

**Committee on Ways & Means
United States House of Representatives**

"Energy Tax Incentives Driving the Green Job Economy"

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Thank you, Chairman Levin, Ranking Member Camp, and members of the House Committee on Ways and Means. I am Karen Harbert, President and CEO of the Institute for 21st Century Energy (Institute), an affiliate of the U.S. Chamber of Commerce. The U.S. Chamber of Commerce is the world's largest business federation, representing the interests of more than three million businesses and organizations of every size, sector and region.

The mission of the Institute is to unify policymakers, regulators, business leaders, and the American public behind common sense energy strategy to help keep America secure, prosperous, and clean. In that regard we hope to be of service to this Committee, this Congress as a whole, and the Administration.

Just last week Doug Elmendorf, Director of the Congressional Budget Office highlighted the results of a CBO report that forecasts an increase in the public debt from \$7.5 trillion at the end of 2009 to \$20.3 trillion at the end of 2020 if President Obama's Fiscal Year 2011 budget were to be implemented. As a percentage of gross domestic product, the debt would rise from 53 percent to 90 percent, CBO forecasted. The last time the percentage was that high was right after World War II.

So as we examine energy policy, it is more important than ever that we look to options that don't further burden the taxpayer or jeopardize energy security and offer the greatest return on investment to our economy.

The greatest challenge we now face as a nation is reviving our economy, restoring the 8.2 million jobs lost to the current recession, and creating the 11.8 million new jobs our growing nation will need over the next decade. Only a vibrant American free enterprise system can accomplish this goal.

I. Scale & Scope of the Challenge: A Reality Check

Underpinning America's national security, economic prosperity and quality of life is energy and its availability, affordability and reliability. Solving our nation's serious energy challenges requires a thoughtful and realistic transition to a lower carbon future that includes a portfolio of energy sources and the accelerated development and deployment of the necessary technologies. The Energy Institute strongly supports clean and renewable energy in addition to aggressive improvements in energy efficiency. However, I think it is critical to take stock of our current energy disposition before crafting new policies.

US energy demand will increase by 20 percent between now and 2030 and electricity demand growth could be as high as 30 percent. According to The Brattle Group, an investment on the order of \$1.5 to 2 trillion is needed by 2030 to maintain a reliable electricity sector. Both the electricity and transportation sectors are dominated by the least cost fuel sources: fossil fuels. In the electricity sector, wind and solar power comprise less than 2 percent of our electricity generation. Even under the Energy Information Agency's (EIA) modeling of H.R. 2454's ("Waxman-Markey") aggressive carbon regulations, wind and solar will only comprise six percent of the country's generation portfolio in 2030, requiring us to rely on other sources for the remaining ninety four percent of our electricity consumption.

And for our transportation needs, we are ninety four percent dependent on oil. The fact is that fossil fuels will remain the backbone of our national and global economy for the foreseeable future. Despite the valuable progress being made in the development of new energy sources and technologies, there is still no viable substitute for oil. To make a dramatic change, it will take time, money and technology.

Certainly there is a growing and valid concern about our nations' dependence on foreign oil, yet recent policy proposals from the administration will do little, and likely promote less domestic production and increase imports. First, the administration has proposed \$80 billion of new taxes and fees on the oil and gas industry over the next 10 years. We tried this in the 1980s.

History has demonstrated that this type of discriminatory taxation results in decreased domestic production of these vital fuels and correspondingly increased imports. In 1986 at the height of the ill-conceived Windfall Profits Tax, oil imports jumped 19%, one of the largest year-to-year increases on record. Greater use of domestic energy and decreased use of imported energy is one tenet about which we should all be able to agree. The Joint Committee on Taxation took note of this effect in the report it prepared for this Committee in advance of today's hearing concluding that, "any increase in prices for domestically consumed fossil fuels is likely to be attenuated, and the proposals could primarily result in substitution of foreign fossil fuel sources for domestic sources."

Moreover, increasing taxes on fossil fuels jeopardizes the more than ten million American jobs in affected industries. With our unemployment near 10% and our economy just beginning to flirt with recovery, the last thing we should be considering is raising taxes on an industry that could catalyze economic growth and increase our energy security.

Second, the administration has demonstrated its unwillingness to harness the tremendous economic and energy security benefits of tapping America's vast oil and gas reserves. The recently announced plan for exploration on the Outer Continental Shelf removes areas already open to leasing, delays leasing off of Virginia, and ultimately commits the nation to nothing more than studying new areas in the future. Banning, or potentially banning, the production of up to 90 billion barrels of recoverable oil, more than four times proven reserves for the country, is not consistent with improving the country's economic or energy security.

These two actions taken together signal nearsighted policies that do little to further energy security and most definitely could have significant negative economic impact.

The decisions we make on energy in the next few years will largely determine who we are as a nation for decades to come. We need to approach this thoughtfully and be crystal clear about the tradeoffs, timelines and costs to the American economy. We certainly don't want to find our economy in a worse situation than we are today.

Investing in research, development, and especially deployment of new technologies will ultimately pay major dividends. But it is important to remember that government should not be in the business of picking technology winners and losers and that research and development – while critically important – takes time. It is also critical to find the appropriate roles for government and the private sector. The role of the private sector in our future energy security is paramount and we should not seek to crowd out their participation, capital, innovations or expertise.

While I realize this Committee's jurisdiction is limited in this context to fiscal policy, it is important to realize that tax incentives are only one avenue to foster the deployment of clean technologies, and there are other instruments which, in some situations, may prove more impactful and less expensive over time.

II. Identifying the Real Benefits: Separating Fact from Fiction

There is no question that the next best source of new energy is the energy we can save every day. Putting into practice more robust energy efficiency programs is a crucial component of our nation's energy security. Immediate benefits can be realized by increasing building efficiency and appliance standards, two areas with high energy savings potential. These actions would reap immediate economic and environmental benefits by better harnessing the energy we unintentionally waste every day. Initial groundwork has been laid in this area following

enactment of the Energy Policy Act of 2005, the Energy Independence and Security Act, and the American Recovery and Reinvestment Act of 2009, but substantial benefits are still in the offing.

The United States has improved its energy intensity – that is, energy use per unit of gross domestic product – at a steady rate since 1970 when it took roughly 18,000 btu to produce one dollar of GDP. Today, it takes a little less than half of that. At the same time, the United States can and should make further improvements.

Despite the substantial efficiency gains that have been made since the 1970s and improved rates of energy intensity, the projected growth in U.S. energy demand cannot be met with current electricity generation and efficiency efforts alone. More work is needed to expand and diversify our resources and accelerate energy efficiency gains across all sectors. We must increase efficiency throughout the entire energy delivery chain by employing new technologies and increasing use of novel applications, even as we make our buildings, appliances, lighting, and automobiles more energy efficient.

Renewable sources of energy such as wind, solar, energy-from-waste, hydropower, geothermal, and biomass will play an increasingly important role in our nation's energy supply as they continue to become more cost competitive with traditional energy sources. This is especially true for sources that can provide reliable baseload electricity. It is critical that policies are put in place to promote the development and deployment of all clean energy technologies, including renewables. This does not, however, mean that we should create a sector of the energy market that cannot, and will not, be sustainable over the long-term without substantial government subsidies.

Renewable electricity is enjoying robust growth, but we must be realistic in our expectations for its role. With solar and wind accounting for 1.8% of our overall electricity production, it remains a very small component. Conventional hydropower provided about 7% of generation in 2009, biomass 1.4%, and geothermal 0.4%.

Policymakers also need to be mindful of not singularly supporting some industries at the expense of others. A study released in March 2009 by researchers at Spain's King Juan Carlos University examined the economic impact of Europe and Spain's support for green jobs. The study concluded that for every green job created, 2.2 jobs were destroyed and cautioned that if a similar agenda is pursued in the U.S, we could lose 6.6 to 11 million jobs in order to create 3 to 5 million green jobs, resulting in a net loss of jobs. In addition to the devastating impact on job creation, the study also cautions that the bubble created by Spain's push to create green jobs through government intervention instead of market incentives was ultimately paid for by the consumer, resulting in an increase in electricity rates and an increase in taxes to pay for the enormous subsidies given to renewables.

A study of Denmark's wind industry conducted by the Danish Center for Political Studies (CEPOS) released in September 2009 concluded that "creating additional employment in one

sector through subsidies will detract labor from other sectors, resulting in no increase in net employment, but only a shift from the non-subsidized sectors to the subsidized sector.” This also means that in many cases, jobs are being shifted from more productive sectors to less productive sectors, negatively impacting GDP. Proponents of unrestrained renewable energy subsidies continue to attack studies critical of that approach, but their findings are intuitive: government policies that drive capital to investments the market otherwise avoids results in economic inefficiencies. There are no free lunches. When such policies are targeted and limited in their length and scope the catalytic effect outweighs economic consequences. But European style energy subsidies are neither targeted nor limited and economic consequences have been pronounced.

In the U.S. an assessment of the current state of green job creation across the nation illustrates the shortcomings of an overreliance on subsidies. After a year, the \$5 billion to weatherize homes authorized in the American Recovery and Reinvestment Act of 2009 (also called the stimulus bill) has only retrofitted 30,250 homes, approximately 5 percent of its overall goal. In California, the program has created only 84 jobs and 849 homes have been weatherized - a miniscule number when compared to the state’s 12.5 percent unemployment rate and 37 million residents.

III. Deployment Policy: Regulatory Burdens Frequently Trump Fiscal Incentives

It is important to establish the specific rationale for all policy proposals, but especially in the case of furthering the “green economy.” Ultimately we should be focusing on the deployment of clean energy technologies that will help us transition towards a cleaner and more secure energy future. Execution of this goal should not be prescriptive of specific technologies that further this goal; the country nearly always suffers when the government selects technologies. These policies should be clearly limited in time and scope, but for long enough a period of time that they achieve their goal.

Subsidies

The recent history of fiscal incentives for clean energy technologies is checkered with “boom-bust” intervals that inhibit private capital from being invested, never knowing whether the federal support will exist from year to year. Once a technology has realized the milestone of commercial deployment, it is incumbent on the government to allow American consumers, through the market, to determine whether such technology merits their purchase or not. Subsidizing a technology in perpetuity is a wasteful use of tax dollars and does not ultimately further the country’s energy security. As such, we have supported extending the various renewable production tax credits for eight years, followed by a scaled phase out over four years. Providing long-term certainty for investors will ensure greater capital availability for clean

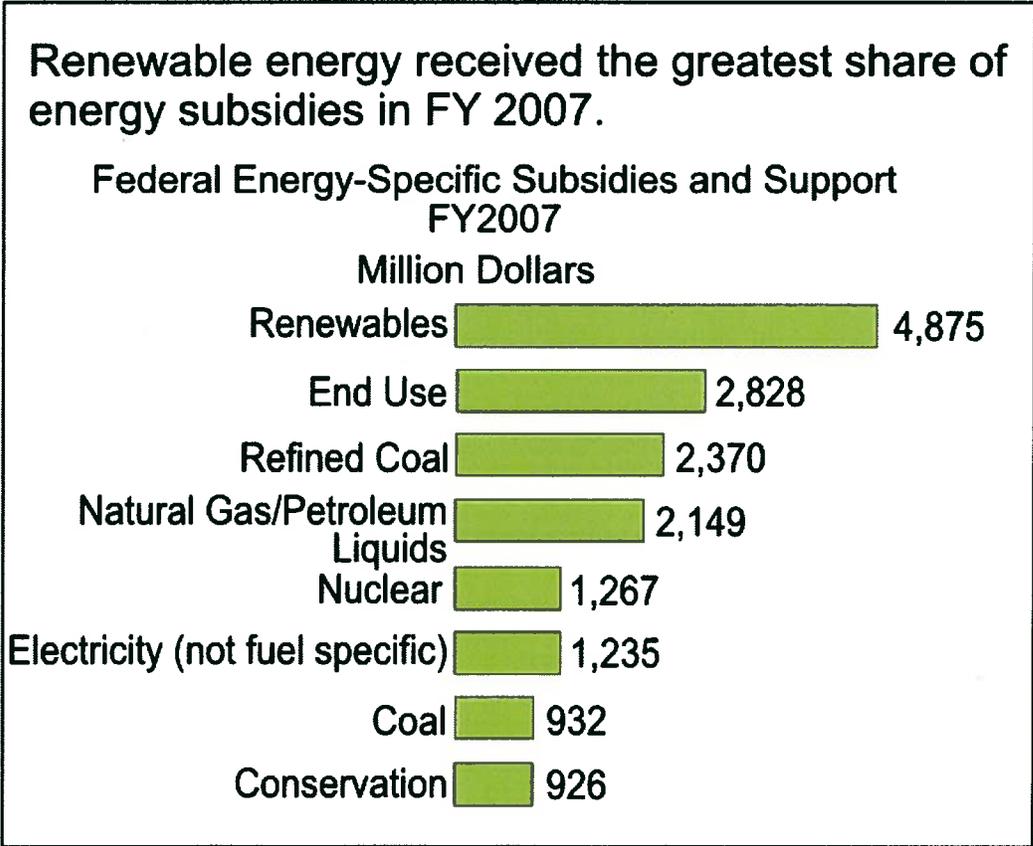
energy technology deployment, while the definitive sunset will ensure tax dollars do not continue to support technologies that are not commercially viable.

Many proponents of renewable energy cite Germany as a model for expanding the renewable power sector. However, after close examination it appears to be more of a cautionary tale. Nearly 20 years ago, Germany implemented the world's most aggressive renewable power deployment policy consisting of progressively greater subsidies. The goal was to provide significant federal support to push the technologies to reach greater scales of efficiency and to make them competitive in the power market much sooner. Bringing down the marginal cost of clean technologies is laudable and should ultimately be the goal of fiscal policy for energy technologies, but the German case demonstrates how perennial direct subsidies actually disincentivize technology evolution and have created a market that is hardly more sustainable today than it was 20 years ago.

In 2008 Germany was home to the largest installed photovoltaic *capacity* in the world and the second largest wind *capacity*. However *capacity* and *generation* are not the same thing and while in 2008 Germany had renewable facilities with the capacity to produce more than 26 percent of its electricity, renewables only generated 17 percent of total electricity. Coal accounted for more than 45 percent of electricity generated, while wind and solar accounted for only 7% of generation in spite of an estimated direct subsidy of \$100 billion from 2000-2010.¹ In 2009 on-shore wind required a subsidy of three times the per-kilowatt cost of the market price to make it competitive and solar required a subsidy of more than eight times the market price. To pay for this, German rate payers paid almost 8% more in their utility bills. When the German government proposed a 15% reduction in the current subsidy structure cabinet meetings were protested by workers from renewable manufacturing facilities. With the likelihood reduced subsidies, Germany's solar industry faces an uncertain future because even after 20 years of aggressive subsidies, the technology is still too expensive to compete with other sources, even with European Union climate regulations adding to the cost of conventional sources.

¹ Economic Impacts from the Promotion of Renewable Energies: The German Experience. Rheinisch-Westfälisches Institut. October, 2009.

In the U.S., when subsidies across the electricity sector are compared, renewable sources have received the largest percentage of federal dollars and are the most expensive sources receiving subsidies except refined coal. The subsidies for wind and solar per unit of production are eighty times greater than that of natural gas and twenty five times as large as nuclear. Energy-specific subsidies have more than doubled since 1999.



Source: Energy Information Administration, *Federal Financial Interventions and Subsidies in Energy Markets 2007* (April 2008).

Rankings of subsidies and support based on absolute amount and amounts per megawatthour of generation differ widely, reflecting substantial differences in the amount of generation across fuels.

Subsidies and Support to Electric Production by Selected Primary Energy Sources

Primary Energy Source	FY 2007 Net Generation (billion kilowatthours)	Subsidies and Support Allocated to Electric Generation (million FY 2007 dollars)	Subsidies and Support per Unit of Production (dollars/megawatthour)
Natural Gas and Petroleum Liquids	919	227	0.25
Coal	1,946	854	0.44
Hydroelectric	258	174	0.67
Biomass	40	36	0.89
Geothermal	15	14	0.92
Nuclear	794	1,267	1.59
Wind	31	724	23.37
Solar	1	174	24.34
Refined Coal	72	2,156	29.81

Energy Information Administration, *Federal Financial Interventions and Subsidies in Energy Markets 2007*, SR/CNEAF/2008-1 (Washington, DC, 2008).

Fiscal Policy has been, and will continue to be, an important tool on the federal government’s menu of technology deployment policy options. Tax incentives can be powerful drivers of capital to specific markets, but there are also other mechanisms that can facilitate private investment *without* further burdening the American taxpayer.

Regulatory Streamlining

Nearly every new energy project, whether traditional or alternative, struggles with regulatory and siting burdens that at best increase the cost of production, and all too often result in the project being canceled. Nearly everyone is familiar with the term, “NIMBY” and how it applies to building new energy facilities, but it has evolved to an even greater threat to our energy security; “BANANA,” or Build Absolutely Nothing Anywhere Near Anything. This would be humorous if it were not an accurate depiction of the situation energy developers face across the country.

A little over a year ago the U.S. Chamber began an initiative, “Project, No Project,” as an effort to catalogue any energy project that has been delayed or scuttled. We have recorded over 380 projects representing 250,000 direct jobs and \$560 billion of capital investment. With unemployment at 10% and nearly every state scrambling to cover budget shortfalls, getting these projects built should be a top priority for everyone.

The average American would probably assume that these are projects like coal or nuclear facilities, which routinely draw the ire of organized activists. While many of the projects are traditional, most would find it astonishing that over 40% of them are renewable energy projects. Neither wind, nor solar, nor biomass is spared by the various obstacles routinely erected to block any new energy project. So while a company may decide to catch the green wave and build a renewable facility, and then obtain capital commitments from private investors seeking the federal income tax credit, it is still more likely than not to encounter obstacles in the permitting and siting process that increase the expense by drawing the process out, many times ultimately leading to scrapping of the project altogether. Congress can eliminate many of these obstacles by streamlining the approval process.

One clear example where Congressional action is absolutely necessary is interstate transmission. If the country is going to realize President Obama's goal of producing 25% of our electricity from renewable sources by 2025, it will require a significant build-out of solar in the southwest desert and wind in the upper mid-west because that is where those sources are most intense and most efficient; but unfortunately not where many people live. So developers will only build the renewable facilities if they can get their electricity to the major load pockets hundreds and thousands of miles away. Getting approval to site and build a transmission line across state lines is difficult to achieve, averaging upwards of ten years. And most transmission developers quit long before the ten year average because they cannot afford to have capital tied up in a risky project for a decade. Congress can solve this problem by granting the Federal Energy Regulatory Commission preemptive siting authority, much like it already has for pipelines. This one change, while not an easy political lift, will help facilitate significant build out of renewable power and without a cost to the American taxpayer.

Concessionary Financing

Beyond regulatory changes, there are additional steps the federal government can take to foster the necessary private sector investment needed to meet our future energy requirements that do not necessitate fiscal incentives. In fact, for new and emerging technologies, tax credits are not enough to encourage investors to take a risk on an unproven technology. Through the Export-Import Bank and the Overseas Private Investment Corporation, the federal government regularly provides a range of financing tools to U.S. companies to build clean energy facilities in other countries. Yet, no similar entity exists for deploying clean energy technologies domestically.

Indeed, securing our energy future is in large part tied to the degree we are able to accelerate the commercial adoption of new technologies, and that will necessitate an accelerated rate of capital formation. Federal and state governments can help leverage private capital to attain this goal by reducing investment risk and lowering the cost of capital. The Department of Energy's loan guarantee program created in the Energy Policy Act of 2005 is a good start, but it is not independent and is not authorized to offer assistance beyond loan guarantees. We strongly support the creation of an independent Clean Energy Bank that is authorized to provide

concessionary financing like loan guarantees, direct loans, and risk insurance to projects deploying new technologies that conventional capital markets avoid. This concept is effectively captured by the creation of the Clean Energy Development Administration (CEDA) in S. 1462, the American Clean Energy Leadership Act, sponsored by Chairman Bingaman and Ranking Member Murkowski.

A federal approach to clean energy deployment that focuses on addressing market inefficiencies rather than competing with existing market players and investors is the appropriate role for government. Public-private cooperation is essential and should be encouraged, but injecting federal dollars into private markets too often creates distortions that ultimately increase prices for consumers.

Scaling up the Market

The price of advanced and renewable technologies will most certainly go down once the size of the market expands. Ironically, many countries' trade policies currently inhibit the natural expansion of advanced technologies by placing heavy tariff and non-tariff barriers on clean energy goods and services. The U.S. should lead the charge in removing these costly barriers thereby creating larger markets and export and job opportunities.

IV. "Green Job Economy" but a Fraction of the Energy Economy

We must recognize that the marketplace is the most efficient allocator of resources, be it human or financial. Whenever government tries to pick winners and losers through excessive regulation, centralized planning, and open-ended subsidies, it tends to fail—and taxpayers and consumers lose. The government should not undercut the traditional energy sources that are truly the engine of our nation's economic machine through increased costs of production and limitations on areas open for exploration. We need a diverse portfolio that includes all of our domestic resources to increase our economic and energy security.

One also needs to recognize the tremendous benefits of and opportunities for the largest source of clean energy we have--nuclear energy. Accounting for more than 70% of our emissions-free electricity, nuclear power will be a major driver in our transition to a clean energy economy. Nuclear power is also an economic engine, with each plant contributing more than \$430 million to the local economies and employing up to 700 workers at wage rates 36% above the local average. We estimate that if the 26 reactors that have been proposed to the Nuclear Regulatory Commission are built, approximately 240,000 jobs will be created. The nuclear industry has already invested more than \$4 billion and created more than 15,000 jobs in support of nuclear expansion and construction hasn't even started yet.

The economic benefits of putting our homegrown resources to work for us are undeniable. The oil and natural gas industry alone supports 9.2 million jobs across the country and has the potential to employ hundreds of thousands more if policies that increase access to our domestic resources are implemented. In 2008 alone, natural gas production supported nearly 3 million jobs and contributed \$385 billion to our nation's economy. If oil and natural gas companies reduce domestic production as a result of increased taxes or other costs, much-needed jobs will disappear, and imports from some unstable areas of the world will no doubt increase to fill the void.

CONCLUSION

Our nation faces some extraordinary energy challenges in the years ahead, but these challenges are also an opportunity. When it comes to energy, we need it all. New technology is the cornerstone of any sensible energy policy. Today, these innovations can only be successfully brought to market if an appropriate and stable legal, regulatory, and fiscal environment is maintained over the long term. But ultimately, such ideas must stand on their own and meet the demanding tests of both consumers and the free marketplace. If we embrace a comprehensive approach and enact smart policies that do not further the growth of our nation's exploding deficit, we can lay the groundwork for energy security, environmental protection and economic prosperity and create the 20 million sustainable jobs our country needs.

The private sector has been - and will continue to be - the engine that drives America's economic recovery, and we must have the tools we need to create the path forward.