



*Using less. Doing more.*

# 2016 YEAR IN REVIEW

## Dear Alliance Friend,

Back in 2010 we dubbed this the ***Decade of Energy Efficiency***. We aspired to make enormous progress – more than in any other decade – toward our mission of energy efficiency. And, with three more years still left before we enter the 20's, our vision is a reality.

Colin Powell said, "A dream doesn't become reality through magic; it takes sweat, determination and hard work." And, truly, our success stems from the dedication and commitment of our Board, Associates, allies both inside and outside the government, and, of course, our staff.

How can we declare success? Simply put, the advancements in national energy efficiency policies so far in this decade are unprecedented in our country's history. Homes built to the current code will be about 20% more energy-efficient than ones built before 2009. Americans will save \$1.7 trillion at the fuel pumps by 2025 thanks to stronger fuel economy standards. And, appliance and equipment standards established in this decade are projected to save Americans over \$550 billion on their utility bills. Importantly, these tremendous gains in energy efficiency come with commensurate reductions of pollutants and GHG emissions.

Bottom line: Our economy continues to grow – creating more jobs and greater prosperity – while our energy use remains flat. Truly, we are doing more with less, which is the motto and mantra of the Alliance.

But our work is far from finished. We came agonizingly close to seeing the first comprehensive energy bill of the decade – with energy efficiency at its center – enacted before partisan maneuvering and the surprising election derailed the effort in the closing days of the 114th Congress. While the outcome was frustrating, the work we did was hailed as a ***textbook example of stakeholder engagement and bipartisan lawmaking***. And the progress we made is not in vain. The unfinished bill is a blueprint for future work, and we already are picking up where Congress left off.

Throughout 2016, we also continued ***laying groundwork for new policy initiatives*** that could ultimately affect millions of lives around the world. I hope you will take time to ***peruse this report for a high-level look at all the work we carried out in 2016***. Our report is a testament to the impact the Alliance is having not only in the U.S. but also globally.

No year-end review would be complete without mention of the November elections, which dramatically changed the political landscape. While President-elect Trump's victory created a high degree of uncertainty in Washington, we believe it also presents opportunities. With Washington focused on America's economy and aging infrastructure, we are well-positioned to advance efficiency policies within the Administration and the Congress. The Alliance has spent decades forging strong bipartisanship, and our success in doing so should pay dividends as we fight to protect the significant advancements made thus far while also working toward creative new policy solutions.

I am tremendously honored to lead the Alliance at such an important point in our history. This year marks the 40th anniversary of our organization; the 25th anniversary of our Awards Dinner; and the 10th anniversary of our premier international conference, EE Global. While we have much to celebrate, we remain committed to looking forward. To that end, we have embarked on a strategic planning exercise to chart the next phase in our history.

I am excited and anxious to begin this new era. And, I am confident that with your continued support and active engagement, we will continue and even pick up the pace of the march toward doubling our country's energy productivity.

Here's to 2017 and making it yet another banner year in the ***Decade of Energy Efficiency!***



Kateri Callahan, President



# FEDERAL UPDATE

## A Banner-Year for Energy Efficiency Standards

It came down to the wire on Capitol Hill as leaders tried to reconcile competing House and Senate versions of the first comprehensive energy bill in a decade. But the political dynamic shifted significantly after the November elections, and Congress ultimately turned out the lights on 2016 before an agreement could be reached.

The high-water mark came when 85 senators in April approved the Senate's legislation that included strong efficiency provisions originally authored by Alliance Honorary Board Chair Sen. Jeanne Shaheen (D-N.H.) and Vice-Chair Sen. Rob Portman (R-Ohio). While we were

disappointed that Congress let a prime opportunity slip by to pass legislation that would have saved homeowners, consumers and businesses an estimated \$60 billion, we were emboldened by the overwhelming display of bipartisan support and the diverse coalitions of businesses and industry groups that supported the bill. The effort stands as a model for future work in the new Congress.

On the executive front, the Obama administration continued its push to double U.S. energy productivity by releasing new efficiency standards throughout the year for a wide range of consumer and commercial appliances and equipment,

including battery chargers, dehumidifiers, wine chillers, ceiling fans, residential air conditioners and heat pumps and air compressors.

**Almost 50 standards have been issued since 2009, which when taken together will save consumers and businesses over \$550 billion by 2030.**

Federal leadership in energy efficiency also generated impressive returns across government facilities in 2016. By October, total investments in energy efficiency leveraged by performance contracts exceeded \$3.5 billion, which is on track to reach President Obama's goal of \$4 billion by year's end.

CONTINUED...



Alliance Honorary Board Member Sen. Lisa Murkowski gives remarks on the energy bill during Alliance's Great Energy Efficiency Day 2016 in September.

Of course, change was in the air after Donald J. Trump won the November presidential election. We are optimistic that efficiency will remain a bipartisan policy solution, and in addition to pursuing legislation left undone in 2016, we will continue working creatively to advance efficiency in areas such as tax reform, infrastructure development, small business productivity and systems efficiency.

We also are fully aware that many energy and environment policies will be under scrutiny in the new political environment. The Alliance is fully prepared to resist efforts to roll back appliance and equipment efficiency standards or other efficiency measures. As has been our tradition for four decades, we will continue developing relationships with leaders on both sides of the aisle and in both the legislative and executive branches to continue the momentum behind strong efficiency policy.

Throughout the year, the Alliance was looking ahead to the "next big thing" and bringing energy efficiency policy and technology innovations to Capitol Hill in an impressive series of public briefings. Highlights included keynote remarks from Rep. Paul Tonko (D-N.Y.) at a February briefing on benchmarking and disclosure policies and from fellow Alliance Honorary Board member Sen. Ron Wyden (D-Ore.) who helped introduce the Systems Efficiency Initiative to congressional staff and other stakeholders. At a July briefing about "grid edge" technologies, DOE Building Technologies Office Director David Nemtsov provided an overview of energy efficiency innovation.



Alliance Honorary Board Members Sens. Jeanne Shaheen (D-N.H.) and Rob Portman (R-Ohio)



Alliance Honorary Board Member Sen. Ron Wyden (D-Ore.)



# BUILDING ENERGY CODES

## Tackling the "Elephant in the Room" of U.S. Energy Consumption

Since the Alliance established the Energy Efficient Codes Coalition (EECC) in 2008, we've helped boost the residential and commercial building efficiency of America's Model Energy Code (IECC) by 38% and 30% respectively.

2016 gave EECC its most daunting challenge – an aggressive nationwide campaign by efficiency opponents to roll back the IECC to 2009 levels. Compounding the challenge, this year's 2018 IECC was finalized by electronic voting for the first time, opening it to thousands of officials who had never voted on previous IECCs.

EECC reaffirmed its role as a premier building efficiency advocate by re-engaging the prestigious ICF International to develop EECC's pro-efficiency update proposals, analyze over 400 proposals by others, testify at hearings, and craft International Code Council voting guides.

EECC's broad support base then embarked on a nationwide campaign to boost ICC Governmental Member voting, forming outreach alliances with **State Energy officers, Cities, Regional Councils of Government** and **Urban Sustainability Directors** to engage policymakers and making presentations to governmental officials in dozens of metropolitan areas across America.

The US Conference of Mayors played a significant role: **adopting a resolution supporting EECC's 5% efficiency boost and opposing all rollbacks, conducting its first-ever forum** on the vital role of building energy codes, and urging mayors to insure that their jurisdictions' online votes were cast for building efficiency.

**Results:** A record number of governmental officials voted on the 2018 IECC, defeating all significant efficiency rollback proposals for residential and commercial buildings and preventing onsite electricity generation from weakening new home envelope efficiency.



Jane Palmieri, Alliance former Co-Chair, delivering the Charles H. Percy Award for Public Service to U.S. Secretary of Energy Ernest Moniz during the Evening with the Stars of Energy Efficiency Awards Dinner 2016.

# EVENTS

## Advancing the Business Case for Energy Efficiency at Home and Abroad

In 2017 we hosted more than 25 events - including congressional briefings and field trips, Policy Perspectives breakfasts, webinars, executive roundtables, and our signature events, EE Global and the Energy Prom - with the singular goal of advancing energy efficiency through increased public-private collaboration and best practice sharing. Additionally, many of these events offered exclusive opportunities for our Alliance Associates to engage in meaningful discussion with some of the foremost leaders in energy efficiency and federal policy.

On May 11-12, we hosted our **9th annual Energy Efficiency Global Forum** where Alliance Honorary Board Vice-Chairs Sen. Chris Coons (D-Del.) and Sen. Rob Portman (R-Ohio) as well as international sustainability leader Rachel Kyte spoke to an audience of nearly 500 industry experts from more than 27 countries. The speakers delivered inspiring remarks about how energy efficiency can and is making our environment healthier, our economies stronger and our future more secure.

On September 22, our **24th annual Evening with the Stars of Energy Efficiency** celebrated seven deserving award recipients, including Lockheed Martin, SMUD, Staples, TVA and View. The evening concluded with a memorable video address from Vice President Joe Biden, who awarded Dr. Ernest Moniz the Charles H. Percy Award for Public Service for unparalleled success in advancing energy efficiency throughout his career. Secretary Moniz addressed an audience of nearly 400 industry leaders and reaffirmed energy efficiency as a critical solution to our national and global environmental and economic goals.



Water Audit (Canfield Avenue School, Mine Hill Township, NJ) 2015-2016.

# OUTREACH & EDUCATION

## Positioning the Alliance As the Leading Voice on Energy Efficiency

The Alliance's presence on **traditional media** this year was substantial, with over 3,400 media hits during 2016, an average of 380 hits monthly. The Alliance got strong visibility particularly in the spring as we helped push comprehensive energy legislation through the Senate, which included positive coverage in The Washington Post, New York Times, Politico, Bloomberg News, Yahoo! Finance, the Washington Examiner, The Hill and Huffington Post.

On **social media**, the Alliance's Twitter account was the top influencer on energy efficiency among advocacy organizations in 116 English-spoken countries, according to research by ALTO Data Analytics. The Alliance's presence also grew on social

media, with an average of 48% growth in engagement among Facebook, Twitter, LinkedIn accounts.

In addition, we sent 253,000 emails on Alliance initiatives and generated more than 8,200 letters to Members of Congress on policy priorities.

On the education front, building on the successful partnership with the Sacramento Municipal Utility District, **PowerSave School** teams provided auditing recommendations to local businesses. Siemens expanded 2015's successful pilot **PowerSave Advantage** program in three new schools in Illinois, New York and Maine. PowerSave Schools flourished in New Jersey and Tennessee along with renewed partnerships

with Los Angeles Department of Water and Power and the Los Angeles Unified School District.

The **Energy Hog** engaged students in the PowerSave Schools and through partnerships with New Jersey Natural Gas and GreenSpaces (Chattanooga, Tennessee). Energy Hog assemblies also increased literacy skills for over 1,000 students through writing competitions.

The **Knoxville Extreme Energy Makeover** continued to help moderate- to low-income families see significant reductions in utility bills while increasing comfort through weatherization retrofits of over 850 homes, saving over 3.5 M kWh with Alliance education services engaging nearly 1,500 families.



EP100 launch during EE Global 2016, held in May in Washington, D.C. From left to right: Kateri Callahan, Alliance to Save Energy, Richard Northcote, Covestro; Anirban Ghosh, Mahindra & Mahindra, Clay Nesler, Johnson Controls, Mark Kenber, The Climate Group (former CEO).

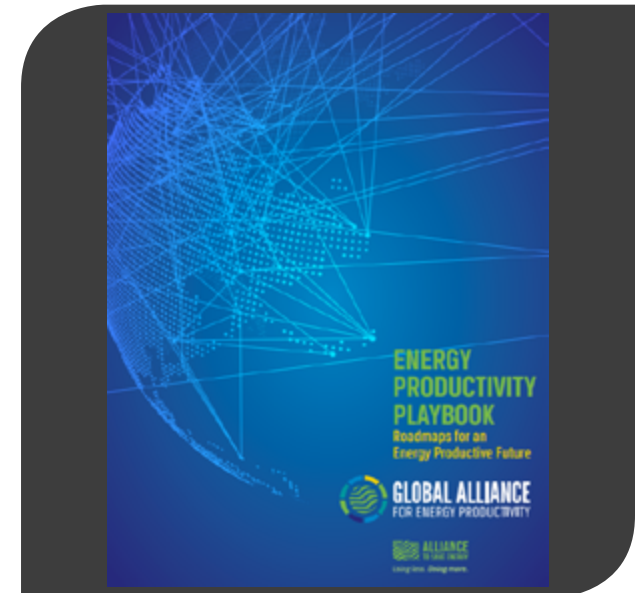
# INTERNATIONAL

## Global Alliance for Energy Productivity

As Secretariat for the Global Alliance for Energy Productivity, the Alliance to Save Energy drives action by policymakers and corporate leaders to improve energy productivity around the world. More than 100 companies and organizations have endorsed the Global Alliance goal of doubling energy productivity.

In addition to promoting energy productivity by addressing audiences at high-profile events, including the 22nd Conference of the Parties of the UNFCCC in Marrakech in November, the Global Alliance launched two key initiatives in 2016:

- The Global Alliance launched the *Energy Productivity Playbook* at EE Global. The Playbook provides a blueprint for driving energy productivity improvements around the world through the development of Energy Productivity Roadmaps.
- In partnership with The Climate Group, the Alliance also launched the EP100 campaign, through which corporations commit to doubling their energy productivity. Alliance Associate Member companies Johnson Controls, Covestro, Hongbo Group and Danfoss were leaders in joining the program, demonstrating the strong business case for energy productivity.



Click the image above to download the Energy Productivity Playbook



Mark Menzer, Danfoss, Mark Lessans, Ingersoll Rand, Jeff Duncan, Duncan Government Strategies, and Laura Van Wie McGrogy, Alliance to Save Energy, during the Systems Efficiency Initiative Congressional Briefing, on November 17, 2016.



# SYSTEMS EFFICIENCY

## Creating New Opportunities

On May 11 at EE Global, the Alliance launched the report *Greater than the Sum of its Parts: The Case for a Systems Approach to Energy Efficiency*. The report summarizes the findings of Year 1 of the **Systems Efficiency Initiative (SEI)** – an Alliance-led collaboration of manufacturers, architects, utilities, government agencies, and efficiency advocates working to advance building systems energy efficiency.

The SEI provides a critical forum to look beyond traditional, component-level energy savings strategies and considers the interactions of components within and among various

building systems (e.g., mechanical and lighting systems, miscellaneous electric loads, building-to-grid interaction). During its first year, SEI explored barriers and opportunities for improving the efficiency of these systems.

Now in its second year, SEI members are building on the preliminary conclusions from the Year 1 report and are developing a *Systems Efficiency Roadmap* – to be published in 2017 – which will contain action recommendations for Congress, federal and state agencies, utilities, and other key stakeholders.



*Greater Than The Sum Of Its Parts: The Case for a Systems Approach* is the Systems Efficiency Initiative's Year 1 Report. You can download the full version by clicking the image.



# CARBONCOUNT®

## Moving Forward With Our Green Bond Evaluation Tool

The CarbonCount® scoring tool evaluates bond investments in U.S.-based energy efficiency and renewable energy projects to determine how effectively they can be expected to reduce CO2 emissions per \$1,000 of investment.

Finishing up its second year of active development, the Alliance's CarbonCount® scoring methodology showed no signs of a sophomore slump as the award-winning tool passed several milestones. The Alliance was granted a registered trademark when the CarbonCount® methodology was registered on the U.S. Patent Office's Supplemental Registry in October 2016.

Additionally, the methodology was streamlined and expanded to residential and commercial energy efficiency projects, leveraging DOE's Commercial Reference Buildings and NREL's Building America House Simulation Protocols data.

With the refreshed tool, the Alliance scored a number of green bonds in 2016. These included renewable energy projects and ESPCs for major financial institutions, and will soon include a tranche of commercial PACE investments. We expect even more progress in the third year as the Alliance continues to work with organizations such as Hannon Armstrong and the Connecticut Green Bank to broaden the use of our CarbonCount® tool in the industry.



Click the image below to watch the video "What is CarbonCount?" and learn more about the tool.

# RATE DESIGN INITIATIVE

## Pursuing a Win-Win-Win for efficiency

Formally launched in Spring 2016, the Alliance's Rate Design Initiative (RDI) seeks to develop rate design principles and templates that will enable a win-win-win for consumers, utility companies and energy efficiency companies. Smart rate design will support demand side management (which includes both energy efficiency and demand response) while enabling utilities the opportunity to earn a fair return on their investments.

At the same time, consumers will be able to better manage their energy use and seek out savings opportunities from utility and third-party offerings.

Working with a diverse group of utility companies and energy product and service companies, the Alliance has finalized a set of **rate design principles** that will inform our future efforts. In early 2017, we will continue to develop rate design templates that will translate the principles from theory to practice. This effort will culminate in a Summer 2017 "roadshow" to major industry conferences to showcase the work of RDI and highlight the opportunity that smart rate design provides for all energy users.



Click the image above to read the set of rate design principles.

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**KANDEH YUMKELLA**

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## AERCO International, Inc.

Air-Conditioning, Heating and Refrigeration Institute

Air Movement and Control Association International

Alliance for Sustainable Energy LLC/NREL

Alliance for Water Efficiency

American Chemistry Council

American Council for an Energy-Efficient Economy

American Council on Renewable Energy

American Gas Association

American Institute of Architects

American Lighting Association

American Public Gas Association

American Public Power Association

American Public Transportation Association

## American Water

## Andersen Corporation

A.O. Smith

Association of Energy Engineers

Association of Home Appliance Manufacturers

ASERTTI

ASHRAE

Austin Energy

Australian Alliance for Energy Productivity

Big Ass Solutions

## Bonneville Power Administration

Brookhaven National Laboratory

BSH Home Appliances Corporation

Building Codes Assistance Project

CALMAC Manufacturing Corporation

Center for Energy Efficiency & Sustainability

Chelan County Public Utility District

China-U.S. Energy Efficiency Alliance

Citigroup

CMC Energy Services

Collaborative for High Performance Schools

Consumer Technology Association

Copper Development Association

Covestro

## Cree

Dallas/Fort Worth International Airport

## Danfoss

DENEFF e.V.

## Dentons

DNV-GL

## E4TheFuture

Edison Electric Institute

Electric Power Research Institute

European Alliance to Save Energy

## Exelon Corporation

Green Building Initiative

GreenerU

Guernsey

## Hannon Armstrong Sustainable Infrastructure Capital, Inc.

Home Performance Coalition

Hongbo Group

ICF International

Illuminating Engineering Society

## Ingersoll Rand

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International Copper Association, Ltd.

International Window Film Association

Itron

## Johns Manville

## Johnson Controls

Jupiter Oxygen Corporation

Knauf Insulation

Large Public Power Council

Lawrence Berkeley National Laboratory

## Legrand

LG

Lime Energy

## Lockheed Martin

Los Alamos County Department of Public Utilities

Midwest Energy Efficiency Alliance

Missouri River Energy Services

## Nalco, An Ecolab Company

National Association of State Energy Officials

National Association of Water Companies

National Electrical Manufacturers Association

## National Grid USA

National Insulation Association

Natural Resources Defense Council

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Nest Labs

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## New York State Energy and Research Development Authority

## North American Insulation Manufacturers Association

Northeast Energy Efficiency Partnerships

Northern California Power Agency

Northwest Energy Efficiency Alliance

Oak Ridge National Laboratory

OSRAM SYLVANIA

Panasonic

## PG&E Corporation

Philips Lighting Company

Polyisocyanurate Insulation Manufacturers Association

PSE&G

Rinnai

Sacramento Municipal Utility District

## Schneider Electric

## Seattle City Light

## Siemens Industry, Inc.

## SloanLED

Snohomish County Public Utility District

Southeast Energy Efficiency Alliance

## Southern California Edison

## Southern Company

Tennessee Valley Authority

## The Dow Chemical Company

The Stella Group

U.S. Climate Action Network

U.S. Green Building Council

Univ. of California, Davis-Energy Efficiency Center

USES Manufacturing Inc.

Vermont Energy Investment Corporation

View, Inc.

Virginia Energy Efficiency Council

## Washington Gas

## Whirlpool Corporation

World Business Council for Sustainable Development

\* Founder-level Associates are denoted in bold for their voluntary contribution of \$25,000

OVERVIEW

FEDERAL  
UPDATE

BUILDING  
ENERGY CODES

EVENTS

OUTREACH &  
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