



April 15, 2013

The Honorable Kevin Brady  
Energy Working Group Chairman  
Committee on Ways and Means  
United States House of Representatives  
Washington, DC 20510

The Honorable Mike Thompson  
Energy Working Group Vice Chairman  
Committee on Ways and Means  
United States House of Representatives  
Washington, DC 20510

Working Group Chairman Brady, Vice Chairman Thompson and members of the Committee:

The Solar Energy Industries Association (SEIA) is the national trade association for the U.S. solar energy industry. On behalf of our 1,000 member companies and the more than 119,000 American taxpayers employed by the solar industry, I appreciate having the opportunity to submit a statement for the record on the important topic of how tax reform will impact U.S. energy policy. On behalf of America's solar energy industry, I would like to highlight the important and constructive role that federal tax incentives have played in helping expand the deployment and use of solar energy.

### **Introduction**

Access to a diverse, abundant, reliable and affordable supply of energy is in the national interest. Accordingly, federal policy has provided a legislative and regulatory framework that has helped every major source of energy utilized in the U.S. today reach commercial scale. The recognition that smart policy can play a vital role in developing new domestic energy resources has contributed significantly to America's long-term economic prosperity and growth.

Similarly, history has shown that well-crafted and efficient federal tax incentives can be powerful policy mechanisms to promote the nation's energy objectives and leverage private sector investment for the deployment and utilization of new energy resources. This is clearly the case with federal tax incentives designed to promote the expanded deployment and use of solar energy technologies.

Since the enactment of the 30-percent commercial and residential solar Investment Tax Credit ("ITC") in 2005, domestic deployment of solar has increased twelve-fold, the cost to consumers has significantly dropped, and we have developed a domestic industry value chain that today employs over 119,000 Americans. By any objective measure, these important incentives are doing exactly what they were meant to do – allow our nation to reap the significant energy, economic and environmental benefits associated with utilizing our abundant solar resources.

When compared to other sources of energy – both conventional and renewable – the duration of federal support for solar has been brief. The solar ITC is the primary federal policy that encourages the deployment of solar technology. Since the ITC took effect in 2006, the industry has made significant and concrete strides towards cost competitiveness. An independent research report released in 2012 by the Howard H. Baker Jr. Center for Public Policy at the University of Tennessee, Knoxville, concluded that solar energy is following the same path to commercialization as other traditional energy sources spurred

by federal incentives.<sup>1</sup> The report found that preferential public policy has provided numerous financial benefits to traditional energy sources for decades – some like coal and oil for a century – which followed similar growth trajectories toward majority adoption. Indeed, if current trends continue, costs will continue to drop on account of economies of scale, improved technology and enhanced efficiencies, and reliable access to conventional and innovative financing.

Ultimately, it is the entrepreneurs working in small and large businesses in America’s solar industry who are responsible for the rapid growth and reduced costs that are the hallmarks of America’s solar industry. Stable, reliable and well-structured tax policy provides the framework that allows for innovation throughout the solar value chain – from the scientists developing novel solar technologies to installers offering new financing options that make solar more affordable for consumers. Retaining and enhancing proven, highly-effective tax policies is the right choice for American jobs and our local and national economies.

### **I. Impact of Current Tax Treatment and Tax Policies**

The *Energy Policy Act of 2005* (P.L. 109-58) created a 30-percent ITC for commercial and residential solar energy systems that applied from January 1, 2006, through December 31, 2007. These credits were extended for one additional year in December 2006 by the *Tax Relief and Health Care Act of 2006* (P.L. 109-432).

In 2007, global investment in clean energy topped \$100 billion, with solar energy as the leading clean energy technology for venture capital and private equity investment. The solar ITC helped to create unprecedented growth in the U.S. solar industry from 2006 to 2007. The amount of solar electric capacity installed in 2007 was double that installed in 2006.

The *Emergency Economic Stabilization Act of 2008* (P.L. 110-343) included an eight-year extension of the commercial and residential solar ITC, eliminated the monetary cap for residential solar electric installations, and permitted utilities and alternative minimum tax (AMT) filers to utilize the credits. Under current law, the 30-percent solar ITC is set to expire on December 31, 2016.

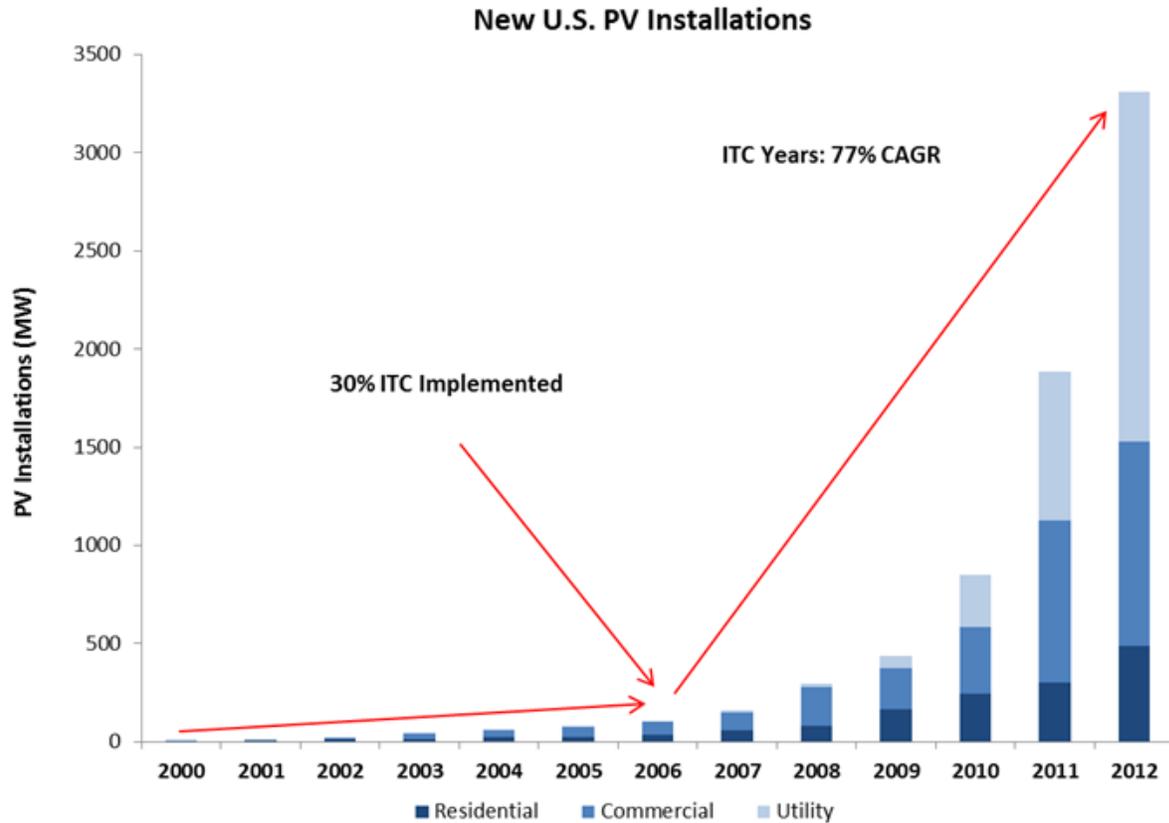
#### *Increasing U.S. Solar Installations*

The market certainty provided by a multiple-year extension of the solar ITC has accelerated the deployment of solar in the U.S. Since the solar ITC took effect in 2006, the total amount of solar generating capacity deployed has grown more than twelve-fold. During this same time period, PV capacity has grown by nearly thirty-fold. Cumulative solar capacity in the U.S. now exceeds 7,700 megawatts (“MW”), enough to power more than 1.2 million homes.

In 2012, the U.S. installed 3,313 MW of utility-scale and distributed PV capacity, up from 1,892 MW in 2011. 40% of existing solar capacity in the U.S. was installed in 2012 alone.

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<sup>1</sup> “Assessment of Incentives and Employment Impacts of Solar Industry Deployment,” May 1, 2012, Available online at [http://bakercenter.utk.edu/wp-content/uploads/2012/04/Solar-incentives-and-benefits-complete-report\\_May-1-2012.pdf](http://bakercenter.utk.edu/wp-content/uploads/2012/04/Solar-incentives-and-benefits-complete-report_May-1-2012.pdf)

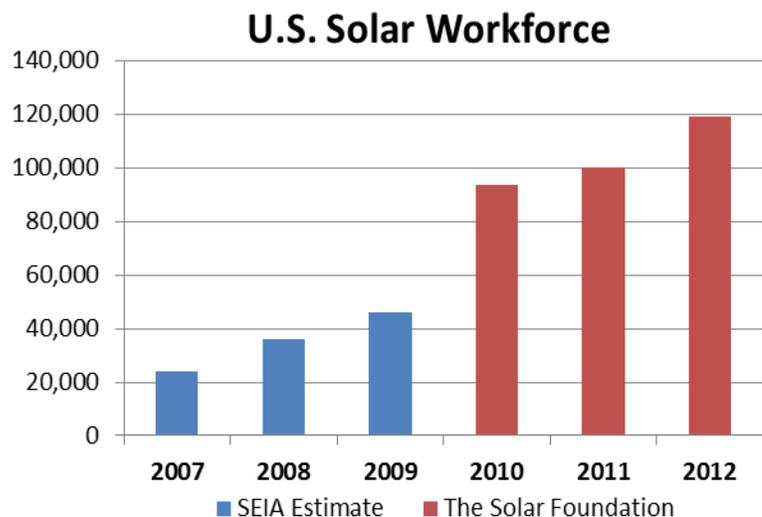


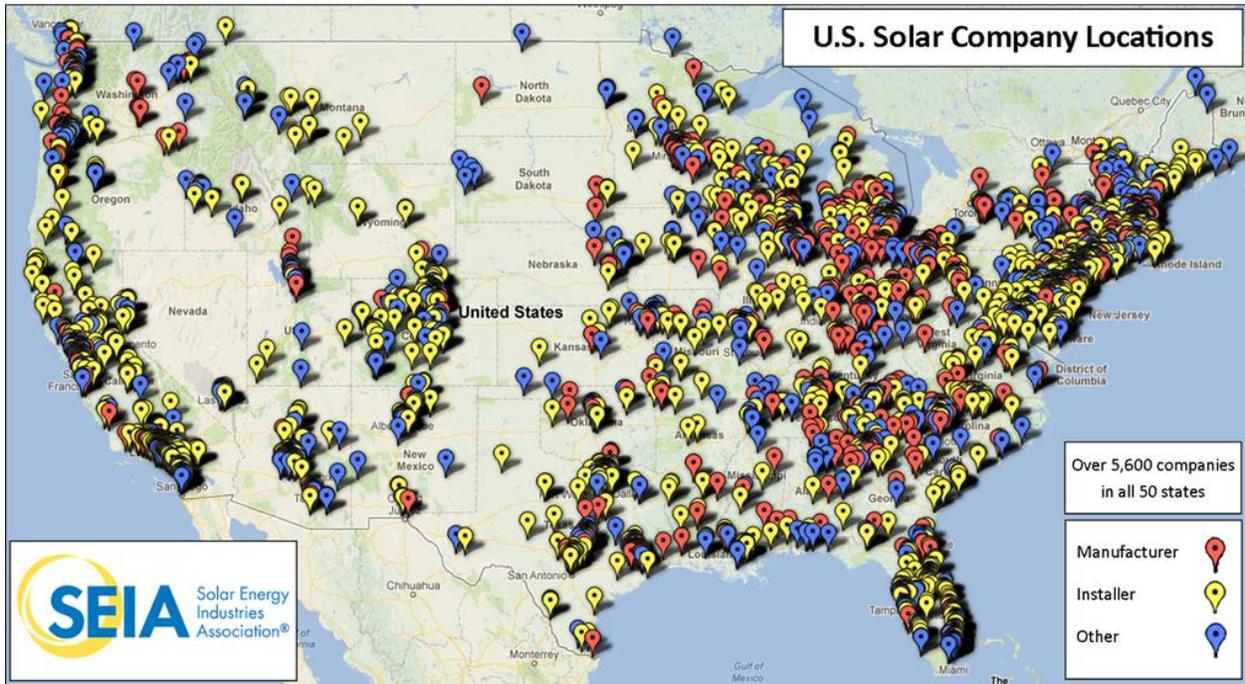
In addition to PV capacity, projects deploying Concentrating Solar Power (CSP) technologies are reaching major milestones. For example, the 392 MW Ivanpah Solar Electric Generating System in California and the 280 MW Solana Generating Station in Arizona are both on track to be placed in service this year. Other CSP projects are under construction. Between 2013 and 2016, over 3,000 MW of CSP generating capacity are expected to come online in the U.S. — and many of the projects will use innovative energy storage systems to allow solar energy produced during the day to be used to meet electricity demand in the late afternoon and at night.

*Solar ITC is a Resounding Policy Success and An Engine for U.S. Job Creation*

Due in large part to the availability of the multi-year ITC, the solar industry grew by 76% in 2012 compared to the previous year, making it one of the fastest growing industry sectors in the U.S. economy.

Today, the solar industry employs more than 119,000 Americans, more than double the number in 2009. They work at more than 5,600 companies, the vast majority being small businesses, in all 50 states.





Additional job growth is expected as the industry continues to expand in the future. Moreover, the ITC has a positive ripple effect to reach beyond project development to enable growth and maturation of the broader solar supply chain – including manufacturers, “mom and pop” retail stores, plumbers, electricians, distributors and salesmen in small towns and large cities across all 50 states.

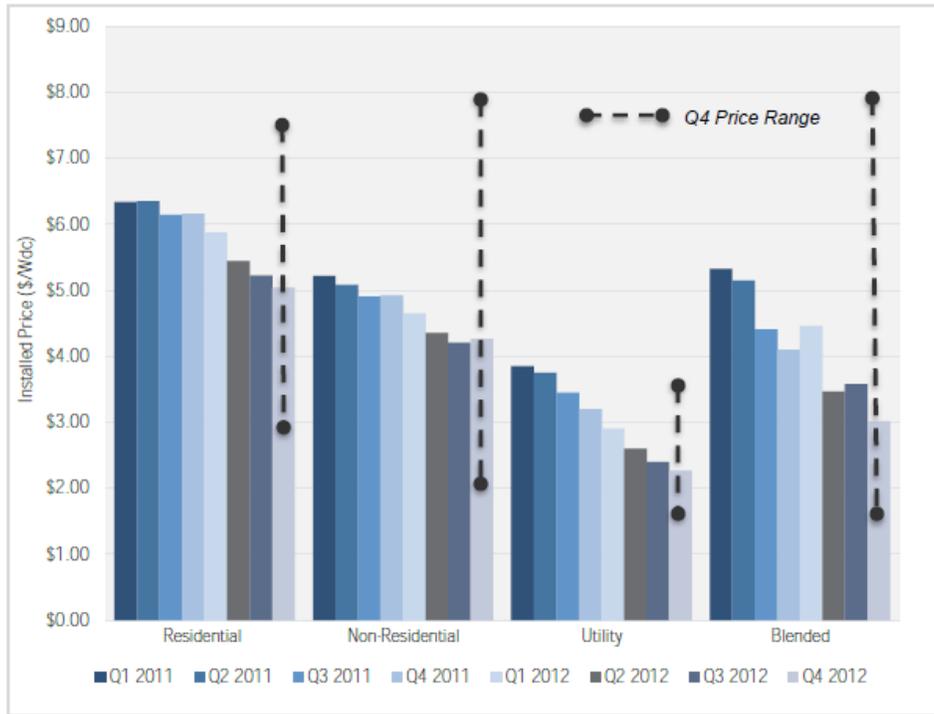
For example, the sharp growth in project installations after passage of the ITC also occurred in tandem with expanding U.S. solar manufacturing. As annual installed generating capacity grew each year, U.S. PV panel production increased from 134 MW in 2005 to 499 MW in 2012. Glass and steel manufacturers are also important members of the solar value chain, providing essential components for utility-scale solar power plants, including CSP and PV projects currently under construction in the U.S. Southwest. And the economic reach of these projects has extended across the country to support jobs as far away as Kentucky and Virginia.

As U.S. manufacturers compete with companies around the globe, the ITC is a critical policy mechanism to ensure robust demand for solar energy components in the U.S. market.

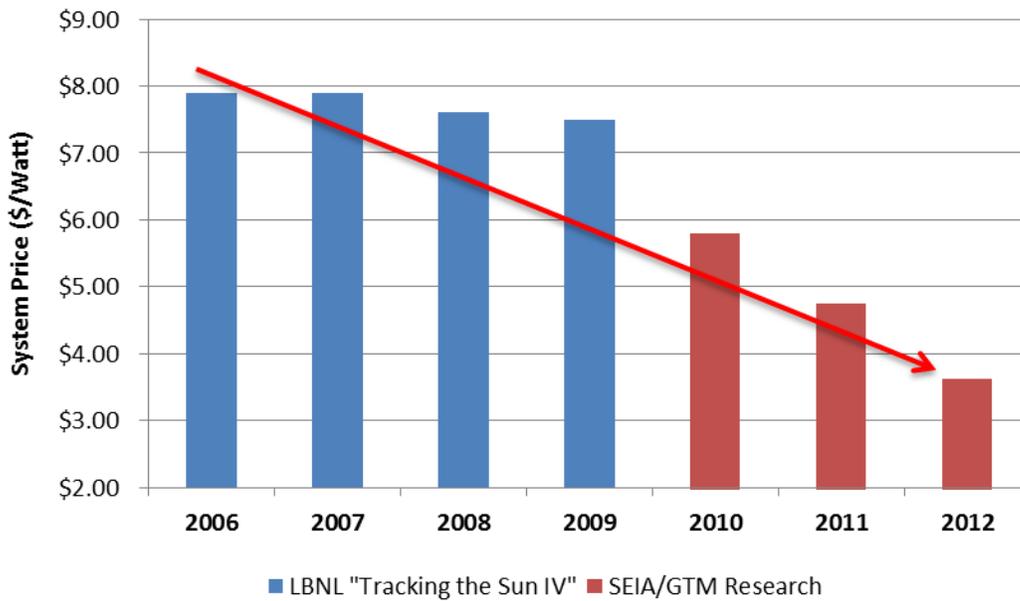
### *The Falling Cost of Solar for Consumers*

The existence of the 30-percent ITC through 2016 provides market certainty for companies to develop long-term investments in the industry that drives competition, technological innovation, and ultimately lowers costs for consumers. In 2012 alone, the price of solar panels dropped by over 40%, and costs continue to fall, making solar even more affordable for residential and business consumers. In addition, innovative financing options for consumers, such as third-party leases and power purchase agreements (“PPAs”), have removed financial barriers, chief among them high upfront costs, and made it easier for consumers to choose solar. This is part of an ongoing trend that has shown consistent declines in solar pricing in the marketplace.

Average Installed Price by Market Segment, 2011-2012



Average Installed PV System Price



## **II. Recommendations for Pro-Growth Tax Reform**

We encourage this Working Group and the full Committee to consider opportunities to build on the success of the ITC and further enhance this smart policy. Policy certainty is critical in any industry, but especially for emerging economic sectors like the solar industry.

### *The Working Group and Committee Should Recognize the Tax Aspects of Third-Party Ownership Structures*

Tax equity is the term used to describe passive investments in an asset or project by large tax-paying entities that can utilize tax incentives to offset their tax liabilities. Tax equity investors in renewable energy projects receive a return on investment based on cash from the project but also from income tax benefits.

Renewable energy developers themselves typically do not have sufficient taxable income to benefit directly from the tax benefits available for a solar project and must partner with tax equity investors in order to finance projects. For example, they may form a partnership structure in which the majority ownership interest in the project is transferred from the tax equity investor to the developer once the tax benefits are realized. Leasing structures akin to those commonly found in many sectors of the economy are also utilized.

Many solar project developers structure effective leasing and other third-party ownership models with tax equity investors to provide convenient financing options for consumers who may not otherwise be able to afford the upfront cash payment necessary to purchase a solar system outright. Today, third-party ownership is the dominant form of financing in many markets.

As the Committee considers business tax reform measures to simplify the tax code, such changes should not inadvertently constrain partnership and leasing business models that enable developers and investors to allow more Americans to go solar than ever before.

### *The Working Group and Committee Should Continue MACRS Depreciation Schedules*

The current depreciation method under the Modified Accelerated Cost Recovery Method (MACRS) is an important tool for businesses to recover certain capital costs over a property's lifetime. This market certainty allows businesses in a variety of economic sectors to continue making long-term investments, and has been found to be a significant driver of private investment.

MACRS facilitates greater investment in renewable energy and ultimately lowers costs for consumers. SEIA supports the current MACRS depreciation schedule that allows businesses to deduct the depreciable basis of solar energy property over five years. This has been a significant driver of investment for the solar industry and other energy sectors.

### *The Working Group and Committee Should Apply the Commence Construction Standard to Section 48 Technologies*

The "Family and Business Tax Cut Certainty Act of 2012" - the so-called "2012 tax extenders package" - was included in the American Taxpayer Relief Act of 2012 ("ATRA") signed into law in January 2013.

Among other provisions, ATRA extended the wind credits (PTC and ITC in lieu of PTC) for one year through December 31, 2013, and the traditional “placed in service” requirement for all Section 45 renewable energy facilities was replaced by a rule that allows all facilities that begin construction before January 1, 2014, to qualify for the PTC (or ITC in lieu of the PTC).

Under previous law, renewable energy facilities eligible for the Section 45 PTC or the Section 48 ITC must have been *placed in service* (i.e., the facility must be complete and capable of generating power substantially equal to its nameplate capacity) before the statutory expiration of the incentive. The “commence construction” change was made applicable to the following renewable energy technologies under Section 45 of the tax code: wind; open- and closed-loop biomass; geothermal; small irrigation power; municipal solid waste; hydropower; marine and hydrokinetic.

Notably, tax extenders legislative language included in ATRA did not encompass solar energy, fuel cells, combined heat and power, or microturbine property in this policy change. The commence construction modification passed in ATRA should be applied to all Section 45 and 48 clean energy incentives, regardless of technology.

This policy improvement is especially timely for utility-scale solar projects. Analysis of the dozen largest solar projects expected to be online by 2016 reveals the median time from the early steps of development to commencement of construction is just over three years, and the median time from development to commercial operation is nearly six years.

A commence construction standard will therefore ease timing pressures on developers by about two years and drive the installation of an additional 4,000 MW of capacity. Furthermore, this revision will provide consistent tax policy treatment across clean energy technologies.

### **III. Key Questions the Committee Should be Asking as it Pursues Comprehensive Tax Reform**

As this working group and the full Committee consider comprehensive tax reform and implications for a diverse assortment of industries, we encourage Congress to take into account the following questions:

- Which existing federal tax incentives are well-crafted and have been efficient in promoting the nation’s energy objectives and leveraging private sector investment in our nation’s domestic energy resources?
- How can tax reform provide the certainty energy businesses, entrepreneurs and industries need to continue investing in the economy and creating jobs?

### **Conclusion**

As the brief duration of federal solar tax incentives demonstrates, smart federal tax policy can yield proven, significant energy and economic policy benefits. SEIA and the U.S. solar industry look forward to working constructively with policymakers to craft effective tax policy that is consistent with the nation’s larger policy objectives.

Thank you for this opportunity to provide feedback to the Working Group regarding these important issues.

Sincerely,

A handwritten signature in blue ink, appearing to read "Rhone Resch". The signature is fluid and cursive, with the first name "Rhone" and last name "Resch" clearly distinguishable.

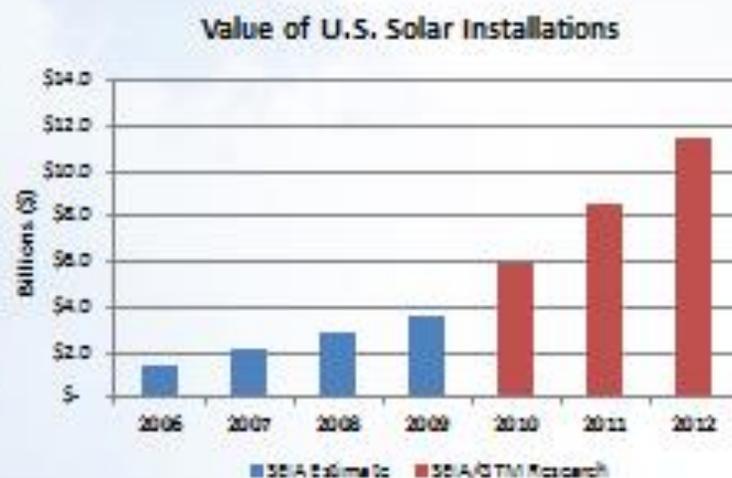
Rhone Resch  
President & CEO  
Solar Energy Industries Association® (SEIA®)

## History of the 30% Solar Investment Tax Credit

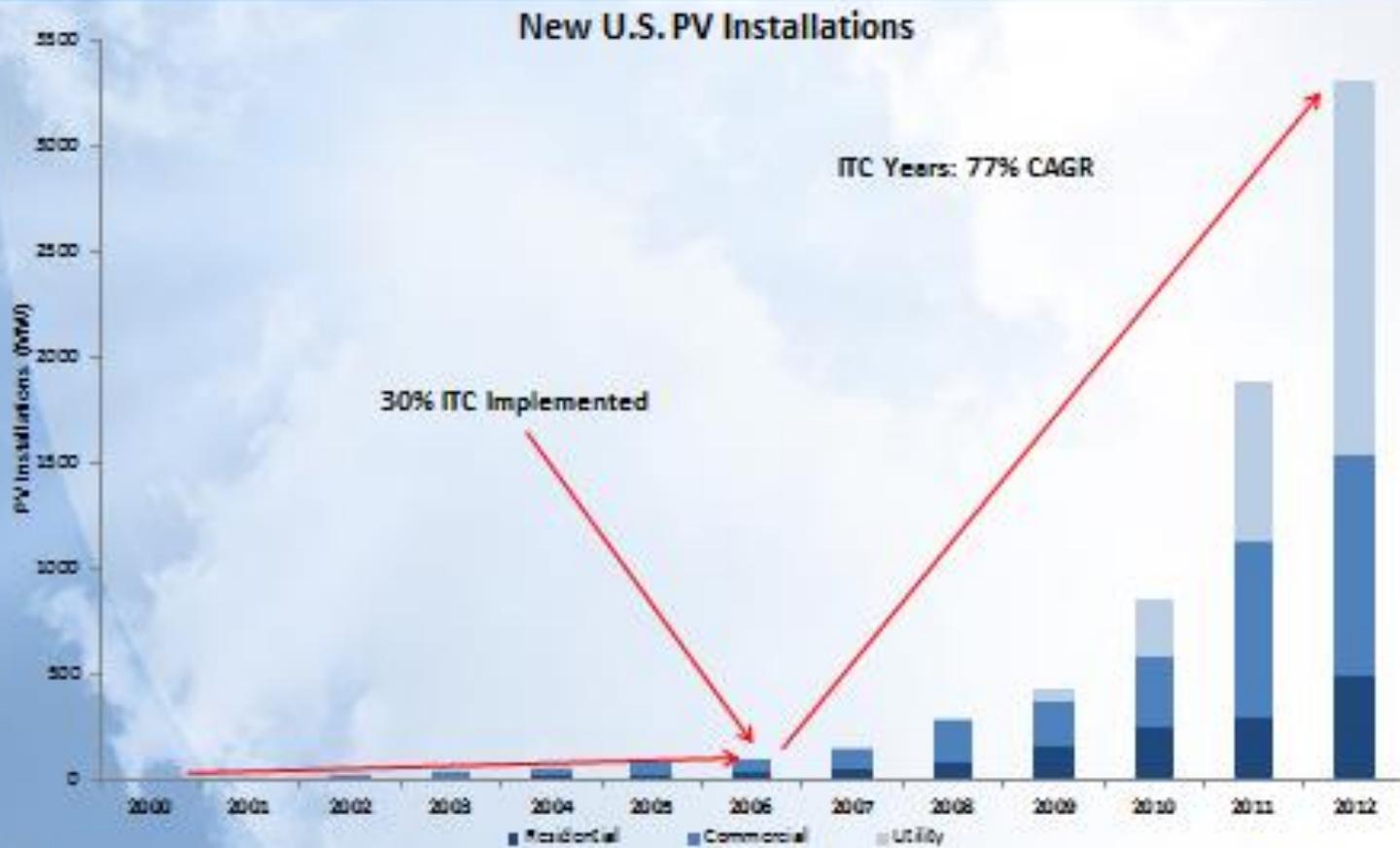
- **Energy Policy Act of 2005** created the principal 30% tax credit for investments in solar energy property:
  - Residential: Section 25D of the Internal Revenue Code
  - Commercial: Section 48 of the Internal Revenue Code
- Originally set to expire at the end of 2006, but the Tax Relief and Health Care Act of 2006 extended ITC for one additional year
- The Emergency Economic Stabilization Act of 2008 extended the ITC for eight years. It also eliminated a \$2,000 cap for residential solar electric installations and permitted utilities and companies paying the alternative minimum tax (AMT) to qualify for the credit.
- American Recovery and Reinvestment Act of 2009 removed monetary cap for solar heating & cooling systems.
- **30% ITC currently in place through the end of 2016 before reverting to a 10% ITC.**

## The ITC Is an Economic Engine

- There are now over 119,000 solar workers in the U.S., a 13.2% increase over 2011 employment totals\*
- The value of U.S. solar installations was \$11.5 billion in 2012, up from \$8.6 billion in 2011



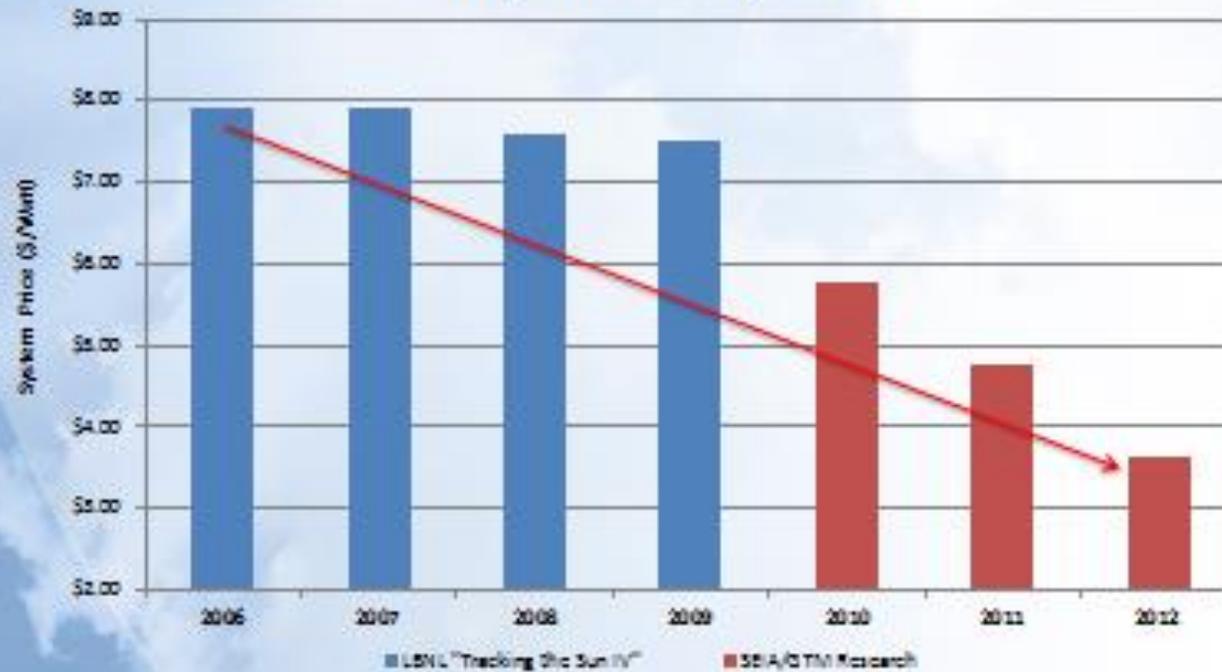
# ITC Driving Installation Growth



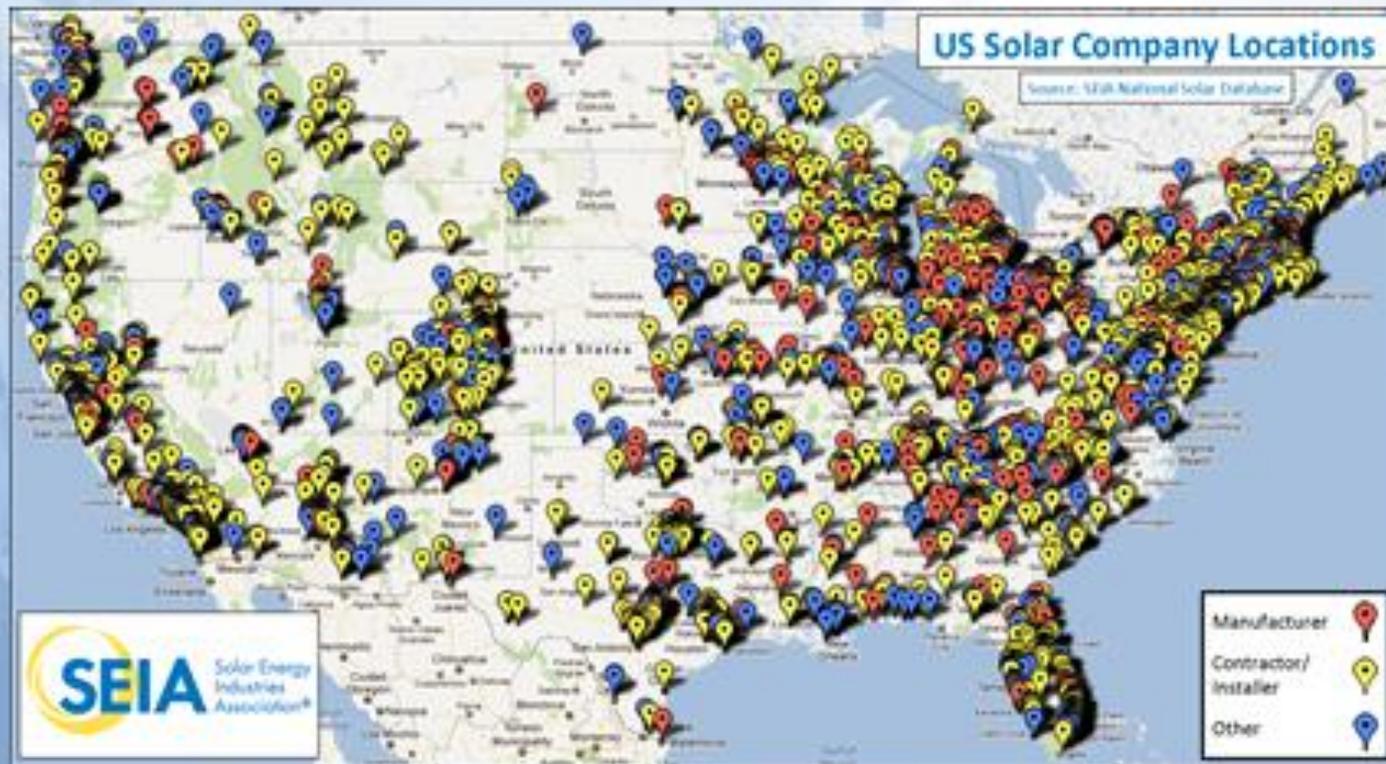
# Solar More Affordable Than Ever

- System prices fell by 27% in the past year alone

Average Installed PV System Price



## 5,600 Solar Companies Operating Across the U.S.



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