

Synchronized Reserve Deployment: IMM Package

Operating Committee
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IMM



Monitoring Analytics

IMM Package

- **IMM Package is designed consistent with tier 1 and tier 2 consolidation planned for October 2022 implementation.**
- **IMM recommends status quo if there is no tier 1 and tier 2 consolidation.**
- **Consolidation could occur in the absence of ORDC.**
- **Consolidation creates incentives and penalties for performance that do not exist currently.**



IMM Package

- **With the planned tier 1 and tier 2 consolidation, the IMM package offers an efficient process to recover ACE during spinning events.**
- **All call message used for communication only, no associated request for all resources to ramp up.**
- **Deploy reserves proportional to the disturbance.**
- **Resources clearing the synchronized reserve market are responsible for responding during an event.**
- **Fair assignment of share of responsibility.**
- **Response evaluated based on dispatch instructions.**



Replacing Deployed Reserves

- **NERC reliability standards require that the level of reserves after a disturbance be restored within 90 minutes after a disturbance occurs. (NERC BAL-002-3, R3)**
- **PJM currently attempts to restore reserves immediately when reserves are deployed.**
 - **Result is an inefficient outcome during the infrequent periods when reserves are used for their intended purpose.**
 - **Creates a tradeoff between replacing reserves and recovering ACE after disturbance. Exacerbated by IRD.**
- **Allowing time to recover reserves ensures recovery is addressed before replacing reserves and avoids charging customers high prices for using reserves that have been paid for.**

Reliability Issues with IRD

- **IRD keeps cleared synchronized reserves to maintain reserve requirement while the immediate need is deployment of reserves for ACE recovery.**
 - **Only a subset of reserves that are deployed are assessed for performance. (Cross-subsidization concerns)**
- **IRD solution relies on units without synchronized reserve commitments to increase output.**
 - **Units not subject to a penalty if they do not respond.**
 - **Unreliable mechanism for ACE recovery, reliability concerns.**
- **In spin events caused by units not following dispatch, IRD relies on the same units but expects a different outcome.**

Pricing Issues with IRD

- **IRD results in inefficiently high prices when reserves are used for their intended purpose.**
 - **RTO load increased by the largest contingency MW regardless of the cause of the event.**
 - **When spin event is due to units not following dispatch, units that cause the event face no consequences, and load pays higher prices.**
- **IRD results in retroactive repricing if IRD solution is approved after RT SCED solution is approved.**

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