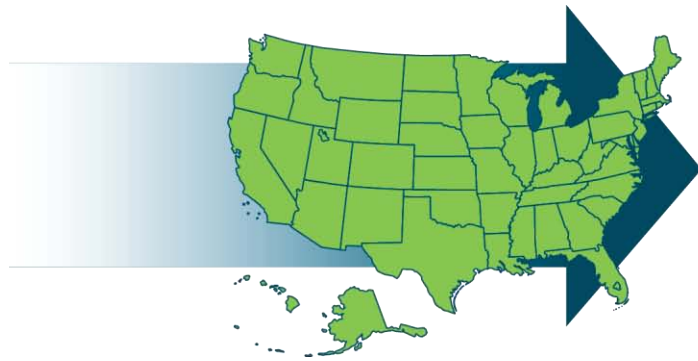


SEE Action

STATE & LOCAL ENERGY EFFICIENCY ACTION NETWORK

**State and Local Energy Efficiency
Action Network (SEE Action)
Industrial Energy Efficiency (IEE) and
Combined Heat and Power (CHP) Working
Group**

June 2011



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This information was developed as a product of the State and Local Energy Efficiency Action Network (SEE Action), facilitated by the U.S. Department of Energy/U.S. Environmental Protection Agency. Content does not imply an endorsement by individuals or organizations that are part of SEE Action working groups, or reflect the views, policies, or otherwise of the federal government.

What is SEE Action Network?

SEE Action Goal

To help the nation achieve all cost-effective energy efficiency by 2020 through assisting state and local governments in their implementation of energy efficiency policies and programs

- SEE Action is a federal-state-local effort to assist state governments, utilities, and other local stakeholders in:
 - Advancing efficiency policies and programs
 - Removing barriers and disincentives to realizing energy savings through efficiency
 - Growing state-level investments in cost-effective energy efficiency



SEE Action Network Structure

SEE Action Working Groups



Executive Group

- Approx. 30 members, representing diverse stakeholders, including state policy makers, business leaders, utilities, NGOs, associations
- Provides visionary leadership, strategic direction, and prioritization
- Facilitated & co-chaired by DOE and EPA



DOE and EPA Role

- While SEE Action is focused on guidance and resources for non-federal entities, success will require that all parties work to complement each other. Generally, the federal role includes:
 - Convene stakeholders to identify needs and to collaborate on program design / development
 - Provide technical assistance
 - Ensure that programs document and share results and performance data
 - Develop tools and programs
 - Promote outreach efforts
 - As appropriate, elevate cross-agency policy issues to senior management



IEE /CHP Working Group Members

IEE and CHP Working Group:

- Two Co-Chairs
- 17 Members
 - State Programs
 - Coordinating Organizations
 - Utilities
 - Research/Academia
 - Industry / End-Users
- Four DOE / EPA Leads

Co-Chairs	
Todd Currier	Washington State University Extension Energy Office
Greg White	Michigan Public Service Commission
State Programs	
Brian Platt	New York State Energy Research and Development Authority
Coordinating Organizations	
Ron Edelstein	Gas Technology Institute
Neal Elliott	American Council for an Energy-Efficient Economy (ACEEE)
Rich Herweck	Texas CHP Initiative
John Holt	National Rural Electric Cooperative Association
Bruce Lung	Alliance to Save Energy
Rick Marsh	Southeast Energy Efficiency Alliance (SEEA)
Richard Meyer	American Gas Association (AGA)
Lisa Schwartz	Regulatory Assistance Project
Becky Stanfield	National Resources Defense Council
Ed Wisniewski	Consortium for Energy Efficiency
Utilities	
James Earley	Southern Company
Chris Goff	Southern California Gas Company
Research/Academia	
John Cuttica	Energy Resources Center, University of Illinois – Chicago
Dr. Michael Muller	Rutgers University
Industry/End-User	
Stephen Coppinger	CalPortland
Brad Runda	Saint-Gobain
DOE / EPA Leads	
Elizabeth Dutrow	EPA ENERGY STAR for Industry
Bob Gemmer	DOE Industrial Technologies Program
Sandy Glatt	DOE Industrial Technologies Program
Neeharika Naik-Dhungel	EPA CHP Partnership



IEE / CHP Working Group Scope

- IEE / CHP Working Group addresses:
 - Industrial sector/manufacturing:
 - Large-, medium-, and small-sized industries
 - Varying levels of energy intensity
 - Energy efficiency in terms of systems and processes
 - Energy intensity (as a measure of efficiency)
 - Combined heat and power (CHP)
- Working group does not address:
 - Building envelope
 - Small commercial*
 - Other issues that do not affect industrial energy efficiency / CHP uptake of state and utility programs

* EIA: Industrial sector includes “all facilities and equipment used for producing, processing, or assembling goods,” whereas the commercial sector is more encompassing and includes “service-providing facilities and equipment of businesses” ([EIA Glossary](#)).



IEE / CHP Working Group Goals

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 IEE & 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



SEE Action
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www.seeaction.energy.gov Green = IEE and CHP solution
Purple = CHP only solution

Impact of IEE / CHP Working Group Goals

Where We Are Today:

According to the Energy Information Administration, gross domestic product (GDP) growth estimates with fixed energy intensity, the industrial sector will consume 41.6* quads of primary energy in the year 2020 (Business as Usual).

Working Group Goals:

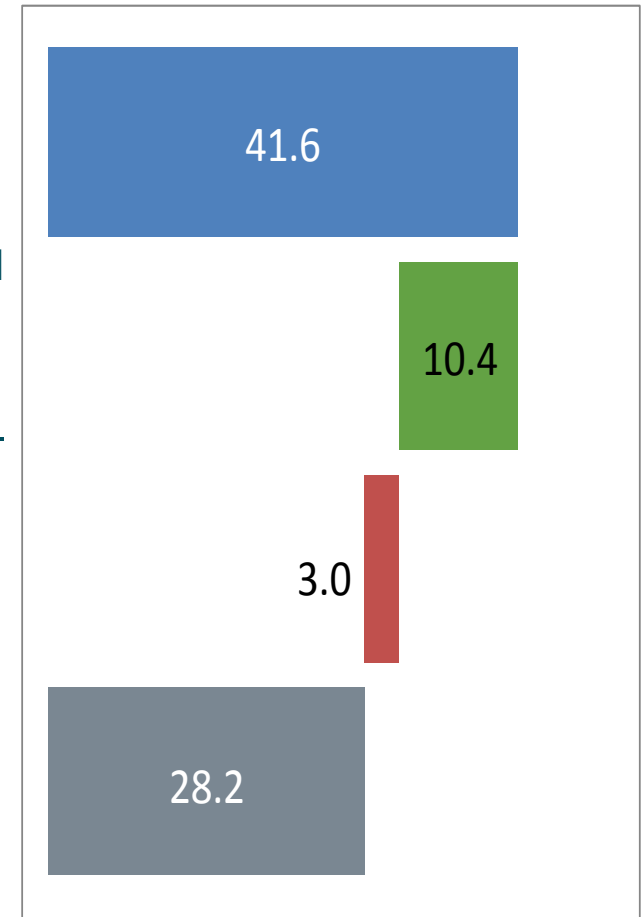
Based on the McKinsey report, 13.4 quads of potential industrial Btu savings by 2020 exist.** The working group's goals to reduce industrial energy intensity by 2.5% annually through 2020 and install 40 GW of new, cost-effective CHP by 2020 will achieve a reduction of 10.4 quads.***

Scope:

Reaching goals would capture 78% of the potential energy efficiency in the industrial sector, leaving 3.0 quads to address through other activities.

Resulting 2020 Energy Use if all potential is addressed:

Energy, quadrillion primary Btu



* Total industrial sector energy consumption includes refining-related efforts.

** The McKinsey non-transportation industrial estimates were used to calculate the potential for the full industrial sector.

*** 2020 efficiency potential is based on an estimated 25.2% growth in GDP by 2020 (Annual Energy Outlook 2008) and a fixed industrial energy intensity (energy consumption per value of shipments) through 2020.



First Year Activities

- Identify model programs and policies
 - Drafting white papers on IEE and CHP
 - Develop a program guidebook for states
- Identify state / utility data collection needs
 - Complete a gaps analysis
 - Engage states and utilities on enhancing data collection
- September 2011 Utility-Industry Workshop
 - Engage industry with states, utilities, and other stakeholders
 - Identify how to overcome key issues
- Catalog information, financing, and technical resources and increase accessibility
 - Update information clearinghouse
 - Develop CHP efficiency calculations
- Engage states, utilities, and PUCs on harmonizing their CHP interconnection standards



First Year Activities Cont'd

- Identify working national/federal programs and gaps in supportive regulatory and tax structures
- Hold 6 webinars between program administrators and industry to discuss overcoming IEE and CHP barriers to existing and model program participation
- Promote universities / community colleges developing new IEE and CHP curricula and training programs
- Engage utilities in hosting new IEE/CHP trainings
- Begin the promotion of identified valuable licenses and certifications
- Engage USCHPA on formulation of new State Policy Subcommittee



States / Regions

How States Can Engage:

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



Utilities and Regulators

How Utilities Can Engage:

1. Engage regulators on collaborative strategies to face the issues and hurdles in IEE implementation
2. Highlight innovative industrial financing or incentives that your utility offers
3. Work with us to enhance your utility's data collection and reporting metrics to improve program impact measurements
4. Develop appropriate trainings on IEE and CHP for industry in order to bolster education, training, and workforce programs



National / Nonprofit Organizations

How National Organizations and Non-Profits Can Engage:

1. Promote valuable national energy policies and programs in order to ensure broad delivery of IEE and CHP incentives, financing, and workforce development
2. Hold educational workshops on model policies for regulators and legislators to enhance key stakeholders' understanding of the economic value of IEE and CHP
3. Develop appropriate trainings on IEE and CHP for industry in order to bolster education, training, and workforce programs
4. Promote accepted protocols to increase adoption of standardized licensing and certification for energy efficiency service professionals



Industry / Manufacturers

How Industry Can Engage:

1. Provide essential feedback on key issues and barriers facing industry that hinder IEE and CHP implementation
2. Attend dialogues and workshops to interact with utilities and states in identifying how to move forward with meeting industry needs
3. Utilize and promote licensing and certification programs
4. Host a technology demonstration event



Contact Information

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