Supplemental Project Notice

GRID MODEL MANAGER (GMM) FOR DISTRIBUTION INTEREST GROUP

PROJECT HIGHLIGHTS

- Collaboratively define the future of grid model management with leading utilities.
- Accelerate the optimization of the distribution grid through effective distribution grid model management.
- Collaboratively review the current state of the art in vendor supplied grid model managers.
- Align the vendor community to industry needs.

Background, Objectives, and New Learnings

The rise of electrification and renewable energy sources is making electric distribution grids more complex. Distribution utilities require frequent and sophisticated grid simulations, leading to a need for high-quality grid models. To create these models, utilities must implement efficient distribution grid model management systems that facilitate easy and quick organization, management, and sharing of grid data across various utility applications. Existing distribution utility solutions have limitations in scalability and availability of accurate grid models. A comprehensive and enterprise-wide approach is necessary to meet the increasing demand for effective planning, protection, and operation of the distribution grid.

A Grid Model Management application is crucial in this approach, enabling distribution utilities to model unbalanced power flow, Distributed Energy Resources (DER), and various combinations of generation and storage. The application should generate models for different types of power flow and multiple time frames and scenarios for optimal grid operation and planning.

Although Grid Model Manager (GMM) applications have been used by transmission operators, distribution operators and vendors are now striving to meet the evolving needs of the distribution grid. This project aims to expedite the development and deployment of a grid model management application specifically designed for distribution operators.

The GMM for distribution interest group will bring utilities and vendors together to define the functional requirements of the application and work towards its implementation. The goals of this group are to:

- Define the needs of distribution utilities for Grid Model Management.
- Shape the functions that should be provided by a Grid Model Manager.
- Educate the vendor community on industry needs.
- Accelerate the development of products that meet those needs.
- Demonstrate the current state of the art for vendor distribution grid model managers.

Benefits

Participants will have the invaluable opportunity to actively shape the functional requirements of the GMM architecture for distribution. By incorporating these requirements as the foundation for their Grid Model Manager implementation during their grid modernization endeavors, they can significantly reduce implementation costs while closely aligning with their desired outcomes. Collaborating closely with other utilities and tool vendors, participants will collectively contribute to the development of an industry-wide vision for effective grid model data management.

- Additionally, participants will benefit from the following opportunities:
- Exchange of multiple views and perspectives to create an industry vision for Distribution GMM.
- Gain insights through vendor demonstrations of distribution grid model managers.
- Engage directly with vendors to validate the vision and requirements of the GMM architecture.

Society at large will benefit as utilities cost-effectively build the data management foundations required to support the advanced grid simulations and analytics necessary to optimize the evolving distribution network.

Project Approach and Summary

Six main work steps are envisioned:

1. Facilitate an exchange of perspectives and ideas among participating utilities for distribution grid model management.
2. Vendor demonstration of existing grid model manager applications.
3. Develop the functional requirements for GMM for distribution.
4. Engagement with vendors to validate the vision and requirements for GMM.
5. Identify and document the key data exchanges to and from a GMM.
6. Second vendor demonstration for updated grid model manager applications and roadmaps.

Deliverables

The following deliverables are currently planned:

- Functional requirements for GMM architecture
- Multiple information exchange sessions (via virtual or face-to-face).
- Vendor demonstrations from the vendors on products that adhere to GMM architecture for GMM products.

Price of Project

Minimum number of participants: five utilities

Size	GWh Range (Served Directly or Indirectly)	Total Price $
Small	Less than 22,000	$25,000
Medium	22,000 to 45,000	$35,000
Large	More than 45,000	$45,000

Project Status and Schedule

The project is expected to run for 18 months. Initial group of participants will help define project task and deliverable scheduling.

Who Should Join

Any distribution utility considering or implementing a grid model management product for distribution. Any utility struggling to create, manage or exchange distribution grid models for planning or operations.

Contact Information

For more information, contact the EPRI Customer Assistance Center at 800.313.3774 (askepri@epri.com).

Technical Contacts

Sean Crimmins at 650.855.7901 (scrimmins@epri.com)
Varun Perumalla at 650.855.1051 (vperumalla@epri.com)

To join, contact your Information, Communication, and Cyber Security Technical Advisor

West: Brian Dupin at bdupin@epri.com

Northeast: Barry Batson at bbatson@epri.com

Southeast: Chuck Wentzel at cwentzel@epri.com

Product ID: 3002027863 **Project ID:** 01-118456 **May 2025**

EPRI
3420 Hillview Avenue, Palo Alto, California 94304-1338 USA • 800.313.3774 • 650.855.2121 • askepri@epri.com • www.epri.com