

State Load Despatch Center, Airoli (MSETCL) Statement I
Daily system Report for 27/Oct/2015 TUESDAY

I GENERATION (MUs)			II EXCHANGES (MUs)		
A) MSPGCL	Daily	Monthly	E) InterState Exchanges	Daily	Monthly
1) Thermal	121.682	3225.377	1) Gujrat	6.964	163.618
2) Hydro	17.876	329.816	2) Madhya Pradesh	15.746	349.646
3) Gas	10.287	242.034	3) Chattisgarh	5.790	130.830
Total MSPGCL	149.845	3797.227	4) Maharashtra Net	117.427	2851.744
B) 1) APML	47.740	1492.520	5) Goa	-7.635	-210.406
2) JSWEL	28.583	757.150	6) TAPS 1&2 Injection	3.550	96.051
3) VIPL	13.088	331.122	7) RGPPL Injection	0.000	0.000
4) RPL(AMT)	18.850	558.700	8) Pench (MS)	0.828	19.997
5) WPCL	5.108	126.037	9) Pench (Excess)	-0.828	-19.997
6) Other IPP	3.488	85.679	Total	141.014	3361.486
C) 1) TPCL Thermal	17.068	462.742	a) Mumbai Schedule	29.333	717.726
2) TPCL Hydro	3.002	65.101	b) Mumbai Drawl	30.152	804.681
3) TPCL Gas	3.702	104.612	c) MSEDCL Bilateral *	49.910	1004.618
4) R-INFRA Thermal	12.385	314.490	Include PX	15.333	166.759
D) STATE			d) Mumbai Bilateral *	29.333	714.363
1) Thermal	267.992	7353.817	Include PX	8.908	171.670
(A1+C1+C4+(B1-B6))			Include Standby	0.000	3.363
2) Hydro (A2+C2)	20.878	394.917	H) ENERGY CATERED (MUs)		
3) Gas (A3+C3)	13.989	346.646	1) MSEDCL	380.453	9844.065
4) Wind	1.935	109.344	2) Mumbai Discoms	66.309	1751.604
6) SOLAR	0.954	29.481	TOTAL STATE	446.762	11595.669
TOTAL STATE	305.748	8234.205			

* 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 13 Hrs	C. Evening Peak at 19 Hrs	D. Night Minimum at 5 Hrs
MSPGCL Thermal	5165	5144	5046	5025
MSPGCL Hydro	1399	1257	1189	128
MSPGCL Gas	436	432	430	441
MSPGCL Total Generation	7000	6833	6665	5594
Central Sector Receipt	6902	6682	5866	4682
WIND	58	66	86	98
CPP / IPP	4572	4579	4585	5231
SOLAR	152	142	0	0
Exchange with Mumbai	-1560	-1539	-1481	-652
MSEDCL DEMAND MET	17124	16763	15721	14953
Load Shedding	621	709	245	312
MSEDCL DEMAND	17745	17472	15966	15265
TPCL GENERATION	1136	1159	1184	882
R-INFRA GENERATION	513	515	515	516
MUMBAI DEMAND	3209	3213	3180	2050
STATE DEMAND MET	20333	19976	18901	17003
STATE DEMAND	20954	20685	19146	17315
Frequency (Hz)	49.99	49.96	49.95	49.96

FREQUENCY PARTICULARS

MAXIMUM FREQ.	MINIMUM FREQ.	AVERAGE FREQ.	FREQ. BELOW 49.2 Hz
50.15 Hz at 06.02 Hrs	49.72 Hz at 18.07 Hrs	49.95	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 27/Oct/2015

Generating unit	Generation			
	Daily (Mus)	Monthly (Mus)	Max (MW)	Min (MW)
Koradi				
Unit 5	2.73	78.49	120	99
Unit 6	0.00	0.00	0	0
Unit 7	3.83	94.47	173	140
Total	6.56	172.96		
Bhusawal				
Unit 2	0.00	0.00	0	0
Unit 3	0.21	79.43	100	0
Unit 4	11.60	295.93	510	445
Unit 5	12.04	304.04	510	485
Total	23.84	679.40		
Parli				
Unit 3	0.00	0.00	0	0
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
Total	0.00	0.00		
Chandrapur				
Unit 1	0.00	0.00	0	0
Unit 2	3.16	87.46	136	126
Unit 3	4.68	124.95	202	175
Unit 4	4.78	123.46	205	170
Unit 5	9.95	177.19	430	385
Unit 6	10.51	243.44	455	415
Unit 7	10.66	220.44	453	430
Total	43.74	976.95		
Paras				
Unit 3	5.24	131.50	232	204
Unit 4	5.66	135.30	250	218
Total	10.90	266.80		
Khaparkhedha				
Unit 1	4.10	90.84	180	160
Unit 2	3.94	99.46	180	130
Unit 3	4.17	103.27	194	151
Unit 4	0.00	46.49	0	0
Unit 5	10.56	259.61	476	410
Total	22.77	599.66		
Nasik				
Unit 3	4.69	123.10	200	190
Unit 4	4.44	93.60	190	177
Unit 5	4.73	124.23	202	188
Total	13.86	340.93		
Uran				
All Units	10.29	242.03	444	330
Total	10.29	242.03		
PENCH (MS)				

Generating unit	Generation			
	Daily (Mus)	Monthly (Mus)	Max (MW)	Min (MW)
Pench (MS)	0.83	20.00	50	23
Total	0.83	20.00		
Koyna				
Stage 1-2	5.20	113.24	495	40
Stage 4	6.94	115.91	895	0
Stage 3	3.06	47.85	320	0
Total	15.20	277.00		
Hydro				
KDPH	0.89	3.16	37	36
VTRNA	0.38	4.30	61	0
TILLARI	0.00	0.04	0	0
BHTGR/VEER	0.00	0.00	0	0
BHIRA T.R.	0.12	4.74	80	0
RNGR+BHTSA	0.26	3.88	13	0
BHANDARDRA	0.44	12.12	19	18
ELDARY	0.00	0.00	0	0
SMLHY_PTN	0.44	5.92	26	15
GHATGHAR	0.15	18.64	88	0
Total	2.67	52.82		
Wind				
Total	1.94	109.34	0	0
Total	1.94	109.34		
CPP				
APML(Mus)	47.74	1492.52	0	0
JSWEL(Mus)	28.58	757.15	0	0
VIPL(Mus)	13.09	331.12	0	0
RPLAMT(Mus)	18.85	558.70	0	0
WPCL(Mus)	5.11	126.04	0	0
Other(Mus)	3.49	85.68	0	0
Total	116.86	3351.21		
SOLAR				
Total	0.95	29.48	0	0
Total	0.95	29.48		
Tata				
Trombay 5	11.13	303.67	489	387
Trombay 6	0.00	0.00	0	0
Trombay 7A	2.26	65.21	115	64
Trombay 7B	1.44	39.40	67	51
Trombay 8	5.94	159.07	252	243
TATA Hydro	3.00	65.10	336	0
Total	23.77	632.46		
R-INFRA				
1-2	12.38	314.49	518	513
Total	12.38	314.49		

Infirm Power	Chandrapur 8	0.00
Summary		
Particulars	Daily (Mus)	Monthly (Mus)
MSPGCL Thermal	121.68	3225.38
MSPGCL Thml+Gas	131.97	3467.41

Koradi 8	0.00	
Summary		
Particulars	Daily (Mus)	Monthly (Mus)
MSPGCL Hydro	17.88	329.82
MSPGCL Total	149.84	3797.23

Summary		
Particulars	Daily (Mus)	Monthly (Mus)
Koyna 1,2 & 4 Total	12.14	229.15
State Total	305.75	8234.20

State Load Despatch Center,Airoli (MSETCL)

Hourly Load Data As on 27/Oct/2015

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													
1	5006	407	438	5851	155	5126	0	5433	5541	-1216	15457	55	15512	2596	18108	49.93
2	5022	298	440	5760	92	5291	0	5126	4747	-979	14911	164	15075	2362	17437	49.94
3	5030	303	440	5773	132	5235	0	4889	4725	-828	15037	260	15297	2208	17505	49.96
4	5007	208	441	5656	132	5217	0	4869	4678	-722	14961	271	15232	2110	17342	49.99
5	5025	128	441	5594	98	5231	0	5023	4682	-652	14953	312	15265	2050	17315	49.96
6	4897	128	440	5465	96	5242	0	5505	5364	-691	15476	414	15890	2087	17977	49.89
7	5062	143	444	5649	67	5195	0	5572	5638	-761	15788	602	16390	2160	18550	49.90
8	5096	133	442	5671	35	5234	17	5675	6361	-889	16429	630	17059	2265	19324	49.93
9	5149	535	437	6121	45	5202	54	5945	6050	-1171	16301	620	16921	2555	19476	49.92
10	5113	1249	431	6793	61	4890	111	6204	6269	-1450	16674	557	17231	2897	20128	49.91
11	5113	1702	430	7245	64	4648	148	6436	6514	-1499	17120	577	17697	3155	20852	49.89
12	5165	1399	436	7000	58	4572	152	6947	6902	-1560	17124	621	17745	3209	20954	49.99
13	5144	1257	432	6833	66	4579	142	6882	6682	-1539	16763	709	17472	3213	20685	49.96
14	5154	924	428	6506	58	4583	102	6852	7015	-1456	16808	667	17475	3143	20618	49.97
15	5079	1136	428	6643	47	4552	109	6674	6865	-1512	16704	509	17213	3194	20407	49.90
16	5066	1746	424	7236	54	4612	76	6564	6577	-1540	17015	400	17415	3214	20629	49.94
17	5045	1382	430	6857	46	4567	34	6407	6399	-1517	16386	437	16823	3189	20012	49.96
18	5044	1173	426	6643	99	4531	9	5575	5316	-1547	15051	408	15459	3164	18623	49.90
19	5046	1189	430	6665	86	4585	0	5655	5866	-1481	15721	245	15966	3180	19146	49.95
20	5053	985	430	6468	78	4567	0	6108	5916	-1432	15597	287	15884	3091	18975	50.01
21	5062	270	431	5763	55	4667	0	6106	6321	-1465	15341	219	15560	2936	18496	50.00
22	5078	381	432	5891	58	4760	0	5660	5634	-1453	14890	160	15050	2804	17854	50.03
23	5114	416	406	5936	119	4783	0	5480	5317	-1403	14752	107	14859	2774	17633	49.99
24	5115	384	330	5829	134	4986	0	5685	5635	-1389	15195	107	15302	2753	18055	49.96
MUs	121.69	17.88	10.29	149.85	1.94	116.85	0.95	141.27	141.01	-30.15	380.45	9.34	389.79	66.31	456.10	49.95

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 27/Oct/2015

Position as on 6.30 Hrs of 28/Oct/2015

Generating Company	Name of Generating Unit	Capacity	Tripped Date	Tripped Time	Sync.Date	Sync. Time	Reason of Outage	Expected Date
PLANNED OUTAGE								
CENT.SECTOR	Tarapur 2	160	10/09/2015	12.55		Continued.	Refuelling work	
MSPGCL	Koyana Unit 4	75	28/10/2015	07.40	28/10/2015	17.45	Preventive Maintenance Work	
FORCED OUTAGE								
RGPPL	Dabhol 1B	230	28/05/2013	22:02		Continued.	Gas Shortage.	
RGPPL	Dabhol 3A	230	06/06/2013	08.28		Continued.	Gas Shortage	
RGPPL	Dabhol 2A	230	06/06/2013	09.10		Continued.	Gas Shortage	
RGPPL	Dabhol 1X	290	27/06/2013	21.46		Continued.	Gas Shortage	
RGPPL	Dabhol 1A	230	27/06/2013	21.47		Continued.	Gas Shortage	
RGPPL	Dabhol 2X	290	15/07/2013	15.09		Continued.	Gas Shortage	
RGPPL	Dabhol 2B	230	08/08/2013	15.03		Continued.	Gas Shortage	
RGPPL	Dabhol 3X	290	29/12/2013	05.47		Continued.	Gas Shortage	
IPP	Dhariwal	300	28/05/2014	02.27		Continued.	No schedule	
MSPGCL	Chandrapur Unit 1	210	28/08/2014	07:15		Continued.	Economic Shutdown.	
MSPGCL	Bhusawal Unit 2	210	13/09/2014	12.43		Continued.	Economic shutdown	
MSPGCL	Koradi Unit 6	210	20/03/2015	01.02		Continued.	Economic shutdown	
IPP	RPL(AMT) U-5	270	03/04/2015	14.22		Continued.	turbine Shaft Vibration high.	
MSPGCL	Uran Unit 7	108	17/04/2015	00.07		Continued.	Gas turbine problem	
MSPGCL	Parli Unit 3	210	14/06/2015	12.58		Continued.	Water Shortage	
IPP	WPCL U-2	135	16/06/2015	00.00		Continued.	No Schdule	
MSPGCL	Parli Unit 6	250	25/06/2015	15.03		Continued.	Water Shortage	
MSPGCL	Parli Unit 4	210	05/07/2015	18.45		Continued.	Water Shortage	
MSPGCL	Parli Unit 5	210	06/07/2015	14.55		Continued.	Water Shortage.	
MSPGCL	Parli Unit 7	250	08/07/2015	12.08		Continued.	Water Shortage	
TPC-G	Trombay 6	500	15/07/2015	17.08		Continued.	Economic shutdown	
IPP	Adani U-4	660	11/09/2015	20.49	28/10/2015	05.46	Abnormal sound in generator bearing	
MSPGCL	Koradi Unit-8	660	21/10/2015	20.49	28/10/2015	02.10	ESP Problem.	
MSPGCL	Khaparkheda Unit 4	210	22/10/2015	12.58	28/10/2015	17.05	Turbine Vibration High.	
CPP	WPCL U-1	135	23/10/2015	17.31		Continued.	ESP filter problem	
MSPGCL	Chandrapur Unit-8	500	24/10/2015	12.34	28/10/2015	23.31	clenkar formation in boiler	
MSPGCL	Bhusawal Unit 3	210	25/10/2015	07.29	27/10/2015	21.27	Drum level low	
MSPGCL	Ghatghar Unit-1	125	25/10/2015	11.00	27/10/2015	19.20	Battery maintenance work	
MSPGCL	Ghatghar Unit-2	125	25/10/2015	11.00	27/10/2015	19.20	Battery maintenance work	
IPP	RPL(AMT) U-4	270	25/10/2015	15.23	27/10/2015	19.59	Water Tube Leakage.	
IPP	Adani U-3	660	27/10/2015	09.48		Continued.	Excitation Tranf. Abnormal Sound.	

State Load Despatch Center,Airoli (MSETCL) Statement-VI
Details of Generating Unit Outages/Trippings for 27/Oct/2015

Position as on 6.30 Hrs of 28/Oct/2015

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	28/10/2015	10.56		Continued.	Gas shortage	

State Load Despatch Center, Airoli (MSETCL)
Details of Line outages/Trippings for 27/Oct/2015

Statement-VII

Position as on 6.30 Hrs of 28/Oct/2015

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							
Dhule Sar'Sarovar I	InterState	26/10/2015	20.13	27/10/2015	05.48	HT	Over Voltage
Kolhapur Mapusa I	InterState	26/10/2015	21.04	27/10/2015	07.01	HT	Over Voltage
Kolhapur Mapusa I	InterState	27/10/2015	10.05	27/10/2015	16.45	PO	cvt replacement at mapusa end.
Dhule Sar'Sarovar I	InterState	27/10/2015	10.49	28/10/2015	06.57	PO	Line Maintenance work.
Kolhapur Mapusa I	InterState	27/10/2015	21.13	28/10/2015	06.53	HT	Over Voltage
Dhule Sar'Sarovar I	InterState	28/10/2015	10.58		Continued.	PO	Work @ SSNL End.RFC @ 18.45hrs
Kolhapur Mapusa II	InterState	28/10/2015	20.16		Continued.	HT	Over Voltage
Akola II - Taptitanda ckt-II	IntraState	06/10/2015	09.44		Continued.	HT	For Controlling Line Loading.
Babhaleshwar-Taptitanda ckt-II	IntraState	25/10/2015	19.26		Continued.	HT	Controlling BBLR ICT Loading.
Dhule- Bableswhar - I	IntraState	26/10/2015	10.29	28/10/2015	19.29	PO	Relay repl.work (out for 3 days)
karad -kolhapur-II	IntraState	26/10/2015	16.34	27/10/2015	06.29	HT	Over Voltage
Karad-Jaigad - I	IntraState	26/10/2015	17.08	27/10/2015	08.50	HT	Over Voltage
Bhusawal-Aurangabad	IntraState	26/10/2015	18.10	27/10/2015	07.06	HT	Over Voltage
Khadka- Deepnagar Ckt 1	IntraState	27/10/2015	09.18	27/10/2015	16.15	PO	Nut Bolts Tightening work.
Deepnagar Taptitanda	IntraState	27/10/2015	10.07	27/10/2015	18.58	T	Jumper Tightening and Fixing of Nut Bolts
Karad - Lonikand 1	IntraState	27/10/2015	10.13		Continued.	PO	Tower repalcement work.
Padghe - Kharghar	IntraState	27/10/2015	10.42	27/10/2015	15.00	PO	shifted on TBC.
karad -kolhapur-II	IntraState	27/10/2015	16.36	28/10/2015	08.44	HT	Over Voltage
Jaigad-Karad Ckt-II	IntraState	27/10/2015	17.07	28/10/2015	08.56	HT	Over Voltage
Khadka-Aurangabad (Waluj)	IntraState	27/10/2015	19.13	28/10/2015	06.37	HT	Over Voltage
Khadka- Deepnagar Ckt 1	IntraState	28/10/2015	09.26	28/10/2015	15.36	PO	For Tightening Nut Bolts Arcing Horn Corona Ring.
Chandrapur-Parali III	IntraState	28/10/2015	10.03	28/10/2015	18.49	PO	Fixing of Broken Spacer Cum Vibration Dampers.
Deepnagar Taptitanda	IntraState	28/10/2015	11.23	28/10/2015	18.05	PO	For Tightening of Nut Bolts Arcing Horn Corona Ring.
Chandrapur - Chandrapur II	IntraState	28/10/2015	14.19	28/10/2015	17.19	PO	For Attending Sparking on R Phwave Trap.
karad -kolhapur-I	IntraState	28/10/2015	16.34		Continued.	HT	Over Voltage
Karad-Jaigad - I	IntraState	28/10/2015	17.09		Continued.	HT	Over Voltage
Bhusawal-Aurangabad	IntraState	28/10/2015	18.01		Continued.	HT	Over Voltage
400 KV ICT Outages/Trippings							
400/220/33 Kv 315 Mva Ict 1 @Girwali	IntraState	28/10/2015	21.17		Continued.	T	Differential protection
220 KV LINE Outages/Trippings							
Nasik Navsari I	InterState	27/10/2015	10.35	27/10/2015	19.00	PO	insulator string replacement.
Chandrapur GCR - Warora - I	IntraState	05/04/2015	09.13		Continued.	PO	Bunching of conductor Loc no 86 Disconnecting of jumer at Loc no 86 & 107 and de-energising the line bet.86 to 107.
Chandrapur GCR - Wani	IntraState	05/04/2015	09.15		Continued.	PO	Bunching of conductor Loc no 86 Disconnecting of jumer at Loc no 86 & 107 and de-energising the line bet.86 to 107.
Nagothane - MSL	IntraState	13/10/2015	16.44		Continued.	T	Distance Protection
Parvati - Hybrid Pass	IntraState	27/10/2015	07.46	27/10/2015	17.20	HT	controlling line loading.
Lonand-Baramati	IntraState	27/10/2015	08.40	27/10/2015	20.05	PO	Increase ground Clearance.
Karad(400kv) - Ogalewadi Ckt 2	IntraState	27/10/2015	08.55	27/10/2015	16.55	PO	Testing Work
Hinjawadi I- Chinchwad	IntraState	27/10/2015	09.24	27/10/2015	17.17	HT	controlling line loading.

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 27/Oct/2015

Statement-VII

Position as on 6.30 Hrs of 28/Oct/2015

Name of Line	Inter State / Intra State	Tripped Date	Tripped Time	Sync. Date	Sync. Time	Outage Type	Reason of Outage
Kandalgaon - ONGC Panvel	IntraState	27/10/2015	09.47	27/10/2015	18.30	PO	r.m. work.
Amalner - Bambhori	IntraState	28/10/2015	09.22	28/10/2015	12.57	PO	Replacement of Damaged Insulator String.
Apta - Taloja	IntraState	28/10/2015	13.42	28/10/2015	14.41	PO	Attending Hot Spot
Koradi-Khaperkheda	IntraState	28/10/2015	20.21	28/10/2015	22.46	T	Distance Protection Operated Zone-I R Y Phase.
Parli 3 (Oldgr)-Harangul Ckt 2	IntraState	28/10/2015	21.17	28/10/2015	21.55	T	Load Trimming Scheme Operated for ICT-I & III After Tripping of ICT -II.
Parli 3 (Oldgr)-Harangul Ckt I	IntraState	28/10/2015	21.17	28/10/2015	21.28	T	Load Trimming Scheme Operated for ICT-I & III After Tripping of ICT -II.
220 KV ICT Outages/Trippings							
220/100 Kv 200 MVA ICT III @Borivali	IntraState	21/09/2014	09.16		Continued.	T	Internal Fault
220/22KV 100MVA T/F 4 @Mulund	IntraState	09/09/2015	12.20		Continued.	PO	Replacement of Control and Relay Panel
220/100 Kv 200 MVA ICT-IV@Kalwa	IntraState	27/10/2015	05.48	27/10/2015	13.00	EO	To attend Hot Spot
220/132 Kv 200 Mva Ict - 2 @Harangul	IntraState	28/10/2015	10.03	28/10/2015	15.25	PO	SFRA & Tan Delta Testing Work.
132 KV LINE Outages/Trippings							
Dondaicha-Nandurbar	IntraState	28/10/2015	06.20	28/10/2015	06.45	T	Distance Protection Operated Zone-I B Ph-E.
Dondaicha-Nandurbar	IntraState	28/10/2015	07.17	28/10/2015	15.25	T	B Ph CB Pole Burst @ Dondaicha
Khapri-Besa	IntraState	28/10/2015	08.05	28/10/2015	08.35	T	Tripped @ Khapri End Only on O/C.
Pardi-Besa	IntraState	28/10/2015	08.05	28/10/2015	09.28	T	Distance Protection Operated Zone-II R Phase.
Girwali-Renapur-Ahamadpur	IntraState	28/10/2015	21.17	28/10/2015	21.34	T	Load Trimming Scheme Operated for ICT-I & III After Tripping of ICT -II.
132 KV ICT Outages/Trippings							
132/33 Kv 25 Mva Ece Ptr I @Parli	IntraState	28/10/2015	21.17	28/10/2015	22.12	T	Load Trimming Scheme Operated for ICT-I & III After Tripping of ICT -II.
132/33KV 50MVA T/F @parly	IntraState	28/10/2015	21.17	28/10/2015	22.10	T	Load Trimming Scheme Operated for ICT-I & III After Tripping of ICT -II.

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