

State Load Despatch Center, Airoli (MSETCL) Statement I
Daily system Report for 22/Sep/2023 FRIDAY

I GENERATION (MUs)			II EXCHANGES (MUs)		
A) MSPGCL	Daily	Monthly	E) InterState Exchanges	Daily	Monthly
1) Thermal	125.156	2827.079	1) Gujrat	12.981	128.212
2) Hydro	10.614	280.998	2) Madhya Pradesh	8.285	90.585
3) Gas	7.020	115.539	3) Chattisgarh	5.030	77.640
Total MSPGCL	142.790	3223.616	4) Maharashtra	184.146	4069.203
B) 1) APLM	60.347	1351.109	5) Goa (Amona)	-1.401	-37.537
2) JSWEL	23.639	566.938	Total	209.041	4328.103
3) VIPL	0.000	0.000	a) Mumbai Schedule	34.200	751.433
4) RPL(AMT)	18.982	546.907	b) Mumbai Drawl	38.614	839.614
5) SWPGPL	11.840	259.145	c) MSEDCL Bilateral *	88.132	2182.380
6) Other IPP	6.099	136.815	Include PX	0.000	0.000
7) PGPL	0.000	0.000	d) Mumbai Bilateral *	34.200	751.368
C) 1) TPCL Thermal	11.272	269.733	Include PX	0.000	0.000
2) TPCL Hydro	4.665	80.471	Standby	0.000	0.064
3) TPCL Gas	1.595	47.580	H) ENERGY CATERED (MUs)		
4) AEML Thermal	10.420	214.067	1) MSEDCL	443.543	10360.705
D) STATE			2) Mumbai Discoms	66.566	1451.466
1) Thermal	267.755	6171.793	3) Other Discoms	10.250	225.406
(A1+C1+C4+(B1-B6))			TOTAL STATE	520.359	12037.577
2) Hydro (A2+C2)	15.279	361.469			
3) Gas (A3+B7+C3)	8.615	163.119			
4) Wind	10.925	761.443			
6) SOLAR	8.744	251.649			
TOTAL STATE	311.318	7709.473			

* Displayed for information, not added in total.

DETAILS OF MAHARASHTRA STATE PEAK DEMAND(MW) Statement II

PARTICULARS	A. Morning Peak at 11 Hrs	B. Day Peak at 13 Hrs	C. Evening Peak at 19 Hrs	D. Night Minimum at 4 Hrs
MSPGCL Thermal	5455	5083	5401	5061
MSPGCL Hydro	838	533	932	232
MSPGCL Gas	292	289	292	296
MSPGCL Total Generation	6585	5905	6625	5589
Central Sector Receipt	10658	9904	8136	7470
WIND	264	288	461	569
CPP / IPP Thermal	4665	5249	5632	4969
CPP / IPP Gas	0	0	0	0
SOLAR	987	1204	14	0
Exchange with Mumbai	-2251	-2293	-1530	-1196
MSEDCL DEMAND MET	20451	19811	18871	17064
Load Shedding	0	0	0	0
MSEDCL DEMAND	20451	19811	18871	17064
TPCL GENERATION	589	635	1089	568
AEML GENERATION	468	363	492	358
MUMBAI DEMAND	3308	3291	3111	2122
OTHER DISCOM DEMAND	457	446	467	337
STATE DEMAND MET	24216	23548	22449	19523
STATE DEMAND	24216	23548	22449	19523
Frequency (Hz)	50.01	49.98	50.02	49.99

FREQUENCY PARTICULARS

MAXIMUM FREQ.	MINIMUM FREQ.	AVERAGE FREQ.	FREQ. BELOW 49.4 Hz
50.16 Hz at 19:03 Hrs	49.82 Hz at 23:04 Hrs	50	0 % of Time(min)

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

Daily and Progressive Generation,Maximum,Minimum for 22/Sep/2023

Generating unit	Generation			
	Daily (Mus)	Monthly (Mus)	Max (MW)	Min (MW)
Koradi				
Unit 6	3.34	72.66	160	115
Unit 8	14.64	283.67	650	550
Unit 9	3.94	221.66	357	0
Unit 10	4.49	5.18	412	55
Total	26.40	583.17		
Bhusawal				
Unit 3	2.83	58.06	135	95
Unit 4	8.96	180.04	415	320
Unit 5	8.38	191.96	395	295
Total	20.16	430.06		
Parli				
Unit 6	4.40	99.26	231	146
Unit 7	4.37	88.70	223	148
Unit 8	3.83	87.19	190	137
Total	12.60	275.14		
Chandrapur				
Unit 3	2.49	67.28	145	65
Unit 4	0.00	26.63	0	0
Unit 5	0.00	0.00	0	0
Unit 6	6.05	130.53	285	220
Unit 7	0.00	125.12	0	0
Unit 8	9.68	207.47	453	344
Unit 9	10.60	177.42	472	373
Total	28.82	734.44		
Paras				
Unit 3	4.12	98.42	186	136
Unit 4	4.89	101.66	223	151
Total	9.00	200.08		
Khaparkheda				
Unit 1	2.93	58.79	140	95
Unit 2	1.35	35.86	71	40
Unit 3	3.70	74.91	169	128
Unit 4	3.17	68.07	143	123
Unit 5	7.72	177.69	445	0
Total	18.86	415.33		
Nasik				
Unit 3	3.34	62.02	163	121
Unit 4	2.82	70.02	148	0
Unit 5	3.15	56.82	153	120
Total	9.30	188.86		
Uran				
All Units	7.02	115.54	300	287
Total	7.02	115.54		
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	18.50	48	46
Total	1.13	18.50		
Koyna				
Stage 1-2	1.58	56.37	230	35

Generating unit	Generation			
	Daily (Mus)	Monthly (Mus)	Max (MW)	Min (MW)
Stage 4	2.37	79.74	500	0
Stage 3	0.82	32.22	160	0
Total	4.76	168.33		
Hydro				
KDPH	0.45	5.03	36	18
VTRNA	0.44	1.34	60	0
TILLARI	0.00	1.19	0	0
BHIRA T.R.	0.44	7.78	80	0
SMLHY_PTN	3.18	73.67	135	128
GHATGHAR	0.22	5.15	125	0
Total	4.73	94.16		
Wind				
Total	10.92	761.44	0	0
Total	10.92	761.44		
CPP				
APML(Mus)	60.35	1351.11	0	0
JSWEL(Mus)	23.64	566.94	0	0
VIPL(Mus)	0.00	0.00	0	0
RPLAMT-Mus	18.98	546.91	0	0
SWPGPL-Mus	11.84	259.14	0	0
Dhariwal	0.00	0.00	0	0
IEPL	5.76	125.46	256	198
Other(Mus)	0.34	11.35	0	0
Total	120.91	2860.91		
SOLAR				
Total	8.74	251.65	0	0
Total	8.74	251.65		
Tata				
Trombay 5	7.43	177.08	441	261
Trombay 6	0.00	0.00	0	0
Trombay 7A	0.84	26.51	36	35
Trombay 7B	0.75	21.07	32	31
TATA Hydro	4.66	80.47	416	78
Trombay 8	3.84	92.65	221	133
Total	17.53	397.78		
AEML				
DTPS U-1&2	10.42	214.07	492	345
Total	10.42	214.07		

* Infirm Power			Summary			Summary		
Particulars	Daily (Mus)	Monthly	Particulars	Daily (Mus)	Monthly (Mus)	Particulars	Daily (Mus)	Monthly (Mus)
			MSPGCL Thermal	125.16	2827.08	MSPGCL Total	142.79	3223.62
			MSPGCL Thml+Gas	132.18	2942.62	Koyna 1,2 & 4 Total	3.94	136.11
			MSPGCL Hydro	10.61	281.00	State Total	311.32	7709.47

State Load Despatch Center,Airoli (MSETCL)

Annexure-2

Hourly Load Data As on 22/Sep/2023

TIME SR. NO.	MSPGCL GEN.			TOTAL	WIND	CPP / IPP		SOLAR	CS SHARE	CS RECPT	Mum. NET EXCH.	MSEDC L DEM. MET	Load Shedding		MSEDC L DEM. WITH LS	MUMBAI DEMAND	OTHER DISCOM DEMAND	STATE DEMAND	FREQ. (Hz)
	THM	HY	GAS			THM	GAS						Planned	*Transmission Constraint					
1	5001	231	294	5526	833	5137	0	0	7487	7088	-1376	16819	0	0	16819	2518	389	19726	50.01
2	5025	233	295	5553	749	5014	0	0	7527	7135	-1242	16855	0	0	16855	2349	354	19558	49.98
3	4997	232	294	5523	608	4832	0	0	7787	7597	-1189	17039	0	0	17039	2202	332	19573	49.98
4	5061	232	296	5589	569	4969	0	0	7717	7470	-1196	17064	0	0	17064	2122	337	19523	49.99
5	5023	233	294	5550	656	4791	0	0	8212	7808	-1122	17346	0	0	17346	2104	337	19787	50.00
6	5192	232	296	5720	682	4809	0	0	8805	8365	-1210	18005	0	0	18005	2166	361	20532	49.98
7	5406	259	297	5962	626	5196	0	38	9028	8798	-1296	18918	0	0	18918	2274	406	21598	50.00
8	5589	469	294	6352	494	5218	0	235	9270	9359	-1416	19805	0	0	19805	2481	437	22723	50.01
9	5619	694	292	6605	433	5087	0	413	9769	9766	-1709	20135	0	0	20135	2816	460	23411	49.99
10	5543	808	295	6646	294	5097	0	640	10471	10251	-1952	20518	0	0	20518	3125	458	24101	50.03
11	5455	838	292	6585	264	4665	0	987	11297	10658	-2251	20451	0	0	20451	3308	457	24216	50.01
12	5206	729	290	6225	192	4881	0	1217	10785	10282	-2292	20056	0	0	20056	3354	449	23859	49.98
13	5083	533	289	5905	288	5249	0	1204	10064	9904	-2293	19811	0	0	19811	3291	446	23548	49.98
14	4880	314	289	5483	303	4903	0	1277	10125	9662	-2120	19066	0	0	19066	3102	442	22610	50.02
15	4690	313	294	5297	392	4383	0	1091	10900	10203	-2068	18849	0	0	18849	3069	449	22367	49.96
16	5041	294	300	5635	599	4475	0	929	10519	10025	-2044	19160	0	0	19160	3087	459	22706	50.02
17	4943	254	290	5487	528	4376	0	529	9895	9536	-2003	17985	0	0	17985	3082	468	21535	49.97
18	5208	459	288	5955	477	5196	0	170	9049	8750	-1749	18315	0	0	18315	3081	484	21880	49.98
19	5401	932	292	6625	461	5632	0	14	8588	8136	-1530	18871	0	0	18871	3111	467	22449	50.02
20	5460	842	287	6589	354	5642	0	0	8502	7935	-1457	18584	0	0	18584	3069	479	22132	50.06
21	5453	362	287	6102	310	5590	0	0	8029	7630	-1328	17842	0	0	17842	2902	462	21206	50.03
22	5329	485	289	6103	278	5259	0	0	7556	7932	-1215	17901	0	0	17901	2758	456	21115	50.02
23	5308	292	291	5891	264	5314	0	0	7637	7527	-1209	17349	0	0	17349	2636	438	20423	50.01
24	5243	344	295	5882	271	5192	0	0	7541	7224	-1347	16801	0	0	16801	2559	421	19781	49.99
MUs	125.16	10.61	7.02	142.79	10.92	120.91	0.00	8.74	216.56	209.04	-38.61	443.54	0.00	0.00	443.54	66.57	10.25	520.36	50.00

NOTE : ALL VALUES IN MW

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

*Load Shedding due to Transmission Constraint :-

State Load Despatch Center,Airoli (MSETCL) Statement-VI
Details of Generating Unit Outages/Trippings for 22/Sep/2023

Position as on 6.30 Hrs of 23/Sep/2023

Generating Company	Name of Generating Unit	Capacity	Tripped Date	Tripped Time	Sync.Date	Sync. Time	Reason of Outage	Expected Date
PLANNED OUTAGE								
MSPGCL	Uran Unit 5	108	12/11/2022	13:23		Continued.	Major overhaul.	05/10/2023
MSPGCL	Chandrapur Unit 5	500	22/05/2023	19:00		Continued.	Stator Earth Fault(converted to Capital overhaul from 00.00Hrs DT.27-07-2023)	03/10/2023
MSPGCL	Koyna Unit 11	80	10/07/2023	09:40		Continued.	COH	07/12/2023
MSPGCL	Koyna Unit 8	80	11/07/2023	08:05	22/09/2023	17:03	COH	23/09/2023
MSPGCL	Khaparkheda Unit 5	500	19/09/2023	02:22	22/09/2023	02:19	Boiler Validity Renevoation	22/09/2023
MSPGCL	Koradi Unit 9	660	22/09/2023	11:39		Continued.	Boiler Tube Leakage and Unit-9 Economizer BTL outage converted to Planned outage for 10 days in view of loadability& reliability improvement.	02/10/2023
FORCED OUTAGE								
PGPL	PGPL U2	126	07/02/2017	17.30		Continued.	No Schedule.(NO PPA)	
PGPL	PGPL U1	262	07/02/2017	17.30		Continued.	No Schedule (NO PPA)	
IPP	VIPL U-1	300	29/12/2018	00.30		Continued.	Coal Shortage. (NO PPA From 20.05.2019)	
IPP	VIPL U-2	300	17/01/2019	00.15		Continued.	Coal shortage.(NO PPA From 20.05.2019)	
CENT.SECTOR	Tarapur 1	160	08/01/2020	10:37		Continued.	Refueling. While refueling preparation, some repair works identified which are being executed before refueling.	01/04/2024
CENT.SECTOR	Tarapur 2	160	13/07/2020	04:38		Continued.	For cleaning of clogged basket strainer of cooling water system due to heavy ingress of debris from sea. The outage extended for repair and re-fueling.	01/05/2024
MSPGCL	Ghatghar Unit-1	125	20/04/2022	00:35		Continued.	Stator Earth Fault	08/11/2023
MSPGCL	Uran Unit A0	120	07/09/2022	16:30		Continued.	TURBINE TRIPPED ON HIGH VIBRATIONS	31/03/2024
IPP	RPL(AMT) U-4	270	22/08/2023	18:46		Continued.	Generator Stator Earth Fault	01/10/2023
MSPGCL	Uran Unit 6	108	02/09/2023	07:16		Continued.	Gas shortage	
MSPGCL	Chandrapur Unit 4	210	19/09/2023	12:33		Continued.	BAVIT Metal Temperature High	26/09/2023
MSPGCL	Chandrapur Unit 7	500	21/09/2023	06:43		Continued.	Boiler Tube Leakage	26/09/2023
IPP	RPL(AMT) U-1	270	21/09/2023	08:00		Continued.	Withdrawn due to bottom ash problem	24/09/2023
MSPGCL	Nasik Unit 4	210	22/09/2023	21:07		Continued.	Boiler Tube Leakage	

State Load Despatch Center,Airoli (MSETCL)
Details of Line outages/Trippings for 22/Sep/2023

Statement-VII

Position as on 6.30 Hrs of 23/Sep/2023

Name of Line	Inter State / Intra State	Tripped Date	Tripped Time	Sync. Date	Sync. Time	Outage Type	Reason of Outage
765 KV LINE Outages/Trippings							
400 KV EKTUNI - BABHLESHWAR CKT- 1	IntraState	22/09/2023	12:31	22/09/2023	19:18	EO	Attending Hot Spot
500 KV TBC Outages/Trippings							
POLE-2 BASE AC FILTER Z1-Z2(200MVAR) @ CHANDRAPUR HVDC	IntraState	23/09/2023	12:16		Continued.	PO	To replace R Ph Interrupter of Pole II Base Filter Circuit breaker as value of CRM is beyond permissible limit & Further to carry out the testing of Breaker like CRM, Timing, DCRM etc.
400 KV TIEBAY Outages/Trippings							
400KV TIE BAY 405 GT 1 -AKOLA 2 CKT 2 @ NANDGAONPETH	InterState	22/09/2023	10:28	22/09/2023	18:06	PO	Tie Breaker failure relay and its BCU testing. UNIT 1 IS OUT AND DIA CLOSED FOR RELIABILITY PURPOSE
TIE BAY - 405 OF 765/400kV 1500MVA ICT & FUTURE BAY @ AKOLA 2	IntraState	22/09/2023	11:52	22/09/2023	19:27	PO	Annual Maintenance of CB & CT.
400 KV MAINBAY Outages/Trippings							
400KV MAIN BAY 404 - GT 1 @ NANDGAONPETH	InterState	22/09/2023	10:05	22/09/2023	18:06	PO	Gt-1 Over head protection relay, Breaker failure relay and its BCU testing.. Tie Breaker failure relay and its BCU testing UNIT 1 IS OUT AND DIA CLOSED FOR RELIABILITY PURPOSE
400 KV LINE Outages/Trippings							
400KV-PARLI NEW-PARLI-M-1	InterState	19/08/2023	22:49			PO	For reconductoring
SOLAPUR PG - ALKUD	InterState	22/09/2023	19:33	22/09/2023	21:56	T	DT received at Alkud s/s
BABHALESHWAR - RPL(NSK) CKT - 1	IntraState	01/08/2023	09:21			EO	For attending Oil Leakage Problem of 4Y4 phase Protection CT Of NTPP I (RPL 1)
AURANGABAD(MS) - PUNE (GIS) CKT - 2	IntraState	15/09/2023	07:55			HT	HT for Load Management
KHADKA-AURANGABAD (WALUJ)	IntraState	21/09/2023	19:54	22/09/2023	09:25	HT	H/T FOR O/V
PADGHE - PADGHE HVDC CKT- 2	IntraState	22/09/2023	12:58			PO	1.Replacement of old BHEL make Quad CB with new siemens Quad CB. 2.A & B Bus PG Isolator Maintenance work. 3.400kV HVDC-1 in service through TBC, Power restriction of 1300MW.
KHADKA-AURANGABAD (WALUJ)	IntraState	23/09/2023	00:06		Continued.	HT	H/T FOR O/V
PARLI - KARJAT CKT - 2	IntraState	23/09/2023	13:18	23/09/2023	19:26	T	Distance Protection
400 KV ICT Outages/Trippings							
STATION TF No 3 @ CHANDRAPUR GCR	IntraState	01/03/2023	15:07			PO	1) Oil filtration work 2) Testing of Station transformer 3) Preventive maintenance work.
200 MCA 220/132 KV ICT - 5 @ KHADKA	IntraState	22/09/2023	13:17	22/09/2023	19:21	EO	DC Leakage Attending Work
400/220 KV 105 MVA SPARE ICT	IntraState	23/09/2023	10:43	23/09/2023	20:18	PO	RRS cable termination work.
400/220kv 500MVA ICT-1 @ TAPTITANDA	IntraState	23/09/2023	12:43	23/09/2023	19:24	PO	Isolator alignment work of auxiliary bus IV side. This will enable to shift the load on 220 kV TBC if required.
400 KV BR Outages/Trippings							
400KV 125MVAR BUS REACTOR @ KARAD	IntraState	22/09/2023	10:06	22/09/2023	13:15		Bushing tan delta testing work, quarterly maintenance work.
220 KV LINE Outages/Trippings							

State Load Despatch Center,Airoli (MSETCL)
Details of Line outages/Trippings for 22/Sep/2023

Statement-VII

Position as on 6.30 Hrs of 23/Sep/2023

Name of Line	Inter State / Intra State	Tripped Date	Tripped Time	Sync. Date	Sync. Time	Outage Type	Reason of Outage
AAREY - MSETCL BORIVALI CKT - 2	IntraState	15/08/2023	06:02			T	Tripped on Distance Protection
GOREGAON - AAREY CKT - 2	IntraState	19/08/2023	07:13			PO	Outage proposed for bunching of 220kV Aarey-AEML Borivali Line (which is under outage) with 220kV Aarey-Goregaon Line-2. Work to be executed under MERC approved Aarey AIS to GIS project conversion scheme.
EKLAHARE (OCR) - PADGHE	IntraState	16/09/2023	18:27			HT	H/T For load management.
EKLAHARE (OCR) - NAVASARI CKT - 2	IntraState	19/09/2023	19:37			HT	Hand tripped from Navsari end for load management
KOLSHET - KHARBAO	IntraState	20/09/2023	12:10			PO	1)Replacement VT-II on Y-phase of 220KV Main Bus-II. 2) 220KV Main Bus II B-phase spacer replacement of O-ring to arrest gas leakage in this section (Bay 206). 3) DFCCIL has deputed M/s Hyosung T&D company's Engineer to arrest gas leakage problem.
NAGAR BELWANDI CKT 1	IntraState	22/09/2023	10:38	22/09/2023	14:36	PO	Replacement of R ph flashover Cut Point string at loc No. 120 Belwandi side (Observed in vertical patrolling)
KANHAN-ULTRATECH CEMENT	IntraState	22/09/2023	11:35	22/09/2023	14:35	PO	Fixing of Isolator Blade of Aux Isolator and Maintenance of Line Isolator Work
HINJAWADI I- CHINCHWAD	IntraState	23/09/2023	06:54	23/09/2023	18:40	PO	a) Temporary stringing of conductor from Loc 159 (existing tower) to 160 (New monopole) - 3 conductors b) Temporary stringing of conductor from Loc 162 (New monopole) to 163 (Existing tower) - 3 conductors c) De-stringing of conductor(Holding the conductor on existing tower) & earthwire from 160 to 162 (existing 220 kV
KEKATNIMBHORA - CHALISGAON CKT	IntraState	23/09/2023	09:30	23/09/2023	14:24	PO	Diagnostic testing and relay testing work
WARDHA (PG) - BADNERA	IntraState	23/09/2023	09:39	23/09/2023	21:47	PO	For Replacement of Old BHEL Insulators on gantries of element
WARDHA - WARDHA (PG)	IntraState	23/09/2023	09:53	23/09/2023	21:45	PO	For Replacement of Old BHEL Insulators on gantries of element
LONAND-BOTHE	IntraState	23/09/2023	10:15	23/09/2023	15:14	PO	Distance relay testing work
220 KV ICT Outages/Trippings							
220 / 110 / 22kV 250 MVA ICT 1 @ SALSETTE	IntraState	12/10/2020	11:35			T	Tripped due to Grid disturbance.
220/33 KV 50 MVA PTR 1 @ BOISAR-II	IntraState	13/09/2023	21:38			HT	Problem arise during tap changing operation , Tap was not getting changed ,When tried manually it was found jammed. Hence HT from HV & LV Both .
220/132-110 KV 100 MVA ICT 2	IntraState	22/09/2023	11:05	22/09/2023	14:23	PO	Attending oil leakage by using power seal gasketing technology
220/22-22 KV 50 MVA PTR 3 @ ANANDNAGAR	IntraState	22/09/2023	13:55	22/09/2023	14:51	PO	1] For attending hotspot on LV CB 2] Bay R&M work
220/132 KV 100 MVA ICT 2 @ BUTIBORI	IntraState	23/09/2023	04:01	23/09/2023	05:48	T	132KV side Y phase PT1 Burst
220/132 KV 100 MVA ICT 1 @ BUTIBORI	IntraState	23/09/2023	04:01	23/09/2023	05:51	T	132KV side Y phase PT1 Burst
220 KV BUSBAR Outages/Trippings							

State Load Despatch Center,Airoli (MSETCL)
Details of Line outages/Trippings for 22/Sep/2023

Statement-VII

Position as on 6.30 Hrs of 23/Sep/2023

Name of Line	Inter State / Intra State	Tripped Date	Tripped Time	Sync. Date	Sync. Time	Outage Type	Reason of Outage
220KV AUXILLARY BUS @ BAMBHORI	IntraState	26/07/2023	15:03			T	Avoid mal operation of Aux bus zone, Blocking of busbar relay for aux bus zone is required.
AUXILIARY BUS @ PADGHE	IntraState	14/09/2023	10:32			PO	For making twin bus conductor arrangements of 220kV Aux. Bus in upper section .
132 KV LINE Outages/Trippings							
MANSAR-PENCH	InterState	22/09/2023	07:10			HT	H/T FOR LOAD MANAGEMENT
KANHAN-MANSAR	IntraState	21/09/2023	21:56	22/09/2023	07:10	T	TRIPPED ON DISTANCE PROTECTION .A/R SUCCESSFUL FROM KANHAN END
110 KV LINE Outages/Trippings							
SALSETTE POWAI	IntraState	27/03/2023	11:04			PO	Replacement of tower number 77 & 78 for TDS project work.

HT : Hand Tripping, T : Tripping, PO : Planned Outage, EO : Emergency Outage