Item 10.3.1: Real-Time Co-optimization (RTC) Update

Matt Mereness
Senior Director, Market Operations and Implementation

Reliability and Markets Committee Meeting

ERCOT Public
February 26, 2024

Real-Time Co-optimization (RTC) Update

- **Key updates since last Board meeting:**

  - RTC State of Charge protocols (NPRR1204) approved by PUCT on February 1, 2024
    - Business Requirements updated and sent to key vendor
  - <u>Internal daily</u> project meetings for RTC+B
    - Transitioning from Business Requirements into initial design and code development for key software areas
  - <u>External monthly</u> Real-Time Co-optimization plus Batteries Task Force (RTCBTF) meetings in 2024 to support implementation details (more on next page)

- **Key Takeaways**
  - RTC+B Program is accelerating and beginning to develop software.

  - At RTCBTF, ERCOT is partnering with Market Participants every month in 2024 to address various implementation details.

Real-Time Co-optimization (RTC) Update

- **RTCBTF engagement for implementation support:**
  - Typically a 3-meeting discussion for items to take to TAC
  - Examples:
    - Coordination of review and release of QSE interface specifications
    - Progression and timing of Market Readiness: from training, to connectivity testing, to closed-loop testing and go-live
    - Define analysis framework needs (example, market outcomes)
    - Discussion of policy issues, such as Ancillary Service proxy offer parameter values
  - Highly valued partnership that has been successful since 2019

Id	Source	Issue to resolve	Type	Protocol needed?	Approval	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
1	RTCTF issue	Parameters for Ancillary Service proxy offers (values for the parameters)	Policy	No	TAC												
2	RTCTF issue	ASDCs for use in Reliability Unit Commitment (RUC) studies (values for parameters)	Policy	No	TAC												
3	RTCTF issue	Framework for periodic analysis comparing RTC and the current ORDC design – KP 1.1(8)	Analysis	No	No												
4	RTCTF issue	Verifiable Cost Manual (Change for on-line hydro Resources per Key Principle 1.3(3))	Other	VCMRR needed	Normal process												
5	RTCTF issue	Additional review of transmission constraint max. shadow price values (Sec 22 protocols per NPRR1211)	Policy	Yes	Normal process												
6	RTCTF issue	Operation Procedures (e.g., removing SASM and HASL/LASL), note to include any needed discussion on triggers for initiating off-cycle SCED execution	Readiness	No	Exisiting processes												
7	RTCTF issue	Business Practice Manuals (e.g., changes to COP and telemetry)	Readiness	No	Exisiting processes												
8	RTCTF issue	Mapping of bill determinants to extracts and reporting for developing shadow settlement	Readiness	No	No												
9	RTCTF issue	Changes to ICCP handbook, and documentation for non-ICCP market submissions	Readiness	No	Existing processes												
10	RTCTF issue	Market trials/training/annual seminar engagement (release plans/dates for market trials)	Readiness	?	?												
11	RTCTF issue	Any details MPs need for designing their control systems	Readiness	No	No												
12	ERCOT 2023	Scaling Factor Values for RegU and RegD (ie, ramp sharing as values, dynamic or static?)	Other	No	TAC												
13	ERCOT 2023	How DRRS would work in an RTC paradigm	Other	Yes	TAC												
14	ERCOT 2023	Inclusion of firm load shed in the pricing run - (RTC changes to align with NPRR1081)	Policy	Yes	TAC												
15	ERCOT 2023	Various protocol references need to be updated	Other	Yes	TAC												
16	ERCOT 2023	RTC SOC duration parameter discussion	Policy	No	TAC												
17	ERCOT 2023	RUC Capacity Short Calculations with SOC	Policy	Yes	TAC												
18	RTCBTF 1/12/24	Review of the AS Demand Curves in the context of current policy.	Other	No	No												