



COMPREHENSIVE ELECTRICITY SYSTEM PLANNING IN AN ERA OF LOAD GROWTH

The National Association of Regulatory Utility Commissioners (NARUC) and the National Association of State Energy Officials (NASEO) are providing a forum for the development of state-led pathways toward a more resilient, efficient, and affordable grid that meets current and future electricity needs across the U.S.

ELECTRICITY PLANNING FOR A GROWING 21ST CENTURY POWER GRID

For the first time in decades, utilities are projecting significant load growth due to rising power requirements from data centers, manufacturing facilities, transportation, and buildings. Emerging technologies, evolving cost profiles, consumer preferences, energy provider options, and state and local efforts are driving the need for a variety of electricity sources and responses. Investment decisions increasingly require comprehensive electricity system planning that considers customer, distribution system, resource, and transmission needs and capabilities. States can establish planning frameworks to guide how a full range of options are considered to promote economic growth and avoid unnecessary costs.

WITH GREATER ALIGNMENT OF PLANNING PROCESSES, STATES AND UTILITIES COULD:

- Improve grid reliability and resilience
- Optimize use of existing and emerging energy resources
- Avoid unnecessary costs to ratepayers
- Support state policy priorities
- Increase the transparency of grid-related investment decisions

WHY IS COMPREHENSIVE ELECTRICITY PLANNING NEEDED?

With recent load growth projections ranging from 15 to 20 percent above current electricity consumption in the next decade,¹ electricity distribution, resource, and transmission planning needs to account for the locations, current infrastructure capabilities, and load shapes of new and emerging resources requiring power while also meeting state policies.

Capital expenditures will be significant to meet growing needs. Ensuring investments are right-sized and consider all cost-effective approaches such as demand-side solutions, innovative technologies, and resilient supply-side resources will be critical to maintaining reliability and customer affordability.

CONTACT TO LEARN MORE OR APPLY:

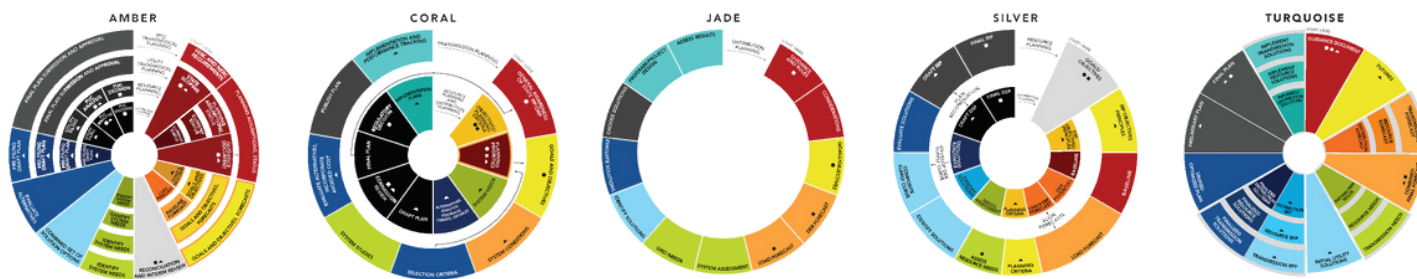
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¹ [U.S. Department of Energy](#), August 12, 2024

From 2019 to 2020, 15 state teams of NARUC and NASEO members developed innovative visions for how electricity system planning could be improved through the [NARUC-NASEO Task Force on Comprehensive Electricity Planning](#). Members created five distinct roadmaps and related resources that describe how the building blocks of historically siloed resource, distribution, and transmission planning processes can be reconfigured for greater alignment, increased transparency, and more robust stakeholder engagement.

Cohort Roadmaps



bit.ly/electricity_planning_taskforce

Members of the Task Force on Comprehensive Electricity Planning anticipated potential challenges to implementation of their visions for aligned planning and collaborated to identify possible solutions. They shared wish lists for tools and model development and offered starting points for other states. Since then, many public and private sector entities have advanced comprehensive planning as the imperative has grown to fully consider all options for meeting electricity needs.

It is time for NARUC and NASEO members to update their understanding of emerging opportunities, tool capabilities, and experiences among peers to advance comprehensive electricity system planning. **Join us!**

IN BRIEF

- Any NARUC or NASEO state member is invited to join the initiative, which will support states in better understanding **forecasting, modeling, planning techniques**, and both **demand- and supply-side options** for meeting projected load growth.
- Participants will be guided through an educational, creative, and collaborative process to develop multiple approaches for **aligning distribution, resource, and transmission planning** to respond to new loads.
- The *Comprehensive Electricity Planning Initiative* will host **two in-person workshops**, starting in spring 2025. Participants will benefit from **virtual peer sharing and expert learning** sessions throughout 2025-2026.
- Members will receive expert **support for select modeling runs** to improve their understanding of capabilities and options.
- Outputs will include **updated roadmaps and resources** for comprehensive electricity planning and modeling for all state decision-makers.
- The series will be professionally facilitated and **supported by technical experts**.
- Opportunities for **input from stakeholders and regulated entities** will be provided.

TENTATIVE TIMELINE:

NOV 2024-JAN 2025:

NARUC and NASEO invite members to submit expressions of interest in participating.

FEB 2025:

NARUC and NASEO announce full roster of Initiative members.

SPRING 2025:

First in person workshop.

FALL 2025:

Share updated roadmaps and resources on comprehensive energy planning.

WINTER 2025-26:

Second in person workshop on modeling.

SPRING 2026:

Release comprehensive planning approaches and modeling, including templates and state examples.

NARUC and NASEO thank the U.S. Department of Energy for generous support for this initiative.