

Using less. Doing more.

Statement of the Alliance to Save Energy Senate Energy, Natural Resources and Infrastructure Subcommittee Senate Committee on Finance "Powering Our Future: Principles of Energy Tax Reform" July 31, 2013

INTRODUCTION

The Alliance to Save Energy is pleased to submit policy recommendations to the Senate Energy, Natural Resources and Infrastructure Subcommittee that would help remove current barriers to energy efficiency investments, and play a significant role in the ongoing tax reform endeavors to increase the productivity of our economy, create jobs, and save businesses and consumers money.

For more than 35 years, the Alliance to Save Energy has capably served as a bipartisan, nonprofit coalition of business, government, environmental, and consumer leaders committed to promoting energy efficiency worldwide to achieve a healthier economy, a cleaner environment, and greater energy security. Founded in 1977 by Senators Charles Percy, a Republican from Illinois, and Hubert Humphrey, a Democrat from Minnesota, the Alliance has worked tirelessly to improve the efficiency of America's energy resources and to make certain that energy is not wasted.

The organization is currently led by Senator Mark Warner as Honorary Chairman, and National Grid US President Tom King as Chairman of our Board of Directors. Senators Susan Collins, Chris Coons, Ed Markey, Lisa Murkowski, Rob Portman, Mark Pryor, Jeanne Shaheen, Mark Udall and Ron Wyden, and Representatives Michael Burgess, Ralph Hall, Steve Israel, Adam Kinzinger, Paul Tonko and Peter Welch serve as Honorary Vice-Chairs. Over 140 companies – including United Technologies Corporation – and organizations support the Alliance as Associates. Attached to these comments are lists of the Alliance's Board of Directors and its Associate members.

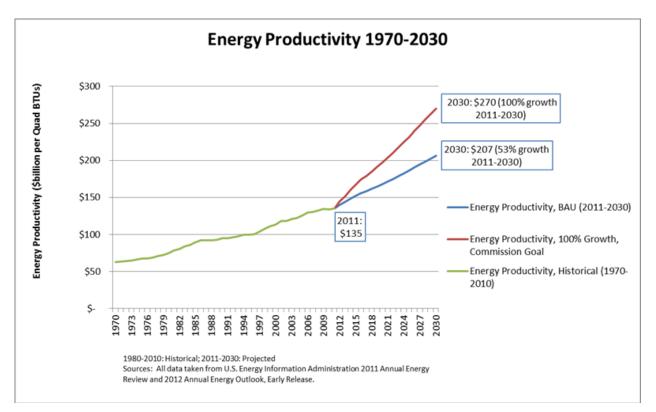
COMMISSION ON NATIONAL ENERGY EFFICIENCY POLICY

Earlier this year, the <u>Alliance Commission on National Energy Efficiency Policy</u> (ACNEEP) (attached is list of Commission members and their biographies) unveiled its policy recommendations (<u>Energy 2030</u>) that were based on the bold yet actionable goal of doubling U.S. energy productivity, or for every unit of energy consumed in 2030 will produce twice the amount of Gross Domestic Product (GDP) compared to 2011. Meeting this goal can deliver exceptionally large benefits to the United States, including enhanced economic competitiveness, technological innovation, greater energy reliability and security and strengthened stewardship of our environment and natural resources.

Created in 2012 to identify solutions for increasing U.S. energy productivity and jumpstarting the economy, the Commission built its recommendations on a large body of research that examines the issues of investment, technology, human behavior, and government and their relation to growing energy productivity in the U.S. across an array of economic sectors, including commercial, industrial, transportation and residential. An <u>independent analysis by the Rhodium Group (RHG)</u> found that doubling our nation's energy productivity by 2030 could:

- Cut average household energy costs by more than \$1,000 a year;
- Save American businesses \$169 billion annually;
- Reduce government agency spending by \$13 billion a year;
- Create 1.3 million jobs and increase GDP by up to 2%;
- Decrease energy imports by more than \$100 billion annually; and,
- Reduce CO₂ emissions by 33 percent below 2005 levels.

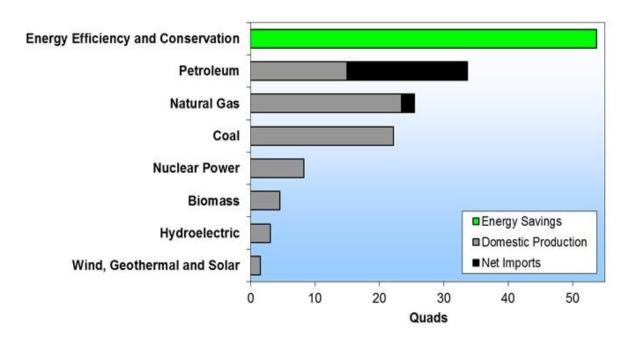
Moreover, the enclosed figure demonstrates how the Commission's energy productivity target compares with the reference (current course of activity) case projection of the U.S. Energy Information Administration (EIA) 2012 Annual Energy Outlook.



Over the last 40 years, the United States has made significant gains in energy productivity. In 1970, about \$63 billion of GDP in year 2005 dollars were produced per quadrillion Btu (quad) of energy used domestically according to the U.S. Energy Information Administration. In 2011, the figure was about \$135 billion per quad. The Commission's goal is for the U.S. economy to achieve \$270 billion (in 2005 dollars) of GDP for each quadrillion Btu consumed in 2030.

If not for U.S. energy productivity gains since the early 1970s, the United States would need to consume about 50% more energy – with concomitant impacts on energy bills, oil imports, energy

reliability and security, and environmental quality – to deliver today's GDP. The following Alliance to Save Energy figure graphically illustrates the point.



Energy Efficiency: America's Greatest Energy Resource

U.S. Energy Resources Used in 2011

While the United States has made significant energy productivity progress over the last several decades, the nation cannot afford to rest on its laurels. Indeed, heightened international economic competition; stresses on American energy, transportation, and other physical infrastructure; continued economic and geopolitical vulnerabilities to energy price shocks (despite increased North American oil and natural gas production); and multiple environmental challenges associated with energy all indicate a need to strengthen U.S. efforts to enhance energy productivity.

In addition to the Commission's work, three other reports have been issued recently that include calls for energy efficiency as a central pillar of sound U.S. energy policy. These include the <u>National Association of Manufacturers' Energy Efficiency Task Force on the building sector</u>; the <u>Business Roundtable's Taking Action on Energy: A CEO Vision for America's Energy Future</u>; and the Bipartisan Policy Center's <u>America's Energy Resurgence</u>: <u>Sustaining Success, Confronting Challenges</u>. The Commission intends to work collaboratively with these organizations and their associates to implement our common and important agendas on energy efficiency, including on taxes.

HISTORY OF EFFICIENCY TAX INCENTIVES

Tax incentives have been and should continue to be a critical element of a comprehensive energy efficiency policy. But they should be carefully designed to address market failures and to spur market transformation. To stimulate adoption of residential and industrial energy-efficiency

measures, several tax incentives were created in the 1970s. The Energy Tax Act of 1978 contained a 15% tax credit for residential conservation and renewable energy investment between 1977 and 1985. Conservation measures included weather stripping and insulation among others. The Energy Tax Act also covered a 10% tax credit for certain energy-efficiency measures installed by businesses. However, according to a study done by the American Council for an Energy-Efficient Economy (ACEEE), the residential and industrial tax credits between 1978 and 1985 had relatively little net impact on driving energy-efficiency improvements.

In the last decade, tax incentives for private firms and consumers to make investments in energy efficiency were included in the Energy Policy Act of 2005 and the American Recovery and Reinvestment Act (ARRA) of 2009 as well as other more specific tax policies. Establishing the first major federal energy-efficiency tax incentives in two decades, the Energy Policy Act of 2005 contained several provisions for new energy-efficient homes and vehicles, home improvements, new commercial buildings and energy retrofits, and energy-efficient appliances. ARRA modified and expanded many of the existing federal energy efficiency tax credits.

Most of these incentives are technology-neutral and performance-based. While not all the energy efficiency tax incentives have been equally successful, many have spurred market transformation toward more energy-efficient products, with introduction of new technologies and dramatic increases in market share. They have reduced energy costs for consumers, spurred American manufacture of appliances and building components, and strengthened our energy systems.

DEPRECIATION SCHEDULES

Business investment decisions often are affected by their anticipated tax consequences; one example of a perverse and unintended consequence is reduction in private sector outlays in newer, more efficient assets when depreciation rules fail to reflect the actual service lives of the equipment. Fundamental tax reform offers an excellent opportunity to enact depreciation policies that support efficiency investments and positively impact project economics.

Significant improvements in energy productivity can arise from replacing old capital stock with new, more efficient technologies and equipment. The 2012 Annual Energy Outlook and other projections link energy intensity and productivity improvements to new capital investment.

However, the tax code has discouraged business investments with unrealistically slow depreciation – in some cases equipment that typically lasts fifteen years can only be depreciated over 39 years (on the other hand the energy costs that would be saved can be expensed in one year – the government pays businesses one-fourth or even one-third of the cost of wasted energy). Additionally, back-up generators, a seldom-used asset, depreciate over three years while a combined heat and power (CHP) system that delivers ongoing energy efficiency and reliability benefits has a 20-year or even longer depreciation schedule. The same or similar equipment can have different depreciation schedules based on the kind of building or industrial sector in which the equipment is installed, rather than on engineering-based estimates of the actual life of the asset. If recovery periods are too long, they encourage continued operation of obsolete equipment and discourage replacement with new more efficient products.

Manufacturing is vital to American economic well-being, accounting for more than 11% of GDP and 60% of exports, and directly employing nearly 12 million individuals with above average wages and benefits. The industrial sector consumes 26 quadrillion Btu or roughly 27% of national energy use. U.S. Department of Energy scenarios project approximately a one-third improvement in energy productivity for manufacturing by 2035, but more is possible. Enhancing depreciation schedules for energy equipment is well aligned with improving American industrial productivity and competitiveness.

To that end, making depreciation schedules and other tax provisions more favorable to new capital investment could enhance energy productivity while expanding overall industrial competitiveness. Moreover, depreciation provisions can have reduced or, perhaps, favorable fiscal impacts on the Treasury compared to other measures.

RECOMMENDATIONS

Federal tax incentives have played a key role in encouraging market adoption of energy-efficient new homes, home improvements and appliances, new commercial buildings and upgrades, hybrid cars and heavy duty vehicles, and public transportation. As part of federal tax reform, Congress should consider the following Energy 2030 recommendations:

Adjust commercial and industrial depreciation schedules:

• Employ accelerated or bonus depreciation measures to encourage modernizing capital stock. New equipment – including HVAC products (air conditioning units, heat pumps, furnaces and boilers), water heaters, combined heat and power, roofs and other commercial/industrial products – buildings, and vehicles tend to be more energy efficient than old stock. Since depreciation adjustment changes the timing but not the total amount of tax paid to the Treasury, fiscal impacts can be relatively modest (and the increased economic activity may be fiscally beneficial).

Focus energy efficiency tax incentives on high efficiency technologies and measures:

• Strengthen the qualifying criteria, amounts, and durations of energy efficiency tax incentives to promote innovation and market transformation. One approach would be to direct DOE or EPA to set the specific criteria, preferably based on designations used in market transformation programs, which would allow for more timely and expert response to market changes.

CONCLUSION

By wisely utilizing the tax code, the federal government can spur the development and use of energy-efficient equipment, technologies, buildings and vehicles throughout a myriad of economic sectors in the United States. While important strides have been made in this area, the energy-efficiency tax incentives can and must be expanded and enhanced in order to ensure that the American people are given immediate, cost-effective and sustainable assistance in addressing high energy costs, an ever-less secure energy future and the harmful environmental impacts associated with the production and use of energy.



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



Commission Member Biographies

Chairmen





Sen. Mark Warner (D-Va.), elected to Congress in 2008, has reached across the aisle to revive the economy, support small business, reduce the deficit and champion energy efficiency. As governor of Virginia from 2002 to 2006, Sen. Warner revived the state's economy by bringing 135,000 new jobs into Virginia, supporting public education and turning a record budget deficit into a surplus.

Tom King was named National Grid USA President in 2007. This year King touted the 20th anniversary of National Grid's EE program which collectively cut customers' electricity bills by more than \$2.5 billion. King's long history in the energy industry includes service as president of Pacific Gas & Electric Corporation, president and CEO of Pacific Gas and Electric Company and senior posts with Kinder Morgan Energy Partners and several Enron affiliates.

Members



Dr. Dan Arvizu is the Director of the National Renewable Energy Laboratory, the U.S. Department of Energy's primary laboratory for energy efficiency and renewable energy research and development. He was a chief technology officer with CH2M HILL Companies, Ltd., an executive with Sandia National Laboratories, and started his career at the AT&T Bell Telephone Laboratories. In 2004, Dr. Arvizu was appointed by the President for a six-year term on the National Science Board, the governing board of the National Science Foundation and the national science policy advisory body to the President and the Congress.



Frances Beinecke is currently the President of the Natural Resources Defense Council (NRDC). Under Frances's leadership, the organization sharply focuses on curbing global warming, developing a clean energy future, and many other important environmental issues. Frances has worked with NRDC for more than 30 years. Prior to becoming the president in 2006, she served as the organization's executive director for eight years, during which time NRDC's membership doubled and the staff grew to more than 300. In addition to her work at NRDC, Frances has played a leadership role in several other environmental organizations. She currently serves on the boards of the World Resources Institute, the Energy Future Coalition and Conservation International's Center for Environmental Leadership in Business.



Gregory M. Bridgeford has been a Chief Customer Officer at Lowes Companies Inc. Mr. Bridgeford served as an Executive Vice President of Business Development at Lowes Companies Inc. since February 2, 2004. Mr. Bridgeford, a 22-year Lowe's veteran, oversees all aspects of Lowe's development of new business opportunities, strategic planning, research and business process improvement. Previously, he served as Lowe's Senior Vice President, Business Development since 1999. Mr. Bridgeford was also the Senior Vice President, Marketing from 1998 to 1999 and as Senior Vice President and General Merchandise Manager from 1996 to 1998. Mr. Bridgeford joined Lowe's in 1982 and has served in a variety of increasingly responsible positions, including Vice President of corporate development, Senior Vice President of merchandising/General Merchandising Manager and Senior Vice President of Marketing. He played an important role as a member of the team that wrote a new corporate vision for Lowe's in 1989, ultimately transforming it into one of the nation's leading retailers. Mr. Bridgeford holds a bachelor's degree in psychology from the University of Virginia, and earned an M.B.A. from Wake Forest University.



Jorge Carrasco is the Superintendent of Seattle City Light, the ninth largest public electric utility in the United States. Carrasco was appointed by Mayor Greg Nickels in late 2003 and confirmed by the Seattle City Council in February 2004. Since his appointment, Carrasco has reduced the utility's debt ratio from 85% to approximately 60%. Carrasco has supported and expanded City Light's commitment to environmental stewardship. For the third year in a row, City Light has been zero-net greenhouse gas emissions – the first electric utility in the country to make that claim.



General Wesley Clark is a retired four-star General of the United States Army and served for 38 years. General Clark has won many awards for his service including the Purple Heart and Presidential Medal of Freedom. In his early years the General graduated as valedictorian from West Point in 1966, went on to earn a masters at Oxford University as a Rhodes Scholar. After retiring from the service, General Clark ran for U.S. President in 2004. The General now serves as Chairman and CEO of Wesley K. Clark & Associated, a strategic consulting firm. General Clark has also become a well-known figure in the energy community. He is currently the co-chairman of Growth Energy and chairman of Solar Energy Squared, and he is a member of the Clinton Global Initiative's Energy and Climate Change Advisory Board.



Michael Eckhart is Managing Director and Global Head of Environmental Finance and Sustainability for Citigroup in New York City. In this role he supports Citi's goal to be the leading financial services firm in renewable energy, energy efficiency, clean water and related areas. From 2001 to 2011, he was founding President of the American Council On Renewable Energy (ACORE), a Washington DC-based nonprofit organization with members in all sectors of renewable energy and energy efficiency. He is a 2009 recipient of the Corporate Responsibility Award for Social Entrepreneurship, a 2008 recipient of the prestigious Skoll Award for Social Entrepreneurship, a 2006 recipient of RSF's Good Deal for All Award, and a four-time invited participant in the Clinton Global Initiative.



Anthony Eggert is the executive director of the UC Davis Policy Institute for Energy, Environment and the Economy. From 2007 through 2012 Eggert served as an appointee of Governors' Brown and Schwarzenegger in several senior policy positions including Science and Technology Policy Advisor to the Chair of the Air Resources Board, Commissioner for the California Energy Commission, and Deputy Secretary for Energy Policy of the California Environmental Protection Agency overseeing clean energy and environmental policy development for California. Prior positions include advising the University of California on federal energy and climate policy, directing research on low-carbon fuels and vehicles at UC Davis' Institute of Transportation Studies, and as an engineer and then manager for Ford Motor Company. Anthony received a Bachelor of Science Degree in Transportation Technology and Policy at U.C. Davis.



Carol Eicher is business group vice president for Dow Building & Construction, a business group within Dow's Advanced Materials Division that includes the following businesses: Dow Building Solutions, Dow Solar and Construction Chemicals. Dow Building & Construction specializes in the development and production of materials and technologies enhancing energy efficient and sustainable building. Before joining Dow (in 2009), Eicher spent 10 years at Rohm and Haas, where she held multiple vice president and director roles. Most recently, she was business director for the Performance Monomers unit which provides essential raw materials to the company's coatings, construction and adhesives markets. Ms. Eicher is also a director of Tennant Company, a 138-year old public company that markets environmentally friendly cleaning systems.



Sherri Goodman is currently the senior vice president, general counsel and corporate secretary at CNA Analysis and Solutions. She also serves as Executive Director of CNA's Military Advisory Board. Previously, Sherri served as the Deputy Undersecretary of Defense as the chief environmental, safety, and occupational health officer for the Department of Defense from 1993 to 2001. In addition, she practiced law at Goodwin Procter as well as on the staff of the Senate Armed Services Committee, RAND and SAIC. Sherri also serves on the boards of the Atlantic Council of the US, Blue Star Families, the National Academy of Sciences' Energy & Environmental Systems Board, the Marshall Legacy Institute, and the Woods Hole Oceanographic Institution. She is also a member of the Council on Foreign Relations and serves on the Board of its Center for Preventive Action.



Fred Krupp has served as the head of Environmental Defense Fund for 26 years. Fred is widely recognized as the foremost champion of harnessing market forces for environmental ends, such as the market-based acid rain reduction plan in the 1990 Clean Air Act that The Economist hailed as "the greatest green success story of the past decade." Fred broke new ground by engaging American companies to lessen their impact on the environment. Strategic partnerships with McDonald's, FedEx, and DuPont, among others, have resulted in the elimination of millions of pounds of waste, the adoption of hybrid delivery vehicles, and an accord to reduce the environmental risks of nanotechnology.



Alex Laskey is the President and Founder of Opower, a company that provides a customer engagement platform for the utility industry. Laskey is responsible for engaging utility and government partners with Opower's purpose and products. In his role as Opower's President, Alex was invited to the White House to meet with President Obama and eight other industry leaders to discuss innovation and job creation in the green economy. Prior to founding Opower, Alex enjoyed a career in politics and policy, serving as a campaign manager, strategist, and public-opinion analyst for several candidates.



Dr. J. Michael McQuade was named senior vice president, science and technology at UTC in September 2006. His responsibilities include overseeing UTC Power and UTC's Research Center and providing strategic oversight and guidance for research and development activities throughout the corporation. McQuade has held senior R&D and general management positions with technology development oversight at 3M and Eastman Kodak. Beginning in 2002, he was vice president of 3M's Medical Division. Previously, he was president of Eastman Kodak's Health Imaging business, including responsibility for its research laboratories. Prior to 1998, McQuade held several positions at Imation Corp. both before and after its spinoff from 3M in 1996. McQuade holds a doctorate, master of science and bachelor of science degrees in physics from Carnegie Mellon University.



Michael P. Melaniphy has been the President and CEO of the American Public Transportation Association (APTA) since November 2011. A nationally recognized leader, Melaniphy's entire career has been in public transportation, with more than 23 years of both public and private sector experience. Prior to APTA, Melaniphy was the Vice President Public Sector for bus manufacturer Motor Coach Industries, Inc., of Schaumburg, IL. He also led public transit systems in Charlotte, NC; Wichita, KS; Hamilton, OH; and Laredo, TX.



Governor George Pataki is the founder and Chairman of the Pataki-Cahill Group, a business development firm focusing on energy and infrastructure. Prior to starting the Pataki-Cahill Group, he was the 53rd Governor of New York State for three terms (1995-2006). Governor Pataki instituted the nation's green building tax credit incentive program which led to the building of the first high-rise green building in the world, the first high-rise residential building in the United States and a host of other green projects. Governor Pataki serves on the Advisory Council of global investment bank Greentech Capital Advisors and serves on numerous boards, including Ecological, a sustainable real estate development firm.



Susan Story is President and CEO of Southern Company Services. In addition to overseeing the company's operations, SouthernLINC Wireless, and Southern Telecom, Story also leads Southern Company's efforts related to "smart" technology investment and deployment. Story joined Southern Company in 1982 as a nuclear power plant engineer, and served in many other capacities before joining Gulf Power as CEO in 2002-2010, where she implemented important demand-side management programs. Story also currently serves on the Edison Foundation's Institute for Electric Efficiency Strategy Committee, the National Center for Energy Workforce Development board, and is involved in many other leadership positions.



Don Sturtevant is the Corporate Energy Manager of J.R. Simplot Company where he is responsible for the energy portfolio of one of the largest privately-held corporations in the United States consisting of AgriBusiness, Land and Livestock, and Food Group Divisions. In this role, he successfully developed and integrated a company-wide energy optimization program that is endorsed by the CEO and senior corporate leadership and became both a DOE Save Energy Now LEADER and an EPA Energy Star partner. Don received a B.S. in Mechanical Engineering from the University of Idaho and is an Honor Graduate of both the Army Basic Officer's Course and Basic Non-Commissioned Officer's course receiving the prestigious Lynch leadership award. He also he serves on many boards throughout the Northwest and is an advisory committee member to the Climate Registry. In addition to his civilian life, Don spent over twenty years in the Idaho Army National Guard.



Susan Tierney is currently a Managing Principal at Analysis Group in Boston, Massachusetts. During her time there she co-authored a highly regarded report on the Economic Impact of Regional Greenhouse Gas Initiative in Ten States. Ms. Tierney served as the Assistant Secretary for Policy at the U.S. Department of Energy under President Clinton (1993-1995) and served under other leading politicians as a senior advisor. For the past 15 years, she has consulted to electric utilities, other energy companies, and other organizations on energy markets, the structure and regulation of the electric industry in the U.S. and other countries.



Eisuke Tsuyuzaki was appointed chief technology officer of Panasonic Corp. of North America on July 1, 2009. In addition to his responsibilities as Panasonic's technology leader in the United States and Canada, Tsuyuzaki, as CTO, directs Panasonic's efforts in technical standards-making and corporate development. He also directs the building of strategic alliances, especially with the Hollywood movie studios and content creators. Prior to joining Panasonic, Tsuyuzaki served in leadership positions within the corporate strategy and business development functions of Sony Corp., Sony Pictures Entertainment and Columbia TriStar Motion Pictures.