



# **EPA's State Energy and Environment Guide to Action: Utility Policy Chapters**

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**NESCAUM Buildings Task Force – October 6, 2022**

# Presentation Outline

- ▶ Introduction to EPA's State and Local Climate and Energy Program
- ▶ State Energy and Environment Guide to Action
  - ▶ Background; Chapter Structure
- ▶ August 9 Utility Policy Chapter Release
  - ▶ Topics addressed
  - ▶ Cross-cutting themes (utility and air quality)
- ▶ A closer look at selected Guide chapters
  - ▶ Electricity Resource Planning and Procurement
  - ▶ Utility Financial Structures
  - ▶ Customer Rates and Data Access



# Our Tools and Resources Support State, Local and Tribal Stakeholders on Climate and Energy



## Develop Inventories and Set Goals

### GHG INVENTORY TOOLS

#### State Inventory and Projection Tool

Develop and update inventories for 11 sectors. Forecast emissions through 2050

#### Local Inventory Tool

Develop community-wide inventories or inventories of local government operations only

#### Tribal Inventory Tool

Develop community-wide inventories or inventories of tribal government operations only



## Design, Compare, or Evaluate Policy



#### Avoided Emissions and geneRation Tool

Evaluate changes in power plant emissions from energy policy



#### Health Benefits per kWh

Estimate the health benefits per kWh of clean energy



### COBRA

#### Co-Benefits Risk Assessment Health Impacts Screening and Mapping Tool

Quantify and monetize health impacts of reducing emissions

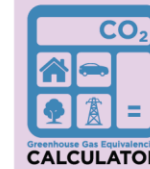


#### Energy Savings and Impacts Scenario Tool

Analyze energy savings, costs, and multiple benefits from energy efficiency programs



## Communicate and Support Policy Implementation



#### Greenhouse Gas Equivalencies Calculator

Convert a unit of energy to the equivalent amount of CO<sub>2</sub> emissions from using that amount



#### Heat Island Reduction Program

Resources to implement heat island mitigation policies and projects



#### Technical Support

Provide 1-1 technical support for state, local and tribal stakeholders



#### Convene Stakeholders

Engage state, local and tribal decision-makers



#### Local Action Framework:

A Guide to Help Communities Achieve Energy and Environmental Goals



#### State Energy and Environment

**Guide to Action:** A best practices guide to help states design and implement policies that reduce emissions from electricity generation and energy consumption



#### Quantifying the Multiple Benefits of Energy Efficiency and Renewable Energy:

A Guide for State and Local Governments



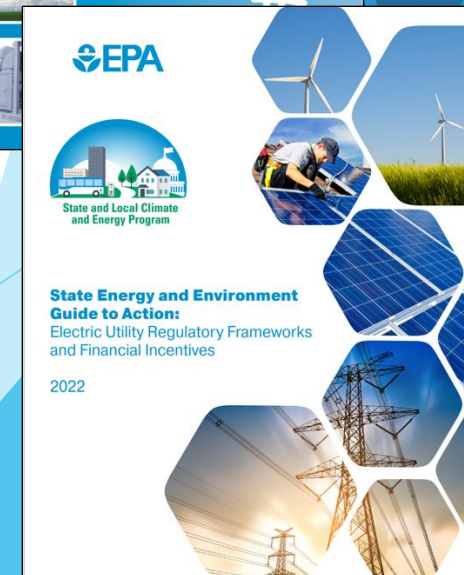
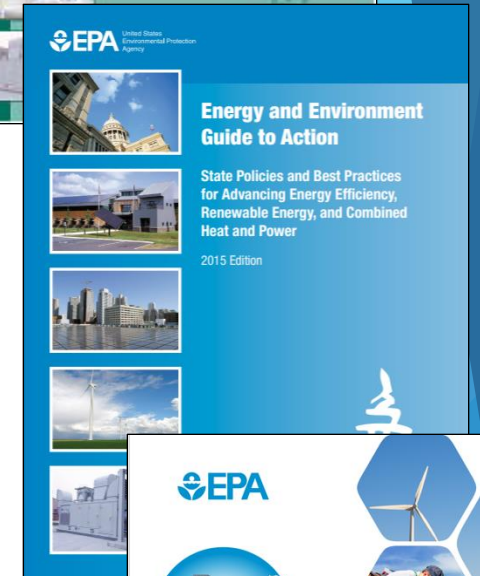
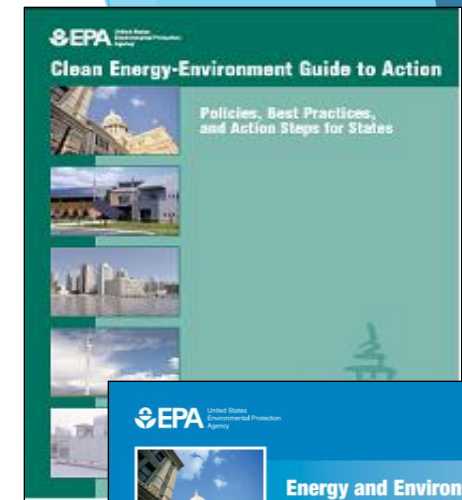
#### Local Government Climate and Energy Strategy Series:

A Guide to Developing and Implementing Greenhouse Gas Reduction Programs

# The State Energy and Environment Guide to Action Supports Clean and Efficient Energy Outcomes in States

- ▶ Longstanding EPA resource first published in 2006 and last updated in 2015
- ▶ Presents best practices to help states design and implement policies and programs that reduce emissions associated with energy consumption and electricity generation
- ▶ Illustrates best practices with state examples
- ▶ Each chapter covers a unique policy topic, provides descriptions and a regulatory landscape, explains environmental, energy, health, and equity benefits, and highlights design and implementation issues
- ▶ All chapters underwent external peer review
- ▶ Five Guide chapters released in August 2022 with more on the way

Access the Guide at: <https://www.epa.gov/statelocalenergy/energy-and-environment-guide-action>



# Guide Content Designed to Help State Decisionmakers and Implementers

- ▶ Each chapter:
  - ▶ Emphasizes the multiple benefits of each policy
  - ▶ Presents an overview of the associated state policy landscape
  - ▶ Identifies key design choices
  - ▶ Describes how to implement the policy
  - ▶ Presents action steps for states based on best practices
  - ▶ Identifies exemplary state policies:
    - ▶ For treatment as detailed state examples; and
    - ▶ To support other chapter elements whenever possible
  - ▶ Includes substantial lists of additional resources and references
  - ▶ Embeds equity considerations throughout

# Utility Policy Chapter Release (August 9)

## ▶ **Electricity Resource Planning and Procurement**

Planning pathways states are using to achieve environmental and equity goals, primarily through the incorporation of supply- and demand-side clean generation resources like renewables and energy efficiency.

## ▶ **Electric Utility Regulatory Frameworks and Financial Incentives**

Frameworks to remove disincentives for investment in distributed energy resources (DERs) and reward utilities for achievements in system operations, energy services, and other objectives aligned with policy goals

## ▶ **Interconnection and Net Metering**

State experience using interconnection standards and net metering policies to facilitate or encourage the adoption of DERs, such as rooftop solar photovoltaic, energy storage, and combined heat and power

## ▶ **Customer Rates and Data Access**

Setting utility rates and increasing access to customer energy use information to enable customers to use energy more efficiently and adopt DERs that reduce emissions and provide other benefits

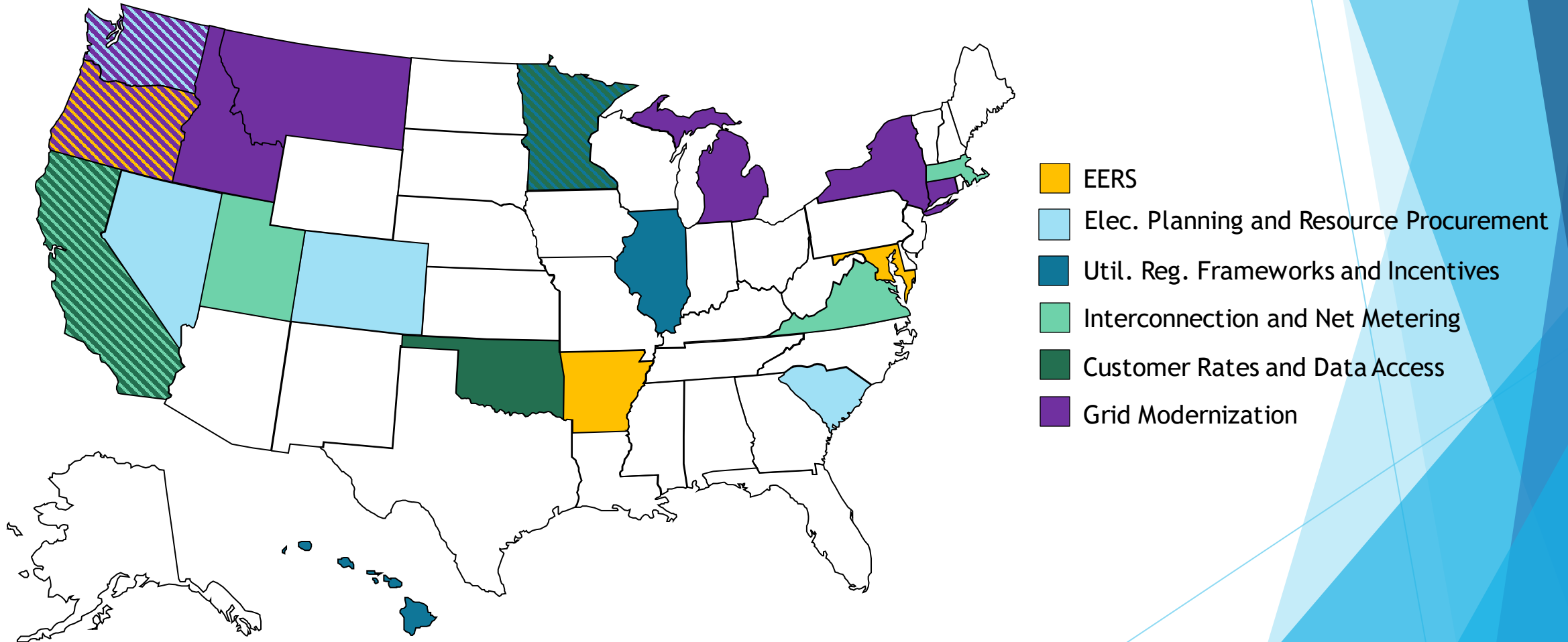
## ▶ **Energy Efficiency Programs and Resource Standards**

Customer-funded energy efficiency programs and energy efficiency resource standards, especially recent updates that set out to meet climate change, air quality, and equity objectives

## ▶ **Maximizing Grid Investments (Coming Soon)**

State opportunities to modernize their electrical distribution systems via one or more of the following: (1) improved distribution system efficiency; (2) clean energy integration; and (3) enhanced grid planning paradigms

# Detailed State Examples - Utility Policy Chapters



# Cross-cutting Utility Policy Themes

- ▶ **Accelerated DER deployment** – Widespread and rapid DER deployment is shaping utility planning decisions, customer rate design, and utility financial incentives. Interconnection and net metering policies significantly affect DER deployment and help to manage their impacts on the operation of the power grid.
- ▶ **Acknowledging environmental justice and equity** – States are increasingly focusing on policy design choices that affect the distribution of benefits prioritizing stakeholder engagement that reaches historically marginalized communities.
- ▶ **Utility policies aligned with environment, energy, and equity goals** – States are incorporating new energy, and equity goals into utility financial planning structures, including planning mechanisms that emphasize cleaner generation, policies to integrate cleaner resources into the grid, tying customer rates to conservation measures, and applying utility performance incentives.



# Cross-cutting Air Quality Themes

- ▶ **The Guide's utility policy chapters describes best practices across a variety of programs and policies states can use to:**
  - ▶ Expand deployment of clean generating resources
  - ▶ Reduce total demand through improved efficiency policies
  - ▶ Manage peak load requirements
- ▶ **These approaches reduce the environmental impacts of the power system:**
  - ▶ Deploying generating assets with zero stack emissions
  - ▶ Reducing pressure for additional utility infrastructure and generating assets, avoiding the associated capital and environmental costs
  - ▶ Avoiding emissions from less cost-effective peaker plants at the highest demand times
- ▶ **EPA's tools can help you understand and quantify the air quality benefits. For example:**
  - ▶ AVERT explores the near term (5-year) emissions implications of clean generation deployment, peak reductions and demand curve changes
  - ▶ ESIST assesses long run (through 2040) emissions, health, and economic impacts of demand reductions
  - ▶ COBRA quantifies the monetized health benefits of emission reductions

# A Closer Look at the Guide to Action

- ▶ Highlight of Three Guide to Action Chapters
  - ▶ Electricity Resource Planning and Procurement
    - ▶ Integration of environmental regulations into utility planning processes.
  - ▶ Electric Utility Regulatory Frameworks and Financial Incentives
    - ▶ Using financial incentives to align utilities' interests with state environment, energy, and equity goals.
  - ▶ Interconnection and Data Access
    - ▶ Data is key to electrification and rate design.
- ▶ Chapter Analysis
  - ▶ Areas of Interest for Air Agencies
  - ▶ Relevant State Examples
  - ▶ NESCAUM Member States in the Guide

# Electricity Resource Planning and Procurement

- ▶ **Many states require utilities to submit plans to meet future demand:**
  - ▶ States vary widely on review and/or approval processes (public interest)
- ▶ **State Agency Coordination in Resource Planning:**
  - ▶ “Participants” in designing effective policies: environmental regulators, community advocates, clean energy developers, etc.
  - ▶ Utility Regulators may not have all pertinent information to make public interest determinations:
    - ▶ Impending or ongoing environmental regulatory requirements that pose financial risks to utilities.
    - ▶ Utilities often pursue air permits prior to taking action to the utility regulator.
- ▶ **Planning Processes:**
  - ▶ Wyoming - PSC IRP guidance directs electric utilities to consider CO2 and other GHG emission estimates.
  - ▶ Oregon - Rules require utilities to account for compliance costs for CO2 and criteria pollutants, updated annually, and established a program to compensate intervenors for low-income residential customers.

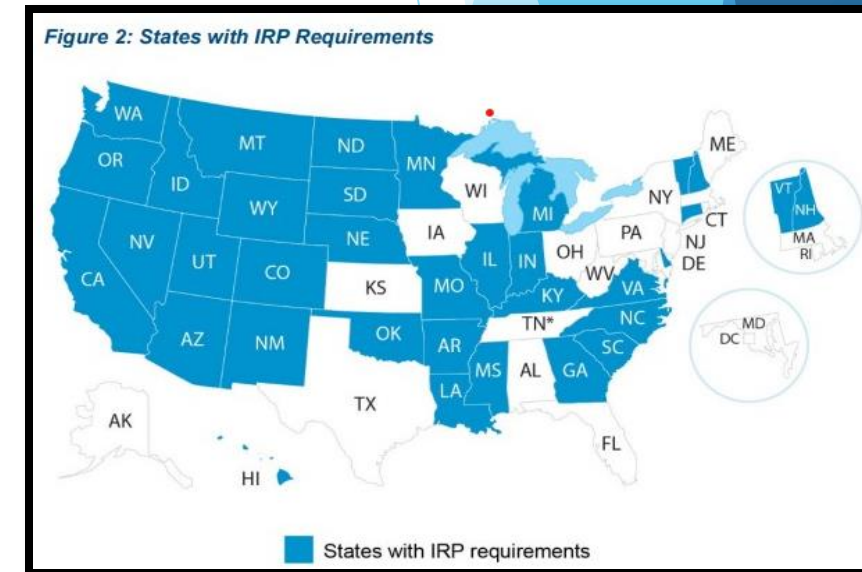
# Electricity Resource Planning and Procurement

▶ **“Existing Regulation & Incorporation of Environmental Goals and Targets”**

- ▶ Michigan – “Executive Directive 2020-10”
  - ▶ Requires MI EGLE to evaluate IRPs for consistency with the state’s emission goals in an advisory option that is filed with the MPSC.

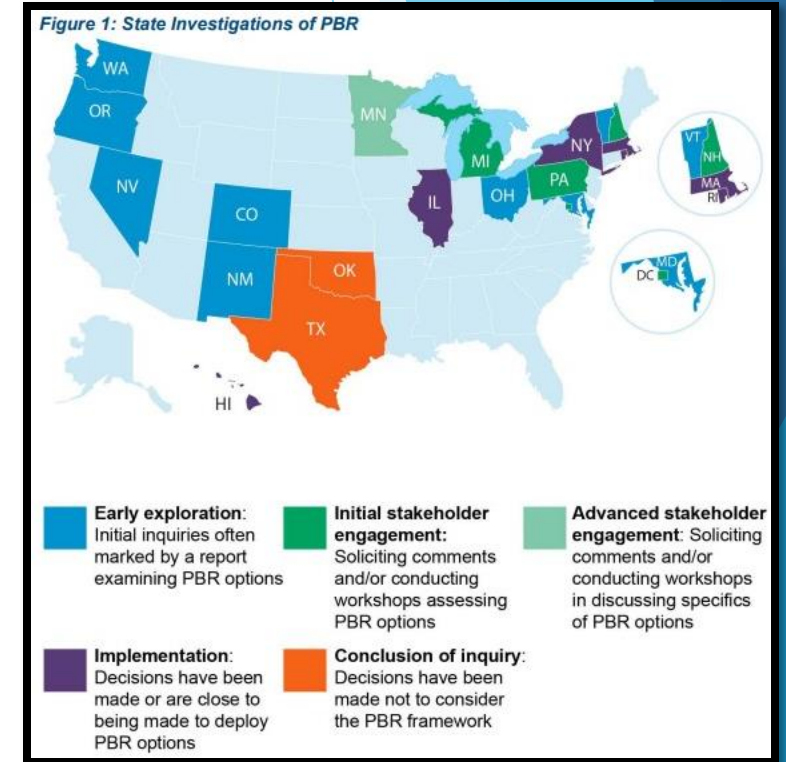
► **NESCAUM Members in the GTA:**

- ▶ Coordination:
  - ▶ CT - Comprehensive Energy Strategy (CES) created by DEEP every 4 years.
  - ▶ MA –
    - ▶ Energy Efficiency Advisory Council (EEAC) 3-year plans approved by DPU.
    - ▶ DPU requires pursuit of all cost-effective EE and DR programs
- ▶ IRPs or equivalent: VT, NH, CT, & MA
  - ▶ New York - DSP submission is required along with consideration of NWA.



# Electric Utility Regulatory Frameworks and Financial Incentives

- ▶ **Shift from cost of service regulation (COSR)**
  - ▶ Universal, safe, and reliable service at just and reasonable rates.
  - ▶ Throughput incentive and capitol bias.
- ▶ **Financial Incentives**
  - ▶ **Performance Based Regulation (PBR)** - states may need legislation to implement PBR.
    - ▶ Performance incentive mechanisms (PIMs).
    - ▶ Shared savings mechanisms and Multi-year rate plans (MYRPs).
- ▶ **PBR PIMs:**
  - ▶ **Minnesota PBR**
    - ▶ Reporting criteria pollutant and carbon emission and intensity (per MWh).
  - ▶ **Hawaii**
    - ▶ Utilities financially rewarded for adding more renewables than RPS requirement.
    - ▶ PIM to incentivize AMI deployment.
- ▶ **NESCAUM Members in the GTA:**
  - ▶ Rhode Island – EE and system efficiency (peak demand reduction). Utility keeps 45% of the savings.
    - ▶ GTA includes guidelines on creating PIMs published by the RI PUC.
  - ▶ Massachusetts – EE performance incentives for meeting and exceeding EE targets.
  - ▶ New York – Earnings Adjustment Mechanisms (EAMs) for EE and demand response (DR).
  - ▶ Connecticut - Ongoing stakeholder proceeding (Equitable Energy Efficiency Proceeding) to develop metrics.



# Customer Rates and Data Access

## Customer Rates

- ▶ Rates create customer incentives for time of energy use and technology investments decisions.

## Data Access

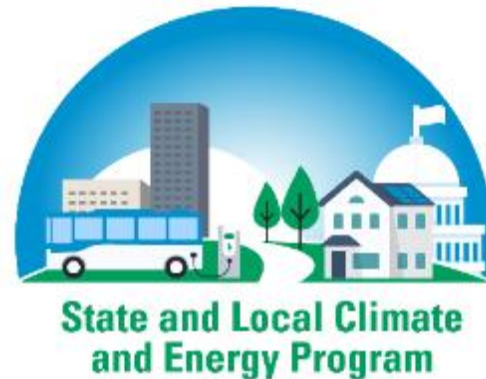
- ▶ **Data is key component for building electrification.**
  - ▶ Utility planning for demand and distribution system.
  - ▶ Building design and construction..
- ▶ **AMI enables data access and the customer to participate in demand reduction programs.**

## Maximizing Grid Investment (Release coming soon!)

- ▶ State Examples:
  - ▶ Connecticut PURA established the Equitable Modern Grid Framework designed to foster innovation in solving grid challenges like hosting capacity and storage deployment.
  - ▶ New York New York has developed programs to encourage NWA, policies to support locational value for DERs, and a framework to implement an Integrated Energy Data Resource.

## Connect with the State and Local Climate and Energy Program

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