



**DRAFT 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
April 22, 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 <i>(Not Present for Agenda Items 1 – 4.1)</i>	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
Ahlstrom, Mark	NextEra Energy Resources LLC (NextEra), Vice President of Renewable Energy Policy
Azari, David	Invenergy Energy Management LLC (Invenergy), Senior Vice President of Renewables Asset Management
Berlin, Anna	ERCOT Associate Corporate Counsel
Day, Betty	ERCOT Vice President of Security and Compliance and Chief Compliance Officer
Gallo, Andrew	ERCOT Assistant General Counsel
Glotfelty, Jimmy	PUCT Commissioner
Goff, Eric	Goff Policy, President, on behalf of NextEra
Hobbs, Kristi	ERCOT Vice President of System Planning and Weatherization
Jackson, Kathleen	PUCT Commissioner
Kezell, David	ERCOT Director of Weatherization and Inspection
Levine, Jonathan	ERCOT Assistant General Counsel and Assistant Corporate Secretary
Martin, Collin	Oncor Electric Delivery LLC, Technical Advisory Committee (TAC) Vice Chair
Martinez, Adam	ERCOT Vice President of Enterprise Risk and Strategy
Martino, Omar	Invenergy, Executive Vice President of Markets and Regulatory Affairs
McDonald, Jeff	Potomac Economics, ERCOT Independent Market Monitor (IMM), Director
Mereness, Matt	ERCOT Senior Director of Strategic Market Design Programs and Delivery
Parakkuth, Jayapal	ERCOT Senior Vice President and Chief Information Officer
Parsons, Sara	Avangrid Renewables LLC, Vice President of Development
Rainwater, Kim	ERCOT Corporate Counsel
Rickerson, Woody	ERCOT Senior Vice President and Chief Operating Officer
Rosel, Austin	ERCOT Director of Settlements, Retail, and Credit
Spak, Mara	ERCOT Vice President of Human Resources
Tirupati, Venkat	ERCOT Vice President of DevOps and Grid Transformation
Woodfin, Dan	ERCOT Vice President of System Operations
Zerwas, Rebecca	ERCOT Director of State Policy and PUC Relations

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 12:30 p.m. PUCT Chair Thomas Gleeson convened an Open Meeting of the Commission. Chair Flexon highlighted the Antitrust Admonition and 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 April 15, 2024, ERCOT had provided instructions for members of the public who were interested in



commenting in person, and to date representatives from the following entities had requested to speak regarding Agenda Item 4.2, Nodal Operating Guide Revision Request (NOGRR) 245, Inverter-Based Resource (IBR) Ride-Through Requirements, which Chad Seely confirmed: Avangrid, Brookfield Renewable Partners, Invenergy, and NextEra.

February 26, 2024 General Session Meeting Minutes (Agenda Item 3)

Chair Flexon entertained a motion to approve the February 26, 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.

TAC Report regarding R&M Committee Charter Revision Requests Recommended for Board Approval; NPRR1197, Optional Exclusion of Load from Netting at ERCOT-Polled Settlement (EPS) Metering Facilities which Include Resources (Agenda Items 4 and 4.1)

TAC Vice Chair Collin Martin presented the TAC Report regarding R&M Committee Charter Revision Requests Recommended for Board Approval, beginning with NPRR1197, Optional Exclusion of Load from Netting at ERCOT-Polled Settlement (EPS) Metering Facilities which Include Resources.

Courtney Hjaltman moved to recommend that the Board recommend approval of NPRR1197 as recommended by TAC. Ms. England seconded the motion. The motion passed by unanimous voice vote with no abstentions.

NOGRR245, Inverter-Based Resource (IBR) Ride-Through Requirements; ERCOT Comments on NOGRR245; Stakeholder Comments on NOGRR245, if any (Agenda Items 4.2 – 4.2.2)

Mr. Martin presented the TAC recommendation regarding NOGRR245, reporting that TAC recommended approval non-unanimously on March 27, 2024, with 69 percent in favor, including eight opposing votes and three abstentions.

Dan Woodfin presented ERCOT Comments on NOGRR245. Mr. Woodfin recommended the Board remand NOGRR245 back to TAC to address current critical reliability risks associated with failure of Inverter-Based Resources (IBRs) to ride-through voltage or frequency disturbances. In the alternative, Mr. Woodfin recommended approval of the 3/27/24 TAC-recommended version of NOGRR245 as amended by the 4/15/24 ERCOT comments. Mr. Woodfin also urged IBR owners to immediately take actions, without waiting for final approval of NOGRR245, to modify software in ways that reduce reliability risk from ride-through failures.

Eric Goff and Mark Ahlstrom on behalf of NextEra, Sara Parsons on behalf of Avangrid, and Omar Martino and Dave Azari on behalf of Invenergy presented in support of the 3/27/24 TAC-recommended version of NOGRR245. Discussion among Committee members and commenters included how to evidence and evaluate the commercial reasonability of modifications to existing equipment; costs for IBR owners to make modifications; and distinctions between requirements for new IBR generation compared to legacy IBR generation.



Committee members, other Board members, Woody Rickerson, and Dan Woodfin discussed methods for monitoring compliance with voltage ride-through requirements, including modeling limitations; increasing penetrations of IBRs in the ERCOT Region; phased-approaches to compliance and dispute resolution; and the inability of ERCOT, under the TAC-recommended version of NOGRR245, to make adequate determinations on exemptions.

Chair Flexon suggested NOGRR245 is not ready for approval in its current state and entertained a motion to recommend the Board remand NOGRR245 to TAC for further consideration of ERCOT staff's reliability risk concerns.

Mr. Aguilar moved to recommend that the Board remand NOGRR245 to TAC for further consideration. Ms. England seconded the motion. The motion passed by voice vote with one abstention (Courtney Hjaltman).

Recommendations regarding San Antonio South Reliability II Regional Planning Group (RPG) Project (Agenda Item 5)

Kristi Hobbs presented ERCOT staff's recommendation regarding San Antonio South Reliability II Regional Planning Group (RPG) Project, including ERCOT staff's recommendation that the Board designate the project as critical to the reliability of the ERCOT System pursuant to PUCT Substantive Rule 25.101 [16 Tex. Admin. Code § 25.101]. Committee members, Ms. Hobbs, and Mr. Rickerson discussed potential inclusion of the Marion 345-kV double circuit transmission line in future projects. PUCT Chair Thomas Gleeson recommended ERCOT staff consideration of whether to increase ERCOT's threshold of an estimated capital cost of \$100 million or greater in Protocol Section 3.11.4.3 to qualify as a Tier 1 transmission project that requires Board approval.

Mr. Aguilar moved to recommend that the Board (1) endorse the need for the Tier 1 San Antonio South Reliability II RPG Project (Option 14), which ERCOT staff has independently reviewed and which TAC has voted unanimously to endorse based on ERCOT reliability planning criteria; and (2) designate the San Antonio South Reliability II Project (Option 14) as critical to the reliability of the ERCOT System pursuant to PUCT Substantive Rule 25.101(b)(3)(D). Ms. England seconded the motion. The motion passed by unanimous voice vote with no abstentions.

Recommendations regarding Market Price Corrections; Incorrect Line, Series Device, and Transformer Ratings Impacting the Real-Time and Day-Ahead Markets; Incorrect Constraint Data for GTCs impacting Real-Time Market (Agenda Items 6, 6.1 – 6.2)

Mr. Rickerson presented the ERCOT staff recommendation that the Board approve correction of Real-Time Market (RTM) and Day-Ahead Market (DAM) prices for certain Operating Days (ODs) in January 2024 that were affected by the use of incorrect ratings for certain transmission elements.

Mr. Aguilar moved to recommend that the Board (1) determine that Day-Ahead Market Clearing Prices for Capacity, Day-Ahead Settlement Point Prices, Real-Time Locational Marginal Prices (RTLMPs), Real-Time Settlement Point Prices (RTSPPs), Real-Time Price for Energy Metered for Resources (RTRMPRs), and Real-Time Price for Energy Metered



for Settlement Only Generators (RTESOGPRs) for the identified intervals in January 2024 were significantly affected by incorrect transmission element ratings, and (2) direct ERCOT to implement the appropriate price corrections. Ms. Hjaltnan seconded the motion. The motion passed by unanimous voice vote with no abstentions.

Mr. Rickerson presented the ERCOT staff recommendation to approve correction of RTM prices for OD February 28, 2024 that were affected by the use of incorrect Generic Transmission Constraint (GTC) Shift Factors. Committee members, Mr. Rickerson, and Jayapal Parakkuth discussed future reporting to the Committee on tracking and controls for management of risks related to price corrections.

Ms. England moved to recommend that the Board (1) determine that RTLMPs, RTSPPs, RTRMPRs, and RTESOGPRs for OD February 28, 2024, were significantly affected by incorrect GTC Shift Factors, and (2) direct ERCOT to implement the appropriate price corrections. 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 2:19 p.m. and reconvened the meeting at approximately 2:30 p.m.

Independent Market Monitor (IMM) Report (Agenda Item 7)

Chair Flexon welcomed Jeff McDonald, the new Director of the IMM for ERCOT, to the ERCOT Region. Mr. McDonald presented a verbal update and requested Committee feedback on the type of reporting requested going forward. Mr. McDonald reported on ongoing IMM studies including regarding ERCOT Contingency Reserve Service (ECRS), Real-Time Co-optimization (RTC), and the Performance Credit Mechanism (PCM); and that the State of the Market Report for the ERCOT Electricity Markets is expected to be ready to share with the Commission for review on May 1, 2024.

Committee Briefs (Agenda Item 8)

Chair Flexon invited ERCOT staff to present the Committee Briefs.

System Planning and Weatherization Update (Agenda Item 8.1)

Ms. Hobbs presented the System Planning and Weatherization Update, including ongoing work with the PUCT to make progress on the Reliability Standard, Value of Lost Load, and Cost of New Entry studies. Committee members, Ms. Hobbs, and David Kezell discussed effects of equipment modifications following weatherization inspections and the most common types of issues identified during inspections. Committee members and Ms. Hobbs discussed the significant projected 2030 Load growth forecast, including growth attributable to the new House Bill 5066 (88th Texas Legislature) requirement to consider Load for which an electric utility has yet to sign an interconnection agreement, and growth attributable to artificial intelligence. Committee members, Commissioners, and Ms. Hobbs discussed future reports including more granularity on the type of additional non-oil and gas Load forecasted for the Permian Basin and also possibly including a breakdown of generation interconnection requests between site-ready and non-site-ready.



System Operations Update (Agenda Item 8.2)

Mr. Woodfin presented the System Operations Update, including an update on NPRR1224, ECRS Manual Deployment Triggers, which would formalize the mechanism to be used to release ECRS when Security-Constrained Economic Dispatch (SCED) is short. PUCT Commissioner Lori Cobos recommended Board consideration of NPRR1224 by June followed by possible Commission waiver of its 30-day notice period to effectuate ECRS deployment changes by July. Committee members and Mr. Woodfin discussed ERCOT staff's ongoing work to prepare a back cast analysis of how the ECRS changes would have impacted outcomes in 2023.

Commercial Markets Update (Agenda Item 8.3)

Mr. Rickerson presented the Commercial Markets Update.

Real-Time Co-optimization Update (Agenda Item 8.3.1)

Matt Mereness presented the Real-Time Co-optimization (RTC) Update.

Market Credit Update (Agenda Item 8.4)

Austin Rosel presented the Market Credit Update. Committee members and Mr. Rosel discussed four defaults of inactive Market Participants resulting from NPRR1165, Revisions to Requirements of Providing Audited Financial Statements and Providing Independent Amount, which caused no market losses. Committee members and Mr. Rosel discussed NPRR1205, Revisions to Credit Qualification Requirements of Banks and Insurance Companies, which proposes to strengthen minimum credit quality qualifications for banks that issue letters of credit to ERCOT on behalf of Market Participants and insurance companies that issue surety bonds to ERCOT on behalf of Market Participants to ERCOT.

Revision Request Status Update (Agenda Item 8.5)

Ann Boren presented the Revision Request Status Update. Committee members and Ms. Boren discussed aging Revision Requests that have been in the stakeholder process for more than 7 months.

Future Agenda Items (Agenda Item 9)

A table listing anticipated Future Agenda Items for the Committee was included in the Committee's meeting materials. Chair Flexon requested discussion of ECRS at the June Committee meeting, noting Commissioner Cobos's request earlier in the meeting.

Other Business (Agenda Item 10)

Chair Flexon entertained discussion of other business.

Chair Flexon and Mr. Aguilar requested an update regarding NOGRR245 during the June Committee meeting.

Mr. Seely discussed the Market Notice that ERCOT issued this morning on the Reliability Must-Run (RMR) determination for the CPS Energy (CPS) Generation Resources for which CPS submitted a Notice of Suspension of Operations. Mr. Rickerson explained ERCOT's analysis



process for RMR determinations. Committee members and Mr. Seely discussed development with the Commission of the process timeline for evaluating Must-Run Alternatives (MRAs) ahead of CPS's anticipated suspension date in April 2025, and the need for an exit strategy in the event of an RMR Agreement.

Voting on Matters from Executive Session (Agenda Item 11)

The Committee did not meet in Executive Session.

Adjournment (Agenda Item 12)

Chair Flexon adjourned the meeting at approximately 3:42 p.m.

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

Jonathan M. Levine
Assistant Corporate Secretary

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