



RTC + B

Day-Ahead Market (DAM)

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Forward Market Operations

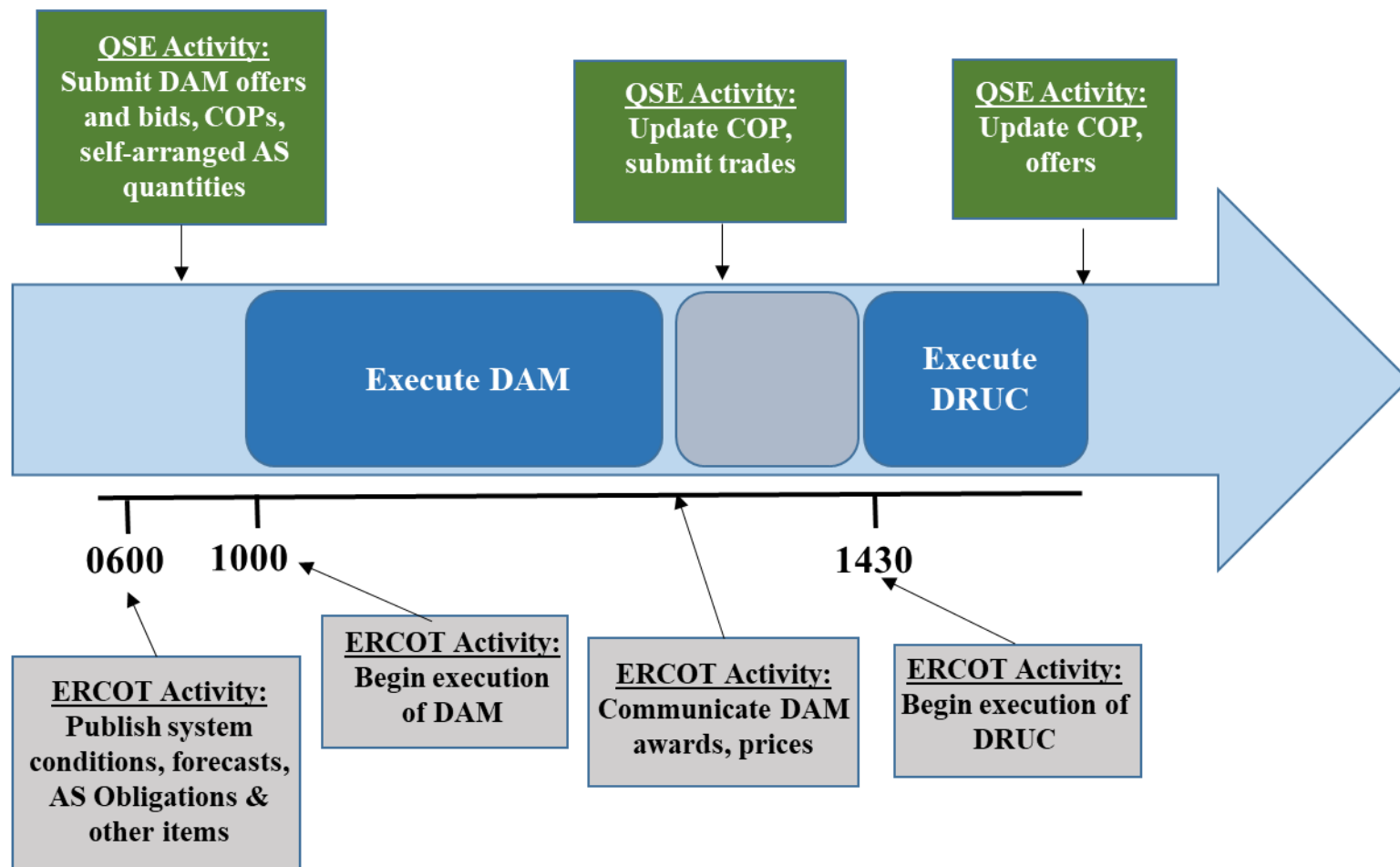
March 25, 2025

Agenda

- DAM Timeline
- Ancillary Service Obligations
- Ancillary Service Demand Curves (ASDCs)
- Ancillary Service (AS) Insufficiency
- AS Submissions:
 - AS-only Offers
 - Resource-Specific AS Offers
 - Self-Arranged AS
- Energy Storage Resource (ESR)

DAM Timeline

Day-Ahead Operations



Ancillary Service Obligations

- Current Structure
 - AS Obligations are calculated, using the AS plan and Load-Serving Entities (LSE) Load-Ratio Share (LRS), and posted by 0600 in the day-ahead
 - The minimum obligation is 1MW
- RTC+B Structure
 - Advisory AS Obligations are calculated, using the AS plan and Load-Serving Entities (LSE) Load-Ratio Share (LRS), and posted by 0600 in the day-ahead
 - No minimum obligation
 - Final AS Obligations are calculated, using DAM Awards + Self-Arrangement, and sent to Settlements
 - Self-Arrangement over Final AS Obligation will be paid-out to QSE

Ancillary Service Demand Curves (ASDCs)

- Current Structure
 - AS requirement derived from AS Plan minus Self-Arranged AS
 - AS penalty costs calculated using the System-Wide Offer Cap (SWCAP)
- RTC+B Structure
 - Initial DAM ASDCs will be the same as Real-Time (RT) ASDCs
 - ASDCs will shift requirements based on self-arranged AS
 - Negative self-arranged AS will shift curve to the right
 - AS penalty costs will no longer be used in the optimization

Ancillary Service (AS) Insufficiency

- Current Structure
 - AS insufficiency is analyzed for each AS type per hour
 - If AS insufficiency is identified
 - Run AS insufficiency procedure and then reopen the market for minimum 30 minutes to receive additional AS offers
 - Re-close DAM and re-run
 - If AS insufficiency still exists, complete the run and then run the pricing run
 - SASM and RUC will attempt to procure the insufficient quantities
- RTC+B Structure
 - AS insufficiency will no longer be needed as RT will procure the AS

AS Submissions: AS-only Offers

- Current Structure
 - AS-Only Offers don't currently exist
- RTC+B Structure
 - AS-only Offers will be a new submission type that will not require a Resource link. AS qualifications will not be required for either Resource or Qualified Scheduling Entity (QSE)
 - AS-only Offers will be procured against their respective ASDCs
 - Multi-hour and fixed blocks will not be permitted
 - 5 offer blocks will be allowed for single part AS-Only Offers
 - REGUP
 - REGDN
 - RRSPFR
 - Online NSPIN
 - Online ECRS
 - Quantity minimum of 0.1MW; Pricing between \$0/MW and DAM SWCAP
 - New Credit Exposure calculation

AS Submissions: Resource-Specific AS Offers

- Current Structure
 - Procurement against AS requirement while considering AS penalty costs
 - Resource linked AS Offers require Resource and QSE AS qualifications
 - AS Offers may be inclusive or exclusive of each other or Energy Offer Curve (EOC); 5 blocks available
 - Quantity minimum of 0.1MW; Pricing between \$0/MW and SWCAP
 - FRRS qualified Resources have a system-wide limit for Up and Down
- RTC+B Structure
 - Procurement against DAM ASCDs
 - Pricing between \$0/MW and DAM SWCAP
 - FRRS will not longer be a valid option

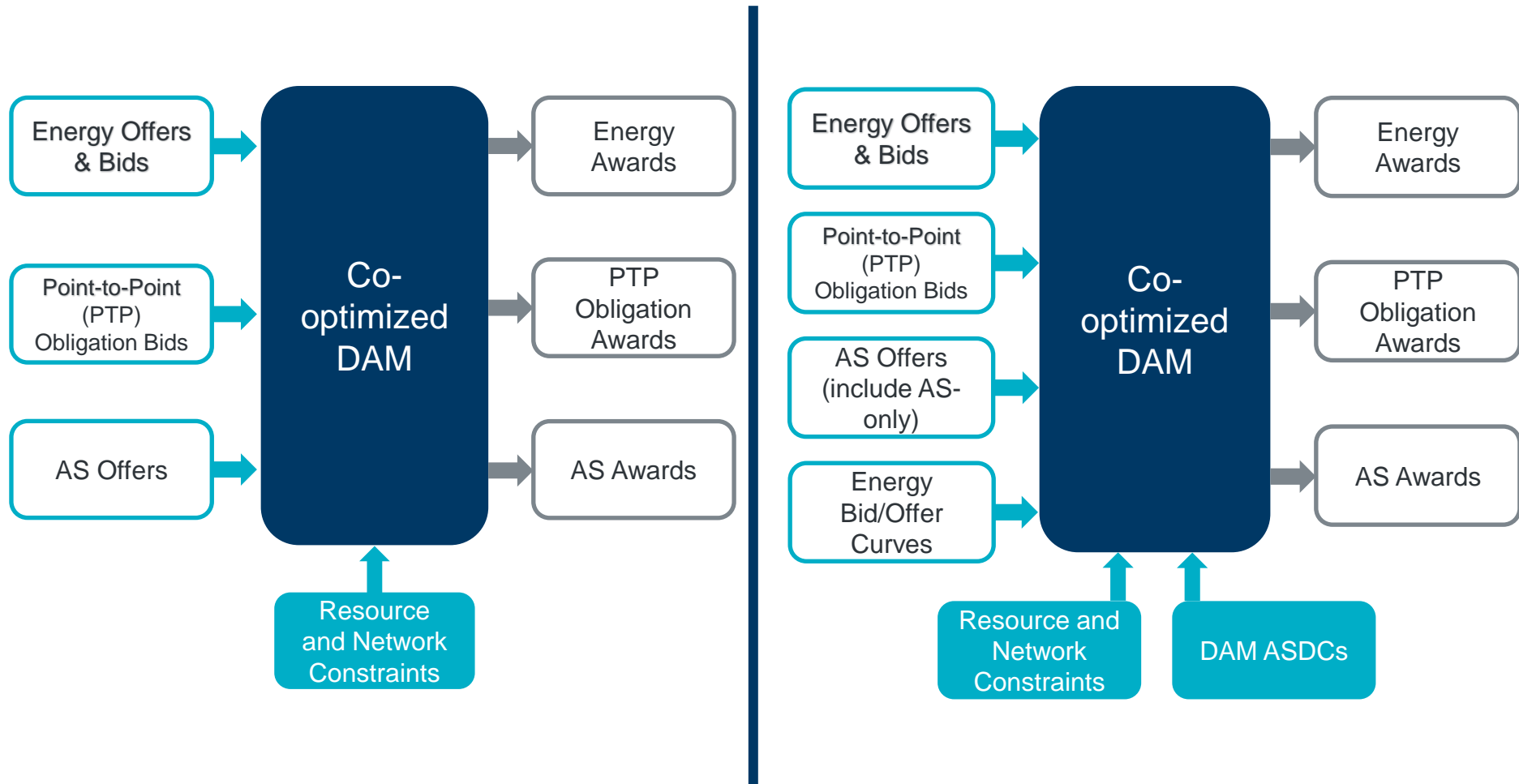
AS Submissions: Self-Arranged AS

- Current Structure
 - Self-Arranged AS subtracted from AS plan to determine AS requirement
 - Submissions exceeding the AS Obligation is allowed (up to)
 - Regulation: 25MW
 - RRS and ECRS: 100 MW
 - NSPIN: 50 MW
- RTC+B Structure
 - Self-arrangement AS exceeding their advisory AS Obligation will no longer be allowed
 - Negative Self-Arranged AS will be considered price takers on each respective ASDC
 - Self-Arranged AS beyond the final AS Obligation will be paid at it's corresponding AS MCPC
 - AS trades submitted above their Self-Arrangement will be charged if not corrected by the end of the Adjustment Period

Energy Storage Resource (ESR)

- Current Structure
 - ESR/DESR modeled as a combo model: Generator and Controllable Load Resource (CLR) and offered independently
- RTC+B Structure
 - Single model Resource will incorporate both charging and discharging characteristics
 - COP and EOCs will allow for negative values to represent charging
 - Energy Bid/Offer Curves will be new submissions in the DAM
 - Energy Curves shall be considered inclusive of Resource-Specific AS Offers
 - Considered Self-Committed
 - No Make-Whole payments
 - Resource-Specific AS Offers may be inclusive or exclusive of each other
 - Offline reserves, RRSUFR, or ECRSMD will not be allowed
 - New Credit Exposure calculations
 - Bid portion (charging) like Energy Bid credit exposure
 - Offer portion (discharging) like TPO credit exposure

DAM transition



Questions?