



Dynamic Reserve Requirement Challenges

ERPIV

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- The set of conservative actions upon which the increased requirement is based is not static over time
 - If generation that is scheduled conservatively is dispatched above economic min, is a portion or all of that unit no longer conservative?
 - How are these changes accounted for in the increased requirement?
- 1 MW of conservatively scheduled generation does not necessarily equal 1 MW of additional reserves
- Dispatching units to follow a moving reserve target causes volatility in dispatch base points
 - This could lead to resources not following their dispatch instructions

- Lack of Transparency
 - A dynamic reserve requirement cannot be communicated in advance
- Inconsistency between clearing engines
 - A dynamic reserve requirement that changes every 5 minutes based on system cannot be accurately modeled in ASO or IT SCED
 - IT SCED is responsible for declaring shortage and needs an accurate requirement in order to assess the amount of available reserves
- Reserves are assigned in real time based on “what you have” not “what you need”
 - Can create shortage when you convert reserves into energy

- Performance impacts to the clearing engines
 - Additional solve time is required for the dispatch engines in order to identify the amount of additional reserves on the system
- Would not be able to implement by this summer
 - Software and process changes will be required which take time to design and implement