National Association of State Energy Officials

DER INTEGRATION & COMPENSATION INITIATIVE

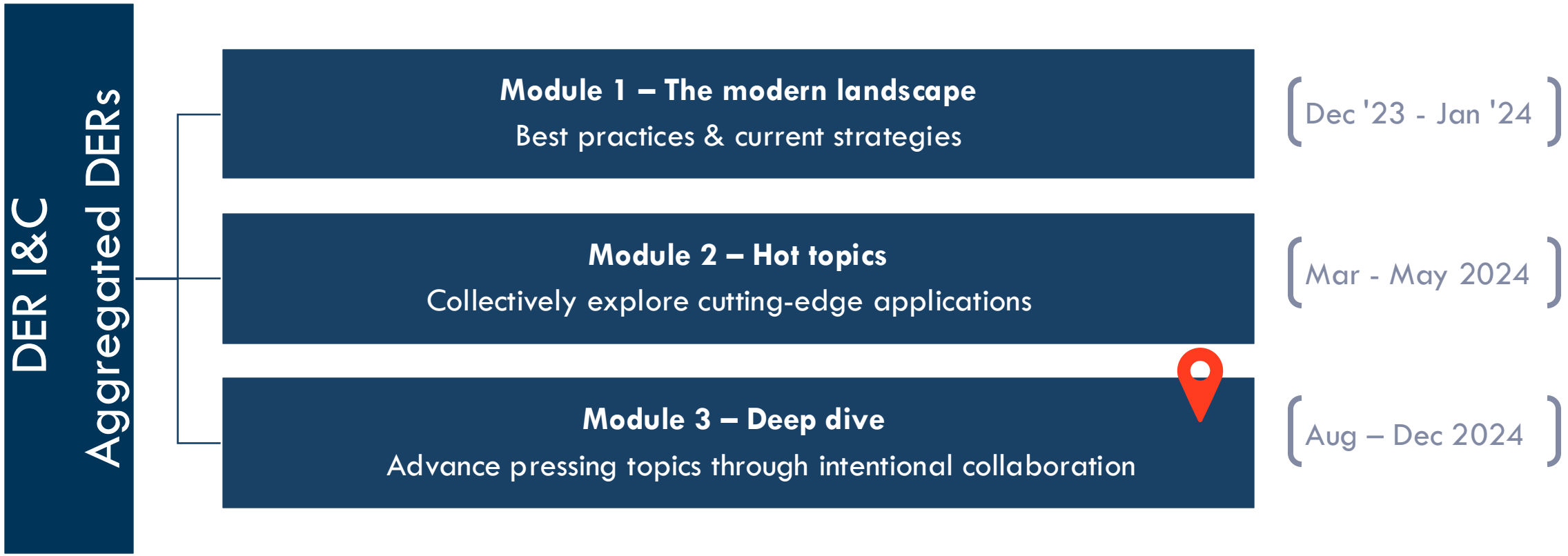
PLANNING FOR A MODERN DISTRIBUTION SYSTEM

WORKSHOP #1

AUGUST 13, 2024

Overview of the DER I&C Initiative

The DER I&C Initiative 2023-24 curriculum is designed around three sequential modules



Context for Module 3 Topic Selection

The distribution system is changing…

The physical environment is changing…

Policy and regulation need to change, too!

Planning for a Modern Distribution System

Convene and support state members to help build their capacity to effectively plan for and navigate changes across the distribution system.

Objectives:

- Inform key state decision makers
- Raise and evaluate risks and opportunities of options
- Bring different perspectives to the table

Workshop Series Arc

Today's Agenda

Objectives:

- ❑ Refine and prioritize key challenges with understanding distribution system needs and develop concrete distribution planning goals.
- ❑ Build capacity to translate state-specific policy objectives into distribution-system planning guidance.

Agenda:

Time (ET)	Session
2:00-2:15pm	**Welcome:** Intro to workshop series, overview of today
2:15-2:30pm	**Cross-cohort Connections:** Meet your fellow cohort members!
2:30-3:00pm	**Understanding the Challenges and Goals for Distribution Planning,** *RMI*
3:00-3:10pm	**Break**
3:10-3:25pm	**Berkley Lab Presentation: Translating State Policy Objectives into Distribution Planning Guidance,** *Lisa Schwartz*
3:25-4:20pm	**Breakout activity:** Brainstorming Planning Guidance to Support Different State Policy Objectives
4:20-4:30pm	**Reflection, Closing, and what's ahead**

Working Norms

- **Please participate!**
- **Be present**
- **Respect confidentiality**
  - For breakout sessions we will use Modified Chatham House rules: you can say who was there, what was said, but not who said what

Poll – How are you currently thinking about distribution planning in your state?

How is distribution planning showing up in your state today?	What is one state priority you would most like to advance in your utility distribution plan(s)?
• My state is starting to think about distribution planning • My state is currently working to develop distribution plan recommendations/guidelines • My state already has a distribution planning process that I am looking to better understand/improve upon	• DER Integration and Utilization • Resilience • Reliability • Equity/Affordability • Transparency/Improved stakeholder engagement • Renewables Goals

Cross-cohort connections activity

- We will assign you to breakout groups with 2-3 other participants
- **Please introduce yourself and share:** What is one recent achievement from your time at the SEO/PUC/Consumer Advocate that you're proud of (does not have to be distribution planning related)?

Challenges states are experiencing with distribution planning

Information asymmetry needs to be addressed so state decision-makers can better review and evaluate distribution plans

Long-term road maps and multiple futures need to be accounted for so both utilities and state decision-makers can manage uncertainty

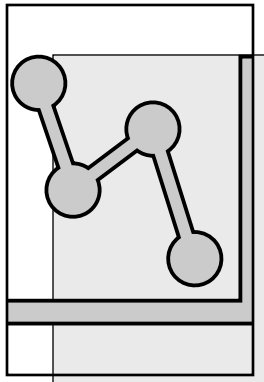
Clear roles need to be determined so state decision-makers can provide appropriate oversight to an evolving distribution planning process

Information about the distribution system needs to be made more accessible so external stakeholders can also participate in the distribution planning process

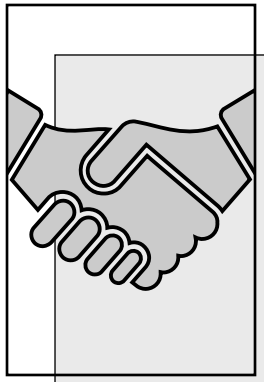
Examples of actions participants can take coming out of this workshop

What regulators can do…	What SEOs can do…	What CAs can do…
• **Open a proceeding** to update/start the distribution planning process • **Update/develop principles** or guidelines for distribution planning • **Request data** on utility distribution planning process • **Approve/reject utility plans** • **Set up or engage** in distribution grid modernization dockets • **Approve pilots** for non-traditional solutions for distribution needs	• **Develop comprehensive state energy plans** • **Conduct studies or reviews** on distribution plans and grid modernization proposals • **Convene stakeholder groups** to review & develop recs for distribution plan processes • **Administer grant programs** for dx investments • **Participate in working groups** for dx investments • **Participate in dockets** for dx planning	• **Participate in working groups** for dx investments • **Participate in dockets** for dx planning • **Conduct reviews** on distribution plans and grid modernization proposals

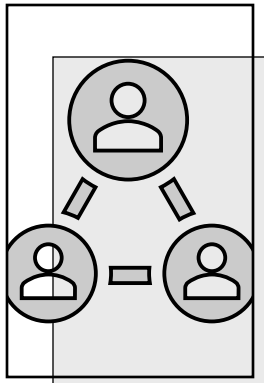
What all participants can do



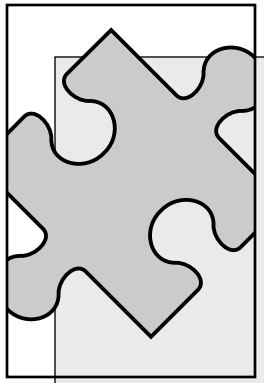
Request technical assistance for evaluating distribution plans



Set up coordination efforts with respective other organization(s) to discuss distribution planning objectives



Leverage resources from this cohort in current distribution planning efforts



Connect other planning process assumptions and outcomes to distribution planning

Activity: Set a goal for distribution planning in your state

- **Instructions:**
  - Please journal for 3 minutes, and create a goal for your state using the following prompt: ***The role I play in distribution planning is X, the challenge my state is facing related to distribution planning is Y, and in the future I want my state's distribution plans to have/be Z***
  - You will then be placed into a breakout group with 2 other people
    - Please each share the goal you came up with, see if anyone's goals makes you want to adjust your goal at all
    - Add your goals (*I want my stat's distribution plans to have/be Z*) to the google slides (link in chat)
    - Discuss what information/resources you would need help with to achieve that goal

Break

Translating State Policy Goals Into Integrated Distribution Planning Guidance

Lisa Schwartz

Presentation for NARUC-NASEO Planning for a Modern Distribution Grid Cohort

August 13, 2024

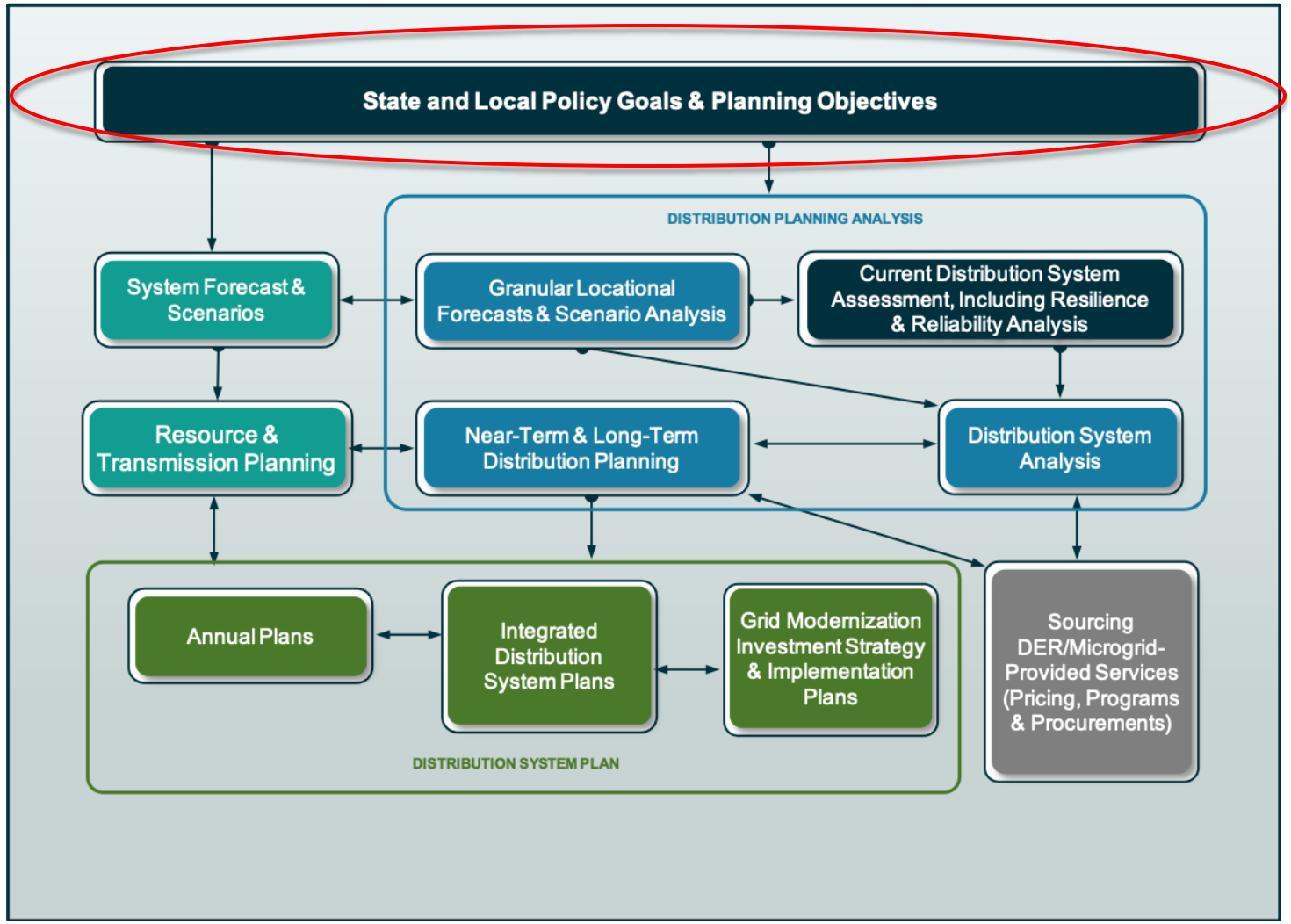
This work was funded by the U.S. Department of Energy under Contract No. DE-AC02-05CH11231.

In this presentation

- Policy goals and objectives for integrated distribution system planning (IDSP)
  - Why states establish IDSP policy goals and objectives
  - Example state policy goals and objectives
- Translating state policy goals and objectives into IDSP guidance
  - Strategies and examples
  - Some indicators of success
- Resources for more information
  - Direct technical assistance
  - Training
  - Publications and other online resources

Policy goals and objectives for integrated distribution system planning

Integrated Distribution System Planning



Berkeley Lab's Interactive Decision Framework for IDSP

Why states establish IDSP policy goals and objectives

- Planning starts with planning goals/principles and objectives.
- That determines grid capabilities needed, which in turn establish distribution system functionality and system requirements.
- Holistic long-term planning supports state goals and objectives.
- States can set long-term, high-level outcomes for grid planning and steps to achieve them.

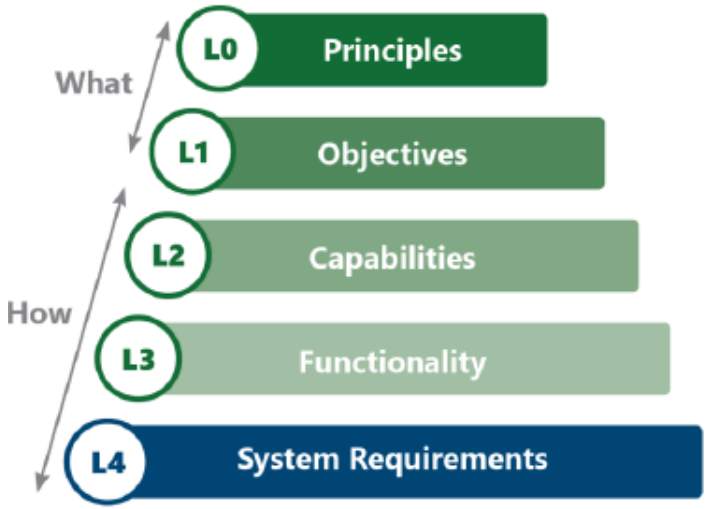


Figure: DOE 2020

Example state policy goals and objectives*

- **Improve grid reliability and resilience** (CA, CT, DC, DE, HI, IN, MA, MI, MN, NM, NV, RI, VA, VT)
  - CO – "review and evaluate the utility's investments in the distribution grid to ensure that they cost-effectively support grid adequacy, reliability and resilience…."
  - IN – "promote safety, reliability and economic growth by encouraging cost-effective modernization of utility infrastructure"
  - MA – "improve grid reliability, communications and resiliency"
  - VA – "measures to enhance physical electric grid reliability and security"
- **Increase customer choice and engagement** (CA, CT, DC, HI, IL, MA, MN, NY, RI, VT)
  - MN – "Enable greater customer engagement, empowerment, and options for energy services"
  - NY – "Serve as a source of public information regarding distribution service provider plans and objectives, including specific system needs allowing market participants to identify opportunities"
  - RI – "prioritize and facilitate increasing customer investment in their facilities … where that investment provides recognizable net benefits"
  - VT – "empower consumers to manage their energy choices"
- **Accelerate deployment of new technologies and services** (CA, CT, IL, MI, MN)
  - CT – "investigate the comprehensive and competitive inclusion of electric storage as well as other innovative technologies"
  - IL – "promote opportunities for third-party investment in nontraditional, grid-related technologies and resources"

Source: Sunrun

*Adapted and updated from Mims Frick et al. 2023, "Distribution System Planning: Goals & Objectives"

Example state policy goals and objectives

- **Support DER integration** (CA, CO, DC, HI, IL, MA, MN, OR, VA)
  - CA – "identify optimal locations for the deployment of distributed resources"
  - HI – "Maximizing interconnection of distributed generation to the State's electric grids on a cost-effective basis at non-discriminatory terms and at just and reasonable rates…."
  - ME – "Support integration and utilization of DERs to enable load flexibility and resilience"
  - MN – "Move toward the creation of efficient, cost-effective, accessible grid platforms for new products, new services, and opportunities for adoption of new distributed technologies"
  - VA – "measures to facilitate integration of distributed energy resources"
- **Reduce greenhouse gas (GHG) emissions/support clean energy transition** (CO, CT, DC, HI, IL, MA, OR)
  - RI – "Address the challenges of climate change and other forms of pollution"
  - MA – "proactively upgrade distribution and transmission systems to accommodate increased building and transportation electrification"
  - WA – "identify renewable resources, nonemitting electric generation, and distributed energy resources that may be acquired and evaluate how each identified resource may be expected to contribute"
- **Other goals**
  - Affordability (CO, CT, DC, IL, MI, RI), equity (CO, IL, MN, OR, WA), economic development (IL, IN), and stakeholder engagement and transparency (CA, DC, HI, IL, MI, NY, OR)

Source: Sunrun

Translating state policy goals and objectives into IDSP guidance

Example strategies for translating policy goals into IDSP guidance

- **Identify priorities**
  - Maine legislation – "…identify the priorities to be addressed in a filing by a covered utility regarding a grid plan that will assist in the cost-effective transition to a clean, affordable and reliable electric grid."
    - PUC decision (7/12/24 order in Docket No. 2022-00322): (1) improve reliability and resilience while maintaining affordability and achieving climate goals, (2) improve data quality and integrity, (3) promote flexible management of consumers' resources and energy consumption
- **Ask utilities to respond to a questionnaire** to gather baseline information on their distribution system and planning practices
  - MN utilities, NJ utilities, OR utilities and 3rd party efficiency administrator and stakeholders
- **Get input from experts and stakeholders**
  - Open an informational proceeding to gather input and increase understanding (CO, IL, ME, MA, MI, NM, OR)
  - Engage communities (CO, IL, NY, OR, WA)
- **Host work groups** to refine requirements and address emerging issues (HI, ME, OR)
- **Lay out the agency's vision** for IDSP in a white paper (MI, NY, OR)
- **Leverage the State Energy Office** to make recommendations to utilities on draft plans, before filing with the public utility commission (MA)

Source: EPRI

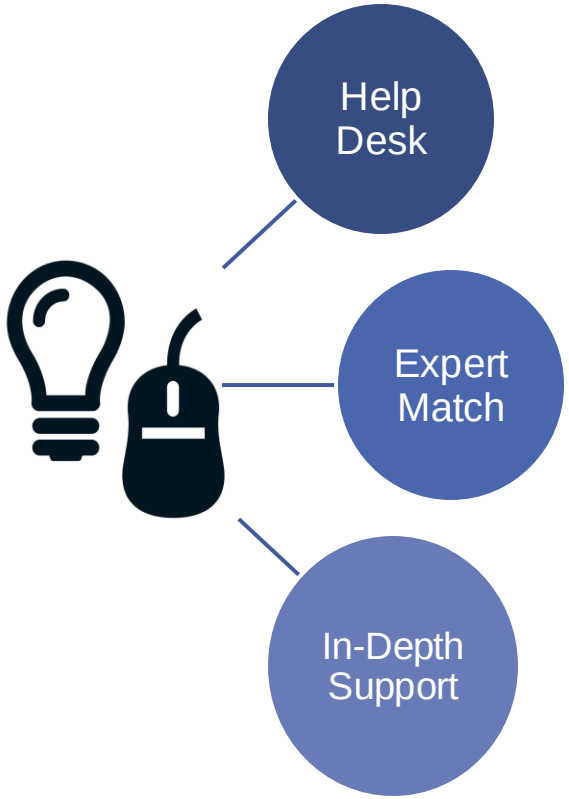
Some indicators of success

- **Stakeholder and community interests** are reflected in plans.
- Utilities consider **all potential solutions** to meet grid needs, using robust and transparent analysis.
- Filed distribution system plans provide a **roadmap for grid investments, systems, and processes** designed to achieve state policy goals and objectives, with utility priorities and timelines.
- Filings are **well-organized and documented**, specify how they **meet regulatory requirements**, explain how they are **coordinated with other types of state and utility plans**, and provide **useful information** for regulators and stakeholders.
- **Regulators provide feedback to utilities** on filed plans.
- The planning process **facilitates cost recovery of prudent utility investments** in grid modernization and integration and utilization of distributed energy resources.
- Utility **cost recovery requests are clearly tied to achieving state goals and objectives** and utility grid priorities.
- **Utilities track and report on progress** for implementing plans.

Resources for more information

Resources: Direct state technical assistance from National Labs

- **Distribution system planning** and **grid resilience planning**: Contact Lisa Schwartz: lcschwartz@lbl.gov
- **Other electricity topics**: Resources and Assistance for State Energy Offices and Regulators program



- Online intake form with rolling Lab screening
- Connect to PM within 2 business day to clarify request
- Connect to SME within 5 business days
- Up 4 person-hours of support

- Online intake form with rolling review by Labs
- Connect to PM within 2 business day to clarify request
- Connect to SME within 5 business days
- Up to 80 person-hours of support

- Detailed application form
- Planned 9-month work cycle by Labs & DOE
- 80+ person-hours of support
- ***Next application cycle anticipated in Fall***

statetaprogram.lbl.gov

Resources: Training, publications and more

- See Berkeley Lab's website for presentations and links to recordings for prior trainings (scroll below diagram to "Regional and state trainings and presentations")
  - Next round of IDSP trainings with NARUC and NASEO begin in December
  - Next round of grid resilience planning trainings with NARUC and NASEO begin Q1 2025
- U.S. Department of Energy's Distribution Grid Transformation website
- *State Energy Offices' Engagement in Electric Distribution Planning to Meet State Policy Goals*
- State Requirements for Electric Distribution System Planning – online catalog and interactive map and forthcoming report covering more topics
- Interactive Decision Framework for Integrated Distribution System Planning
- *Grid Resilience Plans: State Requirements, Utility Practices, and Utility Plan Template*

ENERGY MARKETS & POLICY

Contact

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For more information

Download publications from the Energy Markets & Policy Department: https://emp.lbl.gov/publications

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Breakout Overview

Self-select breakouts:

- **Join the breakout group covering the topic that's most relevant to your work today or in the future**
- *Try to have ~8-10 people in a breakout. If you see one is crowded, please select another. We will provide a summary of what all breakouts covered after the workshop!*

Breakout Group Topic	Breakout Group Name	Slide #
DER Integration and Utilization	Group 1: DER integration	Slide 7
Resilience & Reliability	Group 2: Reliability & Resilience	Slide 9
Renewables Goals	Group 3: Renewables Goals	Slide 11
Affordability, Equity & Transparency	Group 4: Affordability+	Slide 13

What's Ahead

- We will send out a workshop "report-out", summarizing what we have covered today along with today's slides and additional resources folks can access
- Next workshop is on September 17, 2-4:30 pm ET
  - We will cover distribution planning tools and analysis

Thank you for joining today!

Upcoming members-only NARUC-NASEO Events:

Virtual:

- NASEO-NARUC Grid-interactive Efficient Buildings (GEB) Working Groups Forum: RMI Virtual Power Plant (VPP) Flipbook (States and Territories Only)
  September 4, 2024, 3:00pm-4:00pm ET

In person:

- NASEO, NARUC, and NASUCA Central Region Roundtable on Equitable Electricity Planning and Policy (State and Territory Energy Offices Only)
  September 10-11, 2024 - Kansas City, MO
- NARUC Cybersecurity Training for State Regulators
  September 24-26, 2024 - Philadelphia, PA
- NASEO 2024 Annual Meeting
  September 29-October 2, 2024 - New York Hilton Midtown, New York, NY
- National Council on Electricity Policy Annual Meeting
  October 29-30, 2024 – Phoenix, AZ

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