

ERAG Acceptable Model Working Group (AMWG) Charter

Establishment

The Acceptable Model Working Group (AMWG) was established by the Eastern Interconnection Reliability Assessment Group (ERAG).

Purpose

The purpose of the AMWG is to develop and maintain an Eastern Interconnection (EI) acceptable model list¹ and support the maintenance of the North American Electric Reliability Corporation (NERC) model notice². System models for the EI will be reviewed, developed, and validated. Acceptable models will be recommended for use in reliability assessments performed using Multiregional Model Working Group (MMWG) cases.

Scope of Activities

1. Contribute to maintaining and updating the NERC model guidance³ for the EI.
2. Maintain a database of acceptable, not recommended, and unacceptable models for the EI.
3. Establish a schedule to review, develop and accept new dynamic models⁴.
4. Review currently utilized dynamic models & recommend updates when applicable to represent existing and evolving power system needs.
5. Develop model validation testing criteria, transition plans, and implementation procedures for new dynamic models, including:
 - Developing a recommended timeline to transition from models deemed unacceptable.
 - Communication plan and expectations for Planning Coordinators, Generator Owners, and Transmission Planners for the conversion.
6. Develop acceptance and usage guidance for user defined models in the EI⁵.
7. Design, investigate, and recommend novel system modeling techniques to benefit the MMWG.
8. Develop tools for data preparation and parameterization for new dynamic models along with supporting user guides.
9. Document dynamic model issues, constraints, and resolutions.
10. Produce the Not Recommended and Unacceptable Model Tracker to provide metrics and insights regarding the quantity of AMWG and NERC not recommended and unacceptable models as well as the conversion of models in MMWG dynamic cases.
11. Engage and collaborate with other EI and industry (NERC, Western Electric Coordinating Council

¹ The AMWG acceptable model list is created for the EI to evaluate system models including standard library models and user defined models.

² The NERC model guidance provides general dynamic model recommendations, the ERAG AWMG will provide specific dynamic model recommendations for the EI. The NERC guidance and can be found at <https://www.nerc.com/pa/RAPA/ModelAssessment/Pages/default.aspx>

³ NERC model guidance includes all possible dynamic models to represent equipment on the BPS.

⁴ Dynamics models encompass models that get deployed in dynamic simulations and include synchronous machines, asynchronous machines, renewables resources, inverter-based resources (IBRs), etc.

⁵ Activities that support the acceptance and usage guidance of user defined models can encompass but are not limited to providing a user manual, required model validation/test report, block diagram documents, capability curves, and site-specific model requirements.

[WECC], Texas Reliability Entity [TRE], Eastern Interconnection Planning Collaborative [EIPC]) working groups, task forces, and subcommittees, industry software model vendors, Generator Owners (GOs), Original Equipment Manufacturers (OEMs), and other stakeholder groups.

12. Organize forums, workshops, and meetings to share best practices and aid the review, development, and validation of dynamic models as needed.

13. Provide status updates at ERAG meetings.

14. Execute other tasks and responsibilities as outlined by ERAG.

Deliverables

The AMWG will be responsible for producing the following materials and guidance documents:

Deliverable	Cadence
Not Recommended & Unacceptable Model Tracker	Update annually
Model Database	Update as needed
Model Validation Testing Criteria	As needed
Model Validation Procedure Documents	As needed
Modeling Data Tools	As needed
Modeling User Guides	As needed
AMWG Charter	Review biennial

AMWG Charter, deliverables, guidance documents, and other technical and procedural materials developed for the AMWG will be located on the ERAG website⁶.

Membership

The AMWG membership shall be comprised of a representative from each of the Data Submitting Entities⁷ (comprised of Planning Coordinators or group of Planning Coordinators). Each Data Submitting Entity shall have one vote. Non-voting representatives shall be as follows: one liaison representative from each of the EI Regions, a coordinator from each of the organizations that provides model development services to MMWG, industry software vendors, GOs, OEMs, and NERC, WECC, TRE, EIPC and FERC staff liaisons. Voting and liaison members shall have experience with dynamic modeling for the EI. One or more alternate representatives from each Data Submitting Entity may be added at their discretion. Additional individuals or organizations who have demonstrated knowledge and value to the AMWG processes can be nominated as liaison members by Data Submitting Entities and appointed via a majority vote of the established quorum from the Data Submitting Entities. Guests can be invited to meetings by the AMWG chair, at the chair's discretion, to facilitate collaboration.

Voting Structure

The AMWG will vote to approve or reject motions on a majority vote of the established quorum. Quorum is established when two-thirds of all voting members are present. Under the circumstance when voting is taking place and quorum has not been established, votes of the voting members present will be recorded, and votes of the remaining voting members will be conducted via email. For all votes a timeline will be established by the AMWG for voting members to adequately review materials necessary prior to conducting the voting process.

⁶ <https://rfirst.org/ProgramAreas/ESP/ERAG>

⁷ Complete list of Planning Coordinators or group of Planning Coordinators encompassing the Data Submitting Entities are found in the latest version of the MMWG Procedure Manual Appendix VI: <https://rfirst.org/ProgramAreas/ESP/ERAG/MMWG/Pages/MMWG.aspx>

Leadership

The AMWG leadership team will be comprised of a Chairperson, Vice Chairperson and Secretary. All three positions are to be appointed from among the Data Submitting Entities for two-year terms. The Chairperson will be responsible for managing the working group and facilitating meetings. The Vice Chairperson will take on the responsibilities of the Chairperson when the Chairperson is not available and should be available to succeed to Chairpersonship. The Secretary will be responsible for taking meeting minutes as well as organizing and disseminating meeting materials. The leadership team will work with the AMWG to develop meeting agendas and prioritize AMWG deliverables.

Meetings

The AMWG will meet at least four times a year, and additional meetings will take place as needed to carry out its responsibilities. Meetings may be conducted in person or virtually determined by the AMWG.

Governance & Reporting

The AMWG reports to the ERAG.

Revision History

Version	Date	Description of Change
Initial Draft	November 11, 2022	Initial Draft
ERAG Approved Charter	March 16, 2023	All sections updated

Approved by the ERAG: March 16, 2023