02.17	19/04/2020	06.46	T	Distance Protection
Chandrapur - Parli	IntraState	19/04/2020	02.20		Continued.	T	Distance Protection
Chandrapur-II - Nanded ckt II	IntraState	19/04/2020	02.21		Continued.	T	Distance Protection
400 KV ICT Outages/Trippings							
400/220/33 Kv 315 Mva ICT 1 @Padghe	IntraState	15/11/2018	10.07		Continued.	T	Differential Protection,Declared Faulty.
400/220/33 Kv 500 Mva Ict 2 @ CHANDRAPUR 2	IntraState	09/03/2020	12.57		Continued.	EO	Testing work (Bushing Tan Delta problem hence kept out.)
400/220 Kv 500 MVA ICT-IV @Kalwa	IntraState	22/03/2020	10.13	19/04/2020	09.06	HT	Hand tripped from LV end to control Over Voltage.
400/220/33 Kv 315 Mva Ict- 2 @Kharghar	IntraState	25/03/2020	13.59		Continued.	EO	CT Tan Delta High.
400/220/33kv 500MVA ICT 5 @ Padghe	IntraState	25/03/2020	16.32		Continued.	HT	Outage availed for maint. work and ICT out LV side.
400/220 KV 315 MVA ICT-I @ Nagothane	IntraState	25/03/2020	17.57		Continued.	HT	LV Side CB Hand Tripped For Voltage.
400/220/33kv 315mva Ict3 @Lonikand	IntraState	25/03/2020	22.01		Continued.	HT	LV Side CB Hand Tripped For Voltage.
400/220 Kv 500 MVA ICT-III @Kalwa	IntraState	28/03/2020	18.07		Continued.	HT	Over Voltage
400/220/33 Kv 500 MVA ICT-I @Lonikand 2	IntraState	17/04/2020	13.19		Continued.	PO	Attending Hot Spot
400/220 Kv 500 MVA ICT II @Jejuri	IntraState	19/04/2020	04.18	19/04/2020	14.52	T	Low Oil Level & Buchholz Relay.
400/220 Kv 600 MVA ICT-II @Kalwa	IntraState	19/04/2020	09.13	19/04/2020	11.43	PO	Routine Maintenance Work
400/220 Kv 500 MVA ICT-IV @Kalwa	IntraState	19/04/2020	11.55		Continued.	HT	Over Voltage
400/220/33 Kv 315 MVA ICT II @Chandrapur GCR	IntraState	19/04/2020	15.04	19/04/2020	19.34	EO	CTR Indication.
220 KV LINE Outages/Trippings							
Mudshingi Chikodi	InterState	24/09/2019	17.12		Continued.	PO	No Schedule.
Talandage - Chikodi	InterState	01/10/2019	17.10		Continued.	PO	No Schedule.(close at Chikodi end only)
BOISAR BORIVALI	IntraState	24/07/2018	13.18		Continued.	HT	To Control Line Loading(H/T from Boisar end)
Borivali - Ghodbunder	IntraState	30/01/2020	12.05		Continued.	PO	Isolation of 220KV Cables on MSETCL Tower NO.240
Lonand-Baramati	IntraState	16/02/2020	09.37		Continued.	PO	Erection of CTT-2 Tower Work For 220Kv Baramati-Lonand & Baramati Jejuri Cables Emanating from 220Kv Baramati S/Stn.

HT : Hand Tripping, MT : Multiple Tripping, T : Tripping, PO : Planned Outage, EO : Emergency Outage, OO : Opportunity Outage

State Load Despatch Center,Airoli (MSETCL)
Details of Line outages/Trippings for 19/Apr/2020

Statement-VII

Position as on 6.30 Hrs of 20/Apr/2020

Name of Line	Inter State / Intra State	Tripped Date	Tripped Time	Sync. Date	Sync. Time	Outage Type	Reason of Outage
Hinjewadi2 - Hinjewadi 3 ckt 1	IntraState	26/03/2020	10.20		Continued.	HT	Over Voltage
Hinjewadi2 - Hinjewadi 3 ckt II	IntraState	26/03/2020	10.20		Continued.	HT	Over Voltage
Shivajinagar-Gangapur	IntraState	18/04/2020	11.48	19/04/2020	11.30	HT	B Ph Current Showing Zero, Broken Conductor Indication Appear.
Sawantwadi-Bidri	IntraState	18/04/2020	16.10	19/04/2020	09:25	HT	Over Voltage
Chandrapur(MIDC)-Ballarshah II	IntraState	19/04/2020	02.26	19/04/2020	07.30	T	Z1 B PH 5.2KM 6.6KA.
Trombay - Kalwa	IntraState	19/04/2020	05.05	19/04/2020	05.16	T	Distance Protection
Parli 2-(Girwali) -Murud	IntraState	19/04/2020	05.34	19/04/2020	06.58	HT	To Control Line Loading Of Parly-Parly PG 1450 MW.
Wardha-Dhamangaon	IntraState	19/04/2020	06.37	19/04/2020	07.46	T	Distance Protection
Dahanu Ghodbunder Line 1	IntraState	19/04/2020	08.29	19/04/2020	10.36	EO	Attending Hot Spot
Apta - Taloja	IntraState	19/04/2020	20.32	19/04/2020	21.35	EO	Sparking On CC at Taloja End.
220 KV ICT Outages/Trippings							
Carnac : 220 / 110 / 33 315 MVA ICT 5	IntraState	14/03/2020	11.00		Continued.	PO	Shifting 220KV Side to New GIS
220/100 Kv 200 MVA ICT IV @Padghe	IntraState	18/04/2020	08.56	19/04/2020	23:18	PO	Diagnostic Testing Work.

HT : Hand Tripping, MT : Multiple Tripping, T : Tripping, PO : Planned Outage, EO : Emergency Outage, OO : Opportunity Outage