



**GENERAL SESSION MINUTES OF THE
RELIABILITY AND MARKETS COMMITTEE MEETING
OF ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.**

8000 Metropolis Drive (Building E), Suite 100, Boardroom B
Austin, Texas 78744
June 17, 2024

Pursuant to notice duly given, the meeting of the Reliability and Markets (R&M) Committee of the Board of Directors (Board) of Electric Reliability Council of Texas, Inc. (ERCOT) convened on the above-referenced date.

Meeting Attendance:

Committee Members:

Director	Affiliation/Role (if any)	Voting Category
Aguilar, Carlos	N/A	Voting
England, Julie	N/A	Voting
Flexon, Bob (Chair)	N/A	Voting
Hjaltman, Courtney	Office of Public Utility Counsel (OPUC), Public Counsel	Voting

Other Board Members:

Director	Affiliation/Role (if any)	Voting Category
Capuano, Linda	N/A	Voting
Cobos, Lori	Public Utility Commission of Texas (PUCT, Commission), Commissioner	Non-Voting
Flores, Bill	N/A	Voting
Foster, Paul	N/A	Voting
Gleeson, Thomas	PUCT Chair	Non-Voting
Heeg, Peggy	N/A	Voting
Swainson, John	N/A	Voting
Vegas, Pablo	ERCOT President and Chief Executive Officer (CEO)	Non-Voting



Officers and Guests:

Officer/Guest	Role
Bonskowski, Ned	Vistra Corp., Vice President of Texas Regulatory Policy
Coleman, Katie	O'Melveny & Myers LLP, Managing Partner, on behalf of Texas Industrial Energy Consumers (TIEC)
Collins, Keith	ERCOT Vice President of Commercial Operations
Day, Betty	ERCOT Vice President of Security and Compliance and Chief Compliance Officer
Drake, Gordon	ERCOT Director of Market Design and Analysis
Glotfelty, Jimmy	PUCT Commissioner
Goff, Eric	Goff Policy, President, on behalf of NextEra Energy Resources LLC (NextEra)
Hobbs, Kristi	ERCOT Vice President of System Planning and Weatherization
Jackson, Kathleen	PUCT Commissioner
Levine, Jonathan	ERCOT Assistant General Counsel and Assistant Corporate Secretary
Mereness, Matt	ERCOT Senior Director of Strategic Market Design Programs and Delivery
Parakkuth, Jayapal	ERCOT Senior Vice President and Chief Information Officer
Patton, David	Potomac Economics, ERCOT Independent Market Monitor (IMM), President
Rainwater, Kim	ERCOT Corporate Counsel
Rickerson, Woody	ERCOT Senior Vice President and Chief Operating Officer
Rosel, Austin	ERCOT Director of Settlements, Retail, and Credit
Seely, Chad V.	ERCOT Senior Vice President, General Counsel and Corporate Secretary
Tamby, Jeyant	ERCOT Senior Vice President and Executive Advisor
Woodfin, Dan	ERCOT Vice President of System Operations
Zerwas, Rebecca	ERCOT Director of State Policy and PUC Relations, Board Liaison

Call General Session to Order (Agenda Item 1)

Bob Flexon, R&M Committee Chair, determined that a quorum was present and called the R&M Committee meeting to order at approximately 12:04 p.m.

Chair Flexon recognized Thomas Gleason, Chair of the PUCT. Chair Gleason convened an Open Meeting of the Commission to order to consider matters that had been duly posted with the Texas Secretary of State for June 17, 2024.

Chair Flexon highlighted the Antitrust Admonition and introduced Keith Collins, ERCOT's new Vice President of Commercial Operations, who the Human Resources and Governance Committee would later this afternoon vote on a recommendation to ratify as an ERCOT Officer. Chair Flexon addressed the following Agenda Items in the order below.

Notice of Public Comment, if Any (Agenda Item 2)

Chair Flexon announced that on the agenda for the meeting, which was posted publicly on June 10, 2024, ERCOT had provided instructions for members of the public who were interested in



commenting in person, and to date received requests to comment on two Revision Requests on Urgent timelines on today's agenda as Items 5.1 and 5.2. Jonathan Levine confirmed Dr. David Patton on behalf of the IMM; Katie Coleman on behalf of TIEC; and Ned Bonskowski on behalf of Vistra Corp. requested to comment on Nodal Protocol Revision Request (NPRR) 1224, ECRS Manual Deployment Triggers; and Eric Goff, on behalf of NextEra, requested to comment on Nodal Operating Guide Revision Request (NOGRR) 245, Inverter-Based Resource (IBR) Ride-Through Requirements.

April 22, 2024 General Session Meeting Minutes (Agenda Item 3)

Chair Flexon entertained a motion to approve the April 22, 2024 General Session Meeting Minutes (Minutes).

Julie England moved to approve the Minutes as presented. Carlos Aguilar seconded the motion. The motion passed by unanimous voice vote with no abstentions.

Recommendation regarding Committee Charter (Agenda Item 4)

The Committee considered the Recommendation regarding Committee Charter. Proposed revisions to the R&M Committee Charter correspond to amendments to the Board Policies and Procedures and clarify other Committee practices. Chair Flexon entertained Committee discussion and a motion to recommend the Board approve revisions to the Committee Charter consistent with redlines.

Ms. England moved to recommend the Board approve the R&M Committee Charter as presented. Mr. Aguilar seconded the motion. The motion passed by unanimous voice vote with no abstentions.

TAC Report regarding R&M Committee Charter Revision Requests Recommended for Board Approval; NPRR1224, ECRS Manual Deployment Triggers – URGENT; ERCOT Comments on NPRR1224; Other Comments on NPRR1224 (Agenda Items 5 – 5.1.2)

Technical Advisory Committee (TAC) Chair Caitlyn Smith presented the TAC Report regarding NPRR1224.

Dan Woodfin presented ERCOT comments on NPRR1224 supporting the TAC-recommended version. Mr. Woodfin discussed operational risks associated with timing for manual release of ERCOT Contingency Reserve Services (ECRS) and provided additional perspective on the appropriateness of the \$750 price floor TAC recommended. Committee members and Mr. Woodfin discussed pending NPRR1232, Standing Deployment of ECRS in the Operating Hour for a Portion of ECRS that is Provided from SCED-Dispatchable Resources, which would provide for the automated release of ECRS to Security-Constrained Economic Dispatch (SCED) without the need for a manual ERCOT deployment instruction.

Dr. David Patton presented IMM comments on NPRR1224. Dr. Patton discussed what happens in the Real-Time Market when ECRS is deployed and the \$750 price floor recommended by TAC. Dr. Patton recommended the Board to not approve NPRR1224 and to direct ERCOT staff to develop procedures to deploy ECRS in anticipation of a SCED shortage. Committee members and Dr. Patton discussed potential for Load curtailment following earlier release of ECRS and



impacts of forecasting errors on earlier ECRS releases. Discussion also included potential impacts of a \$750 floor on prices compared to summer 2023.

Katie Coleman presented Joint Consumers' comments included in the meeting materials. Ms. Coleman discussed the IMM comments and to what extent application of Ancillary Services demand curves under Real-Time Co-optimization (RTC) is appropriate prior to implementation of RTC. Ms. Coleman discussed justification for Joint Consumers' support of a \$100 price floor to approximate when ECRS units would have self-committed.

Ned Bonskowski presented Joint Commenter comments included in the meeting materials. Mr. Bonskowski discussed valuation of conservative operation of the grid and TAC's use of Ancillary Services demand curves as a basis for a price floor. Committee members and Mr. Bonskowski discussed operation of the Reliability Unit Commitment (RUC) price floor and the Power Balance Penalty Curve.

Committee members and Pablo Vegas discussed reliability and affordability. Discussion included uses for manual deployment of ECRS, such as to address ramp issues and forecasting errors. Discussion also included potential price implications similar to summer 2023 without implementation of NPRR1224 and proceeding with the work TAC has done in their recommendation ahead of the summer demand season and ahead of NPRR1232. Committee members discussed potential impacts to consumers without a vote on NPRR1224 today. Woody Rickerson and Mr. Seely discussed the timetable for NPRR1232. Committee members discussed the TAC deliberative process, the basis for the \$750 price floor TAC recommended, and best efforts for NPRR1232 to proceed with urgency to the Board.

Bob Flexon moved to recommend that the Board recommend approval of NPRR1124 as recommended by TAC. Ms. England seconded the motion. The motion passed by voice vote with one opposed (Courtney Hjaltman) and no abstentions.

NOGRR245, Inverter-Based Resource (IBR) Ride-Through Requirements – URGENT: ERCOT Comments on NOGRR245; Other Comments on NOGRR245, if any (Agenda Items 5.2 – 5.2.2)

Ms. Smith presented the TAC recommendation regarding NOGRR245. The recommendation followed Board remand of NOGRR245 to TAC on April 23, 2024. Ms. Smith commented on TAC's role in collaboration among stakeholders after a TAC recommendation on the NOGRR.

Mr. Seely presented ERCOT comments on NOGRR245 in support of the TAC recommendation and summarized the issue around the exemption and extension process for legacy Resources that may not be able to meet ride-through requirements. Mr. Seely commented on Joint Commenters' indication of likelihood to appeal as a contested case to the Commission regarding the proposed exemption and extension process in the current version of NOGRR245 and potential impacts of appeal to halt ERCOT's work with stakeholders since January 2023 to address the key reliability concerns identified by ERCOT. Mr. Woodfin presented changes in NOGRR245 since Board remand to TAC and continued to encourage IBR owners to immediately act to reduce risk from failures to ride-through. Mr. Seely indicated ERCOT comments submitted yesterday were discussed with Joint Commenters and recommend the Board table NOGRR245



to allow ERCOT staff to work with Joint Commenters on bifurcating parts of the exemption process into a subsequent NOGRR and to correct errors in redlines to date. A future, second-phase Board Priority Revision Request would be submitted through the stakeholder process to propose reliability study analyses and exemption standard criteria that ERCOT would use to make decisions on requests for exemptions. Commissioner Cobos commented on documentation for the Commission to consider any potential contested cases, either regarding the policy framework or resulting from exemption requests.

Eric Goff presented comments on behalf of NextEra in support of the information in the ERCOT presentation in today's meeting materials; in support of the TAC stakeholder process; and generally supportive of bifurcating the exemption process along the lines of the 6/16/24 ERCOT comments.

Committee members and Mr. Seely discussed the Committee and Board considering NOGRR245 again no later than special meetings in July or during the regularly-scheduled meetings in August before proceeding to the Commission, and discussed delivery to the Committee and Board in August through the stakeholder process a Board Priority Revision Request for the subsequent NOGRR.

Carlos Aguilar moved to recommend that the Board table NOGRR245. Ms. Hjaltman seconded the motion. The motion passed by unanimous voice vote with no abstentions.

Recommendation regarding Oncor West Texas 345-kV Infrastructure Rebuild Regional Planning Group (RPG) Project (Agenda Item 6)

Kristi Hobbs presented ERCOT staff's recommendation regarding the Oncor West Texas 345-kV Infrastructure Rebuild Regional Planning Group (RPG) Project that includes Preferred Project components from 2021 Permian Basin Load Interconnection Study. Committee members and Ms. Hobbs discussed the \$1.12 billion project costs and projected summer 2028 completion timeline.

Ms. England moved to recommend that the Board endorse the need for the Tier 1 Oncor West Texas 345-kV Infrastructure Rebuild RPG Project, which ERCOT staff has independently reviewed and which TAC has voted unanimously to endorse, based on North American Electric Reliability Corporation (NERC) and ERCOT reliability planning criteria. Mr. Aguilar seconded the motion. The motion passed by unanimous voice vote with no abstentions.

Break

Chair Flexon recessed the meeting for a break at approximately 1:50 p.m. and reconvened the meeting at approximately 2:01 p.m.

Committee Briefs (Agenda Item 7)

Chair Flexon invited ERCOT staff to present the Committee Briefs.



System Planning and Weatherization Update (Agenda Item 7.1)

Ms. Hobbs presented the System Planning and Weatherization Update, including the Permian Basin Reliability Plan Study. Committee members and Ms. Hobbs discussed locational reporting for co-located battery and solar projects in the interconnection queue and national trends in utility-scale battery systems. Ms. Hobbs indicated that future reports on generation interconnection would include requests resulting from the Texas Energy Fund (TEF). The update also included the Reliability Standard and the Capacity, Demand, and Reserves (CDR) report that looks ahead to summer 2025 and recently began to feature non-contracted Transmission Service Provider (TSP) prospective Load. Committee members, Ms. Hobbs, and Mr. Rickerson discussed Load characteristics for August evening hours in 2023 compared with summer 2024. Commissioner Cobos commented on a future rulemaking regarding reasonableness for when to include non-contracted TSP prospective Load in the CDR.

System Operations Update (Agenda Item 7.2)

Mr. Woodfin presented the System Operations Update, including an update on the Four Coincident Peak (4CP) program. Committee members and Mr. Woodfin discussed the 4CP program design to reduce demand during the times with highest Load but does not take into account reducing demand during times of highest net Load without solar generation. Discussion also included Forced Outages in spring of 2024 and the impacts of extended Planned Outages and the Maximum Daily Resource Planned Outage Capacity (MDRPOC).

Commercial Markets Update (Agenda Item 7.3)

Gordon Drake presented the Commercial Markets Update, including sustained negative pricing outcomes seen during the renewables penetration record set on March 29, 2024. The update included the Aggregate Distributed Energy Resource (DER) Pilot Project and ERCOT staff's recently submitted Revision Requests to implement Dispatchable Reliability Reserve Service (DRRS) as a new, stand-alone Ancillary Service (NPRR1235, Dispatchable Reliability Reserve Service as a Stand-Alone Ancillary Service). Mr. Drake directed Committee members' attention to redlines included in the meeting materials correcting inverted dates for Real-Time and Day-Ahead prices on a Board Decision Template associated with a price correction the Board approved in April. Committee members and Mr. Drake discussed economic impacts of negative pricing on thermal Resources and forthcoming design activities with stakeholders for the development of DRRS and implementation after Real-Time Co-optimization (RTC) in 2026.

Real-Time Co-optimization Update (Agenda Item 7.3.1)

Matt Mereness presented the RTC Update, highlighting the transition from business requirements to implementation, including initial demonstrations of vendor software codes with capabilities for Ancillary Services demand curves and virtual Ancillary Services offers in the Day-Ahead Market. Open policy discussions include market trials and readiness, price formation for certain historical days, parameter values including proxy offer curves for Ancillary Services, and the shape of Ancillary Services demand curves.

Market Credit Update (Agenda Item 7.4)

Austin Rosel presented the Market Credit Update. Committee members and Mr. Rosel discussed the impact of NPRR1165, Revisions to Requirements of Providing Audited Financial Statements and Providing Independent Amount on the increase in Total Potential Exposure, and



corresponding decrease in Discretionary Collateral from March 2024 to April 2024. Committee members and Mr. Rosel discussed NPRR1215, Clarifications to the Day-Ahead Market (DAM) Energy-Only Offer Calculation.

Revision Request Status Update (Agenda Item 7.5)

Mr. Levine presented the Revision Request Status Update. Committee members and Mr. Levine discussed monitoring of Revision Requests that stall in the stakeholder process.

Future Agenda Items (Agenda Item 8)

Mr. Rickerson presented the Future Agenda Items, highlighting addition of Large Transmission Studies for the remaining Committee meetings in 2024 and addition of the Reliability Standard to the table in the meeting materials. Committee members and Mr. Rickerson discussed Large Transmission Studies, including the Permian Basin Reliability Plan Study, featuring 345 kV buildout and comparative 765 kV or 500 kV buildout, and the System-Wide Extra-High-Voltage Study to investigate the system-wide addition of a new highest A/C voltage above 345 kV.

Other Business (Agenda Item 9)

No other business was discussed at this time.

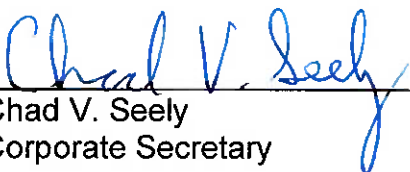
Voting on Matters from Executive Session (Agenda Item 10)

The Committee did not meet in Executive Session.

Adjournment (Agenda Item 11)

Chair Flexon adjourned the meeting at approximately 3:20 p.m.

Committee materials and presentations from the meeting are available on ERCOT's website at <https://www.ercot.com/committees/board/reliabilitymarkets>.



Chad V. Seely
Corporate Secretary