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

Phillip Assmus

U.S. Environmental Protection Agency

AAPCA 2022 Fall Meeting – September 29, 2022

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

**State and Local Climate and Energy Program**

## Develop Inventories and Set Goals

**GHG INVENTORY TOOLS**
State / Local / Tribal

**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

**AVERT**
**AVoided Emissions and geneRation Tool**
Evaluate changes in power plant emissions from energy policy

**HEALTH BENEFITS per kilowatt-hour**
**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
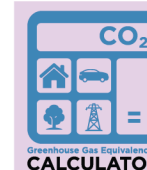
**ESIST — Energy Savings and Impacts Scenario Tool**
**Energy Savings and Impacts Scenario Tool**
Analyze energy savings, costs, and multiple benefits from energy efficiency programs

## Communicate and Support Policy Implementation

**CO₂ Greenhouse Gas Equivalencies CALCULATOR**
**Greenhouse Gas Equivalencies Calculator**
Convert a unit of energy to the equivalent amount of $CO_2$ emissions from using that amount

**HEAT ISLAND REDUCTION PROGRAM**
**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

- 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
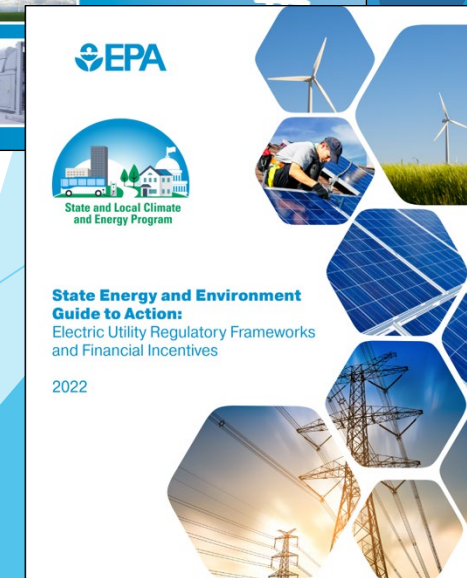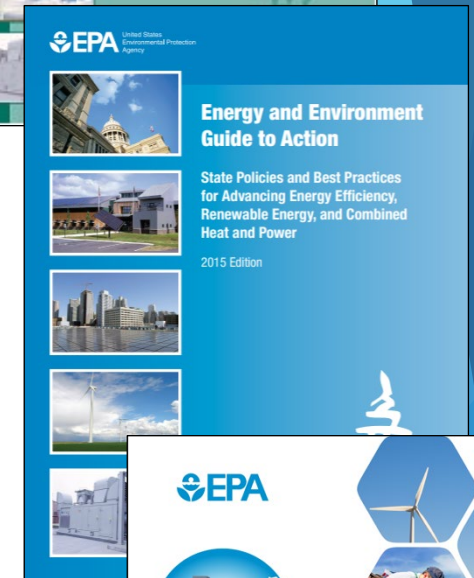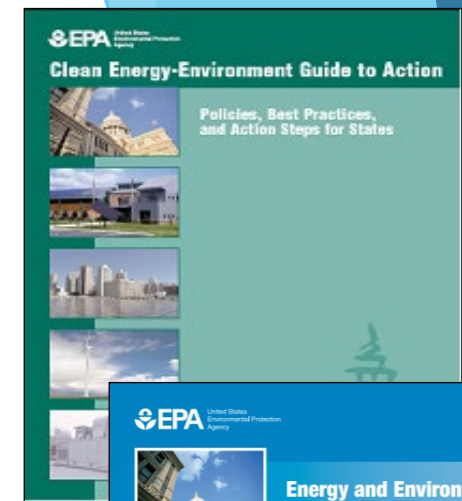
# Guide Content Designed to Help State Decisionmakers and Implementers

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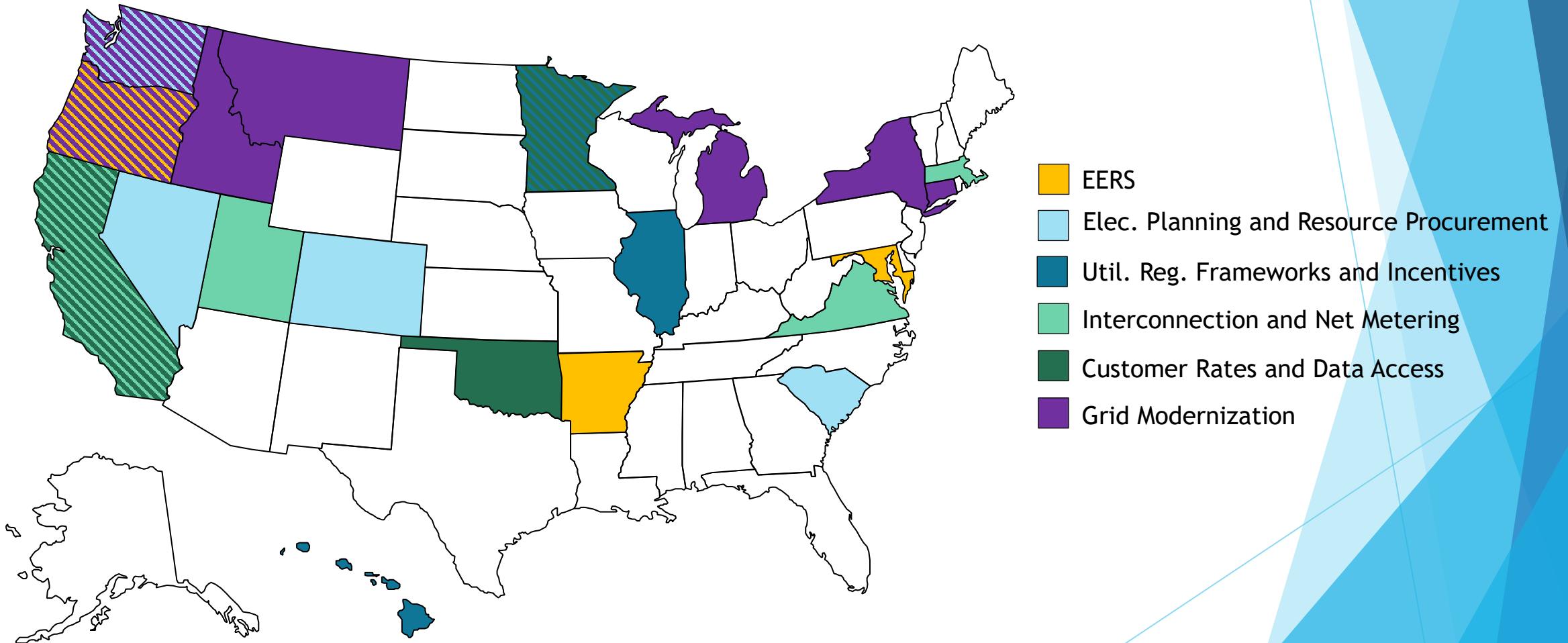
▶ **Energy Efficiency Programs and Resource Standards**

  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



**Legend:**
- EERS
- Elec. Planning and Resource Procurement
- Util. Reg. Frameworks and Incentives
- Interconnection and Net Metering
- Customer Rates and Data Access
- Grid Modernization

# 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 polices 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 polices
  - 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

# Connect with the State and Local Climate and Energy Program

Phillip Assmus

U.S. Environmental Protection Agency

Assmus.Phillip@epa.gov



Visit Our Website | www.epa.gov/statelocalenergy

Sign Up for Our Newsletter | www.epa.gov/statelocalenergy/state-and-local-energy-newsletters

Follow Us on LinkedIn | https://linkedin.com/showcase/epa-state-and-local-climate-and-energy-program