

State Load Despatch Center, Airoli (MSETCL) Statement I
Daily system Report for 13/May/2024 MONDAY

I GENERATION (MUs)			II EXCHANGES (MUs)		
A) MSPGCL	Daily	Monthly	E) InterState Exchanges	Daily	Monthly
1) Thermal	167.323	2234.637	1) Gujrat	-3.961	13.324
2) Hydro	8.233	207.472	2) Madhya Pradesh	8.075	96.937
3) Gas	7.870	91.004	3) Chattisgarh	6.720	56.190
Total MSPGCL	183.426	2533.113	4) Maharashtra	169.396	2422.582
B) 1) APLM	59.933	828.419	5) Goa (Amona)	-1.902	-25.071
2) JSWEL	26.322	358.658	Total	178.328	2563.962
3) VIPL	0.000	0.000	a) Mumbai Schedule	45.012	545.979
4) RPL(AMT)	31.521	400.927	b) Mumbai Drawl	44.989	565.697
5) SWPGPL	12.201	158.471	c) MSEDCL Bilateral *	69.346	1095.672
6) Other IPP	14.503	229.803	Include PX	0.000	0.000
7) PGPL	0.000	0.000	d) Mumbai Bilateral *	45.012	545.979
C) 1) TPCL Thermal	12.874	154.855	Include PX	0.000	0.000
2) TPCL Hydro	5.056	60.627	Standby	0.000	0.000
3) TPCL Gas	4.056	49.008	H) ENERGY CATERED (MUs)		
4) AEML Thermal	7.327	126.145	1) MSEDCL	478.524	6795.137
D) STATE			2) Mumbai Discoms	74.302	956.326
1) Thermal	332.004	4491.915	3) Other Discoms	11.320	147.580
(A1+C1+C4+(B1-B6))			TOTAL STATE	564.146	7899.043
2) Hydro	13.289	268.099			
(A2+C2)					
3) Gas	11.926	140.012			
(A3+B7+C3)					
4) Wind	12.097	209.690			
6) SOLAR	16.502	225.371			
TOTAL STATE	385.818	5335.087			

* 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 15 Hrs	C. Evening Peak at 20 Hrs	D. Night Minimum at 8 Hrs
MSPGCL Thermal	6056	6448	7366	7067
MSPGCL Hydro	334	469	688	160
MSPGCL Gas	361	372	384	283
MSPGCL Total Generation	6751	7289	8438	7510
Central Sector Receipt	8586	8746	7127	7175
WIND	239	189	449	573
CPP / IPP Thermal	5151	5165	6405	6111
CPP / IPP Gas	0	0	0	0
SOLAR	2183	1996	0	477
Exchange with Mumbai	-2357	-2352	-1813	-1571
MSEDCL DEMAND MET	20038	20513	20104	19806
Load Shedding	0	0	0	0
MSEDCL DEMAND	20038	20513	20104	19806
TPCL GENERATION	1116	1183	959	655
AEML GENERATION	249	248	244	493
MUMBAI DEMAND	3722	3783	3016	2719
OTHER DISCOM DEMAND	515	520	502	469
STATE DEMAND MET	24275	24816	23622	22994
STATE DEMAND	24275	24816	23622	22994
Frequency (Hz)	49.97	49.95	50.02	50.05

FREQUENCY PARTICULARS

MAXIMUM FREQ.	MINIMUM FREQ.	AVERAGE FREQ.	FREQ. BELOW 49.4 Hz
50.22 Hz at 06.57 Hrs	49.87 Hz at 09.46 Hrs	50.01	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 13/May/2024

Generating unit	Generation			
	Daily (Mus)	Monthly (Mus)	Max (MW)	Min (MW)
Koradi				
Unit 6	0.00	42.73	0	0
Unit 8	14.41	104.75	660	550
Unit 9	13.83	180.39	600	531
Unit 10	14.36	182.62	635	550
Total	42.60	510.49		
Bhusawal				
Unit 3	3.48	38.64	170	125
Unit 4	9.23	122.61	460	290
Unit 5	10.07	112.25	490	290
Total	22.78	273.50		
Parli				
Unit 6	4.32	58.54	250	145
Unit 7	4.26	56.59	245	144
Unit 8	4.30	58.33	247	143
Total	12.87	173.46		
Chandrapur				
Unit 3	3.47	46.21	165	125
Unit 4	3.52	47.61	166	126
Unit 5	8.40	111.13	425	275
Unit 6	8.10	105.47	405	270
Unit 7	8.32	117.90	434	288
Unit 8	9.53	134.59	445	276
Unit 9	10.65	144.21	491	296
Total	51.98	707.12		
Paras				
Unit 3	5.00	54.28	241	157
Unit 4	5.29	72.20	253	153
Total	10.29	126.47		
Khaparkheda				
Unit 1	3.76	45.72	165	120
Unit 2	4.39	53.51	203	132
Unit 3	4.06	50.03	177	141
Unit 4	3.84	48.29	186	118
Unit 5	0.77	112.74	333	0
Total	16.82	310.29		
Nasik				
Unit 3	2.18	40.59	172	0
Unit 4	4.08	46.66	182	127
Unit 5	3.73	46.07	168	125
Total	9.99	133.32		
Uran				
All Units	7.87	91.00	384	283
Total	7.87	91.00		
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)	0.27	4.07	47	0
Total	0.27	4.07		
Koyna				
Stage 1-2	2.75	46.57	380	40

Generating unit	Generation			
	Daily (Mus)	Monthly (Mus)	Max (MW)	Min (MW)
Stage 4	0.24	82.65	157	0
Stage 3	0.94	29.29	206	0
Total	3.93	158.51		
Hydro				
KDPH	0.65	8.68	27	27
VTRNA	0.71	11.24	60	0
TILLARI	0.00	0.00	0	0
BHIRA T.R.	0.00	0.00	0	0
SMLHY_PTN	2.12	26.10	93	83
GHATGHAR	0.82	2.94	125	0
Total	4.30	48.96		
Wind				
Total	12.10	209.69	0	0
Total	12.10	209.69		
CPP				
APML(Mus)	59.93	828.42	0	0
JSWEL(Mus)	26.32	358.66	0	0
VIPL(Mus)	0.00	0.00	0	0
RPLAMT-Mus	31.52	400.93	0	0
SWPGPL-Mus	12.20	158.47	0	0
Dhariwal	0.00	0.00	0	0
IEPL	4.08	67.19	216	148
Other(Mus)	6.66	95.48	0	0
JPL	3.76	67.14	202	134
Total	144.48	1976.28		
SOLAR				
Total	16.50	225.37	0	0
Total	16.50	225.37		
Tata				
Trombay 5	8.50	109.12	460	264
Trombay 6	0.00	0.00	0	0
Trombay 7A	2.54	30.18	108	104
Trombay 7B	1.52	18.83	64	63
TATA Hydro	5.06	60.63	419	83
Trombay 8	4.37	45.74	228	129
Total	21.99	264.49		
AEML				
DTPS U-1&2	7.33	126.14	493	187
Total	7.33	126.14		

* Infirm Power			Summary			Summary		
Particulars	Daily (Mus)	Monthly	Particulars	Daily (Mus)	Monthly (Mus)	Particulars	Daily (Mus)	Monthly (Mus)
			MSPGCL Thermal	167.32	2234.64	MSPGCL Total	183.43	2533.11
			MSPGCL Thml+Gas	175.19	2325.64	Koyna 1,2 & 4 Total	2.99	129.22
			MSPGCL Hydro	8.23	207.47	State Total	385.82	5335.09

State Load Despatch Center,Airoli (MSETCL)

Annexure-2

Hourly Load Data As on 13/May/2024

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	7639	660	287	8586	438	7010	0	0	7375	7143	-1757	20990	0	0	20990	3132	430	24552	50.03
2	7551	341	287	8179	415	6954	0	0	7581	7176	-1771	20550	0	0	20550	2941	403	23894	50.03
3	7548	162	287	7997	470	6860	0	0	7340	7161	-1678	20430	0	0	20430	2754	380	23564	50.01
4	7536	158	290	7984	474	6857	0	0	7295	6831	-1619	20161	0	0	20161	2609	366	23136	50.00
5	7506	160	290	7956	451	6852	0	0	7155	6845	-1582	20124	0	0	20124	2551	398	23073	50.01
6	7532	159	290	7981	503	6807	0	0	7449	7140	-1533	20474	0	0	20474	2556	424	23454	50.03
7	7401	180	286	7867	648	6599	0	89	7940	7322	-1533	20541	0	0	20541	2550	451	23542	50.06
8	7067	160	283	7510	573	6111	0	477	7765	7175	-1571	19806	0	2	19806	2719	469	22994	50.05
9	6496	165	283	6944	894	5286	0	1016	8328	7477	-1945	19168	0	0	19168	3032	504	22704	49.98
10	6168	240	283	6691	528	5165	0	1567	8545	8167	-2210	19399	0	0	19399	3371	509	23279	49.94
11	6113	360	317	6790	322	5134	0	1888	8766	8460	-2317	19786	0	0	19786	3586	491	23863	49.99
12	6056	334	361	6751	239	5151	0	2183	9068	8586	-2357	20038	0	0	20038	3722	515	24275	49.97
13	5946	383	362	6691	191	5167	0	2252	9011	8704	-2321	20160	0	7	20160	3742	524	24426	49.98
14	6259	201	363	6823	161	5168	0	2225	9058	8402	-2288	19984	0	85	19984	3662	507	24153	50.01
15	6448	469	372	7289	189	5165	0	1996	9427	8746	-2352	20513	0	100	20513	3783	520	24816	49.95
16	6735	445	374	7554	192	5402	0	1491	9303	7937	-2274	19782	0	23	19782	3771	520	24073	50.04
17	6622	459	375	7456	375	5309	0	901	8739	7316	-1624	19257	0	1	19257	3035	476	22768	50.02
18	6697	590	377	7664	473	5502	0	376	7776	7802	-1771	19543	0	0	19543	3002	503	23048	50.04
19	7191	303	379	7873	247	5867	0	41	7825	7485	-1907	19100	0	0	19100	3002	506	22608	50.03
20	7366	688	384	8438	449	6405	0	0	7737	7127	-1813	20104	0	0	20104	3016	502	23622	50.02
21	7205	418	380	8003	863	6274	0	0	7131	6608	-1792	19467	0	0	19467	2946	489	22902	50.01
22	7248	334	373	7955	900	6099	0	0	6777	6614	-1698	19373	0	0	19373	2907	497	22777	49.98
23	7353	633	296	8282	1135	6397	0	0	6236	6087	-1614	19795	0	0	19795	2938	492	23225	50.03
24	7640	231	291	8162	967	6939	0	0	6085	6017	-1662	19978	0	0	19978	2975	445	23398	50.02
MUs	167.32	8.23	7.87	183.43	12.10	144.48	0.00	16.50	189.71	178.33	-44.99	478.52	0.00	0.22	478.52	74.30	11.32	564.15	50.01

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 :-

ELR Carried out at 220KV GCR S/S due to overloading of 220KV BBLR-I & II

State Load Despatch Center,Airoli (MSETCL) Statement-VI

Details of Generating Unit Outages/Trippings for 13/May/2024

Position as on 6.30 Hrs of 14/May/2024

Generating Company	Name of Generating Unit	Capacity	Tripped Date	Tripped Time	Sync.Date	Sync. Time	Reason of Outage	Expected Date
FORCED OUTAGE								
MSPGCL								
MSPGCL	Uran Unit A0	120	07/09/2022	16:30		Continued.	TURBINE TRIPPED ON HIGH VIBRATIONS	31/08/2024
MSPGCL	Khaparkheda Unit 5	500	11/05/2024	04:22	13/05/2024	20:20	Generator protection	15/05/2024
MSPGCL	Koradi Unit 6	210	12/05/2024	18:31		Continued.	GS WATER TANK LOW	13/05/2024
MSPGCL	Nasik Unit 3	210	13/05/2024	14:10		Continued.	ID Fan Problem	15/05/2024
MSPGCL	Chandrapur Unit 6	500	14/05/2024	00:00		Continued.	EXCESSIVELY HIGH DM WATER CONSUMPTION AND ABNORMAL PARAMETER DUE TO SUSPECTED BTL	
MSPGCL	Bhusawal Unit 4	500	14/05/2024	00:30		Continued.	BTL attending work	
Total Capacity MSPGCL		2040						
AEML								
AEML	AEML Unit 1	250	13/05/2024	10:38		Continued.	Boiler Tube Leakage	16/05/2024
Total Capacity AEML		250						
CENT.SECTOR								
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.	31/08/2024
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.	30/09/2024
Total Capacity CENT.SECTOR		320						
Total Capacity FORCED OUTAGE		2610						
UNIT UNDER ZERO SCHEDULE / RSD								
MSPGCL								
MSPGCL	Uran Unit 6	108	06/05/2024	23:54	13/05/2024	10:29	Zero Schedule given by MSEDCL	
MSPGCL	Uran Unit 5	108	09/05/2024	20:15		Continued.	No Schedule from MSEDCL	
MSPGCL	Uran Unit 6	108	13/05/2024	22:03		Continued.	No Schedule from MSEDCL	
Total Capacity MSPGCL		324						
Total Capacity UNIT UNDER ZERO SCHEDULE / RSD		324						
FORCED OUTAGE DUE TO NO PPA								
IPP								
IPP	PGPL U1	262	07/02/2017	17.30		Continued.	No Schedule (NO PPA)	
IPP	PGPL U2	126	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)	

State Load Despatch Center,Airoli (MSETCL) Statement-VI
Details of Generating Unit Outages/Trippings for 13/May/2024

Position as on 6.30 Hrs of 14/May/2024

Generating Company	Name of Generating Unit	Capacity	Tripped Date	Tripped Time	Sync.Date	Sync. Time	Reason of Outage	Expected Date
IPP	VIPL U-2	300	17/01/2019	00.15		Continued.	Coal shortage.(NO PPA From 20.05.2019)	
Total Capacity IPP		988						
Total Capacity FORCED OUTAGE DUE TO NO PPA		988						

* Other generator generating power instead of contracted genertaor with tri-party agreement in between generatos & discom (Case-IV bidding)

State Load Despatch Center,Airoli (MSETCL)
Details of Line outages/Trippings for 13/May/2024

Statement-VII

Position as on 6.30 Hrs of 14/May/2024

Name of Line	Inter State / Intra State	Tripped Date	Tripped Time	Sync. Date	Sync. Time	Outage Type	Reason of Outage
500 KV LINE Outages/Trippings							
CHANDRAPUR - PADGHE HVDC POLE 1	IntraState	13/05/2024	16:07	13/05/2024	16:36	T	It was tripped on commutation failure dt. 13.05.2024 @16.07 hrs due to voltage dip occurred owing to transient faults in the system.
CHANDRAPUR - PADGHE HVDC POLE 2	IntraState	13/05/2024	16:10	13/05/2024	16:49	T	It was tripped on commutation failure dt. 13.05.2024 @16.10 hrs due to voltage dip occurred owing to transient faults in the system.
400 KV LINE Outages/Trippings							
DHULE - SSNNL CKT - 1	InterState	12/05/2024	16:10	13/05/2024	19:32	T	Tripped on distance protection
BUS REACTOR (50MVAR) @ PARLI	IntraState	27/09/2023	15:30			PO	Replacement of old 50 MVAR bus reactor by new 125 MVAR bus reactor.
CHANDRAPUR 2 - WARORA CKT-2	IntraState	22/04/2024	17:27			T	Tripped on distance protection.
CHANDRAPUR 2 - WARORA CKT-1	IntraState	22/04/2024	17:27			T	Tripped on distance protection.
AURANGABAD(MS) - PUNE (GIS) CKT - 2	IntraState	01/05/2024	22:11	13/05/2024	17:06	HT	For facilitating outage on 765 Kv Aurangabad - Padghe line.
BABHALESHWAR - PADGHE CKT - 2	IntraState	10/05/2024	09:56			PO	1. B Bus PG Isolator Replacement work under LES Scheme. 2. CB Diagnostic Testing Work. 3.400kV BBLR-II in service through TBC.
MAIN BUS - 2 @ PADGHE	IntraState	10/05/2024	10:23			PO	1.Replacement of Hanger Assembly of B Bus PG Isolator of BBLR-2 by Hot Line Method. 2.All Feeders on B Bus will be in service.
220 KV WARORA - CHANDRAPUR (400 KV) CKT	IntraState	13/05/2024	09:28	13/05/2024	19:49	PO	Retrofitting of distance relay ALSTOM/GE make.
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.
400/220KV 500 MVA ICT - 3 @ VIKHROLI GIS	IntraState	10/02/2024	17:40			HT	H/T For LV only.
400/220KV 315 MVA ICT - 2 @ NEW KOYNA	IntraState	13/05/2024	10:41	13/05/2024	22:44	PO	Diagnostic testing & Relay testing work , Routine maint. Work
400/220/20 KV 500MVA ICT - 1 @ KALWA	IntraState	13/05/2024	15:47	13/05/2024	18:39	T	220KV bus 2 LBB operated due to DCHI feeder.
400/220 KV 3X200 MVA ICT - 2 @ KALWA	IntraState	13/05/2024	15:47	13/05/2024	16:25	T	Tripped due to 220 kv Bus 2 LBB protection operated
400/220/33 KV 315 MVA ICT - 2 @ KHARGHAR	IntraState	13/05/2024	15:53	13/05/2024	16:26	T	Tripped on OSR protection
220 KV MAINBAY Outages/Trippings							
220KV BUS SECTION BAY @ PEDAMBE	IntraState	03/04/2024	15:55			T	Tripped due to Y ph CT burst
220 KV LINE Outages/Trippings							
220 kv-Wardha(PG)-Yawatmal Ckt-1	InterState	13/05/2024	14:30	13/05/2024	19:43	EO	For attending hot glow on y-ph jumper pad on Yavatmal side at loc no. 97.
AAREY - AEML SAKI CKT - 2	IntraState	08/05/2024	21:48			T	Tripped on Yph to ground fault
EKLAHARE (OCR) - NAVASARI CKT - 2	IntraState	11/05/2024	17:20	13/05/2024	13:07	T	H/T for load management
MUDSHINGI - CHIKODI	IntraState	13/05/2024	11:25	13/05/2024	20:28	PO	For all phases conductor restringing work between tower loc no. 271 to 280.
PANDHARPUR - MALINAGAR	IntraState	13/05/2024	11:43	13/05/2024	18:32	PO	Destringing & strining from Loc no. 37 to 46 to attain issue of low ground clearance.

State Load Despatch Center, Airoli (MSETCL)
Details of Line outages/Trippings for 13/May/2024

Statement-VII

Position as on 6.30 Hrs of 14/May/2024

Name of Line	Inter State / Intra State	Tripped Date	Tripped Time	Sync. Date	Sync. Time	Outage Type	Reason of Outage
132 KV HARANGUL CHAKUR CKT	IntraState	13/05/2024	12:14	13/05/2024	14:22	PO	Flashover disc replacement work.
EKLAHARE (OCR) - NAVASARI CKT - 1	IntraState	13/05/2024	13:27			PO	To make the LILO point connection at Loc. 1 (Loc. 19 of 220kV Nashik - Navsari Line) of new 220kV CPRI Line & substation
PALGHAR - NALASOPARA	IntraState	13/05/2024	15:02	13/05/2024	17:45	T	Tripped on distance protection
KHARGHAR - BORIVALI CKT - 2	IntraState	13/05/2024	15:42	13/05/2024	22:15	T	Tipped on distance protection
BHAVEGHAR - ROMA	IntraState	13/05/2024	15:42	13/05/2024	17:21	T	Tripped on distance protection
KALWA - BORIVALI	IntraState	13/05/2024	15:47	13/05/2024	16:44	T	Tripped due to 220 kV Bus 2 LBB protection operated at 400 kV Kalwa
220KV KALWA - GIS DCHI	IntraState	13/05/2024	15:47	14/05/2024	01:49	T	Tripped on distance protection
KALWA SALSETTE - 3	IntraState	13/05/2024	15:47	13/05/2024	16:28	T	Tripped due to 220 kV Bus 2 LBB protection operated at 400 kV Kalwa
KALWA - MULUND 1	IntraState	13/05/2024	15:47	13/05/2024	18:49	T	Tripped due to 220 kV Bus 2 LBB protection operated at 400 kV Kalwa
KHARGHAR - KHANDESHWAR CKT - 2	IntraState	13/05/2024	15:47	13/05/2024	18:34	T	Tripped on distance protection
KALWA - TFIPL	IntraState	13/05/2024	15:47	13/05/2024	16:45	T	Tripped due to 220 kV Bus 2 LBB protection operated at 400 kV Kalwa ss
KALWA - MULUND 2	IntraState	13/05/2024	15:50	13/05/2024	16:49	T	Tripped on backup protection
TROMBAY - VIKHROLI (GIS) CKT - 4	IntraState	13/05/2024	16:10	13/05/2024	18:43	T	Tripped on distance protection
TROMBAY - VIKHROLI (GIS) CKT - 1 / CARNAC 7	IntraState	13/05/2024	16:14	13/05/2024	16:23	T	Tripped on distance protection
APTA - TALOJA	IntraState	13/05/2024	16:37	13/05/2024	18:39	T	tripped on distance protection
URAN - APTA 4	IntraState	13/05/2024	17:00	13/05/2024	22:18	T	Conductor snapping of Apta ckt 2 at loc. 5,6
URAN - APTA 3	IntraState	13/05/2024	17:00	13/05/2024	22:19	T	Conductor snapping of Apta ckt 2 at loc. 5,6
URAN - APTA 2	IntraState	13/05/2024	17:00			T	conductor snapping at loc 5,6
NEW KOYNA - LOTEPARSHURAM	IntraState	13/05/2024	17:29	13/05/2024	19:14	T	Tripped on distance protection
LONAND - KANDALGAON (SONA ALLOY TAP)	IntraState	13/05/2024	18:06	13/05/2024	18:22	T	Tripped on distance protection
220 KV ICT Outages/Trippings							
220/132 KV 100 MVA ICT 2	IntraState	13/05/2024	08:30	13/05/2024	12:25	PO	For diagnostic testing work.
220/110 KV 200 MVA ICT 3 @ MUDSHINGI	IntraState	13/05/2024	09:08	13/05/2024	18:07	PO	1) Annual Diagnostic testing of TF (C & tan delta, DFRA etc) 2) Quarterly maint. Work
220/33-33KV 100MVA TF- 2 @ ICHALKARANJI - II	IntraState	13/05/2024	09:54	13/05/2024	18:05	PO	1) Relay Replacement work 2) Buchlozs Relay replacement work & 3) TF Painting work.
220/33 KV 50 MVA PTR - 7 @ WATHAR	IntraState	13/05/2024	10:24	13/05/2024	18:07	PO	Quarterly maint work
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