

Draft Proposal

Maximum Notification and Startup Times for Capacity Units

- Proposed business rules for maximum startup and notification times for capacity units
 - Currently no maximum requirements
 - PJM staff envision between 48 hours and 5 days maximum
 - 48 hours ideal for reliability, but may not be feasible for units
 - Propose an approach similar to parameter limited schedule – guidelines by unit type – all other times are exceptions
 - Envision a “system conditions” notification to prep the units to reduce lead time for reliability – may be forecast hot weather alert, cold weather alert, weather emergencies, etc.

- Consider a seasonal notification requirement – allowed to be shortened by owner during winter and summer peak periods
 - Reserve Triggers for Spring and Fall
- Request for quantifying current startup and notification times in buckets; maybe by unit type
- Develop Exception Criteria
- Impact on Demand Response Requirements

TTS Range (hour)	Number of Units	MW
TTS = 0	188	28,027
0 < TTS <= 1	347	20,450
1 < TTS <= 2	83	4,760
2 < TTS <= 3	58	4,227
3 < TTS <= 4	12	1,507
4 < TTS <= 5	30	4,151
5 < TTS <= 6	14	4,964
6 < TTS <= 12	101	15,881
12 < TTS <= 24	186	52,550
24 < TTS <= 48	37	18,049
48 < TTS <= 72	5	1,353
72 < TTS <= 96	10	4,074
TTS > 96	8	1,760
	1079	161,755

PJM Time to Start (TTS) by unit type

TTS Range (hour)	Type	Number of Units	MW
TTS = 0	CT	10	285
TTS = 0	Diesel	4	33
TTS = 0	Hydro	49	4,217
TTS = 0	Landfill	20	101
TTS = 0	Nuclear	18	18,938
TTS = 0	Steam	55	4,112
TTS = 0	Wind	32	341
0 < TTS <= 1	CT	288	16,078
0 < TTS <= 1	Diesel	20	188
0 < TTS <= 1	Hydro	25	1,605
0 < TTS <= 1	Landfill	5	19
0 < TTS <= 1	Steam	6	2,508
0 < TTS <= 1	Wind	3	53
1 < TTS <= 2	CT	77	4,687
1 < TTS <= 2	Diesel	3	14
1 < TTS <= 2	Hydro	1	35
1 < TTS <= 2	Landfill	1	12
1 < TTS <= 2	Steam	1	13
2 < TTS <= 3	CT	46	3,878
2 < TTS <= 3	Diesel	5	12
2 < TTS <= 3	Landfill	4	33
2 < TTS <= 3	Steam	3	304
3 < TTS <= 4	CT	3	243
3 < TTS <= 4	Diesel	1	2
3 < TTS <= 4	Steam	8	1,262

TTS Range (hour)	Type	Number of Units	MW
4 < TTS <= 5	CT	19	886
4 < TTS <= 5	Steam	11	3,265
5 < TTS <= 6	CT	2	115
5 < TTS <= 6	Steam	12	4,849
6 < TTS <= 12	CT	32	2,796
6 < TTS <= 12	Diesel	2	4
6 < TTS <= 12	Steam	67	13,082
12 < TTS <= 24	CT	6	372
12 < TTS <= 24	Hydro	2	0
12 < TTS <= 24	Nuclear	3	3,186
12 < TTS <= 24	Steam	175	48,992
24 < TTS <= 48	Nuclear	7	6,076
24 < TTS <= 48	Steam	30	11,973
48 < TTS <= 72	CT	1	60
48 < TTS <= 72	Steam	4	1,293
72 < TTS <= 96	Nuclear	2	1,593
72 < TTS <= 96	Steam	8	2,481
TTS > 96	Diesel	4	10
TTS > 96	Nuclear	1	1,010
TTS > 96	Steam	3	740
Total		1079	161,755

Peak Maximum Unit Lead Time Proposal

Hours of Lead Time	70 % of units have (N+CS) ≤ # below	80% of units have (N+CS) ≤ # below	90% of units have (N+CS) ≤ # below	Recommended Max (N + CS) hours
SMALL CTS TO 29 MW	4	4	5	5
MEDIUM CTS 30 TO 65 MW	3	9	12	12
MEDIUM LARGE CTS 66 TO 135	3	4	15	12
LARGE CTS 136 TO 180 MW	3	4	7	12
COMBINED CYCLE	12	14	16	16
PETROLEUM STEAM POST-1985	13	15	24	24
PETROLEUM STEAM PRE-1985	20	65	72	48
SUB CRITICAL COAL PLANTS	20	22	29	24
SUPER CRITICAL COAL PLANT	25	30	87	48

Chart shows current notification and cold start time that companies have submitted in parameter limited schedules (added together); lists the % of units that have Notification + Cold Start times that are less than or equal to that value (i.e., if you have 4 hours in a 70 pct column it means that 70% of the units in that class have submitted Notification + Cold Start times that are 4 hours or less).

- PJM to investigate Tool Modification
- PJM to define communication procedures
- Proposed Timeline:
 - November Meetings: Solicit Additional Feedback
 - December Meeting: Present Documented Proposal
 - Manual and Tariff language
 - January Meeting: Solicit feedback on proposal
 - February/March: Committee Approval
 - June Implementation
- Market Issues
 - Impact on RPM payments for violating start-up/notification rules