

State Load Despatch Center, Airoli (MSETCL) Statement I
Daily system Report for 16/Aug/2020 SUNDAY

I GENERATION (MUs)			II EXCHANGES (MUs)		
A) MSPGCL	Daily	Monthly	E) InterState Exchanges	Daily	Monthly
1) Thermal	69.484	1650.193	1) Gujrat	-0.723	4.693
2) Hydro	10.811	114.147	2) Madhya Pradesh	4.082	98.705
3) Gas	4.690	66.483	3) Chattisgarh	4.430	71.530
Total MSPGCL	84.985	1830.823	4) Maharashtra	105.983	1687.972
B) 1) APMIL	26.209	432.650	5) Goa (Amona)	-1.650	-26.127
2) JSWEL	15.525	254.524	Total	112.122	1836.773
3) VIPL	0.000	0.000	a) Mumbai Schedule	22.322	394.388
4) RPL(AMT)	0.000	0.000	b) Mumbai Drawl	21.128	395.124
5) WPCL	2.421	95.563	c) MSEDCL Bilateral *	21.323	479.757
6) Other IPP	7.831	124.927	Include PX	0.792	40.168
7) PGPL	0.000	0.000	d) Mumbai Bilateral *	22.322	394.388
C) 1) TPCL Thermal	7.161	122.501	Include PX	11.356	238.588
2) TPCL Hydro	4.633	43.077	Standby	0.000	0.000
3) TPCL Gas	3.001	67.255	H) ENERGY CATERED (MUs)		
4) AEML Thermal	4.746	76.316	1) MSEDCL	282.253	4992.657
D) STATE			2) Mumbai Discoms	40.670	704.269
1) Thermal	133.377	2756.674	TOTAL STATE	322.923	5696.926
(A1+C1+C4+(B1-B6))					
2) Hydro	15.444	157.224			
(A2+C2)					
3) Gas	7.691	133.738			
(A3+B7+C3)					
4) Wind	51.888	743.189			
6) SOLAR	2.400	69.332			
TOTAL STATE	210.800	3860.157			

* Displayed for information, not added in total.

DETAILS OF MAHARASHTRA STATE PEAK DEMAND(MW) Statement II

PARTICULARS	A. Morning Peak at 10 Hrs	B. Day Peak at 18 Hrs	C. Evening Peak at 20 Hrs	D. Night Minimum at 2 Hrs
MSPGCL Thermal	3063	3124	3134	2690
MSPGCL Hydro	785	411	623	382
MSPGCL Gas	130	280	280	140
MSPGCL Total Generation	3978	3815	4037	3212
Central Sector Receipt	5738	4976	4909	2868
WIND	1945	2204	2513	2152
CPP / IPP Thermal	2456	2318	2466	1939
CPP / IPP Gas	0	0	0	0
SOLAR	217	40	0	0
Exchange with Mumbai	-860	-840	-786	-825
MSEDCL DEMAND MET	13474	12513	13139	9346
Load Shedding	0	0	0	0
MSEDCL DEMAND	13474	12513	13139	9346
TPCL GENERATION	656	657	796	558
AEML GENERATION	249	189	252	188
MUMBAI DEMAND	1765	1686	1834	1571
STATE DEMAND MET	15239	14199	14973	10917
STATE DEMAND	15239	14199	14973	10917
Frequency (Hz)	49.98	49.95	49.96	50.00

FREQUENCY PARTICULARS

MAXIMUM FREQ.	MINIMUM FREQ.	AVERAGE FREQ.	FREQ. BELOW 49.2 Hz
50.13 Hz at 14.02 Hrs	49.78 Hz at 18.25 Hrs	49.99	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 16/Aug/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	139.54	0	0
Unit 9	0.00	129.48	0	0
Unit 10	0.00	59.72	0	0
Total	0.00	328.74		
Bhusawal				
Unit 3	0.00	0.00	0	0
Unit 4	0.00	75.70	0	0
Unit 5	8.78	102.68	435	335
Total	8.78	178.38		
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	29.00	0	0
Unit 4	3.82	57.45	164	150
Unit 5	8.32	139.50	360	330
Unit 6	0.00	107.87	0	0
Unit 7	0.00	44.52	0	0
Unit 8	9.44	114.50	455	360
Unit 9	9.48	152.08	455	360
Total	31.06	644.92		
Paras				
Unit 3	3.71	69.25	188	95
Unit 4	4.06	67.98	191	116
Total	7.78	137.23		
Khaparkheda				
Unit 1	2.83	51.34	140	105
Unit 2	3.12	50.14	145	120
Unit 3	3.14	49.10	140	120
Unit 4	3.35	59.15	155	130
Unit 5	9.42	151.20	460	350
Total	21.86	360.93		
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	4.69	66.48	290	129
Total	4.69	66.48		
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)	1.13	14.75	53	27

Generating unit	Generation			
	Daily (Mus)	Monthly (Mus)	Max (MW)	Min (MW)
Total	1.13	14.75		
Koyna				
Stage 1-2	2.86	39.48	400	40
Stage 4	0.07	12.44	67	0
Stage 3	3.20	29.92	160	0
Total	6.13	81.84		
Hydro				
KDPH	0.83	1.53	37	32
VTRNA	0.00	0.00	0	0
TILLARI	1.39	10.67	58	58
BHTGR/VEER	0.00	0.00	0	0
BHIRA T.R.	0.42	5.73	40	0
RNGR+BHTSA	0.00	0.20	0	0
BHANDARDRA	0.52	3.25	27	14
ELDARY	0.50	1.29	22	18
SMLHY_PTN	1.00	9.63	42	41
GHATGHAR	0.00	0.00	0	0
Total	4.68	32.30		
Wind				
Total	51.89	743.19	0	0
Total	51.89	743.19		
CPP				
APML(Mus)	26.21	432.65	0	0
JSWEL(Mus)	15.52	254.52	0	0
VIPL(Mus)	0.00	0.00	0	0
RPLAMT(Mus)	0.00	0.00	0	0
WPCL(Mus)	2.42	95.56	0	0
Other(Mus)	7.83	124.93	0	0
Total	51.99	907.66		
SOLAR				
Total	2.40	69.33	0	0
Total	2.40	69.33		
Tata				
Trombay 5	7.16	122.50	407	274
Trombay 6	0.00	0.00	0	0
Trombay 7A	1.73	42.52	76	70
Trombay 7B	1.27	24.73	54	52
Trombay 8	0.00	0.00	0	0
TATA Hydro	4.63	43.08	299	74
Total	14.80	232.83		
AEML				
DTPS U-1&2	4.75	76.32	252	188
Total	4.75	76.32		

* Infirm Power			Summary			Summary		
Particulars	Daily (Mus)	Monthly	Particulars	Daily (Mus)	Monthly (Mus)	Particulars	Daily (Mus)	Monthly (Mus)
			MSPGCL Thermal	69.48	1650.19	MSPGCL Total	84.98	1830.82
			MSPGCL Thml+Gas	74.17	1716.68	Koyna 1,2 & 4 Total	2.93	51.92
			MSPGCL Hydro	10.81	114.15	State Total	210.80	3860.16

State Load Despatch Center,Airoli (MSETCL)

Hourly Load Data As on 16/Aug/2020

Annexure-2

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	2706	508	130	3344	2283	1941	0	0	3191	3215	-886	9897	0	9897	1656	11553	50.01
2	2690	382	140	3212	2152	1939	0	0	3360	2868	-825	9346	0	9346	1571	10917	50.00
3	2686	388	131	3205	2096	1952	0	0	3253	3033	-777	9509	0	9509	1498	11007	49.99
4	2728	398	140	3266	2011	1939	0	0	3205	3300	-760	9756	0	9756	1446	11202	49.96
5	2767	403	131	3301	1985	1951	0	0	3599	3616	-763	10090	0	10090	1431	11521	49.99
6	2768	476	140	3384	2025	2043	0	0	4113	4219	-804	10867	0	10867	1471	12338	49.98
7	2877	463	130	3470	2118	2307	0	8	4817	4930	-829	12004	0	12004	1497	13501	50.00
8	3087	419	140	3646	1929	2436	0	64	5267	5662	-851	12886	0	12886	1546	14432	49.99
9	3089	634	130	3853	1890	2454	0	142	5657	5832	-899	13272	0	13272	1637	14909	49.98
10	3063	785	130	3978	1945	2456	0	217	5845	5738	-860	13474	0	13474	1765	15239	49.98
11	3039	502	140	3681	1889	2457	0	309	6030	5735	-877	13194	0	13194	1869	15063	49.98
12	2887	369	129	3385	2049	2317	0	319	6101	5765	-1039	12796	0	12796	1907	14703	50.01
13	2777	280	150	3207	2251	1990	0	351	5741	5451	-1026	12224	0	12224	1888	14112	49.98
14	2800	265	190	3255	2217	2038	0	289	5406	5109	-1021	11887	0	11887	1855	13742	50.02
15	2802	302	230	3334	2091	1989	0	305	5394	4944	-970	11693	0	11693	1790	13483	50.02
16	2828	360	279	3467	2037	1966	0	237	5106	4949	-891	11765	0	11765	1710	13475	49.95
17	2972	543	279	3794	1942	2204	0	119	4927	4889	-836	12112	0	12112	1680	13792	49.94
18	3124	411	280	3815	2204	2318	0	40	5372	4976	-840	12513	0	12513	1686	14199	49.95
19	3119	483	269	3871	2406	2410	0	0	5162	5327	-811	13203	0	13203	1746	14949	49.95
20	3134	623	280	4037	2513	2466	0	0	5144	4909	-786	13139	0	13139	1834	14973	49.96
21	2966	372	281	3619	2657	2388	0	0	5119	4694	-893	12465	0	12465	1832	14297	50.02
22	2856	366	270	3492	2517	2067	0	0	4899	4511	-920	11667	0	11667	1804	13471	49.99
23	2853	667	281	3801	2429	1988	0	0	4164	4483	-980	11721	0	11721	1788	13509	49.99
24	2866	412	290	3568	2252	1970	0	0	4072	3967	-984	10773	0	10773	1762	12535	50.00
MUs	69.48	10.81	4.69	84.99	51.89	51.99	0.00	2.40	114.94	112.12	-21.13	282.25	0.00	282.25	40.67	322.92	49.99

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 16/Aug/2020

Position as on 6.30 Hrs of 17/Aug/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	
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	Nasik Unit 4	210	25/03/2020	19.45		Continued.	Reserve Shut Down.(Converted zero schedule from 25.03.2020)	
TPC_G	Trombay 8	250	11/04/2020	16.55		Continued.	Zero Schedule.	
IPP	JSW (J) U3	300	30/04/2020	15.13		Continued.	No Schedule	
MSPGCL	Parli Unit 7	250	12/05/2020	19.34		Continued.	Zero Schedule.	
MSPGCL	Uran Unit B0	120	25/05/2020	12.51		Continued.	Turbine Blade Failure	
MSPGCL	Uran Unit 7	108	25/05/2020	12.51		Continued.	Turbine Blade Failure	
MSPGCL	Parli Unit 8	250	01/06/2020	13.13		Continued.	Zero schedule By MSEDCL	
IPP	Adani U-1	660	03/06/2020	15.02		Continued.	Converted zero schedule from 03.06.2020	
IPP	Adani U-5	660	04/06/2020	12.29		Continued.	Zero Schedule.	
IPP	Adani U-4	660	12/06/2020	10.30		Continued.	Zero Schedule	

State Load Despatch Center,Airoli (MSETCL) Statement-VI
Details of Generating Unit Outages/Trippings for 16/Aug/2020

Position as on 6.30 Hrs of 17/Aug/2020

Generating Company	Name of Generating Unit	Capacity	Tripped Date	Tripped Time	Sync.Date	Sync. Time	Reason of Outage	Expected Date
AEML	AEML Unit 1	250	27/06/2020	23.55		Continued.	Zero schedule.	
MSPGCL	Chandrapur Unit 7	500	06/08/2020	03.33		Continued.	Sparkling in generator R phase winding.	
MSPGCL	Chandrapur Unit 3	210	11/08/2020	10.00		Continued.	PA Fan problem	
CPP	SWPGL U-3	135	12/08/2020	00.45		Continued.	Zero Schedule by MSEDCL	
CPP	SWPGL U-4	135	12/08/2020	00.45		Continued.	Zero Schedule by MSEDCL	
MSPGCL	Koradi Unit 10	660	13/08/2020	00.08		Continued.	Zero Schedule.	
MSPGCL	Chandrapur Unit 6	500	13/08/2020	01.00		Continued.	Due to GTR-6 oil filtration work.(BDV less & water content high)	
MSPGCL	Koradi Unit 9	660	14/08/2020	12.28		Continued.	Zero schedule.	
MSPGCL	Koradi Unit-8	660	14/08/2020	13.07		Continued.	Zero schedule.	
MSPGCL	Uran Unit 6	108	15/08/2020	00.12		Continued.	Filter replacement.	
MSPGCL	Bhusawal Unit 4	500	15/08/2020	02.21		Continued.	Zero Schedule	

State Load Despatch Center,Airoli (MSETCL)
Details of Line outages/Tripping for 16/Aug/2020

Statement-VII

Position as on 6.30 Hrs of 17/Aug/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/Tripping							
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 II	InterState	30/07/2020	12.45		Continued.	HT	Over Voltage
Padgha - Boisar (PG)	InterState	15/08/2020	04.02		Continued.	T	Over Voltage
BABHALESHWAR - RPL(NASHIK) CKT - 1	IntraState	11/06/2020	10.40		Continued.	HT	Over Voltage
Dhule- Bableshwar - I	IntraState	31/07/2020	19.27		Continued.	HT	Over Voltage
Bhusawal-Aurangabad	IntraState	07/08/2020	16.19		Continued.	HT	Over Voltage
Padghe - Nagothane - II	IntraState	07/08/2020	23.23		Continued.	HT	Over Voltage
Babhaleshwar - Padghe-I	IntraState	12/08/2020	23.33	16/08/2020	11.20	HT	Over Voltage
Chandrapur-II - Nanded ckt I	IntraState	13/08/2020	02.28		Continued.	T	Over Voltage
Jaigad-Karad Ckt-II	IntraState	13/08/2020	10.59		Continued.	PO	To attend CB problem
Koradi-Bhusawal	IntraState	14/08/2020	01.09		Continued.	T	Over Voltage
karad -kolhapur-I	IntraState	14/08/2020	21.04		Continued.	HT	Over Voltage
Padghe - Kalwa- I	IntraState	14/08/2020	21.28		Continued.	HT	Over Voltage
Lonikand I - Koyna stage-IV	IntraState	14/08/2020	21.30	16/08/2020	11.20	HT	Over Voltage
Chandrapur-II - Nanded ckt II	IntraState	15/08/2020	00.40		Continued.	T	Over Voltage
Akola II - RPL(Rattania) Ckt I	IntraState	15/08/2020	11.39		Continued.	T	Over Voltage
Alkud-Kolhapur(Talandage)	IntraState	16/08/2020	01.17	16/08/2020	06.45	T	Over Voltage
Kalwa - Talegaon(PG)	IntraState	16/08/2020	10.00	16/08/2020	18.40	EO	Alignment of the 29 D Line Isolator is disturbed.
Babhaleshwar - Padghe-I	IntraState	16/08/2020	21.58		Continued.	HT	Over Voltage
Lonikand I - Koyna stage-IV	IntraState	16/08/2020	22.10		Continued.	HT	Over Voltage
Kalwa - Talegaon(PG)	IntraState	17/08/2020	03.45		Continued.	T	Over Voltage
400 KV ICT Outages/Tripping							
400/220/33 Kv 315 Mva ICT 1 @Padghe	IntraState	15/11/2018	10.07		Continued.	T	Differential Protection,Declared Faulty.
400/220kv 315 MVA ICT I @ KOLHAPUR-III (TALANDGE)	IntraState	10/08/2020	09.58		Continued.	PO	Replacement Of Existing 315 MVA ICT By 3*167 MVA ICT.
400/220kv, 500 MVA ICT-III @Babhleshwar	IntraState	14/08/2020	00.58		Continued.	HT	H/T from LV side for Over Voltage
400/21 KV 600MVA GT VI @ Chandrapur	IntraState	14/08/2020	10.35		Continued.	PO	Isolator maintenance work.
400/220 Kv 500 MVA ICT-I @Kalwa	IntraState	14/08/2020	23.40	16/08/2020	14.41	HT	H/T from LV side for Over Voltage.
400/220 Kv 500 MVA ICT II @Jejuri	IntraState	15/08/2020	22.50	16/08/2020	06.48	HT	Over Voltage
400/220/33kv 315MVA ICT-I @Lonikand	IntraState	16/08/2020	00.23	17/08/2020	07.01	HT	Over Voltage
400/220 Kv 600 MVA ICT-II @Kalwa	IntraState	16/08/2020	03.17	16/08/2020	06.57	T	Over Voltage
220 KV LINE Outages/Tripping							
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)
Kharghar-Borivali ckt II	IntraState	11/08/2020	08.45		Continued.	T	Cable Faulty
Theur-Phursungi	IntraState	14/08/2020	09.46		Continued.	HT	Outage arrangement HTLS work.
Theur- Magar Patta City	IntraState	14/08/2020	10.27		Continued.	HT	Outage arrangement HTLS work.
Lonikand1 (400 Kv)-Theur I	IntraState	14/08/2020	10.38		Continued.	PO	Replacement of Existing 0.4 DEER Conductor, hardware & Insulator to HTLS Conductor.
Ongc Uran - Jnpt	IntraState	14/08/2020	12.07		Continued.	PO	Removal of existing earthwire and

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 16/Aug/2020

Statement-VII

Position as on 6.30 Hrs of 17/Aug/2020

Name of Line	Inter State / Intra State	Tripped Date	Tripped Time	Sync. Date	Sync. Time	Outage Type	Reason of Outage
							string OPGW.
Chakan (400kv)-Bridgestone	IntraState	15/08/2020	09.18		Continued.	PO	Work for LILO arrangement for M/s Air liquid at Loc no 27 on 220KV bridgeston-Chakan PH line.
Chakan I - Chakan II (tap to Volkswagen)	IntraState	15/08/2020	09.21		Continued.	PO	Work for LILO arrangement for M/s Air liquid at Loc no 27 on 220KV bridgeston-Chakan PH line.
Sawantwadi-Bidri	IntraState	16/08/2020	00.05		Continued.	HT	Over Voltage
Parli 3 (Old Gcr)-Girwali Ckt 2	IntraState	16/08/2020	09.30		Continued.	PO	Erection of new tower at loc.no. 8 for railway crossing between loc no.9 & 10.
Parli 3 (Old Gcr)-Girwali Ckt-3	IntraState	16/08/2020	09.30		Continued.	PO	Erection of new tower at loc.no. 8 for railway crossing between loc no.9 & 10.
Parli 3(Old Gcr)- Girwali Ckt 4	IntraState	16/08/2020	09.32		Continued.	PO	Tower Erection work for railway crossing.
Kharghar - Nerul	IntraState	16/08/2020	09.43	16/08/2020	17.55	EO	Attending Hot Spot
Kalwa Salsette III	IntraState	16/08/2020	10.07	16/08/2020	13.06	PO	Tree trimming & LBBU Testing.
Kalwa-Salsette-IV	IntraState	16/08/2020	14.45	16/08/2020	16.10	PO	LBBU Testing.
Koyna (Pophali) - Kdph	IntraState	17/08/2020	04.55		Continued.	T	Distance Protection,B PH La Burst at KDPH end.

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