SEE Action

STATE & LOCAL ENERGY EFFICIENCY ACTION NETWORK

NASEO National Association of State Energy Officials

SEE Action Overview and Status Update

September 2011

State and Local Efficiency Action Network Goals

- State and local effort facilitated by the DOE and EPA to help states, utilities, and other local stakeholders take energy efficiency to scale and achieve all cost-effective energy efficiency by 2020.
- Identifies opportunities to catalyze and transform the market and foster the emergence of a sustainable energy efficiency industry by providing technical assistance.

SEE Action Leadership

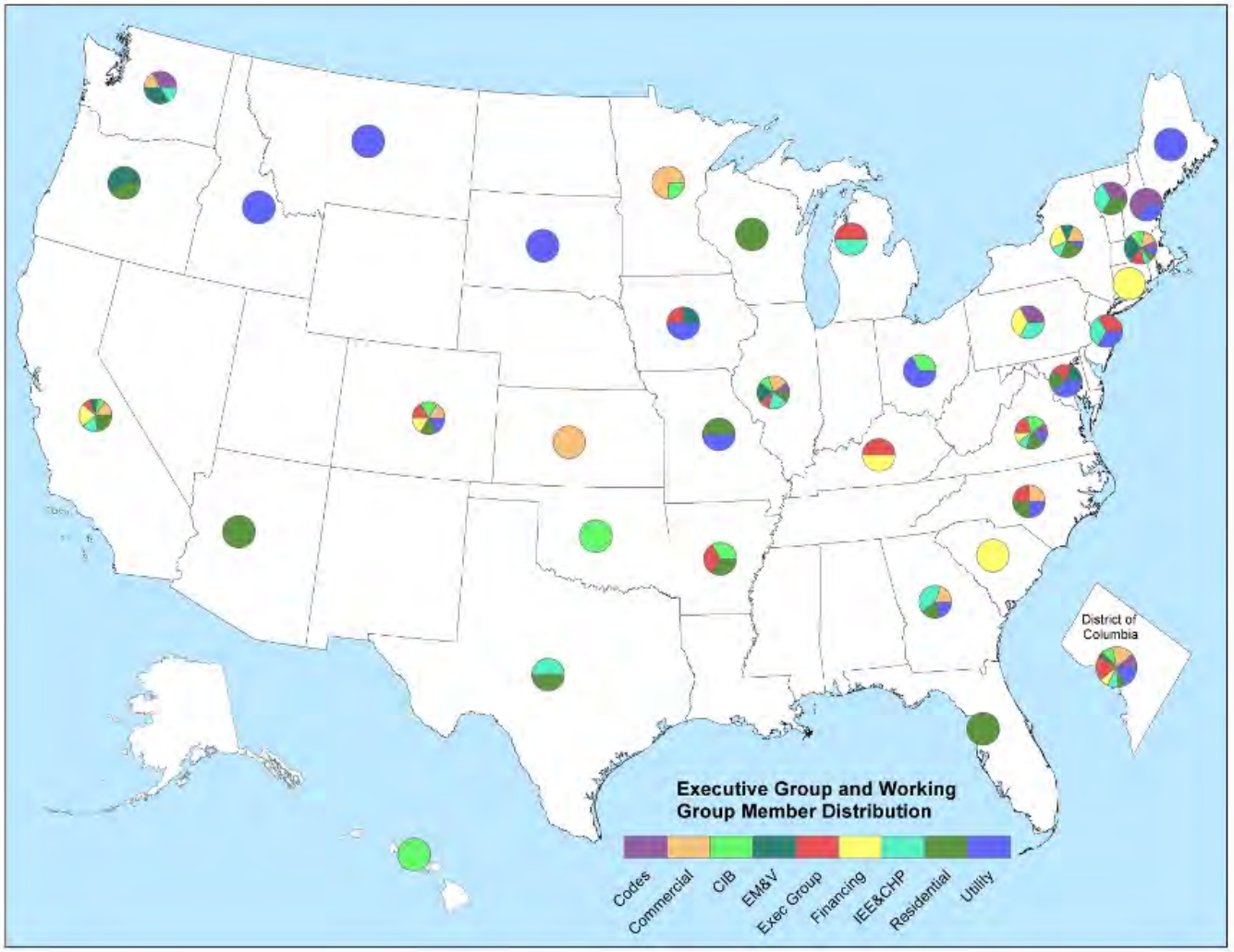
- **Executive Group** of more than 30 stakeholders from across the country including state and local governments, associations, business leaders, non-government organizations, and others.

- **Eight working groups** chaired by DOE and EPA that focus on specific energy efficiency program and policy issues.

SEE Action Working Groups

- Each of the working groups developed a blueprint (or roadmap) for achieving near- and long-term aggressive goals critical to capturing all cost-effective energy efficiency within the respective sectors.

SEE Action Executive Group and Working Group Member Distribution



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Customer Information and Behavior

Co-Chairs:

Phyllis Reha, Minnesota Public Utilities Commission

Vaughn Clark, Office of Community Development, Oklahoma Department of Commerce

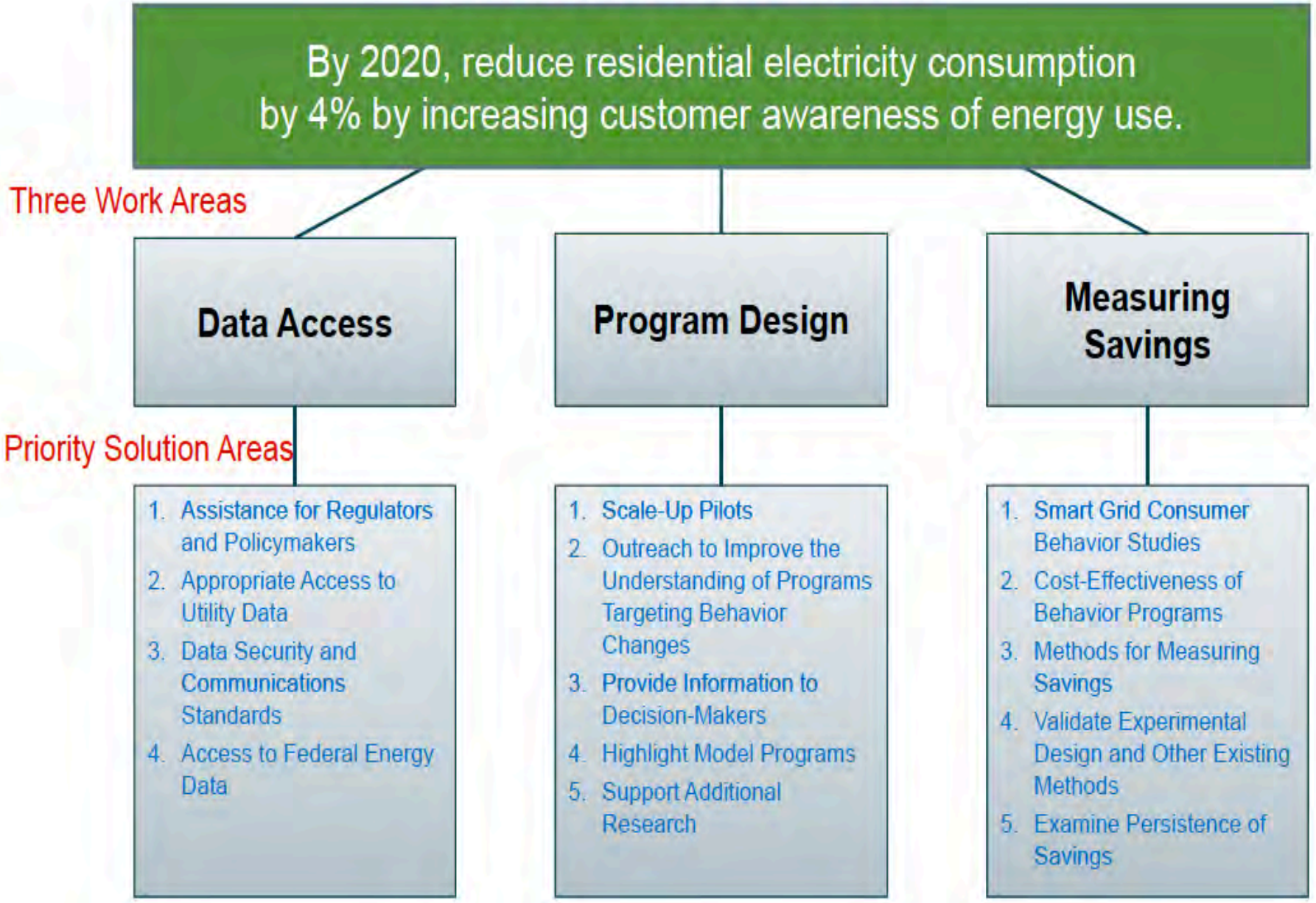
Change residential energy consumption behavior by using ***information and feedback*** and bring about behavior change that will lead energy customers to reduce energy consumption.

Blueprint aimed at using energy information and feedback to change residential energy consumption behavior and achieve deeper energy and emissions savings.

The CIB Working Group has set these goals:

- By 2020, reduce residential electricity consumption by 4% by increasing customer awareness of energy use
- In the next 2-3 years ensure that 20 million U.S. residential households participate in an on-going energy use information feedback program (an increase from 2 to 4 million current participants).

Priority Solutions and Actions to Achieve the Goal



SEE Action *Evaluation, Measurement, and Verification*

Co-Chairs:

Pat Oshie, Washington Utilities and Transportation Commission

Malcolm Woolf, Maryland Energy Administration

Improve EE management by increasing the accuracy, credibility, and timeliness of EM&V results.

Addressing several key challenges in measuring and reporting EE results, including:

- **Credibility**
- **Timing**
- **Cost**

Blueprint describes key information and technical needs of states, municipalities, and their partners, and identifies the specific steps that SEE Action can take to address those needs.

Key Solutions & Actions to Achieve the Goal

GOAL: Transform EM&V to yield more accurate, credible, and timely results that accelerate successful energy efficiency deployment and management

Three Major Work Areas

Develop a foundation for improving credibility and cross-jurisdiction comparability

Explore new methods to address emerging issues and technologies

Build capacity and increase adoption of best practices

Priority Solution Areas

1. Consistent savings estimates and consistent and comparable reporting
Resource for calculations, uniform definitions and common forms

2. Review and update EM&V resource guides
Impact evaluation techniques explained

3. Uniform methods and/or standards
Set of voluntary methods/protocols

4. Explore new technology solutions
Use Smart Grid and AMI to measure and verify savings

5. Innovative analysis techniques
New methods provide more efficient EM&V and maintain rigor

6. Resource accessibility and tool development
National or regional databases of reports, plans, and stipulated savings values

7. Training
Increase the number of EM&V practitioners and their level of expertise and experience

SEE Action *Existing Commercial Buildings*

Co-Chairs:

Jim Gallagher, New York Independent System Operator

Janet Streff, Minnesota Department of Commerce

Helping SEE Action address energy efficiency in existing commercial space by developing and promoting solutions for whole-building improvements.

The blueprint for action is intended to meet this goal:

- Reduce energy use 20% or more in 3 billion square feet of commercial space each year by 2015 through whole-building approaches.

Priority Solutions and Actions to Achieve the Goal

Mid-term Goal

By 2015, reduce energy use by at least 20% in 3 billion square feet of commercial space each year through whole-building retrofits and/or operational improvements

Four Pillars

- Drive Demand for Energy Efficiency
- Enable Efficient Operations and Investment
- Build the Workforce
- Move the Market

Priority Solutions Areas

Benchmarking
nprove information through enchmarking/disclosure

Retro-commissioning (RCx)
Cx and retrofit requirements

Ratepayer-funded Programs
arget whole-building programs

Public-private Partnerships
nergy challenges, recognition rograms, etc.

5. Organizational Energy Management Programs
Adopt comprehensive energy management programs

6. Green Leasing
Integrate efficiency and green practices in leasing practices

7. Financing Innovation
Credit enhancement, revolving loans, etc.

8.1.Education & Training
Build training capacity

8.2. Materials
Develop standardized training materials

8.3. Certification
Standardize around meaningful and nationally-recognized professional certifications

9. Procurement Reform
Bulk purchasing, specification life cycle costing, and streamlined Energy Savings Performance Contracts (ESP

10. Emerging Technology Demonstration
Through public-private partnerships, competitions, et

SEE Action
Industrial Energy Efficiency/CHP

Co-Chairs:

Todd Currier, Washington State University Extension Energy Office

Greg White, Michigan Public Service Commission

Helping SEE Action address energy efficiency in the U.S. manufacturing sector by providing guidance on model programs and policies that support industrial efficiency and implementation of CHP.

The working group has developed a blueprint for action that drives the following goals:

- Achieve a 2.5% average annual reduction in industrial energy intensity through 2020.
- Install 40 gigawatts (GW) of new, cost-effective CHP by 2020.

Key Solutions & Actions to Achieve the Goal

Achieve an average 2.5% reduction in industrial energy intensity annually through 2020; install 40 GW of new, cost-effective CHP by 2020

Drive Demand for Industrial Energy Efficiency & CHP

1. State, Local, & Utility Programs for Industry
Programs that better meet the needs of industry

2. State Policy Models
Broader adoption of model policies

3. National Energy Efficiency Policy
Enhance national policy with regard to industrial energy efficiency and CHP

4. Education & Outreach
Build corporate culture; foster greater understanding of the economic value of industrial energy efficiency and CHP

Build the Workforce

5. Education & Workforce Development
Identify industry's needs and workforce needs; develop new programs to address needs

6. Develop Training & Academic Curricula
From the plant floor to the corporate level

7. Licensing & Certification Protocols
Certified Energy Manager (CEM); DOE Qualified Specialists; Continuous Energy Improvement, etc.

Promote Efficient Operations & Investment

8. Financing Innovation
Loan guarantees, energy service companies (ESCOs), etc.

9. Financial Incentives
Address industry ROI and refit cycles

10. Technical Solutions
Improve availability of energy efficiency and CHP information and tools for industry

11. Energy Management Programs/Continuous Energy Improvement
Ex: ISO 50001, Superior Energy Performance (SEP), ENERGY STAR, and others

Move the Market

12. Technology Demonstration
Adoption of existing technologies

13. Regulatory Recommendations to Support CHP
Offer comprehensive CHP policies

14. Reduce Uncertainty Related to State Interconnection
Harmonization across broad regions and states

15. Financing Reform
Depreciation rules and Sarbanes-Oxley Act

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Building Energy Codes

Co-Chairs:

Laura Richardson, New Hampshire State Energy Office

John Hogan, Seattle Department of Planning and Development

The Building Energy Codes Working Group vision:

- **Qualitative**: All buildings will be designed and constructed to the IECC 2012 and ASHRAE/IESNA 90.1-2010, and their compliance with those documents will be readily verifiable on an annual basis

- **Quantitative**: In 2020, all new buildings and renovations to existing buildings—in all 50 states—will be compliant with IECC 2012 and ASHRAE/IESNA 90.1-2010

Priority Solutions and Actions to Achieve the Goal

Mid-term Goal (2013)

At least 30 states have adopted the 2009 IECC and ASHRAE 90.1-2007 or equivalent, and three states have adopted 2012 IECC/90.1-2010. 15 states have evaluated compliance by building type & system, and have 90% compliance plans in place.

Two Pillars

Drive model and stretch code update processes

Increase compliance with existing codes

Priority Solutions Areas

Solution 1: Develop adoption strategies focused on energy/cost savings impacts, while branching out to new audiences such as the general public.

Solution 2: Strategically team stakeholders to implement best practices for code adoption on State or Local level

Solution 3: Increase the number and availability of compliance guides and field measurement tools.

Solution 4: Develop and distribute training plans.

Solution 5: Understand and share best practices for funding code enforcement.

SEE Action *Financing Solutions*

Co-Chairs:

Keith Welks, Deputy State Treasurer for Fiscal Operations, Pennsylvania Treasury

TJ Deora, Director Colorado Governor's Energy Office

Remove financing barriers to energy efficiency in the U.S. through improved financing tools and mechanisms (e.g., loans, leases, service agreements).

- Better understand the needs of financial institutions in participating in energy efficiency lending.
- Provide government and financial institutions with the data, tools, and education to create successful future financial products.
- Continue to refine those financial tools so they reflect current data and the market's changing needs.

Priority Solutions and Actions to Achieve the Goal

Mid-term Goal

Remove financing barriers to energy efficiency in the United States through improved financing tools and mechanisms (loans, leases, service agreements).

Three Pillars

Better Understand Needs of Financial Institutions and Customers

Develop Information Toolkits

Develop New Data on Loan Performance

Priority Solutions Areas

1. Dialogue with Financial Institutions and Customers
Gather information from financial institutions and customers to better understand their needs relative to participating in energy efficiency lending.

2a and 2b. Information Toolkits
Provide relevant data and analysis to utilities, government entities, and financial institutions that will fill-in knowledge gaps and information needs and allow them to create appropriate finance products.

2c. Toolkit Outreach and Education
Educate financial institutions, utility commissions, and other stakeholders on how to effectively leverage information and data presented in the toolkit.

3. Loan Data Analysis
(a) Gather and make public (on an ongoing basis) data, including loan-level performance data, that will assist utilities, financial institutions and others to develop and offer finance products for the residential sector at attractive rates and terms.
(b) Create online depository of loan program information.

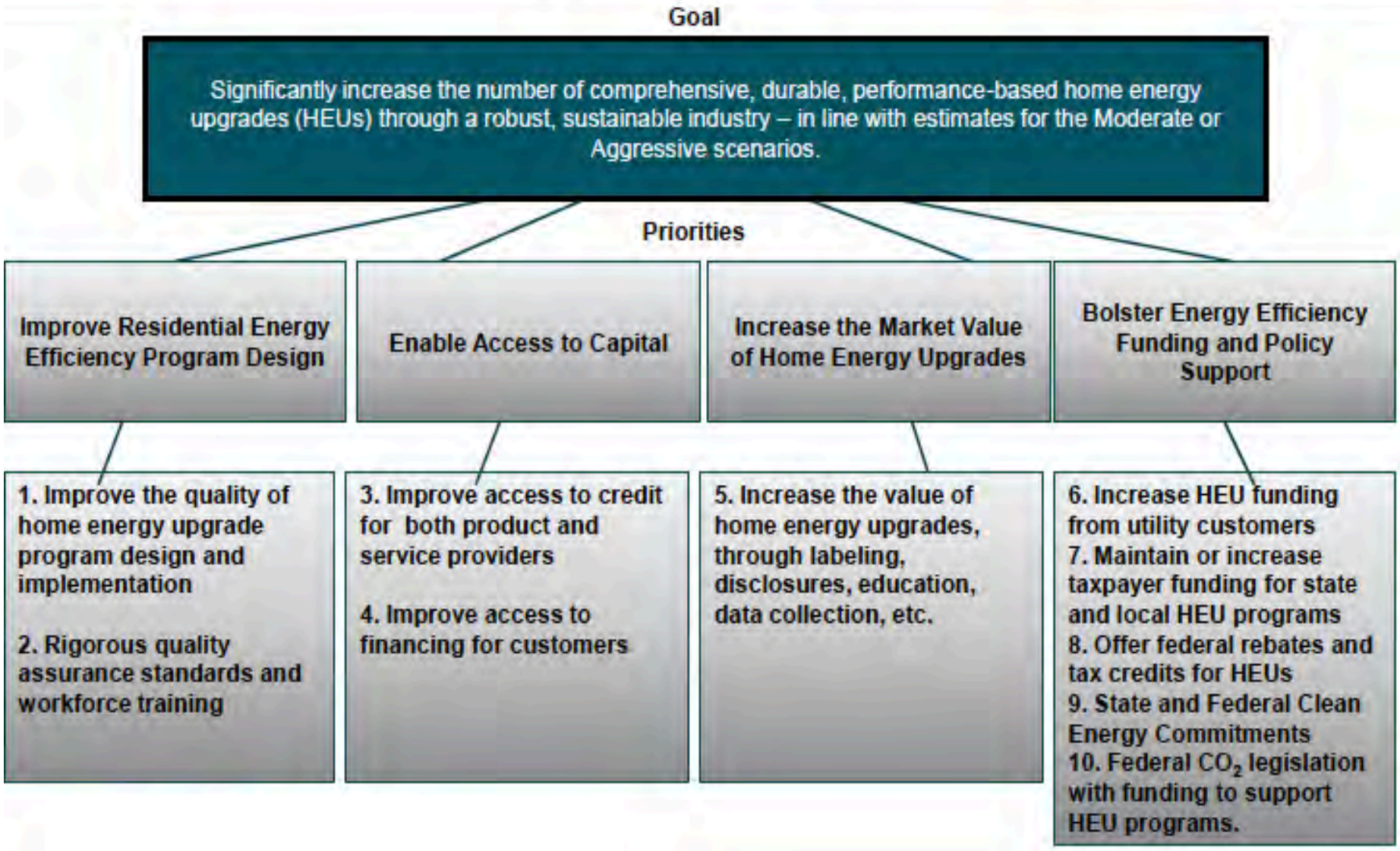
SEE Action
Residential Building Retrofits

Chair:
Frank J. Murray, President and CEO, NYSERDA

Envisions a thriving industry for comprehensive, durable, performance-based home energy upgrades with:

- Robust demand for home energy upgrades
- A well-qualified network of full-service home performance contractors to meet this demand
- A rigorous system for quality assurance
- Sufficient pools of affordable, accessible private capital
- Comprehensive home energy upgrades will be comprehensive and performance-based; achieve savings of 20% or more of total energy use per building
- Public policies and funds provide support to leverage investments by more households
- Ultimate goal is to establish a robust, sustainable, private sector industry that provides home energy upgrade services

Residential Retrofit Priority Areas



SEE Action
Utility Motivation and Energy Efficiency

Co-Chairs:

Jennifer Easler, Iowa Office of Consumer Advocate

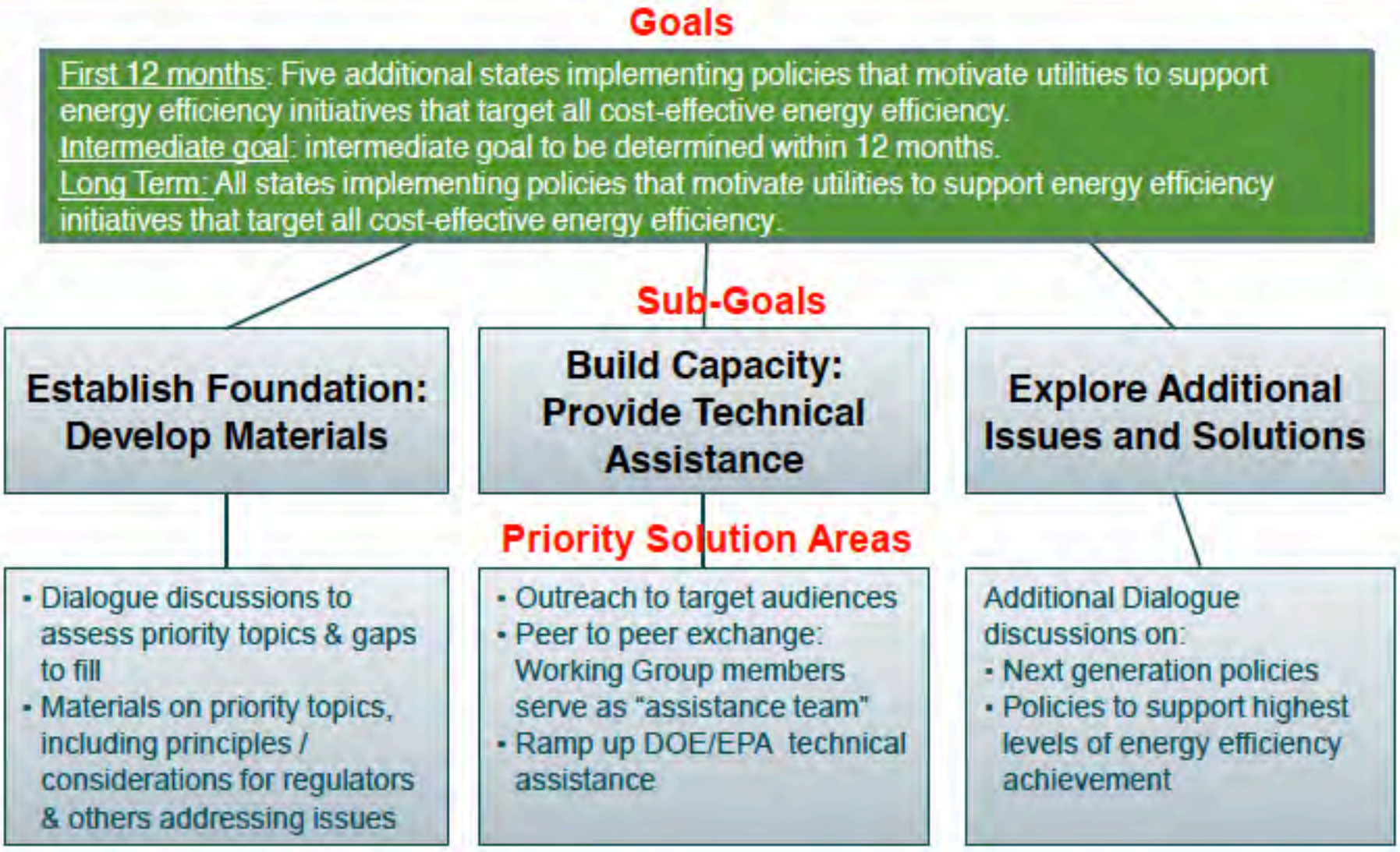
Cheryl Roberto, Ohio Public Utilities Commission

Increase investments in energy efficiency through ratepayer-funded energy efficiency programs.

The Utility Motivation and Energy Efficiency Working Group has set these goals:

- First 12 months: Five additional states implementing policies that motivate utilities to support energy efficiency initiatives that target all cost-effective energy efficiency
- Intermediate: Intermediate goal to be determined within first 12 months.
- Long term: All states implementing policies that motivate utilities to support energy efficiency initiatives that target all cost-effective energy efficiency.

Priority Solutions & Actions to Achieve Goals



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Technical Assistance

- Current technical assistance includes:
  - DOE Office of Energy Efficiency and Renewable Energy Solution Center, http://www1.eere.energy.gov/wip/solutioncenter/
  - DOE Office of Electricity Delivery and Energy Reliability State and Regional Policy Assistance, http://energy.gov/oe/services/electricity-policy-coordination-and-implementation/state-and-regional-policy-assistance
  - EPA State Climate and Energy Program, http://epa.gov/statelocalclimate/state/index.html
  - EPA Climate Showcase Communities Program, http://epa.gov/statelocalclimate/local/showcase/

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How States Can Engage

- Disseminate, promote, and adopt SEE Action recommendations within your state or region
- Inform SEE Action Working Groups of working programs / policies your state has in place or is working toward
- Highlight innovative industrial financing or incentives that are available in your state
- Work with SEE Action to enhance state energy efficiency data collection and reporting for the industrial sector to improve capabilities for measuring program / policy impacts

Thank you!

Todd Currier, Washington
Janet Streff, Minnesota

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