

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

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Reliability and Markets Committee Meeting

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### Real-Time Co-optimization (RTC) Update

#### Key updates since last Board meeting:

- Internal daily activities for RTC+B
  - Completed analysis and announced target go-live date of 12/5/2025
  - Internal and vendor development efforts continue on-schedule
- External monthly RTCBTF meetings continue:
  - QSE Attestations achieved 100%
  - Market Trials Plan under review with Market Participants
  - Training/Readiness Outline under review with Market Participants
  - Realigned RTCTF Issues List to go-live date

#### Key Takeaway(s)

- RTC+B Program has set clear expectations for 12/5/2025 target go-live date.
- ERCOT working closely with Market Participants to minimize readiness risk:
  - Interface changes posted in June 2024 for May 2025 Market Trials start
  - Rapidly developing details for Market Readiness activities
  - Next few months will potentially need support to address important policy issues (more details on slide 4)



# **RTC+B Program Go-Live Announcement**

#### Links to:

Market Notice
Press Release
Trending Topic Paper

NOTICE TYPE: M-A091324-01 Operations

SHORT DESCRIPTION: Real-Time Co-optimization plus Batteries (RTC+B) go-live target date

INTENDED AUDIENCE: All Market Participants

DAYS AFFECTED: September 13, 2024

**LONG DESCRIPTION:** ERCOT has completed its analysis of the Real-Time Co-optimization plus Batteries (RTC+B) program schedule and is targeting December 5, 2025, as the go-live date. Since re-starting the RTC+B implementation efforts in July 2023, ERCOT has been working closely with stakeholders to update Protocols and business requirements and to engage in market trial preparations to create a plan for implementation. In addition to the Real-Time Co-optimization (RTC) requirements from Public Utility Commission of Texas Project No. 48540, *Review of Real-Time Co-optimization in the ERCOT Market*, the program was also expanded to account for battery Energy Storage Resource enhancements in the ERCOT market, which expanded the project to become the RTC+B program.

ERCOT has been working closely with Market Participants (MPs) at the <a href="RTC+B">RTC+B</a> Task Force</a> meetings, as well as providing regular updates to the ERCOT Technical Advisory Committee (TAC) and Reliability & Markets Committee of the ERCOT Board of Directors. At this point in the program, ERCOT and MPs have been effective in completing all business requirements, limiting scope changes, and releasing interface specifications to the market 11 months before market trials begin in May 2025.

The RTC+B program involves key interdependencies and milestones for the path forward to go live in late 2025. ERCOT will continue to monitor additional milestones in the coming months involving ERCOT and MPs to allow ongoing confirmation of the December 5, 2025, go-live date or adjust if necessary.

**CONTACT:** If you have any questions, please contact your ERCOT Account Manager. You may also call the general ERCOT Client Services phone number at (512) 248-3900 or contact ERCOT Client Services via email at <a href="mailto:ClientServices@ercot.com">ClientServices@ercot.com</a>.



#### **RTCBTF Issues List**

- Parameter and Policy dates defined
- Ramp-up of RTC Simulator Analysis and priorities of what to study
- More details coming for Market Readiness progression

Issue to resolve	Туре	Protocol needed?	Approval	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25
Parameters for Ancillary Service proxy offers (values for the parameters)	Policy	No	TAC								
Scaling Factor Values for RegUp/RegDown (ie, ramp sharing as values, dynamic or static?)	Other	No	TAC								
ASDCs for use in Reliability Unit Commitment (RUC) studies (values for parameters)	Policy	No	TAC								
RTC SOC duration parameter discussion	Policy	No	TAC								
RTC Simulator Analysis for periodic analysis comparing RTC and the current ORDC design – KP 1.1(8)  - Historical Operating Days identified by RTCBTF  - Additional review of transmission constraint max. shadow price values (Sec 22 protocols per NPRR1211)  - Review of AS Demand Curve in context of current policy	Analysis	TBD	TBD								
Clean-up Revision Requests to address as-builts and clarifications, as needed	Other	Potentially	PUCT								
Market Readiness											
- Release Market Trials Sequence and Potential Dates (May 2024)											
- RTC+B Technical Workshops and release interface specifications (May-June 2024)											
Explanation of ICCP Changes (Abhi Gari Masanna- May RTCBTF)											
Explanation of Market Submission (Nathan Smith- August RTCBTF)											
- Release and review Market Trials Plan with RTCBTF (started in June and still in progress)	Other	No	TAC								
- Execute QSE Attestation (completed August 2024)											
- Announce Planned Go-Live Date (September 2024)											
- Outline of Training											
- Market Trial Handbook Development (detailed plans for market trials)											
- Any protocol and/or PUCT waivers needed for market trials and/or transition to Go-Live											
- Go-Live Transition Plan											
- RTCBTF issues- a. Operation Procedures (e.g., removing SASM and HASL/LASL), note to include any needed discussion on triggers for initiating off-cycle SCED execution, b. Business Practice Manuals (e.g., changes to COP and telemetry), c. Market trials/training/annual seminar engagement (release plans/dates for market trials), d.											



Any details MPs need for designing their control systems

# **Sequence and Dates for Market Trials to Go-Live**

Start 5/5/25		Start 7/7/25		Start 9/2/25		30-day Market Notice 11/5/25	Go-Live 12/5/25*		
May 2025	June 2025	July 2025	Aug 2025	Sep 2025 Oct 2025		Nov 2025	Dec 2025		
	QSE Scorecards & Exit Criteria for each Trial Phase								
(Submit COI	omission Testing P, RT AS Offers, , Outages for ESRs)	(QSE offer	p RTC SCED rs, SCED non- vard/dispatch)	<u>&amp; Periodic</u> SCE	Open-Loop Closed-loop D/LFC ers and telemetry	Transition to Go-Live Upon			
(QSEs add/ve points for UI	emetry Check-out rify new telemetry DSP, New ramp BR telemetry)	(Individual UDSP and su	emetry Tests QSE to follow upport new ramp SR telemetry)	to support frequency con	closed-loop trol test 2-3 tests ir durations)	completion of testing, confirmation of ERCOT and market			
	e reflects 12/5/20 2025 is planned s	•	•	(Non-binding I	ad Market DAM using QSE least 2 tests)	readiness for Go-Live.			



### **Recent Progress to share**

- ERCOT published draft Market Trials Plan Document in July and has solicited effective feedback from recent RTCBTF meetings.
- ERCOT published draft outline of Market Readiness/Training Topics
  - Defined components/areas of training- Exec level, Basics, Markets, Operations, etc
- ERCOT completed initial development of RTC Simulator (ERCOT in-house tool)
  - Committed to studying 3 historical Operating Days for October RTCBTF meeting
- ERCOT drafted initial explanation and recommendations for the <u>Parameters of the AS</u> <u>Proxy Offer Curves</u>
  - ERCOT provided refresher on concepts and some initial studies. ERCOT proposed \$0 proxy offer floor value, while some MPs proposed at offer cap, others considering in between.
  - More discussion in October and November RTCBTF meetings and then November TAC.
  - The "TAC approved" parameters may escalate to policy level decision makers.
- ERCOT drafted and <u>posted ASDC whitepaper to TAC</u> to clarify and explain the evolution of the currently approved AS Demand Curves and to summarize potential market and Independent Market Monitor concerns



# **Next steps**

- ERCOT will continue to focus on details of delivering the RTC+B Program both internally and in close coordination with the market on Readiness needs
- ERCOT now has ability to run limited RTC Simulations for historical Operating Days and could potentially support studies for policy decisions
- At the December Board meeting there will be policy updates and/or discussions related to AS Demand Curves and Parameters for AS Proxy Offers
- ERCOT starting to reassess and defer some 2025 project work, especially in Markets and some Operations areas until after RTC+B go-live

#### Key Takeaway(s)

- RTC+B Program on-schedule for target 12/5/25 Go-Live
- ERCOT working closely with Market Participants and policy makers to ensure alignment and no roadblocks in delivery of the program

