

State Load Despatch Center, Airoli (MSETCL) Statement I
Daily system Report for 28/Apr/2020 TUESDAY

I GENERATION (MUs)			II EXCHANGES (MUs)		
A) MSPGCL	Daily	Monthly	E) InterState Exchanges	Daily	Monthly
1) Thermal	65.733	1694.307	1) Gujrat	7.813	275.983
2) Hydro	23.500	537.219	2) Madhya Pradesh	13.642	410.841
3) Gas	6.727	193.045	3) Chattisgarh	8.290	214.460
Total MSPGCL	95.960	2424.571	4) Maharashtra	149.092	3579.325
B) 1) APML	57.410	1766.759	5) Goa (Amona)	-0.374	-0.484
2) JSWEL	19.611	458.983	Total	178.463	4480.125
3) VIPL	0.000	0.000	a) Mumbai Schedule	22.191	527.937
4) RPL(AMT)	0.000	0.000	b) Mumbai Drawl	24.428	490.543
5) WPCL	2.666	142.359	c) MSEDCL Bilateral *	73.048	1560.633
6) Other IPP	7.455	223.022	Include PX	48.189	1004.245
7) PGPL	0.000	0.000	d) Mumbai Bilateral *	22.191	527.937
C) 1) TPCL Thermal	6.487	287.855	Include PX	5.233	163.322
2) TPCL Hydro	4.646	118.440	Standby	0.000	0.000
3) TPCL Gas	4.398	101.183	H) ENERGY CATERED (MUs)		
4) AEML Thermal	8.950	284.688	1) MSEDCL	359.232	9583.023
D) STATE			2) Mumbai Discoms	48.909	1282.706
1) Thermal	168.312	4857.973	TOTAL STATE	408.141	10865.729
(A1+C1+C4+(B1-B6))					
2) Hydro	28.146	655.659			
(A2+C2)					
3) Gas	11.125	294.228			
(A3+B7+C3)					
4) Wind	14.826	372.405			
6) SOLAR	7.269	205.342			
TOTAL STATE	229.678	6385.607			

* 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 22 Hrs	D. Night Minimum at 4 Hrs
MSPGCL Thermal	2323	2654	2858	2735
MSPGCL Hydro	342	1367	1525	851
MSPGCL Gas	267	276	291	289
MSPGCL Total Generation	2932	4297	4674	3875
Central Sector Receipt	8216	8519	6252	7222
WIND	951	160	568	583
CPP / IPP Thermal	3214	3574	3641	3744
CPP / IPP Gas	0	0	0	0
SOLAR	1412	1142	0	0
Exchange with Mumbai	-1095	-1181	-1030	-938
MSEDCL DEMAND MET	15630	16511	14105	14486
Load Shedding	0	0	0	0
MSEDCL DEMAND	15630	16511	14105	14486
TPCL GENERATION	531	564	825	619
AEML GENERATION	373	373	374	372
MUMBAI DEMAND	1999	2118	2229	1929
STATE DEMAND MET	17629	18629	16334	16415
STATE DEMAND	17629	18629	16334	16415
Frequency (Hz)	50.02	50.01	50.02	50.01

FREQUENCY PARTICULARS

MAXIMUM FREQ.	MINIMUM FREQ.	AVERAGE FREQ.	FREQ. BELOW 49.2 Hz
50.2 Hz at 18.31 Hrs	49.83 Hz at 00.47 Hrs	50	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 28/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	10.71	101.43	476	370
Unit 7	0.00	0.00	0	0
Unit 8	11.13	245.77	500	360
Unit 9	10.25	270.62	475	360
Total	32.10	631.72		
Paras				
Unit 3	5.70	152.30	250	195
Unit 4	5.89	141.23	257	190
Total	11.59	293.53		
Khaparkheda				
Unit 1	0.00	38.21	0	0
Unit 2	4.22	57.45	190	160
Unit 3	2.81	57.03	195	0
Unit 4	4.03	67.43	175	160
Unit 5	10.97	214.31	500	365
Total	22.05	434.42		
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	193.04	301	265
Total	6.73	193.04		
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)	0.00	4.41	5	0

Generating unit	Generation			
	Daily (Mus)	Monthly (Mus)	Max (MW)	Min (MW)
Total	0.00	4.41		
Koyna				
Stage 1-2	7.33	154.32	575	40
Stage 4	9.90	219.03	1005	0
Stage 3	2.98	78.03	240	0
Total	20.21	451.37		
Hydro				
KDPH	0.85	23.19	36	35
VTRNA	0.00	0.00	0	0
TILLARI	0.84	12.11	60	0
BHTGR/VEER	0.00	0.00	0	0
BHIRA T.R.	0.28	6.09	80	0
RNGR+BHTSA	0.28	7.97	12	11
BHANDARDRA	0.47	14.26	35	12
ELDARY	0.00	5.36	0	0
SMLHY_PTN	0.58	16.86	30	18
GHATGHAR	0.00	0.00	0	0
Total	3.29	85.85		
Wind				
Total	14.83	372.40	0	0
Total	14.83	372.40		
CPP				
APML(Mus)	57.41	1766.76	0	0
JSWEL(Mus)	19.61	458.98	0	0
VIPL(Mus)	0.00	0.00	0	0
RPLAMT(Mus)	0.00	0.00	0	0
WPCL(Mus)	2.67	142.36	0	0
Other(Mus)	7.46	223.02	0	0
Total	87.14	2591.12		
SOLAR				
Total	7.27	205.34	0	0
Total	7.27	205.34		
Tata				
Trombay 5	6.49	233.03	277	265
Trombay 6	0.00	0.00	0	0
Trombay 7A	2.81	62.81	118	117
Trombay 7B	1.59	38.37	67	65
Trombay 8	0.00	54.82	0	0
TATA Hydro	4.65	118.44	459	40
Total	15.53	507.48		
AEML				
DTPS U-1&2	8.95	284.69	376	371
Total	8.95	284.69		

* Infirm Power			Summary			Summary		
Particulars	Daily (Mus)	Monthly	Particulars	Daily (Mus)	Monthly (Mus)	Particulars	Daily (Mus)	Monthly (Mus)
			MSPGCL Thermal	65.73	1694.31	MSPGCL Total	95.96	2424.57
			MSPGCL Thml+Gas	72.46	1887.35	Koyna 1,2 & 4 Total	17.23	373.34
			MSPGCL Hydro	23.50	537.22	State Total	229.68	6385.61

State Load Despatch Center,Airoli (MSETCL)

Annexure-2

Hourly Load Data As on 28/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	2770	380	286	3436	909	3815	0	0	7409	7570	-1077	14653	0	14653	2232	16885	49.94
2	2763	865	286	3914	715	3820	0	0	7203	7324	-1001	14772	0	14772	2122	16894	49.94
3	2745	840	287	3872	763	3740	0	0	7090	7061	-951	14485	0	14485	2014	16499	50.01
4	2735	851	289	3875	583	3744	0	0	7022	7222	-938	14486	0	14486	1929	16415	50.01
5	2755	1149	289	4193	608	3752	0	0	6950	7205	-897	14861	0	14861	1883	16744	49.99
6	2786	1075	288	4149	871	3724	0	0	7550	7717	-901	15560	0	15560	1909	17469	49.98
7	2800	1143	301	4244	749	3701	0	41	8043	8001	-776	15960	0	15960	1830	17790	50.02
8	2805	795	279	3879	646	3696	0	238	7770	7818	-791	15486	0	15486	1812	17298	50.00
9	2812	572	285	3669	773	3700	0	434	7558	7560	-1007	15129	0	15129	1871	17000	50.05
10	2684	421	271	3376	1074	3676	0	617	7721	7419	-1033	15129	0	15129	1914	17043	50.02
11	2360	356	289	3005	1152	3417	0	762	7928	7994	-1078	15252	0	15252	1974	17226	50.05
12	2323	342	267	2932	951	3214	0	1412	8229	8216	-1095	15630	0	15630	1999	17629	50.02
13	2377	648	275	3300	672	3282	0	805	8267	8870	-1075	15854	0	15854	2015	17869	49.99
14	2464	530	265	3259	378	3366	0	708	8574	8963	-1118	15556	0	15556	2052	17608	50.00
15	2654	1367	276	4297	160	3574	0	1142	8301	8519	-1181	16511	0	16511	2118	18629	50.01
16	2864	1316	266	4446	228	3629	0	448	8111	8424	-1175	16000	0	16000	2128	18128	50.00
17	2881	1035	278	4194	298	3625	0	307	7750	7823	-1120	15127	0	15127	2052	17179	50.02
18	2898	1356	279	4533	193	3608	0	119	6692	6805	-1017	14241	0	14241	1945	16186	50.00
19	2882	1136	271	4289	237	3575	0	236	5819	6096	-975	13458	0	13458	1915	15373	50.02
20	2900	1826	280	5006	500	3530	0	0	5663	5839	-978	13897	0	13897	2067	15964	49.99
21	2868	1346	273	4487	491	3562	0	0	5678	5901	-1028	13413	0	13413	2150	15563	49.99
22	2858	1525	291	4674	568	3641	0	0	5956	6252	-1030	14105	0	14105	2229	16334	50.02
23	2867	1483	283	4633	652	3831	0	0	6359	6664	-1054	14726	0	14726	2338	17064	50.00
24	2882	1143	273	4298	655	3920	0	0	7081	7200	-1132	14941	0	14941	2411	17352	50.04
MUs	65.73	23.50	6.73	95.96	14.83	87.14	0.00	7.27	174.72	178.46	-24.43	359.23	0.00	359.23	48.91	408.14	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.

State Load Despatch Center,Airoli (MSETCL) Statement-VI
Details of Generating Unit Outages/Trippings for 28/Apr/2020

Position as on 6.30 Hrs of 29/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 28/Apr/2020

Position as on 6.30 Hrs of 29/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 1	210	22/04/2020	20.45		Continued.	Zero Schedule By MSEDCL	
CPP	SWPGL U-3	135	25/04/2020	00.08		Continued.	No Schedule	
IPP	Adani U-1	660	25/04/2020	01.12	28/04/2020	20.38	APH 1A Flue Gas Bellow Leakage	
MSPGCL	Khaparkheda Unit 3	210	26/04/2020	17.00	28/04/2020	04.30	Boiler Tube Leakage	

State Load Despatch Center, Airoli (MSETCL)
Details of Line outages/Trippings for 28/Apr/2020

Statement-VII

Position as on 6.30 Hrs of 29/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 II	InterState	21/04/2020	17.20	29/04/2020	14.00	HT	Over Voltage
Dhule Sar'Sarovar I	InterState	29/04/2020	12.45		Continued.	T	Distance Protection
Dhule- Bableshtar - I	IntraState	24/03/2020	20.20		Continued.	HT	Over Voltage
Padghe - Nagothane - II	IntraState	07/04/2020	23.58		Continued.	EO	To attend Hot Spot
Chandrapur - Parli	IntraState	19/04/2020	02.20		Continued.	T	Distance Protection(Tower collapsed at Loc.No.59.60.61)
Chandrapur-II - Nanded ckt II	IntraState	19/04/2020	02.21		Continued.	T	Distance Protection(Tower collapsed at Loc.No.59.60.61)
Babhaleshtar - Padghe-II	IntraState	20/04/2020	09.25		Continued.	PO	Quarterly Maintenance work & Relay Testing, for CVT replacement work (RFC at 21.22 Hrs).
Girwali - Lonikand 1	IntraState	20/04/2020	14.27		Continued.	HT	Controllin loading of Parli-Parli(PG D/C) Line.
Taptitanda Waluj	IntraState	22/04/2020	17.18		Continued.	T	Distance Protection (RFC at 14.08Hrs DT.24-4-20)
Jaigad-Karad Ckt-I	IntraState	27/04/2020	11.52	28/04/2020	08.43	T	Distance Protection
Khadka-Aurangabad (Waluj)	IntraState	27/04/2020	17.50		Continued.	HT	Over Voltage
karad -kolhapur-I	IntraState	27/04/2020	18.19	28/04/2020	08.39	HT	Over Voltage
New Koyana - Dabhol-I	IntraState	28/04/2020	09.25	28/04/2020	14.07	PO	String replacement work.
Taptitanda Waluj	IntraState	28/04/2020	11.38	28/04/2020	17.25	PO	Line insulator replacement.
Koradi III(Adani)-Koradi II ckt 2	IntraState	28/04/2020	16.28	28/04/2020	19.50	EO	Y PH CVT jumper open at koradi 2 end.
Jaigad-Karad Ckt-I	IntraState	28/04/2020	19.03		Continued.	HT	Over Voltage
Kharghar-Talegaon(PG)	IntraState	29/04/2020	17.58	29/04/2020	23.45	T	Over Voltage
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 315 MVA ICT-I @ Nagothane	IntraState	25/03/2020	17.57		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-IV @Kalwa	IntraState	19/04/2020	11.55		Continued.	HT	Over Voltage
400/220/33 Kv 315 MVA ICT- 2 @Nagothane	IntraState	29/04/2020	18.39	29/04/2020	23.12	T	NDR Operated
400/220/33 Kv 315 Mva Ict 2 @Dhule	IntraState	29/04/2020	18.40	29/04/2020	22.58	PO	R Phase LA Replacement
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)
Borivali - Tarapur	InterState	28/04/2020	10.05	28/04/2020	21.02	PO	Conductor replacement.
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.
Hinjewadi2 - Hinjewadi 3 ckt II	IntraState	26/03/2020	10.20		Continued.	HT	Over Voltage

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 28/Apr/2020

Statement-VII

Position as on 6.30 Hrs of 29/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
Sawantwadi-Bidri	IntraState	27/04/2020	18.10	28/04/2020	09.11	HT	Over Voltage
Versova Gorai Line	IntraState	28/04/2020	06.57	28/04/2020	10.26	PO	Relay replacement work.
Gadchandur - Grace	IntraState	28/04/2020	10.33	28/04/2020	13.24	PO	Repairing of damaged jumper of 220 kv.
Sawantwadi-Bidri	IntraState	28/04/2020	18.47		Continued.	HT	Over Voltage
chandrapur-Tadali	IntraState	29/04/2020	07.09	29/04/2020	16.31	EO	To attend Hot Spot
Bableshtar - Bhenda	IntraState	29/04/2020	09.15	29/04/2020	14.14	PO	Replacement of Broken Insulator String
VILEBHAGAD KANDALGAON	IntraState	29/04/2020	09.52	29/04/2020	15.38	PO	Testing Work
Tembhurni - Jeur	IntraState	29/04/2020	11.00	29/04/2020	13.30	PO	Quarterly Maintenance Work
Khadaka-Chaligaon III	IntraState	29/04/2020	13.59	29/04/2020	18.39	T	Distance Protection
Pophli Pedhmbe Line- 1	IntraState	29/04/2020	20.40	29/04/2020	21.40	EO	To attend Hot Spot
220 KV ICT Outages/Trippings							
220/110KV, 200MVA T/F-III at Mudshingi	InterState	27/04/2020	17.15		Continued.	HT	Over Voltage
Carnac : 220 / 110 / 33 315 MVA ICT 5	IntraState	14/03/2020	11.00		Continued.	PO	Shifting 220KV Side to New GIS

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