



**Submission on behalf of the Business Council for Sustainable Energy**

**House Committee on Ways and Means  
Energy Working Group**

April 15, 2013

The Business Council for Sustainable Energy (BCSE) urges Congress to continue its long-standing support for a broad array of clean energy tax incentives to spur investment, create jobs and diversify our nation's energy portfolio to power the U.S. economy. As the House Ways and Means Energy Working Group considers comprehensive tax reform, the Council believes that clean energy provisions fulfill critical tax policy objectives and should be continued and enhanced.

The Business Council for Sustainable Energy is a coalition of companies and trade associations from the energy efficiency, natural gas and renewable energy sectors, and also includes independent electric power producers, investor-owned utilities, public power and commercial end-users. Founded in 1992, the Council advocates for policies that expand the use of commercially-available clean energy technologies, products and services. The coalition's diverse business membership is united around the revitalization of the economy and the creation of a secure and reliable energy future for America.<sup>1</sup>

In assessing tax policy, BCSE considers two primary objectives. First, the tax code should support and expand U.S. economic growth. Reliable, secure, clean energy is a foundation for long-term economic prosperity. Second, tax policy should provide stable conditions for investment. As such, clean energy tax incentives have a distinct role to play.

Tax incentives are part of our national energy policy and have been as effective as any state or federal energy policy mechanism in helping to ensure an adequate, reliable, safe, clean supply of energy resources. Further, tax incentives have been effective, efficient tools to:

- Encourage private sector investment
- Reduce costs for consumers and industry
- Spur technological innovation that lower deployment costs
- Create jobs

The recently released *Sustainable Energy in America 2013 Factbook* details the dramatic changes occurring in the U.S. energy system, which are due in part to tax policies. These changes include:

- Total energy use falling 6.4% between 2007 and the first nine months of 2012, driven largely by advances in energy efficiency.
- Use of natural gas and renewable energy have increased, while other major energy sources such as coal and oil have experienced declines. Natural gas provided the U.S. with 27% of its total energy supply in 2012, and renewables (including hydropower) supplied 9.4%.

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<sup>1</sup> As a broad coalition, not all members take positions or endorse all issues discussed in this submission.

- In the electricity sector, lower- and zero-carbon power sources are growing. Natural gas-fired power plants provided 31% of U.S. electricity in 2012, up from just 22% in 2007. Renewable energy generation has meanwhile grown from 8.3% to 12.1% over that period. These technologies, which include biomass, wind, solar, geothermal waste to energy and hydropower, represented the largest single source of new capacity growth in 2012, with more than 17GW added.

### ***Federal Clean Energy Tax Policies are Effective and Cost-Effective Investments***

Federal clean energy tax policies have impacted energy deployment and have offered a return on investment for taxpayers. Here are several examples:

- The shale gas revolution that is providing benefits across the U.S. was supported, in part, by federal tax policy.
- Tax credits for investments that make our homes and businesses more energy efficient have helped consumers save money, helped our industries become more competitive, and have successfully stimulated the energy efficiency market.
- Federal tax policy has helped lower the cost of wind power by more than 90% since the 1980s, has helped provide power to the equivalent of 15.2 million American homes, and foster economic development in all 50 states.<sup>2</sup>
- Tax support through the Investment Tax Credit has been critical to the continued increase of volume and reduction in costs for fuel cell systems.

As the Working Group considers recommendations for tax reform proposals, the Council urges recognition of the pro-growth track record of clean energy tax measures. In addition, the Council encourages the Working Group to consider enhancements to the credits to improve their performance. Several suggestions for improvements are mentioned below. In addition, expansion of the definition of Master Limited Partnership to include renewable energy and energy efficiency is a policy approach being explored by several Council members.

#### Solar

The tremendous success of the Investment Tax Credit (ITC) for solar energy projects exemplifies the importance of stable policy for the private sector and reveals a high return on public investment in solar energy in terms of economic benefits, domestic job creation, energy security and lower costs for consumers. In 2012, the U.S. solar industry installed more than 3,300 megawatts (MW) of solar capacity - an increase of 76% over 2011 - and currently employs over 119,000 American workers. The average cost of a completed PV system dropped by 24 percent over the past year, and costs continue to fall. In the face of a sluggish economy, the ITC provides market certainty for industry to continue making long-term investments in solar energy projects, U.S. manufacturing facilities and supply chain expansion.<sup>3</sup>

#### Hydropower

For the hydropower industry, throughout the 1990s and 2000s, there was minimal growth. This changed dramatically with the inclusion of hydropower technologies under the production tax credit (PTC) and clean renewable energy bonds program (CREBs) in 2005, and other incentives, such as the investment tax credit (ITC) and the Section 1603 program, in 2009.

From the enactment of the Energy Policy Act of 2005 through December 2011, FERC has certified 110 hydropower

<sup>2</sup> American Wind Energy Association, Press Release, "Wind energy grows 28% in a year, delivering more economic benefits to America than ever," <http://www.awea.org/newsroom/pressreleases/annual-report-2012.cfm>, April 11, 2013.

<sup>3</sup> Solar Energy Industries Association, "The Case for the Solar Investment Tax Credit," April 1, 2013.

projects spanning 22 states.<sup>4</sup> These projects, involving capacity additions and technology or efficiency improvements at existing hydropower facilities, have resulted in an average 10 percent efficiency gain and significant job creation.

Looking forward, given the long lead time for hydropower projects, long-term certainty in tax policy is critically needed. Further, the industry seeks parity with regard to the credit that other eligible technologies under the PTC receive.

#### Biomass and Biogas (open-loop biomass)

With over a billion tons of biomass available for energy use<sup>5</sup> it is imperative that this zero net carbon energy source be used to support our national energy needs. The Council recommends an energy tax credit that will enable biomass to methane projects, including biomass to pipeline quality gas, to get to the market.

Tax incentives for generating electricity from “open-loop” biomass (solid fuel from organic materials) have been available since 2004, when Congress provided both existing and new facilities a production tax credit – but only for a 5-year term and with a lower credit than for other eligible technologies. One year later, Congress lengthened the tax credit period from five years to ten years (for new facilities, while retaining the 5-year period for existing facilities).

While these credits have not been consistent, they have helped to make open loop biomass the second largest user of the PTC after wind. The PTC has improved the economics of developing landfill gas to electricity projects.

One important improvement to the code would be to encourage the modernization and refurbishment of older open-loop biomass facilities, and the re-purposing of retired coal facilities to burn open-loop biomass. Developers report that the IRS’s traditional rule used to define new facilities is difficult to apply and should be replaced with a simpler rule such as requiring at least fifty percent of the value of a new project to be attributable to new equipment. Further, the industry seeks parity with regard to the credit that other eligible technologies under the PTC receive.

#### Combined Heat and Power (CHP) and Waste Heat to Power (WHP)

The potential for increased deployment of CHP and WHP is great. Indeed, in 2008, the Department of Energy’s Oak Ridge National Laboratory (ORNL) found that CHP could produce 20 percent of U.S. electric capacity (or 156 gigawatts of new, clean power) by 2030.<sup>6</sup> This addition is equal to the capacity of more than 300 conventional power plants. According to ORNL, such full-scale deployment would generate \$234 billion in new investment and create nearly one million new highly-skilled, technical jobs, in the design, construction, installation and maintenance of CHP equipment.<sup>7</sup>

Despite the substantial long-term economic benefits, projects require a significant up-front investment with a multi-year payback period. Under current economic conditions, businesses are unlikely to have the necessary capital to support such investments. An Investment Tax Credit can help reduce the initial cost for these projects.

Notably, there is an existing Section 48 Investment Tax Credit for Combined Heat and Power. It includes a variety of limitations, however, which hamper its utility. The existing credit only applies to the first 15 MW of projects that are smaller than 50 MW in total. Furthermore, it is unclear that it extends to WHP. For these reasons, many of the most desirable projects have been unable to take advantage of the credit. Further, the Working Group should consider providing a 30 percent investment tax credit for highly efficient CHP and a 30 percent investment tax credit for WHP.

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<sup>4</sup> National Hydropower Association, “Statement for the Record to House Ways and Means Committee on Expired Tax Provisions that Expired in 2011 or Will Expire in 2012,” April 26, 2012 at <http://www.hydro.org/wp-content/uploads/2012/04/NHA-Statement-for-4-26-12-Ways-and-Means-Hearing.pdf>

<sup>5</sup> [http://www1.eere.energy.gov/biomass/pdfs/billion\\_ton\\_update.pdf](http://www1.eere.energy.gov/biomass/pdfs/billion_ton_update.pdf)

<sup>6</sup> Oak Ridge National Laboratory (ORNL), Dec. 1, 2008, *Combined Heat and Power: Effective Energy Solutions for a Sustainable Future*, at 4 ([http://www1.eere.energy.gov/industry/distributedenergy/pdfs/chp\\_report\\_12-08.pdf](http://www1.eere.energy.gov/industry/distributedenergy/pdfs/chp_report_12-08.pdf)).

<sup>7</sup> *Ibid*

These changes would not create significant expense. In fact, the size and capacity constraints in the existing ITC have greatly limited its use, causing its cost to fall far below the Joint Committee on Taxation's (JTC) initial estimates. According to recent analysis, the ITC has cost only \$11.2-million in its first five years.<sup>8</sup>

CHP and WHP provide a scalable, cost-effective approach to increasing manufacturing competitiveness and enhancing electric reliability. Unfortunately, limitations in the existing CHP tax credit has prevented manufacturers from realizing these benefits.<sup>9</sup>

### Energy Efficiency

With regard to the range of energy efficiency tax credits currently in the code, these measures have resulted in increased efficiency in new and existing buildings and the expanded manufacture and purchase of appliances. These credits are due to expire at the end of 2012 and improvements should be made to enhance their effectiveness and new measures, such as changes to depreciation schedules, should be considered.

According to statistics compiled by the Residential Energy Services Network (RESNET) in 2012 and reported via a white paper authored by the American Council for Energy-Efficient Economy (ACEEE), the number of homes certified as complying with the New Energy Efficient Home Credit (45L) rose to 11% of residences sold in 2011. The total number of new homes eligible for the credit grew four-fold between 2006 and 2009, despite the fact that total new residence construction decreased due to the recession and the credit's high efficiency requirements. Before enacting this incentive, less than 600 homes came close to meeting this level of efficiency, which means that the credit has been successful in transforming the new homes market.

With regard to the Manufacturers Energy Efficient Appliance Credit (45M), manufacturers receive the incentive for incremental sales of high efficiency appliances above sales of these high efficiency appliances in a base period (currently average sales in the preceding two years). As a result of extensions and modifications to the credit, 35% of all refrigerator sales in 2009 were Energy Star. In addition, Energy Star data indicated that 77% of 2007 dishwasher sales qualified for Energy Star, which helped lay the groundwork for an agreement that year between manufacturers and efficiency advocates to make this the new minimum. Furthermore, 48% of all washer sales qualified for Energy Star in 2009. According to the Association of Home Appliance Manufacturers (AHAM), the number of domestic jobs impacted by the incentive is on scale of 40,000, which accounts for at least 17,000 direct manufacturing jobs that support the qualifying products.

The Non-Business Energy Property Credit (25C) is worth 10% of certain energy efficiency improvement costs (up to \$200 for windows), and fixed amounts for specified heating and cooling equipment, up to a limit of \$500. This tax incentive is the only building efficiency credit that directly benefits the consumer. It is also important to note that 25C had a much larger impact for 2009 and 2010, when it was set at 30% of costs up to \$1,500 via the American Recovery and Reinvestment Act. According to 2012 General Accounting Office analysis, the Non-Business Energy Property Credit was used by 6.8 claimants, amounting in over 140 million dollars of tax returns filed.

### Natural Gas

The technological advances allowing for the low cost extraction of natural gas from shale occurred due to more than three decades of federal government, Gas Research Institute, and private sector investment in research, demonstration,

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<sup>8</sup> U.S. Department of the Treasury, "1603 Program: Payments for Specified Energy Property in Lieu of Tax Credits" (<http://www.treasury.gov/initiatives/recovery/Pages/1603.aspx>)

<sup>9</sup> For more information on CHP and WHP and recommendations for the Energy Working Group, please see comments submitted by the Alliance for Industrial Efficiency.

and production. According to a 2011 Breakthrough Institute report, both directly and indirectly, the government supported critical moments and tools in the shale gas revolution, including massive hydraulic fracking (MHF), 3-D mapping, horizontal drilling, and horizontal wells.<sup>10</sup> This technological advancement offers the potential for stable natural gas prices in the \$4 to \$6 MMBtu range.<sup>11</sup> At these price ranges, natural gas has the potential to provide an abundant, clean and domestic fuel source for direct use applications, transportation and power generation.

Tax incentives that lower the cost and risk of exploration and drilling for natural gas, like the Intangible Drilling Cost (IDC) Deduction, enable the industry to find new areas for domestic production. Domestic production of natural gas provides consumers and businesses with affordable, secure and clean energy sources to power the U.S. economy. According to the American Gas Association, 622,000 jobs are directly involved in exploring for, producing, transporting and distributing natural gas. In 2012, the value-added contribution to the nation's GDP made by unconventional natural gas activity was estimated at over \$121 billion<sup>12</sup> and, by 2015, shale gas extraction will account for \$118 billion in U.S. Gross Domestic Product and \$28.6 billion in government revenue.<sup>13</sup>

With regard natural gas vehicles, two primary credits exist. The Alternative Fuel Infrastructure Tax Credit, which provides a \$30 thousand dollar investment tax credit for fueling equipment, and the Alternative Fuel Excise Tax Credit which provides a \$.50 cent credit for every gallon on compressed natural gas that is sold or used. While these credits have been effective in the marketplace and industry data shows that vehicular natural gas nearly doubled between 2003 and 2009. In 2010, natural gas displaced more than 350 million gasoline gallon equivalents each year.<sup>14</sup> Looking forward, tax credits in this area should focus on the lowering the incremental cost of natural gas vehicles and infrastructure.

Continued support for clean energy tax policies is in the best interest of American taxpayers and supports a well-reasoned national energy strategy that improves our economic conditions at home and strengthens America's competitiveness in the global marketplace.

The Council and its members have been gathering input from experts on how clean energy can fit into comprehensive tax reform and the Council would like to engage in discussions about how to structure comprehensive tax reform, while preserving effective and pro-growth clean energy tax policies.

The Council looks forward to constructively working with the Energy Working Group and the House Committee on Ways and Means as these bodies consider spending and tax policy proposals this year.

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<sup>10</sup> "Where the Shale Gas Revolution Came From: Government's Role in the Development of Hydraulic Fracturing in Shale," Michael Shellenberger, Ted Nordhaus, Alex Trembath, Jesse Jenkins, Breakthrough Institute, May 23, 2012. <http://thebreakthrough.org/index.php/programs/energy-and-climate/where-the-shale-gas-revolution-came-from>

<sup>11</sup> American Gas Association, "Rethinking Natural Gas, A Future for Natural Gas in the U.S. Economy," p. 6, © 2012, citing Source: Wood MacKenzie Spring 2012.

<sup>12</sup> IHS CERA, "America's New Energy Future: The Unconventional Oil & Gas Revolution and the US Economy" October 2012. <http://www.ihs.com/info/ecc/a/americas-new-energy-future.aspx>

<sup>13</sup> IHS Global Insight, "The Economic and Employment Contributions of Shale Gas in the United States," December 2011. [http://www.ihs.com/images/Shale\\_Gas\\_Economic\\_Impact\\_mar2012.pdf](http://www.ihs.com/images/Shale_Gas_Economic_Impact_mar2012.pdf)

<sup>14</sup> Natural Gas Vehicles for America, "About NGVs." [http://www.ngvc.org/about\\_ngv/index.html](http://www.ngvc.org/about_ngv/index.html)