

## NEW ENGLAND CLEAN ENERGY COUNCIL FEDERAL POLICY RECOMMENDATIONS

The New England Clean Energy Council ([www.cleanenergycouncil.org](http://www.cleanenergycouncil.org)) supports **immediate passage of comprehensive climate and energy legislation that provides a stable policy roadmap, caps greenhouse gas emissions and sets a price on carbon.**

This legislation would unleash a torrent of investment that will:

- Create up to 2 million jobs
- Provide clear market signals for investors to commit additional dollars to the sector
- Reduce our oil addiction and national security exposure due to climate change
- Save money for consumers through energy efficiency
- Improve our competitive standing in the most important industry of the 21<sup>st</sup> century

### THE NEED FOR COMPREHENSIVE CLIMATE AND ENERGY LEGISLATION

The Gulf Oil spill is a disaster that reinforces the need to reform our energy system with comprehensive clean energy and climate legislation. Energy is a \$6 trillion global industry, and will likely grow to more than \$10 trillion by mid-century. As clean energy replaces carbon-based energy sources around the world, new markets employing millions of people will emerge. Countries like China recognize this opportunity, and are racing decisively ahead. Meanwhile, the United States' inaction is relegating our country to the back of the pack. Failure to act now could leave our country in second tier status for the rest of the century.

Moreover, public opinion strongly supports fast action now. A recent independent poll conducted by Belden, Russonello & Stewart, a Washington research and communications firm, found that 71% of the respondents in a nationwide poll favor fast-track clean energy legislation that begins to break our dangerous addiction to oil by increasing our use of sustainable and renewable power and fuels.

As part of a comprehensive bill, the Council offers the following specific recommendations:

- **Innovation: Accelerate the commercialization of transformative new technologies**
- **Efficiency: Create jobs and save money by closing the funding gap for energy efficiency**
- **Renewables: Remove barriers and create incentives for renewable energy**

### ABOUT THE NEW ENGLAND CLEAN ENERGY COUNCIL

The New England Clean Energy Council's mission is to accelerate New England's clean energy economy to global leadership by building an active community of stakeholders and a world-class cluster of clean energy companies. The Council represents over 175 member organizations, including clean energy companies, venture investors, major financial institutions, universities, industry associations, utilities, labor and large commercial end-users. The Council's ranks now include clean energy CEOs, representatives from most of the region's top 10 law firms, and partners from over a dozen of the top New England venture capital firms (with a total of over \$8 billion under management). Working with its stakeholders, the Council develops and executes a wide array of programs in five key focus areas: Innovation, Growth, Education, Adoption, & Policy.

## **INNOVATION: ACCELERATE GROWTH OF NEW TECHNOLOGY FROM INNOVATION THROUGH COMMERCIALIZATION**

**Challenge:** A rich portfolio of potentially transformative technology resides in our nation's university laboratories. However, they often remain 'lab-locked' and fail to achieve their potential. To achieve a new energy economy and redress climate change, transformative technologies must not only be funded but also shepherded through the arduous process of development and commercialization. While we support research-focused initiatives such as *ARPA-E*, *Innovation Hubs* and *Energy Frontier Research Centers*, we believe additional approaches are necessary to accelerate the move from R&D through demonstration and commercialization. The burdens of capital intensity, long lead-times for permitting and construction, and lengthy development times for process optimization make successful completion of these critical early commercial projects very challenging, often hindering their development. At stake are millions of jobs as the U.S. transitions to an economy driven by clean energy.

**Solution:** Increase support for public/private partnerships to foster the entire lifecycle of technology development from innovation through commercialization.

**Recommendation 1: Support Regional Energy Innovation Clusters and Innovation Consortia** (Current Status: Section 171 of HR.2454 in the ACES Bill and the Regional Energy Innovation Consortia Act sponsored by Senator Ron Wyden). The program enjoys a wide base of support from more than 12 existing and new consortia across more than 30 states.

While we support research-focused initiatives such as ARPA-E, Innovation Hubs and Energy Frontier Research Centers, Innovation Clusters are the best way to accelerate the move from R&D to commercialization and the growth of regional clean energy innovation clusters.

This proposal calls for federal funding that would be competitively awarded to regional public-private partnerships. These regional consortia would include the nation's under-utilized, world-class research universities; major labs; industry; the venture finance and entrepreneurial sectors; and regional energy and economic development partners. Together they would collaborate on research, translational research and the building of robust clean energy clusters to accelerate clean energy jobs and the adoption of valuable energy and climate solutions.

Innovation clusters represent "ecosystems" through which geographic concentrations of research institutions, entrepreneurs, private companies, venture investors and local government interact to produce extraordinarily high numbers of new innovations, new start-ups and ultimately healthy, growing companies and high-paying jobs. Clusters have been key elements of accelerated innovation in semiconductors, IT, biotech, and other areas.

When clusters of companies, universities, suppliers, service providers, investors and other related groups cooperate and coordinate activities within a geographic area they have a well-documented multiplier effect. Clusters increase productivity by creating an infrastructure with specialized inputs, services, employees, information, institutions, training programs, and supportive public policy. Clusters not only stimulate and enable innovation but also facilitate commercialization and new business formation.

The proposal would establish eight or more competitively awarded regional public-private partnerships to accelerate and translate research into commercial impact. These regional clusters will create partnerships that work collaboratively across their region to identify next generation clean energy technologies; fund and support research and early-stage commercialization milestones; remove barriers to deployment; and establish the infrastructure necessary for growth of regional clean energy economies.

For further information see the Council policy summary and whitepaper on ***The Clean Energy Innovation Consortia Initiative*** on [www.energyinnovationconsortia.org](http://www.energyinnovationconsortia.org).

## **Recommendation 2: Support the formation of a Clean Energy Deployment Administration (CEDA)**

(Current Status: A version of CEDA was included in the Waxman-Markey ACES bill that passed in the House in 2009 and a slightly different version of the program is currently pending in the Energy bill (S 1462) (approved by the Senate Energy Committee earlier this year.)

Large-scale deployment of innovative technologies is essential to advancing a new, sustainable and affordable energy and industrial regime. Historically, private equity and project finance debt capital markets have funded clean energy deployments only after the underlying technology has been proven at commercial scale, leaving even the most promising new technologies without essential funding for first commercialization efforts. This “commercialization valley of death” is particularly stark for initial deployment of capital-intensive and novel clean technologies at commercial scale.

We recommend the formation of a new independent government agency, a Clean Energy Deployment Administration (CEDA), to oversee direct support for clean energy deployments through issuance and management of direct loans, letters of credit, loan guarantees and other debt instruments.

CEDA can also oversee indirect support for such deployments through the development of financial products and arrangements to support private sector lending to, and equity investment in, widespread deployment of clean energy technologies through securitization, loans to qualified, competitively-selected private fund managers or other similar means of credit enhancement or financial support as deemed appropriate by the CEDA’s Board.

For further information see the Council policy paper on ***Formation of a Clean Energy Deployment Administration (CEDA)***.

## **EFFICIENCY: CREATE JOBS AND SAVE MONEY BY CLOSING THE FUNDING GAP FOR ENERGY EFFICIENCY**

**Challenge:** As a nation we miss hundreds of billions of dollars of savings opportunities by dramatically under-investing in energy efficiency as a resource. Energy efficiency is the lowest cost resource to meet consumers’ energy needs, reduce carbon emissions, and stimulate economic activity. Efficiency investments will create hundreds of thousands of new jobs retrofitting millions of buildings nationwide, and benefit consumers by lowering electricity costs by billions of dollars, as residential, commercial, and industrial consumers typically save in the range of \$2 to \$4 for every \$1 invested in energy efficiency. Efficiency investments would also help decrease greenhouse gas emissions and thus reduce the market clearing price of carbon.

**Solution:** Dramatically increase funding and support for energy efficiency measures that will create hundreds of thousands of jobs, enhance consumer protection, and lower the cost of the climate program.

### **Recommendation 3: Require Efficiency Investment of at least 1/3 of Allowance Value Given to Electric Utilities**

We recommend that the climate bill **require an investment in energy efficiency equivalent to at least 1/3 of the value of the total allowance allocation given to electric utilities**. Such an efficiency investment will create hundreds of thousands of new jobs retrofitting millions of buildings nationwide, and benefit consumers by lowering electricity costs by billions of dollars.

It would also help decrease greenhouse gas emissions and thus reduce the market clearing price of carbon. Due to these benefits, over 300 labor, business, civil rights, community-based, and environmental organizations support allocating 1/3 of the electric utility allowances toward energy efficiency.

S. 1733 and ACES both include a 1/3 efficiency investment requirement for natural gas utilities, which ensures that more than \$3 billion per year will be invested in natural gas efficiency. This will yield more than \$15 billion in gas efficiency investments by 2020, generating consumer savings of approximately \$45 billion, and creating more than 100,000 new jobs. We strongly support this provision.

As plans progress to pass climate legislation out of the Senate, we recommend inclusion of a similar 1/3 efficiency investment requirement for the electric utility allocation, which would generate \$100 billion in electric efficiency investments; create more than 900,000 new jobs by 2020 and many more additional jobs at plants that supply these sectors (based on analysis by Green Economy, 2009); and reduce consumers' energy bills by \$300 billion.

#### **Recommendation 4: Support the Home Star Initiative to retrofit America's housing for good jobs and energy efficiency**

(Current Status: The Home Star Energy Retrofit Act of 2010 (H.R. 5019) passed in the House on May 6, 2010 with a vote of 246 to 161 with bi-partisan support. We urge its support in the Senate.)

This bill will create jobs in existing industries by providing strong short-term incentives for energy efficiency improvements in residential buildings. The program will move quickly, with a minimum of red tape, and will act as a bridge to long-term market development of existing industries.

This initiative establishes a \$6 billion rebate program to encourage immediate investment in energy-efficient appliances, building mechanical systems and insulation, and whole-home energy efficiency retrofits. Home Star will rapidly create jobs in both construction and manufacturing, while saving families money on their energy bills. It will build on current state programs and existing industry capacity for performing both retrofits and quality assurance, using federal standards and incentives as a common platform to lower program costs and increase consumer awareness.

For further information see the Council policy paper on [\*The HOME STAR Initiative to Retrofit America's Housing for Good Jobs and Energy Efficiency.\*](#)

**Both Programs Are Necessary:** Home Star and a 1/3 efficiency allocation in a comprehensive climate and energy bill are both crucial to expanding access to energy efficiency, reducing greenhouse gases, and saving consumers money. Both incentivize residential energy efficiency retrofits, but they differ in important ways.

First, a 1/3 efficiency requirement will help expand energy efficiency in all sectors: residential - including multi-family homes, commercial, and industrial. (Home Star is specific to residential energy efficiency only). Energy efficiency creates quality domestic jobs, an increasingly valuable characteristic in the age of globalization. Also, efficiency is proven as the most cost-effective method to reduce greenhouse gas emissions. Increasing support in all sectors for energy efficiency will maximize our job creation, energy savings, and greenhouse gas reduction potential, while containing costs.

Second, Home Star is a short-term incentive, while the 1/3 allocation for efficiency is a long-term incentive. A short-term incentive is incredibly important, primarily for job creation. The construction industry is currently experiencing double-digit unemployment, and Home Star presents an opportunity to re-employ a significant portion of them. A long-term incentive for energy efficiency is also important. For job growth, businesses need stable price signals on which to base investment and hiring decisions. If incentives are only short-term and hence relatively unpredictable, it creates a less favorable investment environment, resulting in lower job growth and market penetration by efficiency companies.

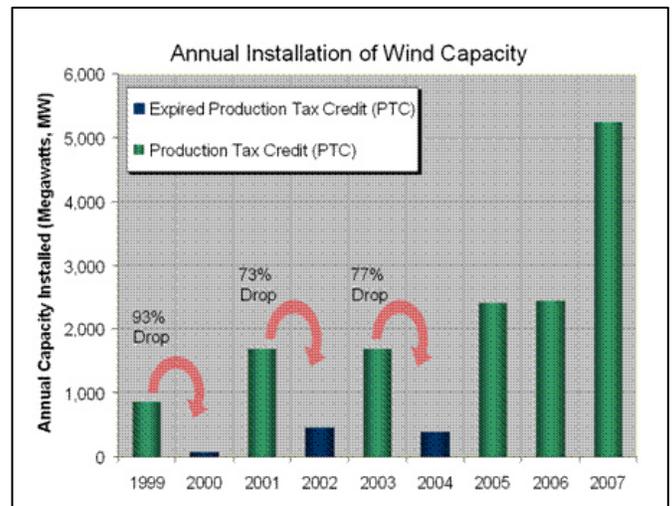
Third, Home Star will act as a bridge to future efficiency programs by jumpstarting the residential retrofit industry: it will produce a large, highly trained, and experienced workforce. With this workforce established, more comprehensive and effective efficiency programs can be deployed across the country -

including execution of the work generated by the 1/3 efficiency allocation. This is especially important in the numerous states that do not currently have efficiency programs, and hence few or no efficiency contractors.

## RENEWABLES: INCREASE FUNDING AND REMOVE BARRIERS TO RENEWABLE ENERGY

**Challenge:** Securing meaningful reductions in U.S. greenhouse gas emissions will occur only if we greatly expand our use of clean and renewable energy resources. Global private investment in renewable energy and energy-efficient technologies is estimated to reach \$450 billion in 2012 and \$600 billion in 2020 and will produce millions of jobs. Yet unless the U.S. embarks on a very different course, these jobs may well end up in China or other parts of the world. Asia's rising "clean-technology tigers"—China, Japan, and South Korea—have already passed the U.S. in the production of virtually all clean energy technologies. A recent report, *Rising Tigers, Sleeping Giant*, finds that between 2009 and 2013, the governments of these nations will out-invest the U.S. three-to-one in these sectors, or \$509 billion to \$172 billion.<sup>1</sup> The U.S. faces a stark choice: whether to import or export the renewable power technologies and equipment that it will need to shift to a clean energy economy.

A key factor in this continues to be the on-again, off-again nature of public support for renewable power. Inconsistent incentives for renewable energy and unnecessary barriers continue to hamper rapid and large-scale deployment of renewable energy projects. Utility decisions on adding new renewable power generation capacity remain overly focused on short term fossil fuel prices without taking into account future price increases or the effect on greenhouse gas emissions. The patchwork of state and federal regulatory rules and agencies currently governing our nation's renewable energy sector create uncertainty for investors and entrepreneurs, preventing the necessary conditions for investments to accelerate the implementation of proven renewable technologies.



**Solution:** A package of policies to increase investment and ensure long-term market certainty for renewable energy by removing barriers, increasing investment incentives, and supporting a strong Renewable Energy Standard.

### Recommendation 5: Provide reliable incentives and funding for Renewable Energy Projects

The intermittent nature of renewable energy funding has limited investment and deployment of renewable energy, placing our nation at a distinct disadvantage compared to other countries. The boom and bust cycles provoked by the failure to renew the Production Tax Incentives and Investment Tax incentives on a regular basis are well documented.

We propose several measures to end this cycle by providing reliable long-term incentives and funding for renewable energy.

- **Extend the grant in lieu of tax credits for renewable energy projects under section 1603 of the American Recovery and Reinvestment Act.** The Treasury grant program helps renewable energy

<sup>1</sup> Rising Tigers, Sleeping Giant, November 2009, Breakthrough Institute & the Information Technology and Innovation foundation <http://www.itif.org/files/2009-rising-tigers.pdf>

developers secure affordable financing to move forward with capital-intensive projects. It is currently slated to expire in 2010. We support legislation introduced by Senators Feinstein and Merkley that would extend the program for two additional years, until 2012. It would also expand this program to allow public power utilities to participate, since they are currently ineligible. This provision will provide near-term certainty to the renewable power sector. Finally, it would create a new tax credit for solar manufacturing facilities and the construction of large solar projects on disturbed private lands.

- **Reject the “Buy America” provisions proposed for this extension by Senator Schumer and others.** As the American Council on Renewable Energy (ACORE), the American Wind Energy Association (AWEA) and other industry groups have pointed out, far from helping the American renewable industry, it would have exactly the reverse effect. In a global economy it is necessary to have a low cost supply chain - regardless of where products originate. This provision has already caused problems in spending the ARRA allocations efficiently. Moreover, foreign firms like Siemens, which employs 30,000 American workers as well as American firms like GE that happen to use parts manufactured abroad, would lose out on projects that are already committed, thus adding to the unreliable nature of US funding for renewable energy.
- **Provide a long-term extension of the Production Tax Credit (PTC) programs.** In 2008, the ITC was extended until 2016, which is providing the solar industry a sufficient window of opportunity to take advantage of the incentive. However, the PTC for wind expires at the end of 2012. Investors need longer-term certainty in order to make the significant investment required for large-scale wind projects. Partly as a result of the PTC, the U.S. has led the world in newly installed wind power capacity for the last two years. Using a model that is specifically designed to forecast wind deployment, the National Renewable Energy Lab has estimated that an extension of the PTC through 2020 could stimulate enough wind power to serve as much as 17% of the nation’s electricity supply by 2030.

#### **Recommendation 6: Ensure a Strong Federal Renewable Electricity Standard (RES)**

(Current status: The ACES Bill (Waxman-Markey) which passed the House in 2009 requires 20% of electricity to come from renewables by 2020. Up to 5 percent may come from efficiency improvements; The Senate Energy Bill (ACELA - S 1462) approved by the Senate Energy Committee last year requires 15% of electricity from renewables from 2021 through 2039 but up to ¼ of that can come from efficiency.)

A strong national renewable electricity standard (RES) - also known as a renewable portfolio standard (RPS) - would for the first time, signal a long term national commitment to expand the use of renewable energy in the United States. The standard would require utilities in every state to obtain a minimum percentage of their electricity from renewable sources by a certain date.

We support the goal outlined by President Obama that 25% of our electricity be generated from renewable sources by 2025. An analysis using the National Energy Modeling System (NEMS) predicts that a 25% renewable standard will create 297,000 new jobs, generate \$263.4 billion in new capital investment and save consumers \$64.3 billion on their utility bills by 2025.

The Council supports the exclusion of energy efficiency from the RES standard. While increased energy efficiency is an important component of our nation’s energy future, it should not serve to dilute the renewable energy potential that a federal RES is intended to tap.

We oppose the move to change the requirement to a “clean energy standard” that would include new nuclear, natural gas, and coal with carbon capture and storage. Though these additional sources of energy may or may not be desirable, the purpose of the RES should be to promote truly renewable resources such as solar and wind power.

### **Recommendation 7: Provide Timely Environmental Review and Permitting for Renewable Energy Projects**

Extensive delays often plague the environmental review and permitting of renewable energy projects. The National Environmental Policy Act (NEPA) and other environmental laws have produced monumental gains in environmental quality. They were designed primarily to control activities presumed to be environmentally damaging or at least in need of significant mitigation. However, we now face the need for a massive program to rapidly build a zero-carbon energy infrastructure to avoid the further atmospheric build-up of greenhouse gases.

In the climate change context, delays in the review and permitting of renewable energy infrastructure do not raise a question about the balance between environmental and other concerns -- they expose a fundamental flaw in the US environmental protection system. It is urgent that we take steps to expedite NEPA review and permitting for renewable energy projects.

### **Recommendation 8: Reject preferential transmission subsidies for out-of-region wind projects.**

The Council concurs with the 10 Northeastern and Mid-Atlantic Governors (MA, RI, NH, NJ, NY, DE, ME, VT, MD and VA) who oppose provisions in the Energy Bill. The provisions would undermine the existing least-cost planning and cost allocation process for new electric transmission facilities that is conducted on a regional basis, involves all affected stakeholders, and is subject to oversight by the Federal Energy Regulatory Commission.

We believe that the **existing regional electric transmission planning and cost allocation process should be maintained**. The Council believes that Regional Transmission Organizations (RTOs) should continue to conduct the least-cost planning and cost allocation process for new electric transmission facilities on a regional basis, and that this process should continue to be supplemented as needed through inter-regional coordination between the RTOs. Each RTO process should continue to involve all appropriate stakeholders, take into consideration generation and demand-side alternatives to the construction of new transmission facilities, and be subject to federal oversight to ensure that the goals of FERC Order No. 890 are achieved.