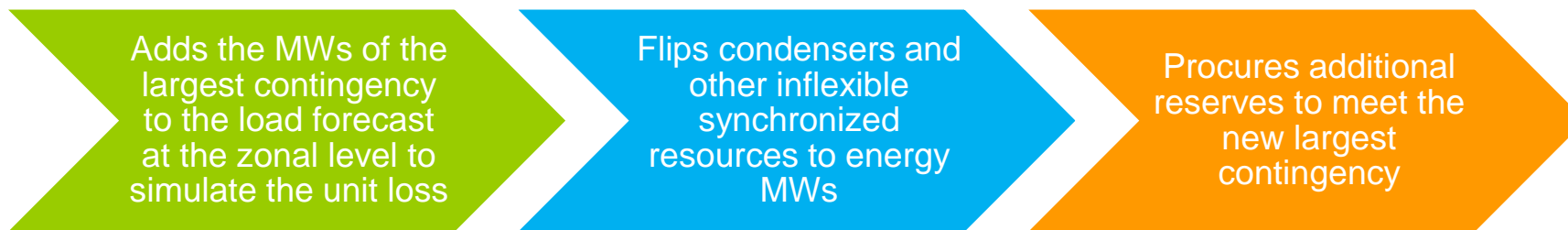


Intelligent Reserve Deployment Rollout

Michael Zhang, Sr. Engineer
Operating Committee
September 03, 2020

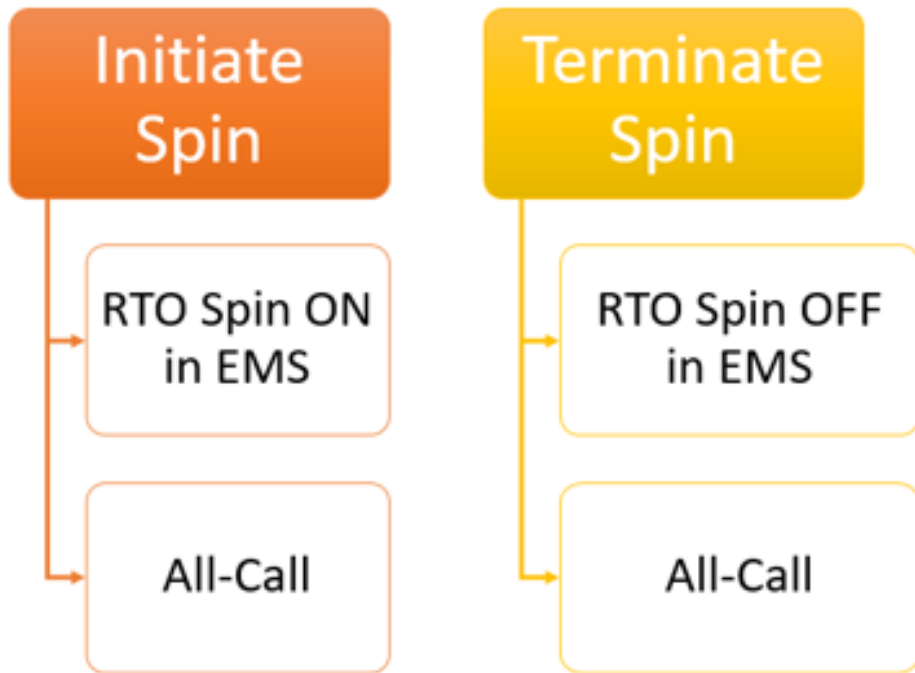
What is Intelligent Reserve Deployment (IRD)?

- Intelligent Reserve Deployment (IRD)
 - IRD is a SCED case that simulates the loss of the largest generation contingency. Approval of the case will trigger a spin event.
 - Economic dispatch based on real-time input including constraints
 - Converts inflexible Tier-2 reserve MWs to energy
 - Readily available for use, no lag time

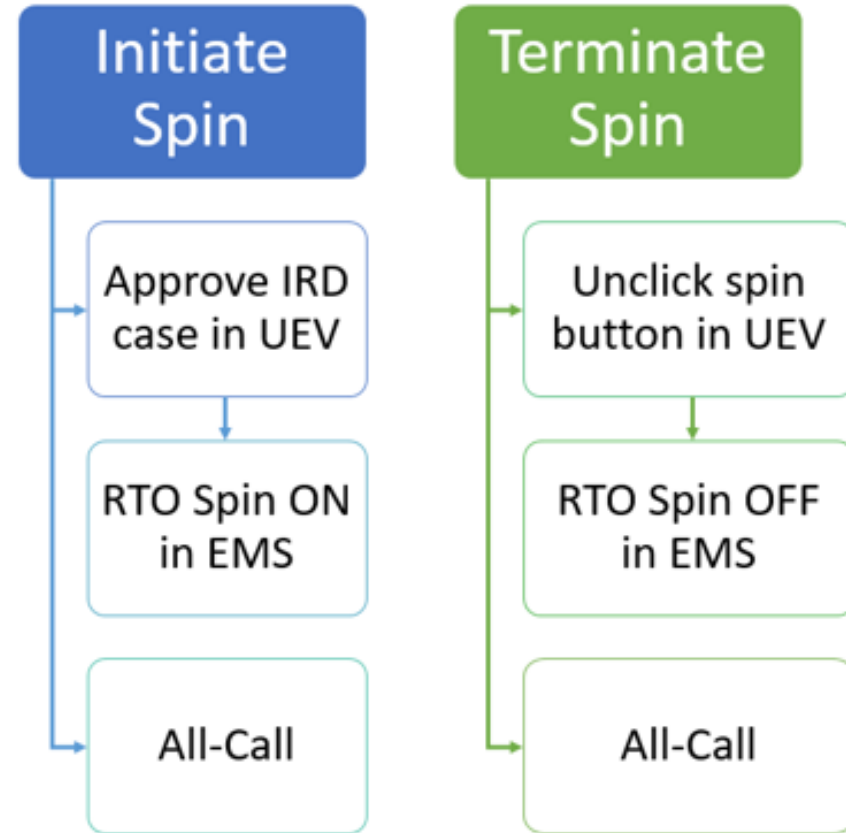


- Accurately price the deployment of reserves in a spin event.
- Using SCED to deploy reserves where needed and ideally not create other operational issues.
 - Generally have enough reserves at the start of events
 - Reduce deployment of excess reserves
- Improve unit response by having consistent pricing and basepoints throughout the event.
 - Avoid sudden interruptions when following PJM dispatch
 - Align pricing and dispatch to reduce conflicting messages

Current Process



IRD Process



- Status quo for expected behavior during MAD and RTO spin events. Initial rollout to streamline PJM operations.
- LMPs will be updated to reflect the deployment of reserves and system conditions.
- Basepoints will be updated and sent out for informational and tracking purposes. All-Call instructions should be followed.
- Future improvements may involve changes to settlement calculations and expected unit performance.

- Targeting September/October rollout for PJM.
 - No changes to existing communications on activation and close out of an event
 - Existing spin event activation mechanism available as backup
 - Spin events will look the same regardless of activation method
- Additional changes will depend on existing Market initiatives.

Presenter/SME:
 Michael Zhang,
Michael.Zhang@pjm.com



Member Hotline

(610) 666 – 8980

(866) 400 – 8980

custsvc@pjm.com