

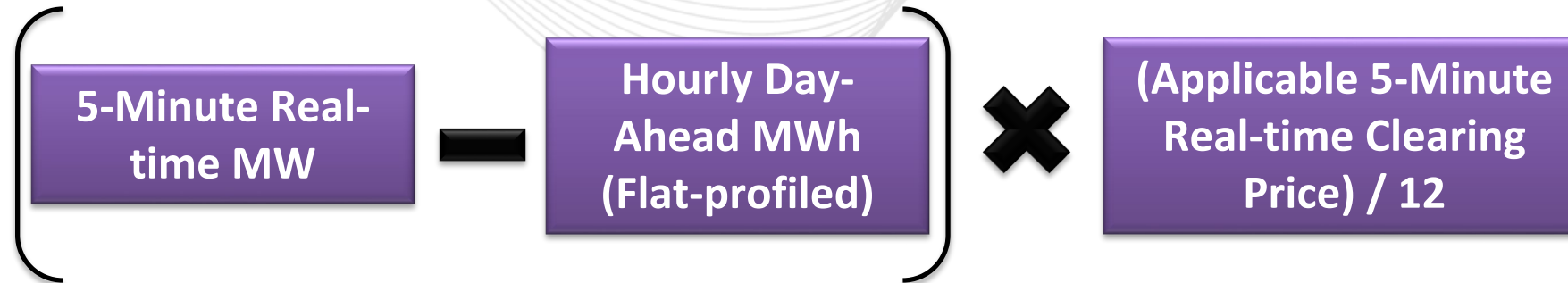
Reserve Market Changes

Rebecca Stadelmeyer
Market Settlements Development
Market Settlements Subcommittee
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- Energy Price Formation Senior Task Force is origination
- PJM submitted a 206 filing to FERC in March 2019
- Presentation at April 2019 MSS
- Additional FERC filing in July 2020
- Expected implementation date is May 1, 2022



- Day-ahead credit calculations
 - DA Energy = Energy MWh * Total DA LMP
 - DA Sync Reserve = Cleared Sync MWh * DA SRMCP
 - DA Non-Sync Reserve = Cleared Non-Sync MWh * DA NSRMCP
 - DA Secondary Reserve = Cleared Secondary MWh * DA SECMCP



- Balancing credit calculations

- Bal Energy = (RT MW – DA MW) * Total RT LMP
- Bal Sync Reserve = (RT Sync MW – DA Sync MW) * RT SRMCP
- Bal Non-Sync Reserve = (RT Non-Sync MW – DA Non-Sync MW) * RT NSRMCP
- Bal Secondary Reserve = (RT Secondary MW – DA Secondary Reserve MW) * RT SECMCP

- Today
 - 1365 / 2365 – Day-ahead Scheduling Reserve
 - 1475 – Load Reconciliation for Day-Ahead Scheduling Reserve
- Tomorrow (what is needed)
 - Day-ahead Synchronized Reserve
 - Day-ahead Non-Synchronized Reserve
 - Day-ahead Secondary Reserve
 - Load Reconciliation for Day-ahead Synchronized Reserve
 - Load Reconciliation for Day-ahead Non-Synchronized Reserve
 - Load Reconciliation for Day-ahead Secondary Reserve

- **Terminate**
 - 1365 / 2365 – Day-ahead Scheduling Reserve
 - 1475 – Load Reconciliation for Day-Ahead Scheduling Reserve
- **Rename**
 - None
- **New**
 - 1366 / 2366 - Day-ahead Synchronized Reserve
 - 1367 / 2367 - Day-ahead Non-Synchronized Reserve
 - 1368 / 2368 - Day-ahead Secondary Reserve
 - 1466 - Load Reconciliation for Day-ahead Synchronized Reserve
 - 1467 - Load Reconciliation for Day-ahead Non-Synchronized Reserve
 - 1468 - Load Reconciliation for Day-ahead Secondary Reserve

- Today
 - 1360 / 2360 – Synchronized Reserve
 - 1362 / 2362 – Non-Synchronized Reserve
 - 1470 – Load Reconciliation for Synchronized Reserve
 - 1472 – Load Reconciliation for Non-Synchronized Reserve
- Tomorrow (what is needed)
 - Balancing Synchronized Reserve
 - Balancing Non-Synchronized Reserve
 - Balancing Secondary Reserve
 - Load Reconciliation for Balancing Synchronized Reserve
 - Load Reconciliation for Balancing Non-Synchronized Reserve
 - Load Reconciliation for Balancing Secondary Reserve

- Terminate
 - None
- Rename/Renumber
 - 1360 / 2360 - **Balancing** Synchronized Reserve
 - 1362 / 2362 - **Balancing** Non-Synchronized Reserve
 - 1470 - Load Reconciliation for **Balancing** Synchronized Reserve
 - 1462 - Load Reconciliation for **Balancing** Non-Synchronized Reserve
- New
 - 1363 / 2363 - Balancing Secondary Reserve
 - 1463 - Load Reconciliation for Balancing Secondary Reserve

- Terminate
 - Day-ahead Scheduling Reserve Credits
 - Day-ahead Scheduling Reserve Summary
- Rename
 - None
- New (initial thinking)
 - (2) Day-ahead Synchronized Reserve Credits & Charges
 - (2) Day-ahead Non-Synchronized Reserve Credits & Charges
 - (2) Day-ahead Secondary Reserve Credits & Charges

- PJM needs to review all of the Non-Synchronized and Synchronized Reserve reports to determine changes
 - Non-Synchronized Reserve
 - Can these be re-used? Or are new ones needed?
 - Synchronized Reserve
 - All reports reference Tier 1 and Tier 2
 - Might be able to combine and rename or add all new
 - Secondary
 - At least two (2) new report for credits and charges

- PJM is actively working on the calculations
 - Aware of uncertainty, however, change is too large to stop
- Expect continued details at Market Settlement Subcommittee (MSS) and Tech Change Forum (TCF) meetings moving forward
- Desired Train environment deployment in March 2022
- Expected implementation date is May 1, 2022

Facilitator:
Rebecca Stadelmeyer,
Rebecca.Stadelmeyer@pjm.com

Secretary:
Sean Flamm,
sean.flamm@pjm.com

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Member Hotline

(610) 666 – 8980

(866) 400 – 8980

custsvc@pjm.com