

Supplementary Status Report (SSR)

PJM State & Member Training Dept.

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Objectives



Students will be able to:

 Identify the reporting guidelines and process for Supplementary Status Report (SSR)

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- Supplementary Status Report (SSR)
 - Provides a instantaneous "snapshot" of:
 - Generating Capacity (GO)
 - Resource limitations within the RTO (GO)
 - Full Emergency Load Response (TO)
 - Used by PJM to perform analysis and prepare a capacity/load/reserve projection when potential for emergencies exist

- Supplemental Status Reports are requested via the PJM All-Call
 - Members are obligated to provide information that applies to them
 - Should respond to request within 10 minutes
 - Reporting period will remain open for a reasonable amount of time
 - PJM will follow up with "non-reporters"

- eDART is generally the preferred and most common method for reporting Supplementary Status Report data
 - Fax or telephone reporting to the Master Coordinator could be used as an alternate method
 - Supplementary Status Report form is available in <u>PJM Manual 13:</u>
 <u>Emergency Operations</u>, <u>Attachment C</u>
 - Also serves as the reference document for Supplementary Status Report terminology

- Data to be reported:
 - Part A: Instantaneous Capacity Check (eDART & hard copy)
 - Part B: Energy Loaded (hard copy)
 - Part E: Capacity Changes to Part A Capacities (hard copy)
 - Part F: Expected Additional Capacity (hard copy)
 - Part G: Resource Limited Units (eDART & hard copy)





- Part A: Instantaneous Capacity Check
 - Provides real-time picture of the actual available capacity
 - Only includes the actual available capacity at the specified time
 - Any unavailable capacity (i.e. start failure, partial de-rate, etc.) should not be included in Part A
 - Should be reported in Part E: Capacity Changes
 - Broken down into two categories:
 - On Cost
 - Loaded following economic dispatch
 - Max Emergency
 - Capacity classified as Max Emergency and only loaded if PJM requests
 Max Emergency

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Categories of Units

- Nuclear: Net capacity of all nuclear units synchronized at time of Supplementary Status Report
- Fossil: Net capacity of all fossil units synchronized, including combined cycle, at time of Supplementary Status Report
- Hydro: Net capacity of all hydro units synchronized at time of Supplementary Status Report
- CT/Diesels: Net capacity of all CT / Diesel units synchronized at time of Supplementary Status Report

NOTE: Hydro and CT/Diesel units that can be started and synchronized within ten minutes of the time specified are to be considered "on cost"

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- Part G: Resource Limited Units
 - Update PJM on units that currently have limited resource (fuel, water, etc.) amount
 - Unit is resource limited if not capable of running at rated capacity for more than 72 hours
 - Should also be placed in Part A under their appropriate category
 - Generally, resource limited units should be placed in Max Emergency to preserve for when they are needed most



Part G: Resource Limited Units

- Unless directed otherwise by PJM, the following units that are bid in and running for PJM must be placed into Max Emergency following completion of the SSR Part G if a *Cold Weather* or *Hot Weather* Alert has been issued:
 - Steam units with less than 32 hours (at max capacity) of resources in current inventory
 - Oil, Kerosene or Diesel combustion turbines with less than 16 hours (at max capacity)
 - Gas fired combustion turbines with less than 8 hours of resources



- Part G: Resource Limited Units
 - PJM Master Coordinator should also be informed by phone if any units have reached this status
 - Information needed:
 - *Unit Name:* name of unit(s)
 - Fuel Type
 - Max Capacity: current maximum capacity
 - Emergency Minimum: If unit can't cycle due to uncertainty of starting up again,
 Emergency minimum must be included with a note in the Comments section
 - Current Energy: current MW output
 - Total Burn Hours Remaining: total burn hours remaining at max capacity from time of SSR
 - Comments: If limited for resource other than fuel, note in this column



- Part B: Energy Loaded
 - Total amount of energy loaded at time of Supplementary Status Report
 - Includes all energy classified as On Cost and Max Emergency



- Part E: Capacity Changes to Part A Capacities
 - To inform PJM of any capacity changes to units included in Part A:
 - For the following 24 hours
 - And changes > 300 MW for the next 72 hours
 - *Name:* unit(s) that are expected to change
 - Old Capacity: as reported in Part A
 - New Capacity: expected capacity of unit
 - Date \ Time: when change is expected to be completed
 - Allows PJM to accurately forecast expected capacity for upcoming operating day(s)



- Part F: Expected Additional Capacity
 - To inform PJM on units expected to synchronize to the system to provide additional capacity for the specified Operating Day
 - Actual clock time unit is expected to synchronize
 - Indicate "ME" for Max Emergency units in the "Expected Time to Synchronize" column
 - Should also include CTs that take longer than 10 minutes to synchronize
 - Can be totaled and reported as a single entry

SSR

- As a group, discuss consequences of not submitting SSR information or submitting incorrect SSR information
- List any reliability and economic consequences:

Supplementary Status Report Exercise

Control Zone	Gen	Fuel Type	Emerg Min	Eco Min	Eco Max	Emerg Max	Current MW output	Max Run Time at Eco Max	Comment	TTS (Min)	Notif. Time (Min)
AEP	Columbus	Hydro	5	10	225	250	0	25 Hrs.	Pool level Limits	3	2
AEP	Lexington	Fossil	200	225	700	750	680	7 Days		240	120
AP	Bedford	СС	80	100	300	310	210	5 Day		15	5
CE	Elmwood	Nuclear	1200	1200	1200	1200	1200	9 Mos.		2880	2880
DAY	Whitehouse	Hydro	50	70	400	440	0	30 Hrs.	Environmental Req.	10	4
DLCO	Pleasantville	СТ	0	0	70	70	45	16 Hrs.	Fuel delivery tomorrow	0	0
DOM	Richmond	СТ	0	20	600	600	0	90 Hrs.		2	5
DOM	Corolla	СТ	0	5	25	30	0	4 Hrs.	Fuel delivery in 24 hours	1	1
PJMCZ	Elizabeth	Fossil	100	200	590	600	410	30 Hrs.	Frozen Coal Piles	480	240
PJMCZ	Lebanon	Fossil	300	400	1150	1200	620	10 Days		960	240

SSR Exercise

- Given the portfolio:
 - Fill out the SSR report in eDART with the following information:
 - On Cost Capacity
 - Max. Emergency Capacity
 - Resource Limitations