



The Alliance for Industrial Efficiency – 2017 Accomplishments

The Alliance has made tremendous progress in 2017 advancing policies that support combined heat and power (CHP) and waste heat to power (WHP) on Capitol Hill, with the Administration, and in state and utility proceedings across the country.

Among other things, we have:

- Released 6 factsheets
- Created 1 manufacturer case study and developed 2 energy efficiency worker profiles
- Presented at 9 events across the country
- Submitted comments on 2 federal and 5 state actions
- Sent 11 letters to federal legislators and 6 letters to state legislators and utilities commissions
- Joined 8 national coalition letters and comments
- Released 3 statements on federal Executive Branch actions, 2 statements on federal Legislative Branch actions, and 1 statement on state actions
- Convened dozens of meetings with congressional staff
- Convened business coalition meetings with state policymakers in Ohio, Pennsylvania and Virginia
- Organized business roundtables and facility tours for policymakers at 3 sheet metal training centers.

Our work focused on four broad areas:

1. Extending and expanding the investment tax credit for CHP,
2. Securing funding for DOE's CHP Technical Assistance Partnership,
3. Establishing best practices for state utility policies and beginning a dialogue with select utilities and PUCs about barriers to deployment, and
4. Putting a face on the energy efficiency workforce.

To this end, we supported and helped secure favorable language in the following proposals:

- Combined Heat and Power Support Act (S. 2142)
- Heat Efficiency through Applied Technology (HEAT) Act (S.1711)
- Rebuilding Resilient Systems Act (S. 2041)
- Master Limited Partnership Parity Act (S. 2005)
- Job Creation Through Energy-Efficient Manufacturing Act of 2017 (S. 1687)
- Technologies for Energy Jobs and Security Act of 2017 (S. 1409)
- Tax Cuts and Jobs Act (S. 1, H.R. 1)
- Technologies for Energy Security Act (H.R. 1090)
- Smart Manufacturing Leadership Act (S. 768, H.R. 3240)
- Energy Savings and Industrial Competitiveness Act (S. 385, H.R. 1443)
- The Energy Efficient Government Technology Act (H.R. 1268)
- Senate Energy and Water Appropriations bill (S. Rept. 115-132, p. 69)



Links to many of these materials follow.

I. Fact Sheets & Presentations

[Presentation](#): Ohio CHP Connection webinar on Hidden Barriers to CHP: Standby Rates and Ratchet Charges in Ohio – November 2017

[Presentation](#): Policy and Regulation: Standby Rates as a Barrier to CHP at Cogeneration Day USA – November 2017

[Presentation](#): Standby Rates as a Barrier to CHP at Electricity Consumers Resource Council (ELCON) – September 2017

[Presentation](#): SMART and SMACNA Event in Parma, Ohio (roundtable discussion at the Local 33 Training Center; highlighting the benefits of energy efficiency for Ohio's economy) The event received [coverage](#) from Midwest Energy News. – August 2017

[Factsheet](#): National Combined Heat and Power Overview Fact Sheet (provides overview of the CHP opportunity in the United States) – August 2017

[Presentation](#): State Ranking of Potential Electric Bill Savings through Industrial Energy Efficiency at ACEEE Summer Study – August 2017

[Factsheet](#): Combined Heat and Power (CHP) National Factsheet: Technical Assistance Partnerships (TAPs) – July 2017

[Factsheet](#): Proposed Energy Efficiency FY2018 Budget Cuts at Department of Energy and Environmental Protection Agency – June 2017

[Factsheet](#): Memo on Savings from Pennsylvania's Phase II Energy Efficiency Programs and Potential Losses from an Opt Out – June 2017

[Presentation](#): Standby Rates as a Barrier to CHP at American Forest & Paper Association – April 2017

[Factsheet](#): American Grid Resilience & Manufacturing Competitiveness Initiative – April 2017

[Presentation](#): Combined Heat and Power in America (AIE, BCSE & CHP Association Fact Book Webinar) – March 2017

[Presentation](#): SMART and SMACNA hosted a celebration of Energy Efficiency in Pennsylvania (Alliance helped organize the event with KEEA, BGA & NECA) – March 2017

[Presentation](#): Opportunities for Industrial Energy Efficiency in the Commonwealth for Virginia Energy Efficiency Council Webinar – February 2017

[Factsheet](#): Standby Rates as Barriers to Deploying Efficient CHP Projects – January 2017



II. Executive Branch Materials

The Alliance released [statement](#) on DOE's announcement of \$25 million in funding for a network of eight CHP TAPs – November 2017.

Alliance filed [comments](#) on FERC Notice of Proposed Rulemaking on Grid Reliability and Resilience Pricing – October 2017

Alliance released [statement](#) on the Department of Energy Grid Study – August 2017

Alliance released [statement](#) on President Trump's Executive Order on Clean Power Plan – March 2017

Alliance sent [letter](#) to President-Elect Trump about strengthening American manufacturing through industrial energy efficiency – January 2017

III. Legislative Materials

Alliance released a [statement](#) in support of the Combined Heat and Power Support Act Introduced by Senator King – November 2017

Alliance sent a [letter](#) in support of the Rebuilding Resilient Systems Act introduced by Senator Bennet (D-CO) – November 2017

Alliance shared a [statement](#) in support of the Master Limited Partnership Parity Act introduced by Senator Coons and Senator Moran – October 2017

Alliance sent a [letter](#) to Senator Merkley endorsing the Job Creation through Energy-Efficient Manufacturing Act of 2017 – August 2017

Alliance sent a [letter](#) to Senator Shaheen in support of the HEAT Act – August 2017

Alliance submitted [comments](#) to Chairman Hatch of the Senate Finance Committee regarding treatment of CHP in the context of Tax Reform – July 2017

Alliance sent a thank you [letter](#) to Senator Carper and Senator Heller for introducing the Technologies for Energy Jobs and Security Act of 2017 (S.1409) – July 2017

Alliance sent a [letter](#) to leadership on the House and Senate Appropriations Committees urging them to support the CHP TAPs and other DOE programs – June 2017

Alliance [thanked](#) Senator Shaheen for introducing the Smart Manufacturing Leadership Act – April 2017

Alliance sent a thank you [letter](#) to Rep. Reed for introducing the Technologies for Energy Security Act – March 2017



Alliance sent a [letter](#) expressing support for the Energy Savings and Industrial Competitiveness Act – February 2017

Alliance sent a [letter](#) to the DPCC (Democratic Policy and Communications Committee) about the Infrastructure Plan – February 2017

Alliance sent a thank you [letter](#) to California Rep. Eshoo about The Energy Efficient Government Technology Act – February 2017

IV. National Coalition Letters

Alliance signed on to a [letter](#) in support of increased appropriations for energy efficiency programs and robust oversight of Federal spending – December 2017

Alliance joined [comments](#) from a coalition of energy efficiency organizations on the FERC Notice of Proposed Ruling on Grid Reliability and Resilience Pricing – November 2017

Alliance signed on to [letters](#) (addressed to both the House and Senate) addressing the Risk of Impoundment of Appropriated Funds to Energy Efficiency Programs – September 2017

Alliance signed on to a coalition [letter](#) urging Congress to Fund Energy Efficiency Programs – July 2017

Alliance signed a stakeholder [letter](#) expressing support for North Carolina's Energy Efficiency Programs – May 2017

Alliance signed a stakeholder [letter](#) supporting the Environmental Protection Agency's Combined Heat and Power Partnership (CHPP) program – May 2017

Alliance joined a coalition [letter](#) supporting the Energy Savings and Industrial Competitiveness Act of 2017 (S. 385 & H.R. 1443) – March 2017

Alliance signed on to a coalition [letter](#) supporting the Technologies for Energy Security Act (H.R. 1090) – March 2017

Alliance signed on to a coalition [letter](#) supporting level funding for energy efficiency programs – March 2017

V. State Comments & Letters

Alliance co-signed a [letter](#) (with Tucson Emerging 2030 District) to Arizona Corporation Commission regarding TEP energy efficiency programs (July 2017), along with a [follow-up letter](#) in October 2017

Alliance signed on to a business [letter](#) supporting Tucson Electric Power's (TEP) energy efficiency programs – July 2017

Alliance released a [memo](#) regarding savings from Pennsylvania's Phase II Energy Efficiency Programs and potential losses from an opt-out – June 2017



Alliance submitted [comments](#) on a potential Industrial Opt-Out Provision in Mississippi – June 2017

The Alliance organized a business [letter](#) and submitted [comments](#) to the Pennsylvania Public Utilities Commission supporting fair and transparent standby rates – June 2017

The Alliance organized a business [letter](#) and submitted [comments](#) to the Minnesota Public Utilities Commission on standby rates – April 2017

Alliance submitted [comments](#) and organized a business [letter](#) to the Michigan Public Service Commission on fair and transparent standby rates – March 2017

Alliance filed [comments](#) with MassDEP addressing the treatment of CHP in GHG emissions regulations in Massachusetts – February 2017

Alliance released a [statement](#) regarding Ohio Governor John Kasich’s Veto of HB 554 – January 2017

VII. Communications and Case Studies

[Profiles](#) of American Energy Efficiency Workforce – October 2017

Industrial Energy Efficiency [Case Study](#): Solvay Specialty Polymers USA (the most recent case study in a [series of 6 case studies](#)) – February 2017

Blog [post](#) about energy efficiency opportunities in Arizona (written by Darrell Fox, SMACNA Arizona Board Member and VP of Dynamic Systems, Inc.) – December 2017

Blog [post](#) on the opportunity for resilient energy technologies in healthcare, including CHP (written by Alexandra Rekkas, Alliance) – December 2017

Blog [post](#) re-posted from ACEEE discussed costs of an Ohio opt-out bill for customers (written by ACEEE report author Brendon Baatz) – November 2017

Blog [post](#) regarding significant opportunity for Combined Heat and Power (CHP) growth at colleges and universities (written by Bradford Weir and Jennifer Kefer, Alliance) – September 2017

Blog [post](#) about energy efficiency opportunities in Ohio (written by Thomas E. Martin; President of SMACNA Cleveland and President of T.H. Martin, Inc.) – August 2017

Blog [post](#) about the benefits of “Opting In” versus “Opting Out” of Industrial Energy Efficiency Programs (written by Alexandra Rekkas, Alliance) – July 2017

Blog [post](#) explaining how CHP helps to power energy efficiency in the industrial sector and delineating key barriers to deployment (by Jack Griffin; VP & General Manager of SourceOne, a Veolia North America Company) – July 2017



Blog [post](#) linking increased energy efficiency to jobs and economic growth in Pennsylvania (written by Ray Yeager; President and CEO of DMI Companies) The Alliance also worked with Mr. Yeager to publish an [op-ed](#) in the Pittsburgh Business Times – July 2017

Blog [post](#) regarding utility standby tariffs and how they inhibit CHP investments (written by Bradford Weir and Jennifer Kefer, Alliance) – June 2017

Blog [post](#) describing President Trump’s “New Foundation for American Greatness” budget proposal (written by Bradford Weir and Jennifer Kefer, Alliance) – May 2017

Blog [post](#) about businesses speaking out against proposed budget cuts for energy efficiency programs (written by Jennifer Kefer, Alliance) – April 2017

Blog [post](#) about companies seeking fair energy rates in Michigan and Minnesota (written by Jennifer Kefer, Alliance) – April 2017

Blog [post](#) promoting industrial energy efficiency as a key to American manufacturing competitiveness (written by Jennifer Kefer, Alliance) – March 2017

VI. Legislative Achievements

Tax Policy

In the House of Representatives, we witnessed the impact of our collaboration with the section 48 coalition to extend the Investment Tax Credit (ITC). Our impact in the Senate has not been as dramatic; nevertheless, we have cultivated bipartisan champions, who have the elements of a deal to extend the ITC in place.

Katie Cullen represented the Alliance at dozens of meetings organized by the section 48/25 coalition on and off Capitol Hill. In February, Rep. Tom Reed (R-NY) introduced the Technologies for Energy Security Act (H.R. 1090), which proposed extending the ITC for CHP and other non-solar technologies that were previously eligible (“orphan technologies”) for projects that begin construction before 2022. This bill does not expand the ITC to include WHP. The bill gained 116 bipartisan cosponsors, and its provisions were included in the Tax Cuts and Jobs Act (H.R. 1), which passed the House in November. However, H.R. 1 also added a “special rule for the determination of beginning construction,” which requires that projects maintain a “continuous program of construction” to qualify for the credit. This could result in more stringent guidance from the IRS on what is required to demonstrate that construction of a project has begun.¹

In June, Senator Tom Carper (D-DE), a member of the Senate Finance Committee, introduced the Technologies for Energy Jobs and Security Act (S. 1409). This bill proposes extending the ITC for CHP to include projects that begin construction before 2022, and would extend eligibility to WHP. The bill has bipartisan support from Senator Dean Heller (R-NV), another Finance Committee member, and Senator Lindsey Graham (R-SC), who is

¹ The House Report on H.R. 1 asserts that this language is merely intended to codify existing guidance for section 45; however, there is no guidance on this subject for section 48, and the statutory language supersedes the report.



also spearheading the effort to extend the nuclear energy production tax credit (PTC), which may make an opening for a deal that extends the section 48 and 25 orphan technologies along with the nuclear production tax credit (PTC).

The Alliance also engaged in the Senate's discussion on tax reform, submitting [comments](#) to Chairman Hatch in July in response to the Chairman's request. The Alliance also issued a [statement of support](#) for Senators Coons (D-DE) and Moran's (R-KS) reintroduction of the Master Limited Partnerships (MLP) Parity Act, with hopes that the bill would be included in a tax reform proposal. The Alliance statement was included in Senator Coons' press materials following introduction of the bill.

Despite these efforts, the Senate's version of the Tax Cuts and Jobs Act does not propose extending the ITC for non-solar technologies, or extending MLPs to include CHP and WHP. Senator Dean Heller (R-NV) has proposed an amendment to the bill ([SA 1617](#)) to extend the CHP tax credit until 2022, and include waste heat to power property under the ITC. The Senate tax bill also contains a base erosion anti-abuse tax that would negate the ability of multi-national companies to use the ITC against their tax liability—thus largely precluding the ability to monetize the ITC through tax equity investment arrangements.

Tax Policy Legislation

H.R. 1090 – Technologies for Energy Security Act

- Extends the Sec. 48 ITC for CHP system property the construction of which begins before January 1, 2022.
- Extends and phases down the Sec. 48 ITC and Sec. 25D(a) for other technologies.

H.R. 1 – Tax Cuts and Jobs Act

The House version of the major tax bill before Congress.

- Sec. 3502: Extends the Sec. 48 ITC for CHP system property the construction of which begins before January 1, 2022.
- Sec. 3502: Imposes a requirement that projects must maintain a continuous program of construction from the start date until the project is placed in service.

S. 1409 – Technologies for Energy Jobs and Security Act

- Extends the Sec. 48 ITC for CHP system property the construction of which begins before January 1, 2022.
- Adds WHP to the technologies eligible for the Sec. 48 ITC.
- Extends and phases down the Sec. 48 ITC and Sec. 25D(a) for other technologies.

S. 1 – Tax Cuts and Jobs Act

The Senate version of the major tax bill before Congress.

- Sec. 14401 - The Base Erosion and Anti-Abuse Tax would preclude the overwhelming majority of tax equity deals presently used to monetize the ITC.



CHP Technical Assistance Partnerships (CHP TAPs)

In the late spring, several universities hosting the Department of Energy's CHP TAPs became concerned that the program could be eliminated under the Administration's proposed FY2018 budget. The Alliance launched a campaign to prevent this. In June, Katie Cullen educated majority and minority staff for the Senate Energy and Water Appropriations Subcommittee about the situation and the important role played by the CHP TAPs. The Alliance also jumpstarted a grassroots outreach effort to help companies and other stakeholders reach out to key Members of Congress.

In late July, the Senate Appropriations Committee approved an Energy and Water Appropriations bill with the Alliance's proposed report language recommending adequate funding for the CHP TAPs:

Within available funds for the Industrial Technical Assistance program, the Committee recommends \$12,000,000 to provide ongoing support for the Combined Heat and Power [CHP] Technical Assistance Partnerships [TAPs] and related CHP Technical Partnership activities at the Department, including \$5,000,000 for the TAPs and \$7,000,000 for related CHP activities. ([S. Rept. 115-132](#), p. 69)

The Alliance organized a CHP TAPs-focused fly-in on July 25 to urge support for the funding levels recommended in the Senate report and to develop champions for updating the authorizing legislation for the CHP TAPs. These included meetings with the majority and minority staff for the House Energy and Commerce Committee and the Senate Energy and Natural Resources Committee, as well as staff for the Senate Appropriations Committee Chairman Thad Cochran (R-MS). The Alliance also organized a second advocacy day for New Jersey stakeholders, which included a meeting with the staff of Rep. Rodney Frelinghuysen (R-NJ), Chairman of the House Appropriations Committee.

The Alliance educated others in the efficiency community about the important role played by DOE's CHP TAPs and EPA's Combined Heat and Power Partnership program. We participated in coalition efforts and ensured that language addressing these programs was included in coalition materials. The Alliance joined a coalition [letter](#) urging Congress to maintain sufficient funding for energy efficiency programs like Energy Star and the CHP TAPs, a similar [coalition letter](#) supporting the EPA CHP Partnership Program, and [letters](#) urging Congress to prevent the Executive Branch Departments from impounding funds intended for energy efficiency programs.

The Alliance continued outreach on authorization for the CHP TAPs, including meetings with staff for members of the Senate Energy and Natural Resources Committee coupled with grassroots support letters from businesses in the Senators' states. We collaborated with Senate staff and TAPs beneficiaries to draft language that would extend authorization for the program through 2022 (as the previous authorization had expired in 2012). In November, Senator Angus King (I-ME) introduced legislation (Combined Heat and Power Support Act, S. 2142) reauthorizing the CHP TAPs program. This legislation is intended to provide clear direction to the Administration and future Congresses to help ensure adequate funding is provided for the network of CHP TAPs and complementary activities at DOE. The



Alliance issued a [statement of support](#), which was cited in Senator King's [press release](#) on the introduction of the bill.

On November 27, DOE [announced](#) that it will be providing \$25 million in funding for the CHP TAPs at eight locations over the next five years. The DOE press statement highlighted CHP's efficiency, resiliency, and reliability attributes, as well as the available technical potential for CHP at industrial, municipal, and commercial facilities. The Alliance [issued a statement](#) praising the DOE's action and calling on Congress to continue support — particularly for the complementary activities at DOE that advance CHP deployment.

CHP TAPs Legislation

S. 1609 (S. Rept. 115-230) – Energy and Water Appropriations

The Senate Appropriations Committee adopted report language recommending the funding levels the Alliance sought for the CHP TAPs.

- “Within available funds for the Industrial Technical Assistance program, the Committee recommends \$12,000,000 to provide ongoing support for the Combined Heat and Power [CHP] Technical Assistance Partnerships [TAPs] and related CHP Technical Partnership activities at the Department, including \$5,000,000 for the TAPs and \$7,000,000 for related CHP activities.” (p. 69)

S. 2142 – CHP Support Act

Updates the law authorizing the CHP TAPs program and extends the authorization through 2022.

Energy and Infrastructure Policy

There has been a renewed interest in improving the reliability and resilience of American electricity infrastructure—but sometimes only as a means of promoting coal and nuclear energy. There has also been a renewed political interest in reviving American manufacturing. The Alliance has undertaken a variety of activities to promote CHP and WHP as reliable and resilient energy infrastructure that also improves the competitiveness of America's industrial sector.

Shortly after the inauguration, the Alliance took advantage of the Administration's interest in infrastructure and manufacturing and sent a [letter to President Trump](#) outlining how the Administration could support deployment of CHP and WHP as part of a resilient infrastructure to increase U.S. manufacturing competitiveness. The Alliance also sent a [letter](#) to the Democratic Policy and Communications Committee outlining how CHP and WHP fit several of the goals outlined in the Committee's infrastructure plan.

In summer 2017, Secretary Rick Perry ordered the Department of Energy staff to conduct a study of grid reliability and resiliency. This study would later serve as justification for the Notice of Proposed Rulemaking (NOPR), in which he required the Federal Energy Regulatory Commission (FERC) to consider changes to the wholesale markets that would result in higher wholesale prices for coal and nuclear energy, based on the assumption that



those resources are more reliable and resilient because their fuel is stored onsite. In August, Alliance issued a [statement](#) on the DOE electricity grid study. Later, the Alliance filed [comments](#) with FERC regarding the DOE NOPR focused on CHP and WHP's contribution to grid stability, and also joined coalition [comments](#) to FERC emphasizing the broader benefits of energy efficiency to the economy and electric system.

The Alliance also lent its support (both alone and as part of larger coalitions) to a variety of legislative proposals that would create more opportunities for CHP and WHP deployment and make the U.S. grid more reliable and resilient. These include letters of support for the [Energy Efficient Government Technology Act](#) (H.R. 1268), the [Energy Savings and Industrial Competitiveness Act](#) (S. 385, H.R. 1443), the [Smart Energy Manufacturing Leadership Act](#) (S. 768, H.R. 3240), the [Job Creation through Energy Efficient Manufacturing Act of 2017](#) (S. 1687), the [Rebuilding Resilient Energy Systems Act](#) (S. 2041), and [the Heat Efficiency through Applied Technology \(HEAT\) Act \(S. 1711\)](#). Key provisions of these proposals are highlighted below:

Energy Policy Legislation

S. 1460 – Energy and Natural Resources Act of 2017

This bill is a reboot of the 2016 comprehensive energy bill the Senate Energy and Natural Resources Committee approved last year. The bill would make changes to federal contracting practices to promote energy efficiency and requires a study of interconnection and standby rules for CHP and WHP systems. Some of the most notable provisions are summarized below:

- Sec. 1105 – Utility Energy Service Contracts: Extends the maximum federal contract period for these contracts from 10 to 25 years.
- Sec. 1106 – Amends contracting authority requirements and directs federal agencies to implement cost-effective energy savings projects – including energy savings performance contracts, and utility energy service contracts.
- Sec. 1121 – Use of federal disaster relief for energy-efficient products and structures: allows the use of federal disaster assistance under the Stafford Act to replace products or structures with more energy efficient ones.
- Sec. 2303 – Hybrid micro-grid systems for isolated resilient communities: Requires DOE to establish a program to promote hybrid micro-grid systems for isolated communities to increase the resilience of critical infrastructure.
- Sec. 2309 – Report by transmission organizations on distributed energy resources and interconnected micro-grid systems.
- Sec. 2311 – Study of CHP and WHP Systems: Authorizes the DOE, in consultation with FERC, to conduct a study of existing rules and procedures relating to interconnection and supplemental, backup, and standby fees for CHP and WHP systems that allow for adequate cost recovery for utilities.
- Sec. 3031 – Including thermal energy in the definition of renewable energy: Adds qualified waste heat resources to the definition of renewable energy for purposes of the Federal purchase requirement.

H.R. 306 – Energy Efficient Government Technology Act



Requires federal agencies to develop a strategy for the use of energy saving information technologies and requires the DOE to update a report to Congress evaluating data center energy efficiency.

S. 385, H.R. 1443 – Energy Savings and Industrial Competitiveness Act

Title II creates several industrial energy efficiency initiatives including a “future of industry” program featuring several outreach and assistance efforts to assistance manufacturers to enhance their energy efficiency and sustainability. It establishes a “Supply Star” program to promote highly efficient supply chains.

S. 768, H.R. 3240 – Smart Energy Manufacturing Leadership Act

Requires the completion of a “National Smart Manufacturing Plan.” Expands DOE’s Industrial Assessment Centers to include tools to provide technical assistance on smart manufacturing technologies and practices. Provides for support of the National Laboratories for smart manufacturing and state leadership grants to promote smart manufacturing.

S. 1180 – Clean Energy Grid Act

Requires DOE to conduct a study to research the integration of clean energy into the grid, and solicit research into barriers to the entry of clean energy (including CHP and WHP) into the grid. Once studies are completed, requires DOE to issue a solicitation for project proposals to demonstrate the integration of distributed energy resources.

S. 1687 – Job Creation through Energy Efficient Manufacturing Act

Establishes a DOE Financing Energy Efficient Manufacturing Program, which provides grants for energy efficiency improvement projects in the manufacturing sector.

S. 1711 – Heat Efficiency through Applied Technology (HEAT) Act

Requires DOE, in consultation with FERC, to create technical interconnection standards to ensure interoperability with Federal interconnection rules, model interconnection procedures, and model rules for interconnection costs. Requires DOE, in consultation with FERC, to establish model rules and procedures for supplementary, standby and back-up power.

S. 2041, H.R. 4251 – Rebuilding Resilient Energy Systems Act

Amends the Stafford Act to allow federal emergency funds to be used to replace energy infrastructure with more resilient and efficient technologies that provide continuous power flows to facilities critical to health safety and welfare; maximizes the use of clean energy resources and energy storage; and promotes lower energy bills.