Curtailment Flag Logic

Intermittent Resource Task Force
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September, 22, 2014
M-14 D Attachment M change

- Attachment M, Wind Unit Dispatchability Check List, Section III, 2.e: Revised language to reflect a change to the SCED logic to improve constraint control and price formation
  - Revised to reflect current SCED logic

  e) If a unit is operating above its Eco Max, the dispatch system will send a basepoint to move the unit to Eco Max. The curtailment flag is set if the non-ramp-rate-limited basepoint is below Eco Max or when a unit is marginal and the non-ramp-rate-limited basepoint is below the output of the unit while the unit continues to operate above its Eco Max. In either case, the unit is will be considered not dispatchable if it continues to operate above its basepoint.
Key Points

• All resource types are treated equally with regard to Economic Dispatch
• The Wind Curtailment Flag is an indication that wind is being dispatched
  – Basepoint < Economic Maximum or
  – Basepoint < Current Output and the Unit is Marginal
• Resources with a **near Zero** (or lower) bid should only be dispatched below Economic Maximum when:
  – Lowering helps a Transmission Constraint or
  – PJM is in or approaching Minimum Generation conditions
Curtailment Flag Logic

Previous Logic: If Basepoint < ECOMAX, then Curtailment Flag=Yes

New Logic: If Basepoint < ECOMAX or Basepoint < Unit Output and the Unit is Marginal, then Curtailment Flag=Yes
• Many Wind Resources only respond to Basepoint if they receive the Curtailment Flag
• Many Wind Resources out-perform Economic Maximum
• If a Wind Resource needs to be lowered to control a Transmission Constraint and is operating as outlined above, the transmission constraint could not be controlled using Security Constrained Economic Dispatch (SCED), resulting in a manual dispatch
Station A
Output = 120 MW
Eco Max = 100 MW
Basepoint = 110 MW
Old Logic
Curtailment Flag = No
Current Logic:
Curtailment Flag = Yes

Radial Transmission Constraint
Station A to B

Station B
• SCED not sending correct basepoint (solution problem/constraint not binding)
• Unit/GO confirmed they do not follow SCED base points/wind curtailment flags
• SCED not utilized (Prepositioning, Stability, etc)
• Unit Dispatched at TO Request. TO should be billed directly.
• As Requested by MISO