

***Federal Clean Energy Policy Platform 2011  
New England Clean Energy Council  
July 10, 2011***

**INTRODUCTION**

Clean energy is one of the fastest growing industry segments in the United States and throughout the world with strong job growth potential and tremendous economic, environmental and strategic national importance. However, the US clean energy industry faces a range of obstacles including inconsistent policy drivers, large capital investment gaps, and intense global competition.

The US has lost critical ground in the race to lead the clean energy industry. In 2010 the US dropped to 3rd in clean energy private sector investment behind China and Germany, and the nation is no longer the scientific and technical leader that it once was. The majority of our solar modules, wind turbines and efficient electric equipment are imported from outside the United States. However, with the right federal policy drivers, the United States can reclaim its rightful leadership position.

This document has been prepared by the *New England Clean Energy Council* (NECEC), which represents over 400 of the region's top clean energy companies, major venture investors, financial institutions, law firms, universities, industry associations, labor and commercial end-users. This document describes the *challenges* and *opportunities* for growth of clean energy companies, jobs and markets, as well as *federal policy principles* that clarify the goals for federal support to unleash the private sector and accelerate the growth of regional cleantech markets.

Finally, this document expands on those policy principles and describes the following, critical policy and budget priorities that are in front of DC decision makers:

- 1. *Make Clean Energy Investment a Budget Priority***
  - NECEC's highest federal priority is to ensure that the 2012 budget sends the right market signals to continue job and investment growth in the clean energy sector by maintaining sufficient funding for the Department of Energy, with a priority on innovation, R&D, energy efficiency and renewables
- 2. *Ensure sufficient funding for innovation***
  - Advanced Research Projects Agency-Energy (ARPA-E)
  - Regional Energy Innovation Clusters
- 3. *Invest in scale-up financing for commercial technologies***
  - Repatriation to Advance Clean Energy (RACE) initiative
  - Property Assessed Clean Energy (PACE)
- 4. *Create Drivers for Renewable & Efficiency Deployment***
  - Clean Energy Standard (CES)
- 5. *Provide renewable energy long-term tax and market incentives***
  - Extend the Renewable Energy Investment Tax Credit (ITC) and Production Tax Credit (PTC)
  - Expand the investor pool for renewable projects

## CLEAN ENERGY SECTOR: OPPORTUNITIES AND CHALLENGES

Over the past 10 years, growth in the clean energy sector has been impressive. The combined global market for solar PV and wind grew from \$6.5 billion in 2000 to \$131 billion in 2010 with compound annual growth rates (CAGR) of 40% and 30% respectively.<sup>1</sup> Other cleantech sectors, such as hybrid electric vehicles, green buildings and smart grid, have seen similarly spectacular growth rates, while significantly driving down costs on a path to becoming competitive against fossil fuels and entrenched technologies.

Clean energy already represents the 17th largest world economy, with the International Energy Agency estimating that clean energy will be a \$10 trillion market by 2020, with an annual worldwide investment of \$100 billion.

Clean energy and related clean economy sectors have also seen significant job growth. According to a July 2011 report by the Brookings Institution, the clean economy employs some 2.7 million workers - more than both the fossil fuel and the bioscience sectors.<sup>2</sup> These jobs are widely distributed across many different sectors, professions and trades. Clean economy jobs have shown the most growth in metropolitan areas and distinctive regional clusters throughout the country, and are innovation, manufacturing and export intensive. Furthermore, venture capital investments in the sector have risen steadily to make cleantech the number one investment sector, surpassing IT and biotech.

Despite this strong record, the US clean energy sector faces difficult challenges on an uneven domestic and global playing field. These challenges can be seen in:

1. The capital-intensive, commodity nature of energy markets and the need to reach economies of scale;
2. The uneven playing field between incentives provided for entrenched energy sectors compared with emerging clean energy solutions; and
3. The level of global investments challenging US competitiveness.

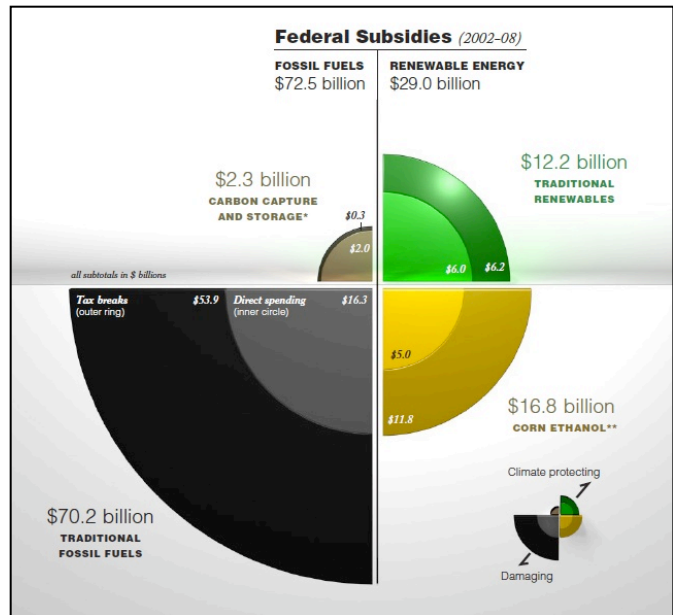
***Capital-intensive, commodity, large-scale energy markets:*** Clean energy is a young industry, with the potential for the most significant economic growth, job creation and wealth generation of any industry in the 21<sup>st</sup> century. Historically, great American industries like the railroad, telecom, and Internet industries, have relied on a mix of government policies, incentives and private sector investment to become economically viable. However, many of these other new industries were not competing in entrenched, regulated commodity markets. Clean energy competes in capital-intensive, commodity markets and is dependent on clear policies and incentives to reach economies of scale. Clean energy has unique complexities that require a mix of long-term public and private sector investments that will determine which regions and countries will be leaders in the global industry. **To achieve economies of scale the US requires consistent policies and incentives over a decade or more.**

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<sup>1</sup> Clean Energy Trends 2011, March 2011, CleanEdge Inc. [www.cleaneage.com](http://www.cleaneage.com)

<sup>2</sup> Sizing the Clean Economy: A National and Regional Green Jobs Assessment, Brookings Institution, July 2011

**Incentives create uneven playing field:** The entrenched fossil fuel industry benefits from an existing infrastructure and an abundance of subsidies. Between 2002 and 2008 subsidies to fossil fuels totaled \$72 billion, while subsidies for renewables were only \$29 billion - of which \$17 billion went to corn ethanol. Moreover, the on-again-off-again nature of US tax incentives and lack of a clear federal clean energy policy have stifled development and allowed foreign competitors to take the lead in key sectors.



**Lagging Global Competitiveness:** Clean energy may be the first innovation-driven industry in half a century in which the United States lags behind its competitors in China, Germany, Europe and elsewhere. Dozens of countries have implemented clean energy policies that provide long-term incentives, accelerate the adoption of new technologies, and incent the investment of substantial capital toward the research, development, manufacturing, and deployment of clean energy technologies. This international support has attracted numerous US clean energy companies to scale their businesses outside the US even though the technology originated in the US.

New clean energy supply chains and industrial networks are forming faster outside the US, driven by policies, market adoption, and access to capital. These are creating long-term competitive advantages from continuous improvements in manufacturing, skilled workforce development, and economies of scale.

The US is running the risk of becoming a consumer of clean energy technologies rather than a leading global supplier. Strong federal policies are needed to reverse this trend. There is no reason why the US, with its wealth of private investment, abundance of natural resources, baseline infrastructure, and intellectual assets, should not be the global clean energy industry leader.

The macro challenges highlighted above are further complicated by a lack of consistent public sector policies that include:

- Federal budget debates that fail to make a critical distinction between spending versus investment and thus jeopardize the market signals and consistency necessary for private sector investment and confidence.
- A lack of private or public capital mechanisms to support early stage, high-risk research, translation and development, and a lack of capital for deployment, production, and manufacturing.
- The inconsistent, patchwork quilt of incentives and standards that are drivers to renewables and efficiency deployment.

## PRINCIPLES AND POLICY DRIVERS FOR CLEAN ENERGY US GROWTH

To maximize the US clean energy industry's potential, we need the right mix of federal investments and incentives to drive the industry forward, stimulate private investment and regional innovation clusters, and help make the US the leader in the clean energy industry. We need to agree on common principles to fuel this growth:

- ***Business must be part of the solution.*** Businesses will invest and take appropriate private capital risk but need consistent policies and market signals to unleash capitalism in this regulated, entrenched industry.
- ***The federal government must be a partner to industry and the market,*** putting in place market signals, addressing market gaps, supporting financing mechanisms that incentivize private capital, and providing consistent regulatory frameworks to drive investments.
- ***Bottom-up regional investments will unleash the U.S. economy.*** Because energy markets are regional, regionally based public-private partnerships should play a core role in innovation, cluster development and market growth.
- ***Clean energy requires a level playing field with other forms of energy*** to incentivize innovation and private sector investments that will pay a fair market rate of return.
- ***Economies of scale will reduce energy costs.*** Many new renewable, efficiency, transportation, grid and industrial technologies are on a fast path to becoming cost-competitive. As they reach economies of scale, the savings will foster economic growth and a more sustainable economy.
- ***Innovation is a long-term process that requires reliable long-term funding and support*** from public and private sectors to allow promising research to move through the stages of development, commercialization, and scale-up processes.
- ***Efficiency remains the low hanging fruit,*** but often market inefficiencies and a lack of market signals, transparency, and financing mechanisms hamper cost-effective investments.

The transition to a clean energy economy is likely to create the largest combination of industries, jobs and wealth during this century, with disproportionate returns to the countries and regions which invest consistently across the research, development, scale-up and market support stages. *America Must Lead the Clean the Energy Race.* America is at a crossroads. We can either invest to lead the clean energy race and reap the associated economic and security benefits; or we can cede our global technological leadership to countries already actively competing with us.

## **FEDERAL POLICY & BUDGET PRIORITIES**

While NECEC will continue to advocate for comprehensive federal clean energy policy over time, the sections below recommend immediate, targeted legislative and budgetary initiatives that flow out of the principles above and that would have significant value for this young industry. These initiatives are pragmatic and realistic investments in our future that will create jobs, re-invigorate the nation's clean energy economy and improve our global competitiveness.

The following pages describe these immediate federal policy priorities:

### **1. Make Clean Energy Investment a Budget Priority**

- Ensure sufficient funding for the Department of Energy, with a priority on innovation, R&D, energy efficiency and renewables

### **2. Ensure sufficient funding for innovation**

- Advanced Research Projects Agency-Energy (ARPA-E)
- Regional Energy Innovation Clusters

### **3. Invest in scale-up financing for commercial technologies**

- Repatriation to Advance Clean Energy (RACE) initiative
- Property Assessed Clean Energy (PACE)

### **4. Create Drivers for Renewable & Efficiency Deployment**

- Clean Energy Standard (CES)

### **5. Provide renewable energy long-term tax and market incentives**

- Extend the Renewable Energy Investment Tax Credit (ITC) and Production Tax Credit (PTC)
- Expand the investor pool for renewable projects

## **1. CLEAN ENERGY BUDGET PRIORITIES**

Of all the clean energy Congressional proposals in discussion or consideration in DC, the consideration that is likely to have the most immediate impact on the clean energy industry is the 2012 DOE budget. The 2012 DOE Budget will either continue research and development investments that have started over the last few years and which have been instrumental to clean energy's job growth in spite of the recession, or the 2012 DOE Budget will cede clean energy company and job growth leadership to China, Europe and other parts of the world.

In 2010, China out-invested the US by 60% and a growing number of US companies with new domestic technologies are moving overseas prior to commercialization. Leading polls show that a majority of Americans believe that a drop in unemployment and the creation of new jobs in 21<sup>st</sup> century industries like clean energy are major indicators that our economy has returned to a position of strength. Now is not the time to cut investments in clean energy programs.

The 2012 House Budget Committee proposal significantly misses the mark on clean energy. This budget proposal has been described by its proponents as "roll[ing] back expensive handouts for uncompetitive sources of energy" yet nowhere does the budget blueprint mention the subsidies given to oil and gas companies that distort energy competitiveness, nor does it draw a distinction between handouts to fossil fuel incumbents which have been at economic scale for decades versus investments and incentives in emerging technologies to reach economies of scale.

The 2012 House DOE Budget also cuts energy research funding back to 2005 levels despite broad agreement within industry and the academic community that the US has underinvested for a generation in energy research. As discussed above, ARPA-E is filling a critical gap between research and private sector financing, but is at significant risk with funding proposals ranging from \$100M to \$500M. Blanket cuts to research and development, advanced manufacturing, and breakthrough clean energy technologies undercut our global competitiveness and fail to reduce our dependence on foreign energy sources.

Another priority item for the clean energy industry is renewed funding in the FY12 budget for DOE's Section 1703 Loan Guarantee Program for innovative projects. While NECEC strongly supports a new capital formation mechanism to utilize private, repatriated dollars for clean energy scale up and deployment (the RACE initiative described above), funding for 1703 is critical for projects already in proposal, as well as for new investments until RACE is in place. DOE funding for technology risk premiums should be continued in 1703 and extended to RACE through private risk underwriting policies.

NECEC believes that the 2012 budget must strike a careful balance between deficit reduction and investments in innovation and economic growth. There are certainly places for budget cuts and to offset the critical investment above, beginning with a phase-out of unnecessary subsidies. The Environmental Law Institute found that between 2001 and 2008 fossil fuels received over \$72 billion in subsidies from the US Government. In contrast, the renewable industry received less than half at \$29 billion dollars---the majority going to corn-based ethanol. There is a growing bipartisan movement to eliminate many of these subsidies to the fossil fuel and corn ethanol industries. NECEC strongly supports the principles of a level playing field along with subsidies to emerging, valuable technologies that need support to reach economies of scale. The young clean energy industry cannot compete and develop when government subsidies tilts the playing field to mature fossil fuel sources and corn-based ethanol. The 2012 DOE Budget is the time to begin to scale back the billions of dollars that flows to the mature fossil fuel and corn-based ethanol industries, and to shift the focus to clean energy investment.

The 2012 DOE Budget should reflect the United States' commitment to remain a true competitor, if not the leader, in the global clean energy industry. Even as the DOE tightens its budget, there is an opportunity to invest in the energy of the future as we simultaneously phase-out unnecessary subsidies to fossil fuels and corn-based ethanol. **The White House DOE budget strikes a careful balance between cuts to unnecessary programs and subsidies while expanding support for critical clean energy investments that will also incentivize private sector investment.**

The 2012 budget is an opportunity to build on recent clean energy investments in order to spur job creation and improve our competitiveness. We urge the House, Senate and Administration to come together and embrace a 2012 energy budget that provides for clean energy research and innovation, as well as support for private capital formation and market development. This is a critical moment for the nation, and we must continue our investment in a clean energy future.

## 2. ENSURE SUFFICIENT FUNDING FOR INNOVATION

Other countries are outspending the US in energy research, translation and development. There is broad recognition by industry and academia of the need for stronger federal support for research and development. Venture capital and other sources of private finance have consistently shown a shift to later and later stages of investment, unwilling to bear higher levels of technology and market risks. Funding for energy research and development has been relatively modest in comparison to that of other industries in recent decades. Healthcare, for example, has seen very significant annual increases in federal research funding, while energy R&D has fallen from 10% of federal R&D investment to 2% over the last 40 years. The current economic climate plainly emphasizes the need for federal assistance to fill gaps where private funds have been restrained. In addition to core federal budget energy research programs, two new programs and models - *ARPA-E* and *Regional Innovation Clusters* - are necessary to address the early-stage capital gap and help valuable innovations become validated, financeable companies.

### *Advanced Research Projects Agency-Energy (ARPA-E)*

The Advanced Research Projects Agency-Energy (ARPA-E) has successfully funded high-risk, high-reward investments in transformative technologies that decrease our dependence on foreign oil, increase energy efficiency, reduce greenhouse gas emissions, and maintain US leadership in energy industry growth. Modeled after the Defense Advanced Research Projects Agency (DARPA) – the agency responsible for technological advancements like the Internet and stealth technology – ARPA-E is dedicated to investing in early-stage, transformative energy research that needs to demonstrate critical technical achievements to access private investment. The game-changing projects funded by ARPA-E will contribute tremendously to our competitiveness in the energy sector and help build our energy infrastructure for the next century.

ARPA-E was crafted from the National Academies report, *Rising Above the Gathering Storm*, and tasked with sponsoring “creative, out-of-the-box, transformational” energy research and development. ARPA-E was enacted under the America COMPETES Act in 2005, but did not receive funding until 2009. ARPA-E bridges the gap between high-risk technologies and private investment by providing much needed early-stage financing. As of April 2011, ARPA-E had invested \$363 million dollars in 121 energy projects. ARPA-E grants continue to attract follow-on private investment. As of February 2011, six of the projects that received a combined \$23.4 million from ARPA-E investment had already attracted over \$100 million in private capital. Unlike other federal programs financed with stimulus money, ARPA-E was designed as a long-term energy investment program that enables both short-term progress and plants the seeds for long-term economic returns. The original design was crafted to ramp-up from \$300 million to \$1 billion dollars annually. Congress extended ARPA-E funding for 2011, although continued funding for ARPA-E remains uncertain. **We urge Congress to support this critical program and continue to ramp up annual funding for ARPA-E to between \$400 million and \$500 million.**

## *Regional Clean Energy Innovation Clusters & Public-Private Consortia*

While ARPA-E is a critical vehicle to support high-risk, early stage, transformational technologies, it must be paired with market mechanisms that can mature a wide range of innovations from the invention stage to a readiness for private sector support. ARPA-E provides technical due diligence and funding, but we need to embrace a regional, decentralized model to address the business risks that prevent inventions from addressing market needs. The leading mechanism for linking proven technologies with business focus, entrepreneurial talent, customer engagements and private sector financing are what studies refer to as “innovation clusters,” made up of universities, national labs, entrepreneurs, investors, corporations, tech transfer offices, regulators and customers.

The ***Regional Clean Energy Innovation Consortia*** proposal calls for federal funding awarded competitively to regional public-private partnerships accelerating innovation clusters and support for regional clean energy innovations. The majority of the states already have regional clean energy innovation cluster efforts getting underway. These regional consortia include a diverse set of regional entrepreneurial, technical and economic development partners collaborating on basic and translational research and the building of robust clean energy clusters to accelerate clean energy jobs and the adoption of valuable energy and climate solutions.

A full scale Regional Clean Energy Innovation Consortia program would provide federal matching support to a network of regional public-private consortia across much of the country, and should be funded on an equivalent scale to ARPA-E (\$250-500 million per year). One model under discussion is a “Regional Clean Energy Innovation Race to the Top” program, which would support a range of innovation, bottom-up approaches to accelerating clusters, innovations, clean energy technology translation and regional economic growth.

### 3. SCALE-UP FINANCING FOR COMMERCIAL TECHNOLOGIES

Most clean energy innovations require significant capital for manufacturing, project deployment and first commercial scale-up. Currently, private capital is not filling this gap, being deployed at later stages after scale-up risks have been addressed, or in other countries that reduce the risk of market adoption. Several federal programs and proposals have aimed to address the scale up and deployment financing gap. The Clean Energy Development Authority (*CEDA*) or “Green Bank” has been an active proposal in Congress. NECEC has strongly supported the intent of CEDA, as well as the efforts of the *DOE Loan Guarantee Program*. While DOE has made substantial progress in issuing loan guarantees, the program has fallen short as a scalable mechanism to deal with more than 170 applications seeking over \$175 billion in loan guarantees. NECEC recognizes the need to develop “Green Banks” and maintain Section 1703 for projects in review, but NECEC also stresses the need for an alternative financing mechanism that utilizes private capital and market-based solutions for the vast array of manufacturing, generation, scale-up and deployment projects with economic potential. The *RACE* Initiative presents such a mechanism.

#### *Repatriation to Advance Clean Energy (RACE)*

Currently, trillions of US corporate profits are held overseas and employed to the nation’s competitive disadvantage. Companies have few incentives to bring the money back to the United States due to a 35% repatriation tax. With a compelling need for new sources of private capital to fuel US economic growth, a number of repatriation tax proposals are in consideration. RACE combines repatriation with a recognition of the failings of previous repatriation tax holidays to fuel economic growth, and a structure to direct these private repatriated dollars into clean energy investments.

Congress enacted the last repatriation tax holiday in 2004. However, as pointed out in a Congressional Research Service report<sup>3</sup>, because there were no requirements on the use of repatriated funds, the temporary repatriation largely failed to create jobs or increase domestic investment. Instead, companies spent most of the returned funds on stock repurchases and dividend distributions.

The Repatriation to Advance Clean Energy (RACE) Initiative solves these problems by offering an aggressive repatriation tax cut to 1% but with a requirement for directed investments of repatriated funds into clean energy scale-up, generation, manufacturing or deployment investments. The RACE proposal would provide a repatriation tax cut, but only for funds invested either by the repatriating company or through 3<sup>rd</sup> party funds into clean energy scale up, deployment, generation, manufacturing and other qualified investments. RACE would require government oversight and reporting, but would utilize private capital and private financing mechanisms for rapid expansion of clean energy investments. This is not a government “picking winners” model. It would utilize the strength and diversity of the private sector. RACE would also benefit from private insurance products in development to cover technology scale-up risks, creating an opportunity for public sector underwriting of these risk premiums to meet the goals of the DOE Loan Guarantee Program through private sector financial instruments. **RACE could result in \$250 billion a year of new private capital, or \$750B to \$1 trillion over three to five years invested in clean energy economic expansion.** In addition, the 1% repatriation tax would fund critical, early-stage innovation needs such as ARPA-E and Regional Innovation Clusters.

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<sup>3</sup> “Tax Cuts on Repatriation Earnings as Economic Stimulus: An Economic Analysis”  
Marples, Gravelle, Congressional Research Service, 7-5700, R40178, December 17, 2010

### *Property Assessed Clean Energy (PACE)*

Property Assessed Clean Energy (PACE) provides long-term financing from private capital markets to commercial and residential property owners to finance energy efficiency and renewable energy projects at a low cost without the need for government subsidies or additional taxes. PACE utilizes the asset value of the property that is being enhanced with a new renewable or efficiency investment for low capital costs and long-term financing that provides positive cash flows and enhanced property value to the property owner. PACE provides a valuable and previously missing mechanism for property owners to invest in clean energy projects and even allows for the owner to transfer the repayment obligation to a buyer of the property.

PACE creates permanent jobs, as many as 10 per \$1million spent, across a range of professions from blue-collar to white-collar workers. Because it uses private funding, PACE can provide financing for new projects without the need for government subsidies or additional taxes. Thus, PACE would have no budgetary impact since all of the voluntary participants pay all fees and expenses for the installed energy efficiency measures.

PACE does require Congressional action. Federal overreach by the FHFA challenged state and local government rights and halted the PACE benefits present in 23 states. **Bipartisan support in Congress is needed to revive the PACE program.**

#### **4. DRIVERS AND STANDARDS FOR RENEWABLE & EFFICIENCY DEPLOYMENT**

Across the US, approximately half of the states have implemented renewable and efficiency standards and mechanisms that have proven their value in rapid increases in clean energy scale-up and deployment, and accelerating cost reductions. Extending the best lessons from the state experiments in renewable and efficiency market development would further grow these markets across the entire US.

##### *Clean Energy Standard (CES)*

The New England Clean Energy Council has developed a framework for a Clean Energy Standard (CES) that drives the transition from conventional to clean and renewable energy resources as well as carefully clarifying definitions for clean energy. NECEC has engaged dozens of clean energy companies in this CES framework effort, which was recently provided to the US Senate Energy and Natural Resources Committee ([click here](#) to view NECEC's CES framework).

A CES policy can only be effective if it encourages investment in clean energy, renewable technologies, and energy efficiency beyond what states and companies have already committed. An effective CES will set measurable, successive targets while not weakening existing state programs. Detailed provisions must be included for energy efficiency as it represents the lowest cost resource for meeting a CES. Utilities should not be able to meet the CES requirement without using energy from renewable sources, including a renewables carve-out.

A CES should include separate renewable and clean energy percentage requirements but allow load-serving entities to use renewable resources to meet a portion of the CES requirement and the clean energy resources to meet a portion of the renewable requirement. Recognizing that renewable and clean energy resources are very different resources with fundamentally different market dynamics compared with energy efficiency demand resources, efficiency targets should be promoted through a separate title in the same bill to build on existing state efficiency programs and market mechanisms.

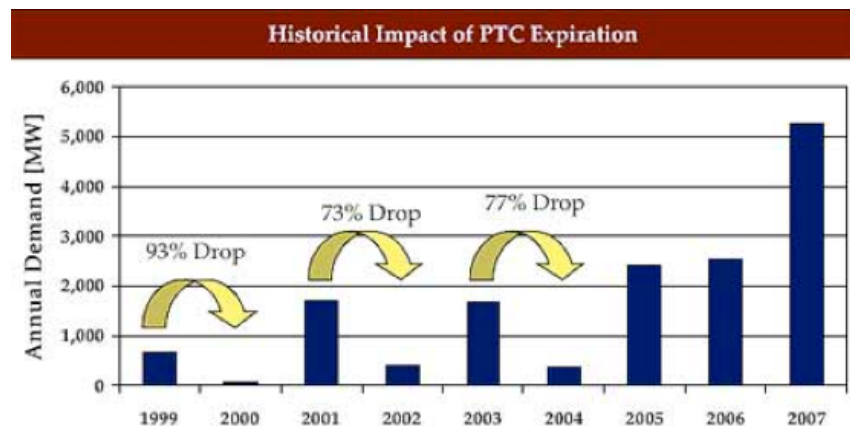
## 5. TAX INCENTIVES

Tax policy is a critical driver to private sector investment decisions. Private capital has many choices for risk reduction and return targets. The uncertainty of federal energy policy and the fleeting nature of tax incentives is a significant barrier to investment. NECEC believes Congress needs to level the playing field by providing consistent, long-term tax incentives to accelerate private investment in emerging, promising clean energy technologies and to support attainment of economic scale. Congress should also consider phasing out tax incentives over time after promising technologies become competitive, beginning with a phase out of unnecessary tax incentives on many fossil fuels and corn ethanol.

### *Extension of Production and Investment Tax Incentive Provisions*

A top priority for all sectors of the renewable energy industry, both in New England and elsewhere, is the extension of the **Production Tax Credit (PTC)** and **Investment Tax Credit (ITC)**. For the wind industry, both of these incentives are now set to expire at the close of 2012, a situation that jeopardizes continuing investment in new projects. While there are thousands of megawatts of wind projects racing to complete construction by the end of 2012 in order to qualify for the PTC or ITC, the pipeline after that date all but disappears, largely because financing for projects after that date cannot be accessed in the face of uncertainty about federal policy. It is essential that the eligibility dates for the PTC and ITC be extended over multiple years so that investors can have comfort that the PTC or ITC will be available at the future date when projects achieve commercial operations.

As shown in the accompanying chart, in past instances where the PTC has been allowed to expire, there have been dramatic reductions in the amount of renewable generation that was able to come on line. In order to avoid another such event, it is critical that the PTC and ITC be extended, ideally for at least 5 years.



### *Expand the Investor Pool for Renewable Projects*

An investment tax credit for a portion of a project’s capital costs with accelerated depreciation creates significant value for project investors. As currently written, however, the federal tax code severely limits the types of investors and capital sources eligible to make use of these incentives and precludes many investors from helping to finance such projects. In particular, the Code’s “at-risk” rule (Section 465) and the “passive activity” rule (Section 469) prevents most individuals from using these incentives. Written before community solar projects were conceptualized, the current tax code is worded in a way that largely constrains tax benefits for residential solar to on-site systems that directly power the home.

Another Code provision prohibits the use of tax-efficient master limited partnerships to finance renewable power projects, even though such entities are expressly allowed to invest in oil and gas properties. The unequal bias of these provisions pushes investment capital away from investing in renewable power projects and thereby drives up the cost of capital otherwise available, making renewable power more expensive.

Senator Udall has introduced S.1093, the Solar Uniting Neighborhoods (SUN) Act of 2011, to amend the tax rules to enable individuals to invest up to a dollar cap in community-scale solar projects and still be eligible for the residential tax benefits. The Internal Revenue Code can also be changed to allow master limited partnership structures to be used for renewable power generation. As part of any broad-based reform of the tax code, provisions fostering investment in renewable power project assets should be modified to allow for all tax-paying investors to use the incentives. Such changes will help level the playing field between renewable energy and fossil fuels.

### *1603 Cash Grant Program*

The 1603 Cash Grant Program has been critical to renewable energy development companies over the past several years. In the collapse of the tax equity market, the 1603 Program filled the void. The 1603 Program, however, is expected to expire even though the tax equity market has yet to completely recover. The 1603 Program yielded substantial results and created jobs—all without an enormous burden on taxpayers. Since its creation, 1603 has distributed over 143 grants and is responsible for over 1,465 clean economy projects. A study by Lawrence Berkley National Laboratory found that the 1603 tax credit supported over 50,000 American jobs across renewable energy projects nationally.<sup>4</sup> NECEC believes that Congress should give careful consideration to an extension to 1603 until the tax equity market returns to previous levels of activity.

### *Advanced Manufacturing Tax Credit (MTC) (48C)*

The Advanced Manufacturing Tax Credit (48C) expired at the end of 2010. 48C complimented the 1603 Cash Grant Program and provided 30% tax credits to support small to medium new, re-equipped, or expanded domestic manufacturing facilities for advanced energy projects. In 2010, it provided \$2.3 billion in funding to 183 clean energy manufacturing projects in 43 states. DOE estimated that this investment would generate more than 17,000 jobs and would be matched by as much as \$5.4 billion in private sector funding likely supporting up to 41,000 additional jobs. Interest in the MTC program far outstripped initial program funding with more than 500 requests totaling more than \$8 billion in tax credits – an oversubscription of more than 3 to 1. Congress should consider reviving this successful tax credit program that created manufacturing jobs in the United States and helps make the United States a global leader in clean energy technology manufacturing.

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<sup>4</sup> [eetd.lbl.gov/ea/emp/reports/lbnl-3188e.pdf](http://eetd.lbl.gov/ea/emp/reports/lbnl-3188e.pdf)

## 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 close to 400 member and affiliate 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 most of the top New England cleantech 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 six key focus areas: Innovation, Growth, Education & Workforce Development, Adoption, Policy & Advocacy, and Research.

The Council believes that our future depends upon a foundation of sound regional, national, and global energy policy that encourages clean energy innovation and technology commercialization. With such a foundation in place, it is the Council's goal to help the New England region, with its considerable innovation assets, leverage the power of free markets and the regional innovation cluster to become a leading provider of clean energy solutions to the global marketplace. The Council firmly believes that this emerging sector can and will become a powerful economic engine for New England, capable of generating tens of thousands of new jobs in the coming decade and beyond.

[www.cleanenergycouncil.org](http://www.cleanenergycouncil.org)