

Meeting Minutes

Reliability and Security Technical Committee

March 2-3, 2021

Virtual Meeting via WebEx

A regular meeting of the NERC Reliability and Security Technical Committee (RSTC) was held on March 2-3, 2021, via webinar. The meeting presentations are posted on the RSTC website [here](#).

Chair Ford called the meeting to order, and thanked everyone for attending. Tina Buzzard reviewed the procedures for the meeting, reviewed the Antitrust Compliance Guidelines, and confirmed quorum, as well as provided an overview of the polling actions to be used for Committee actions during the meeting.

Introductions and Chair's Remarks

Chair Ford provided an overview of the agenda noting that due to the number of action items before the Committee it may be necessary to defer some non-action topics to the next meeting.

Chair Ford called on Nina Johnston to review the meeting governance guidelines which were included in the advance materials package.

Consent Agenda

Chair Ford reviewed the Consent Agenda and asked RSTC members if they concurred with the items on it. Brian Evans Mongeon made a motion to approve the consent agenda. Upon motion duly made and seconded, the Committee approved the Consent Agenda.

Regular Agenda

Remarks and Reports

Chair Ford welcomed Jim Piro, NERC Board of Trustees, who has been assigned by Board Chair DeFontes, to act as the Board liaison to the RSTC and opened the floor for remarks from Trustee Piro.

Meeting Highlights

1. The RSTC voted to disband the Security and Reliability Training Working Group and the Geomagnetic Disturbance Task Force.
2. The RSTC approved scope documents for the Performance Analysis Subcommittee, Event Analysis Subcommittee and the Security Working Group.
3. The RSTC approved the scope and work plan of the Energy Reliability Assessment Task Force (ERATF).
4. The RSTC approved the RSTC Work Plan.
5. The RSTC Endorsed the *Special Assessment: NERC Energy Management System Performance Special Assessment (2018–2019)*.
6. The RSTC approved the *White Paper: Possible Misunderstandings of the Term "Load Loss"*.
7. The RSTC endorsed the Standing Committees Coordinating Group (SCCG) Scope.
8. The RSTC Approved the *Reliability Guideline: Model Verification of Aggregate DER Models used in Planning Studies* and the *Battery Energy Storage Systems (BESS) and Hybrid Power Plant Modeling and Performance Guideline*.

Trustee Piro expressed his appreciation to RSTC leadership (Chair Ford and Vice Chair Zwergel) and thanked the RSTC on its work to improve efficiency and effectiveness of the RSTC. He noted that the Committee's future work should continue to focus on coordination with the RISC and addressing emerging risk issues like resource adequacy, wildfires, and changing resource mix.

Mark Lauby expressed his appreciation of the work of Tina Buzzard and Dan Hazelwood in making these virtual RSTC meetings successful. In addition, Mr. Lauby noted that the transforming grid is making us use new tools and all of the NERC standing committees are critical in ensuring the reliability, resilience and security of the bulk power system.

Chair Ford referenced the subgroup reports contained in the Agenda package and thanked the Sponsors for reports being submitted in the requested format. In addition, Chair Ford noted his appointment of Julia Matevosyan for IRPWG Vice Chair and advised that the RSTC Executive Committee voted on January 25, 2021 to have Chris Shepherd as the Sponsor for SCWG.

Lastly, Chair Ford provided highlights from the February 2021 Member Representatives Committee and Board of Trustees meetings.

Security and Reliability Training Working Group (SRTWG) Disposition

Motion was made to approve the disposition of the SRTWG. Vice Chair Zwergel provided background on the SRTWG and reviewed the recommendation for disposition of the working group. Comments were received that the SRTWG leadership and members were put in a tricky situation with the transition from the three standing committees to the RSTC and the SRTWG completed good works products including during the pandemic and recognition was given to the leadership of Erik Johnson and Neil Lundgren, in coordinating the SRTWG's efforts. Upon motion duly made and seconded, the Committee approved the disposition of the SRTWG.

Agenda Items 5-9

Chair Ford noted that four scope documents will be presented for approval plus the ERATF work plan and the overall work plan for the RSTC. With respect to these items, he updated the Committee that there were minor revisions to the PAS and EAS Scope, more significant revisions to the SWG scope and the ERATF is a new subgroup.

Performance Analysis Subcommittee (PAS) Scope

Motion was made to approve the PAS scope. Chair Brantley Tillis stated that a redline copy of the scope was included in the advance materials noting that most of the revisions reflect working with the RSTC rather than the PC and industry interaction. There were no significant changes to the scope. There was a brief discussion by RSTC members regarding the work of the Reliability Assessments Subcommittee and Performance Assessment Subcommittee diverging. It was suggested that we continue to coordinate with subgroups and get forward looking and backward looking groups closer together. Upon motion duly made and seconded, the Committee approved the PAS scope.

Event Analysis Subcommittee (EAS) Scope

Motion was made to approve the EAS scope. Chair Vinit Gupta stated that a redline copy of the scope was included in the advance materials and noting that there were minor revisions to the scope relating to RSTC transition planning activities, sponsors and Reliability Guidelines, and other documents to be submitted to the RSTC for approval. Upon motion duly made and seconded, the Committee approved the EAS scope.

Security Working Group (SWG) Draft Scope

Motion was made to approve the SWG draft scope. Chair Brent Sessions noted that the scope was developed in conjunction with SITES scope to be collaborative and avoid duplication, and that the SWG will develop a portfolio of technical expertise from industry and other willing participants who will conduct the activities as detailed in the draft scope included in the advance materials package. Upon motion duly made and seconded, the Committee approved the SWG scope.

Energy Reliability Assessment Task Force (ERATF) Scope and Work Plan

Motion was made to approve the ERATF scope and work plan. Peter Brandien reviewed that at the December, 2020 RSTC meeting, information was presented regarding the NERC/IRC Whitepaper on Ensuring Energy Adequacy which made a number of recommendations for mitigating risks to energy adequacy. The ERATF was formed to provide oversight and address the eleven issues identified in the report. Mr. Brandien provided an overview of the proposed scope and work plan, which were included in the advance materials package. Upon motion duly made and seconded, the Committee approved the ERATF scope and work plan. At the conclusion of the vote, Chair Ford appointed Pete Brandien as the ERATF Chair.

RSTC Work Plan

Motion was made to approve the RSTC work plan. Vice Chair Zwergel provided background on the development of the work plan and highlighted anticipated items for action between meetings as well as items for the June 2021 RSTC meeting. Several RSTC members noted that the work plan included in the agenda package should be modified to facilitate review. It was noted that the full work plan would be updated and posted in Excel on the RSTC webpage on a monthly basis allowing member and industry to easily review the work plan on an ongoing basis. In addition it was requested that a column be added to identify a target meeting date for deliverables. Upon motion duly made and seconded, the Committee approved the RSTC work plan.

Special Assessment: NERC Energy Management System Performance Special Assessment

Motion was made to endorse the Special Assessment: NERC Energy Management System Performance Special Assessment. EMSWG Chair Phil Hoffer stated that this document includes assessments for three factors (outage duration, EMS functions, and entity reliability functions), examining associated trends, event root causes, and contributing causes identified through the ERO Cause Code Assignment Process (CCAP) for the 2018–2019 period. In addition, Chair Hoffer presented on the key findings and recommendations from the assessment. It was noted that the recommendations are for both the ERO and industry. The EMWSG will clarify this in the report. NERC will publish the report, socialize the findings and recommendations with industry and post to the NERC website with notice to industry. Upon motion

duly made and seconded, the Committee endorsed the Special Assessment: NERC Energy Management System Performance Special Assessment.

Geomagnetic Disturbance Research Work Plan Results and Recommendations

Motion was made to approve to disband the GMDTF. GMDTF Chair Emanuel Bernabeu stated The GMD Task Force (GMDTF) has supported NERC in establishing its GMD mitigation strategy and that its scope was updated in December 2016 to support NERC in meeting obligations of FERC Order No. 830. Chair Bernabeu then presented on the research results summary and the ERO recommendations noting that the two-year research effort with Electric Power Research Institute (EPRI) concluded in 2020, which promotes further knowledge of severe GMD event impacts and addresses FERC directives for research, that over 17 publications were produced, and the final EPRI white paper was published in August 2020. He further stated that the GMDTF has reviewed deliverables throughout the project, all EPRI reports and tools in this project are available to the public at no charge, and that NERC must file research results with FERC. Chair Bernabeu requested that the RSTC disband the GMDTF per the organizational structure and include GMD monitoring in the Real-time Operations Subcommittee (RTOS) scope. Mark Olson, NERC Staff, stated he will coordinate with the RTOS to assume the GMD monitoring activities. Upon motion duly made and seconded, the Committee approved to disband the GMDTF.

Data Collections Technical Reference Document | Approaches for Probabilistic Assessments and 2020 Probabilistic Assessment | Regional Risk Scenario Sensitivity Case Report

PAWG Chair Andreas Klaube provided an overview of the Data Collections Technical Reference document and the Regional Risk Scenario Sensitivity Case Report that were included in the advance materials package. Chair Klaube stated that the PAWG is seeking RSTC reviewers to review the two documents and provide feedback to the PAWG/RAS. Chair Ford opened to the Committee for volunteers and/or for members to send an email to Secretary Crutchfield and Secretary Crutchfield will coordinate the review process. RSTC members Carl Turner, Brian Evans-Mongeon, David Jacobson, Wayne Guttormson, David Mulcahy, and Robert Reinmuller offered to participate in the reviews.

Chair's Closing Remarks and Adjournment

Chair Ford thank the members of the Committee for their support in the approval of the items on the day's agenda and appreciated the good discussion. He called on Trustee Piro for any closing remarks, Trustee Piro thanked everyone and thought it was a good and productive meeting, all discussions were well done. Mr. Lauby noted that this was an informative meeting and he is very appreciative of the progress of both the RSTC and the GMDTF. There being no further business brought before the Committee the meeting was adjourned at 4:27 p.m. Eastern.

Wednesday, March 3, 2021

Chair Ford called the meeting to order, and thanked everyone for attending. Tina Buzzard reviewed the procedures for the meeting, reviewed the Antitrust Compliance Guidelines, and confirmed quorum, as well as provided an overview of the polling actions to be used for Committee actions during the meeting.

Introductions and Chair's Remarks

Chair Ford provided an overview of the agenda noting that due to the number of action items before the Committee it may be necessary to defer some non-action topics to the next meeting.

White Paper: Possible Misunderstandings of the Term "Load Loss"

Motion was made to approve the White Paper: Possible Misunderstandings of the Term "Load Loss". John Skeath presented that the System Analysis and Modeling Subcommittee developed a White Paper to address possible misunderstandings of the Term "Load Loss". The subcommittee received input from the Operating and Planning Committees and also requested input from RSTC members in October. The comments received have been addressed by an ad hoc team and conforming revisions made to the white paper. Some RSTC members expressed concerns regarding the priority of this White Paper and whether or not it addresses any reliability concerns. In response, Mr. Skeath provided an example of a scenario where a customer would transfer to another resource while the host utility would maintain voltage per TPL standard resulting in an extensive action plan. Upon motion duly made and seconded, the Committee approved the White Paper: Possible Misunderstandings of the Term "Load Loss".

Standing Committees Coordinating Group (SCCG) Scope

Chair Ford noted that the action for this item was listed incorrectly the item should be an acceptance item and not an endorsement. Motion was made to accept the Standing Committees Coordinating Group (SCCG) Scope. Vice Chair Zwergel provided an overview of the SCCG scope which was included in the advance materials package. He reviewed the group membership and noted that the SCCG has been in existence for a number of years as an informal means for the standing committees, reporting to the Board of Trustees, to coordinate their work plans and the SCCG is now seeking to formalize their scope and activities. Upon motion duly made and seconded, the Committee accepted the SCCG scope.

Reliability Guideline Metrics

Candice Castaneda, NERC Legal, provided a brief overview of Federal Energy Regulatory Commission approved process to review the effectiveness and efficiency of Reliability Guidelines as described in the agenda package. It was agreed that apart from the process to review Reliability Guidelines on a triennial basis and include metrics, the RSTC would assemble a team of RSTC members to define Reliability Guideline, Reference Document, Technical Reference Document, White Paper, etc. for further RSTC action/consideration. Chair Ford requested that anyone interested in participating in this effort should send an email to Secretary Crutchfield.

Reliability Guideline: Model Verification of Aggregate DER Models used in Planning Studies

Motion was made to approve the Reliability Guideline: Model Verification of Aggregate DER Models used in Planning Studies. SPIDERWG Chair Kun Zhu reviewed the focus of the guideline as well as its development process noting the SPIDERWG has responded to comments and made conforming revisions

to the Guideline. After a brief discussion on metrics, upon motion duly made and seconded, the Committee approved the Reliability Guideline: Model Verification of Aggregate DER Models used in Planning Studies.

Battery Energy Storage Systems (BESS) and Hybrid Power Plant Modeling and Performance Guideline

Motion was made to approve the Battery Energy Storage Systems (BESS) and Hybrid Power Plant Modeling and Performance Guideline. IRPWG Vice Chair Julia Matevosyan reviewed the guideline and its development. Several RSTC members commented that the guideline is a very good document and they thanked the IRPWG for the excellent work. Upon motion duly made and seconded, the Committee approved the Battery Energy Storage Systems (BESS) and Hybrid Power Plant Modeling and Performance Guideline.

Standards Authorization Request (SAR) to revise TPL-001-5.1

Motion was made to endorse the Standards Authorization Request (SAR) to revise TPL-001-5.1. SPIDERWG Chair Zhu provided a summary of the SAR noting that considering current trends, the NERC SPIDERWG and NERC Inverter-Based Resource Performance Working Group (IRPWG) independently undertook a review of the TPL-001 standard for considering DERs and BPS-connected IBRs, respectively. These reviews are captured in the following RSTC-approved white papers:

SPIDERWG: Assessment of DER impacts on NERC Reliability Standard TPL-001 ([here](#))

IRPTF/IRPWG: IRPTF Review of NERC Reliability Standards – March 2020 ([here](#))

In addition, Mr. Zhu stated that the This SAR proposes to update TPL-001-5.1 to address the issues identified in both white papers. Several RSTC members expressed concerns about the SAR and thought that it was not ready for Standards Committee action. Mr. Zhu noted that the SAR would go through a comment period under the Standards Development Process. Upon motion duly made and seconded the motion did not meet the required passing rate and the motion failed. Chair Ford requested the Committee send their comments, concerns, recommended revisions on the SAR to Secretary Crutchfield and Jody Green for review by the SPIDERWG to allow resubmission to the RSTC at a future meeting.

Wildfire Mitigation Reference Guide

Al McMeekin, NERC Staff presented on the Wildfire Mitigation Reference Guide noting NERC and WECC developed this document with the goal of creating more awareness across all Interconnections of the knowledge and experience gained by western utilities on wildfire preparedness and mitigation. Research and development efforts by the Department of Energy (DOE) National Laboratories in partnership with electric utilities and other stakeholders on many facets of wildfire mitigation, situational awareness, and pre- and post-fire analyses are also highlighted in the document. In addition, the Reference Guide contains an extensive list of supplemental reference material.

Supply Chain Compromise Presentation

Jeff Jones, E-ISAC Staff, presented on the recent supply chain compromise and cyber threats to include a SolarWinds Resources, RDDoS & Ransomware, Ransomware Data Leaks and Florida Water Plant Incident

updates noting that security issues with a significant impact on critical infrastructures are unfortunately becoming more common.

Forum and Group Reports

NAGF

Allen Schriver provided an update on NAGF activities to include the NAGF Annual Meeting, NERC standards projects the NAGF is actively engaged in, collaboration efforts with the NATF and an update on the NAGF website redesign. In addition, he also noted that this is an appropriate time to stand up the ERATF and requested RSTC members to send him any suggestions for ways to enhance collaboration with the NAGF and industry to improve operations during extreme weather events.

NATF

Roman Carter provided an update on NATF activities to include its work on the response to COVID-19 challenges, conducting the well-attended webinar on the NERC Alert Regarding Supply Chain Compromises by Advanced Persistent Threat Actor, coordination with its members regarding the “Prohibition Order Securing Critical Defense Facilities” issued by U.S. Secretary of Energy Dan Brouillette on December 17, 2020, collaboration leadership meetings with NERC to discuss work and industry topics, and its efforts with respect to facility ratings and supply chain.

RSTC 2021 Calendar Review/Chair’s Closing Remarks and Adjournment

Chair Ford referenced the future meeting schedule in the advance materials package stating that the September meeting will be fully virtual and the December meeting is still to be determined. He thanked all participants and expressed his appreciation to the Committee for their efforts, comments, and technical discussions over the past two days.

Chair Ford called on Trustee Piro for any closing comments. Trustee Piro noted the excellent work on two Reliability Guidelines and applauds the discussion on how to get Reliability Guidelines socialized with industry. He noted the Board’s particular interest in the ERATF. Their work items (EA, gas delivery security, metrics and analysis) are important to the Board as the grid continues to change and the effort in determining how to handle the emerging risks, expressing the last presentation on the cyber events is really important.

There being no further business before the RSTC, Chair Ford adjourned the meeting on Wednesday, March 3, 2021 at 4:05 p.m. Eastern.

Stephen Crutchfield

Stephen Crutchfield
Secretary