



SOLAR PROGRESS REPORT

ADVANCING TOWARD A CLEAN ENERGY FUTURE

May 2014

Every four minutes, another American home or business goes solar, every panel pounded into place by a worker whose job can't be outsourced."

President Barack Obama, January 2014

I. U.S. Leadership in Solar Energy

Solar energy is a vital component of the Administration's all-of the above energy strategy. Supported by historic investments in research, development, and deployment, the price of solar technologies has decreased and the U.S. solar market has experienced rapid growth since President Obama took office. Last year was a record-breaking year for new solar installations, and the amount of solar power installed in the United States has increased nearly eleven fold – from 1.2 gigawatts in 2008 to an estimated 13 gigawatts today, which is enough to power more than 2.2 million American homes.

Last year, solar represented the second-largest source of new electricity capacity added to the grid – growth that underscores significant progress, including:

- **Steep Decline in Solar Technology Costs:** Since the beginning of 2011, the average price of solar panels has dropped more than 60% and the price of a solar photovoltaic electric system has dropped by about 50%. Solar is now more affordable and more accessible for more American families and companies. In fact today, PV solar modules cost about 1 percent of what they did 35 years ago, and six of ten major U.S. homebuilders now offer PV as a standard available feature in new construction.
- **Deployment of Solar on Public Lands and Buildings:** Five years ago, there were no commercial-scale solar energy projects on Department of Interior lands. Today, the Interior Department is on track to permit 20 GW of renewable energy projects on public lands by 2020; the Defense Department has set a goal to deploy three gigawatts of renewable energy – including solar, wind, biomass, and geothermal – on Army, Navy, and Air Force installations by 2025; and, as part of the Climate Action Plan, the Federal Government overall committed to sourcing 20% of the energy consumed in Federal buildings from renewable sources by 2020.
- **Creation of Solar Jobs:** According to industry analysis, solar now employs nearly 143,000 workers in the United States, a growth of more than 50% since 2010. Jobs in the solar industry increased by more than 20% last year alone.

II. Unlocking American Jobs and Innovation

One of the biggest benefits of the expanding U.S. solar industry is its impact on the job market. The Solar Foundation's National Solar Jobs Census 2013 finds solar jobs increased nearly 20 percent since the fall of 2012. There are more than 140,000 solar workers in the United States, up from about 119,000 in 2012, with new hires growing at a rate 50 percent higher than the year before. To support this growing workforce and a new generation of clean energy leaders, the Administration is developing training for engineers and utility workers as well as student research opportunities.

Supporting continued growth in the America's solar market, the Administration has partnered with industry, universities, local communities and the Department's national laboratories to aggressively drive down the cost of solar-powered electricity generation and to develop and deploy cutting-edge technologies that will create new businesses and jobs through the following actions:

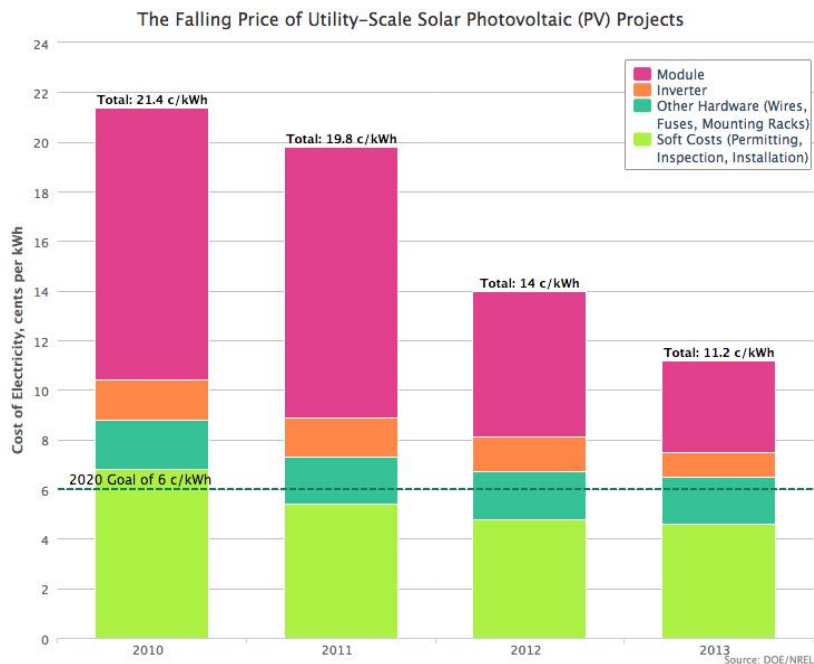
Training the Next Generation of Workers: A partnership between the U.S. Departments of Labor, Education, and Energy is working to address workforce development barriers within the solar industry, including supporting accreditation of solar trainers and training programs; certifying installers and installation instructors; and sharing best practices for training programs.

In 2009, the Department of Energy helped launch the Solar Instructor Training Network to create training opportunities in solar system design, installation, sales and inspection throughout the United States. Through the network, regional resource and training providers collaborate to develop curricula, identify career pathways and offer distance learning courses and mobile laboratory training modules. For example, the Solar Instructor Training Network developed a free online training tool specifically designed for code officials who grant permits and perform field inspections for residential solar installations - increasing the reach of training available to code officials across the country and helping to establish a consistent and streamlined approach to residential solar installation.

Veterans in Solar: The Solar Foundation and Operation Free released a new report earlier this year on veterans working in the US solar industry. The report finds that more than 13,000 veterans are employed in U.S. solar jobs - representing nearly 10 percent of all solar workers. The Energy Department's Solar Instructor Training Network (SITN) supports training programs at nearly 400 community colleges around the country, including programs to help ensure veterans have the skills they need to succeed in the solar sector. For example, all SITN partner community colleges in Florida have programs tailored to returning veterans, including Tallahassee Community College, Erwin Technical College and Brevard Community College.

Supporting Research to Decrease the Price of Solar: In 2011, the Energy Department launched its SunShot Initiative, taking inspiration from President Kennedy’s 1962 “moon shot” speech that set the country on a path to regain the lead in the space race and land a man on the moon. The SunShot Initiative is aimed at lowering the price of solar electricity to a nationwide average of \$0.06 per kilowatt hour and making solar energy cost-competitive with traditional energy sources by the end of this decade. The initiative has targeted American technological and market leadership in solar energy; over the past three years, the SunShot Initiative has supported over 350 projects across the country from more efficient, high-performing solar modules to streamlined permitting, installation and interconnection processes. Today, the utility-scale PV industry in the U.S. is more than 60 percent of the way to achieving the SunShot goal. Analysis by the National Renewable Energy Laboratory has found that the average price for a utility-scale PV project in the United States has dropped from about \$0.21 per kilowatt hour in 2010 to \$0.11 per kilowatt hour at the end of 2013.¹

At the same time, the Energy Department’s Advanced Research Projects Agency-Energy (ARPA-E) is supporting transformational, breakthrough technologies that show fundamental technical promise but are too early for private sector investment. ARPA-E is already supporting projects integrating advanced electrical components into PV systems in support of the SunShot goal; finding ways for solar power plants to generate electricity 24 hours a day using advanced thermal energy storage; and developing hybrid solar energy and storage technologies that deliver cost-effective power when the sun is not shining.



Strengthening U.S. Solar

Manufacturing: Today, there are over 600 solar manufacturing facilities in the United States – producing everything from wafers and cells to modules, inverters and storage technologies. A strong, innovative domestic manufacturing sector is vital to continued growth across the U.S. solar industry – helping to give more and more American families and businesses access to affordable, clean energy.

¹ Reductions in the cost of electricity are based on estimates of the levelized cost of electricity (LCOE). The LCOE calculation used here is a measure of the national average of electricity cost based on certain assumptions regarding financing costs and generation availability projected over the life of a generating asset. The LCOE model provides a benchmark for measuring relative changes in electricity costs.

The Administration's investments have helped expand U.S. solar manufacturing capabilities, including new facilities to produce cost-effective, high quality solar panels as well as startup operations to commercialize novel PV and concentrating solar power (CSP) technologies:

- A \$25 million investment by the Energy Department's SunShot Initiative helped leverage an additional \$115 million in private investment to develop and demonstrate innovative solar module manufacturing technologies in a new plant in San Diego. This facility now produces highly-efficient modules to concentrate sunlight on highly-efficient PV cells, with a production capacity of hundreds of megawatts of solar modules.
- Headquartered in Pennsylvania, an industry partner is working to design and pilot a quick and streamlined PV module assembly process that cuts capital costs in half and increases the production rates by a factor of four.
- In Texas, a SunShot awardee is working with PV module manufacturers to produce an integrated microinverter backed by the same 25-year guarantee as a solar module - cutting installation time and reducing overall costs to homeowners and businesses.

The Energy Department continues to support innovative projects that will help solar manufacturers and make improvements in a broad range of manufacturing processes across the supply chain that save time and money. For example, the Department issued a \$25 million solicitation in February 2014 aimed at developing advanced technology that lowers domestic solar manufacturing costs and demonstrating new components or manufacturing processes which cut project construction and installation time.

In addition, the Energy Department's national laboratories are pioneering scientific discovery and new innovations to surpass the limits of today's technology. For example, the Department's Fuels from Sunlight Energy Innovation Hub - led by Caltech and a team including Lawrence Berkeley National Lab, SLA National Accelerator Lab and the Universities of California at Irvine and San Diego - is focused on creating a prototype device that can produce fuel from the sun 10 times more efficiently than plants.

III. Expanding Clean Energy for States and Communities

American solar energy's recent and explosive growth is due in part to a sustained national commitment to support our domestic clean energy industry. Expanding access to and reducing the cost of clean energy financing has been critical to lowering overall costs and driving greater private investment. Ultimately, smart and stable financing has helped communities across the United States install more solar energy for less. In fact, more than 35 states have renewable energy targets in place, which encourage electricity providers to generate or acquire a certain portion of their power supply from renewable sources. The Administration is working to leverage state and community initiatives to deploy solar through the following actions:

Leveraging Private Sector Investment: The Energy Department's Loan Programs Office has helped build a strong foundation for utility-scale photovoltaic solar generation in the United States. The program financed the first five utility-scale PV projects larger than 100 megawatts in the United States, which helped prove that the technology is viable and cost-effective at a large scale. Since these initial investments, 10 new utility-scale projects larger than 100 megawatts have been financed by the private sector without assistance from the Department's Loan Program Office.

In April, the Energy Department issued a draft loan guarantee solicitation for innovative renewable energy and energy efficiency projects located in the U.S. that avoid, reduce, or sequester greenhouse gases. When finalized, the solicitation is expected to make as much as \$4 billion in loan guarantees available to help overcome the financial barriers to the commercial-scale deployment of new clean energy technologies.

The Investment Tax Credit (ITC) provides a 30 percent tax credit for residential and commercial solar systems. In 2008, the ITC was extended providing businesses and investors with greater market certainty. Under the American Reinvestment and Recovery Act, the 1603 Treasury Program offers project developers the option to select a one-time cash payment in lieu of taking the Investment Tax Credit or Production Tax Credit, for which they would have otherwise been eligible. In a 2012 study that examined impacts through late 2011, the National Renewable Energy Laboratory estimated that solar projects receiving Section 1603 payments supported up to 9,700 jobs and up to \$4.7 billion in total direct and indirect economic output through the design, manufacturing, construction and installation of solar photovoltaic projects.

Identifying the Renewable Energy Potential in Local Communities: In partnership with the National Renewable Energy Laboratory, the U.S. Environmental Protection Agency developed a mapping tool and suite of financing, siting, and environmental assessment techniques in the Re-Powering America's Land Initiative to help States, Tribes, local communities, and private developers identify appropriate renewable energy sources, including solar technology. The mapping tool ascertains the energy generating potential of each renewable energy source by region across the county; advising communities on the most effective renewable energy source for their particular area. The RE-Powering America's Land Initiative has been particularly useful in promoting new renewable energy installations, addressing perceived barriers to these types of projects, and has enabled 110 renewable energy installation projects on 103 contaminated sites, landfills, and mine sites, representing a cumulative installed capacity of

over 709 megawatts (MW). Eighty-six of the 110 projects were solar photovoltaic installations with generating capacity of 204 MW.

Promoting Solar Deployment on America's Farms and Small Businesses: The Department of Agriculture's Rural Energy for America Program (REAP) provides grants and loan guarantees to agricultural producers and rural small businesses in rural America to purchase, install, and construct renewable energy systems; make energy efficiency improvements to non-residential buildings and facilities; use renewable technologies that reduce energy consumption; and participate in energy audits and renewable energy development assistance.

REAP creates opportunities for economic development for rural businesses by supporting renewable energy such as small and large scale solar projects. The program expands the existing private credit structure by providing a credit enhancement via a loan guarantee. Through REAP farmers and rural business owners are able to decrease their energy expenses which allow for an increase in their earnings. Since 2009, the REAP program has provided grants and loan guarantees to 1,594 farmers and rural small businesses. These projects have leveraged over \$287 million dollars, generated 275,000 MWH and reduced 174,000 tons of CO2 emissions.

Advancing Solar by Partnering with the Rural Utilities Service: Rural America offers excellent resources for renewable energy, and is home to electric co-ops that provide reliable, affordable power for their customers. To support the growth of renewable energy in rural areas, last year, Agriculture Department's Rural Utility Service (RUS) Energy Efficiency and Conservation Loan Program finalized rules to facilitate the development of distributed generation and solar in rural communities. *To bolster this new RUS program, the Agriculture and Energy Departments are working with the National Rural Electric Cooperative Association (NRECA), to develop tools, templates, and finance options for co-ops looking to deploy distributed solar in rural communities, including on federally assisted housing.*

Funding Regional Solar Market Pathways: *Last month, the Energy Department announced a \$15 million Solar Market Pathways funding opportunity to support state, tribal, and local leaders in developing plans that create the economic environment for cost-competitive solar deployment. The new Solar Market Pathways program will target state, tribal, and local regulatory and policy market barriers with a focus on stakeholder partnerships and commercial-scale solar. It will fund the development of multi-year plans and innovative programs to help spur significant solar market growth. Examples include establishing or expanding shared or community solar programs and local financing mechanisms, such as commercial property assessed clean energy (PACE).*

Supporting Solar at Federally-Assisted Housing President Obama's Climate Action Plan includes a goal to reach 100 MW of renewable energy capacity on-site at federally supported housing by 2020. This initiative is targeted at HUD's multifamily assisted and public housing assets, as well as housing developed and supported by USDA's Rural Development programs and the Department of Treasury's Low Income Housing Tax Credit program. Meeting this target will make use of on-site generation potential of tens of thousands of roofs constructed with Federal assistance. This initiative will help expand the renewable energy market for multifamily residential housing.

The current renewable energy landscape, coupled with the significant decline in cost of renewable systems since 2008, provides the federal government with a strong foundation to facilitate on-site clean energy investments across its assisted housing portfolio. For example, to realize this potential and maximize the opportunities available to stakeholders, HUD is working to align policies and processes to support renewable energy investments that will generate energy cost savings and substantially reduce carbon emissions. The Energy Department's SunShot initiative is providing additional staff and resources for the effort. The National Renewable Energy Laboratory (NREL) is providing technical expertise and mapping support.

Improved Incentives to Encourage the Use of Renewable Technologies in Public Housing Assets: To encourage and expand the use of on-site utility technologies within the Public Housing program, HUD has transformed the way it provides incentives to agencies that make this investment. Under the old strategy, a housing agency was only able to capture half of the benefit they achieved when they lowered their utility rates if they switched to a renewable energy technology – often not enough to cover the cost of making the investment. Now when this work is performed through our Energy Performance Contracting program a public housing agency can leverage 100% of the savings to help pay for this infrastructure investment.

Sharing Best Practices with a “Solar Deployment Playbook”: To assist businesses looking to install solar, in the next few months *the Energy Department will release the Commercial Solar Deployment Playbook*. The playbook will help businesses to identify low-cost financing for solar energy, provide model contracts, and offer case studies of businesses improving their bottom line by deploying solar.

Leveraging Financing Tools to Deploy Solar: The growth of solar has been fueled in part by access to innovative financing tools. *Last month, DOE announced that in the coming months it will release an updated Guide to Federal Financing for Clean Energy*. This guide will highlight financing programs located in various Federal agencies, such as the Treasury, EPA, and USDA, which can be used for energy efficiency and clean energy projects.

Bolstering Co-Investment in Renewable Energy and Natural Gas: The Joint Institute for Strategic Energy Analysis is hosting a series of workshops focused on the unique opportunities for greater synergistic use of natural gas and renewable energy. The workshops will be held in four locations: New York City; Washington, DC; and the states of Texas and California.

IV. Supporting Solar-Ready Markets and Streamlining Processes

States, tribes and local governments have often been out in front with innovative policies and programs to expand access to affordable, clean solar power. These efforts include tackling the soft costs of renewable energy. While rooftop solar panels cost about 1 percent of what they did 35 years ago, the non-hardware – or “soft costs” – of solar remain the biggest price barrier. Permitting and connection fees, installer labor and costs, and other soft costs now make up more than 60 percent of a single rooftop solar installation. That is why the Administration has taken the following actions to increase solar deployment:

Supporting States and Local Governments in Leading the Way: In 2011, the Energy Department launched its Rooftop Solar Challenge to challenge local and regional teams to streamline processes and make it easier for Americans to go solar. In the initial round, 22 teams worked to standardize permit processes, update planning and zoning codes, improve standards for connecting solar power to the grid, and increase access to financing. These efforts helped cut permitting time by 40 percent and reduce fees by over 10 percent – making it faster and easier for more than 47 million Americans to install solar. In the second round of the Rooftop Solar Challenge, eight new teams are working with utilities, private industry, nonprofits and other stakeholders to simplify the solar installation process on a more regional scale.

- Through the Rooftop Solar Challenge, residents in southeastern Florida can get a solar energy system permit and a preapproved set of design plans in just half an hour. The Broward County team also standardized the permitting fee to cover all the necessary inspections by building code officials. Fourteen municipalities have already signed on to offer online solar permitting with flat fees in their local jurisdictions.
- In the Kansas City region, the Mid-America Regional Council (MARC) is developing measures to facilitate solar installations by clearly explaining the process, standardizing permit fees, incorporating utility notification and prequalifying plans. MARC has also produced a streamlined permit checklist and application for local residents wishing to install solar PV systems on their homes.

Issuing a Presidential Memorandum to Improve Transmission Siting, Permitting, and Review: On June 7, 2013, President Obama signed a *Presidential Memorandum on Transforming Our Nation's Electric Grid Through Improved Siting, Permitting, and Review* that will improve the process of permitting electric transmission projects, while creating better outcomes for our communities and for the environment. The memorandum is part of President Obama's initiative to make America a magnet for jobs by building a 21st Century infrastructure, including by improving the efficiency of the Federal permitting and review of infrastructure projects. These steps build on the best practices identified by the Administration's interagency Rapid Response Team for Transmission, which since 2011 has brought together nine Federal agencies to identify ways to improve efficiencies and coordination in the permitting and review processes for transmission projects.

Bolstering Solar Energy on Public Lands: As part of President Obama's Climate Action Plan to reduce carbon pollution, create jobs and move our economy toward clean energy sources, the Department of the Interior has developed a robust program to facilitate solar energy

development on public lands. When President Obama first took office in 2009, there were no commercial-scale solar projects approved on public lands and no process in place to move forward the hundreds of applications pending from businesses that wanted to harness this renewable resource. In 2010, the BLM approved the first utility-scale solar energy project on public lands. Since that time, the BLM has approved 28 solar and associated transmission projects that have the potential to generate over 8,500 megawatts. The projects range in size from a 45-megawatt photovoltaic system on 422 acres to a 1,000-megawatt parabolic trough system on 7,025 acres.

Establishing Solar Energy Zones: Building on this historic progress, in 2012 BLM announced the creation of a Solar Energy Program for utility-scale solar energy development on BLM administered lands in six southwestern states: Arizona, California, Colorado, Nevada, New Mexico, and Utah. The Programmatic Environmental Impact Statement (PEIS) for solar energy development was developed to allow the permitting of future solar energy development projects on public lands to proceed in a more efficient, standardized, and environmentally responsible manner.

The Solar program established solar energy zones with access to existing or planned transmission, incentives for development within those zones, and a process through which to consider additional zones and solar projects. The Solar PEIS established an initial set of 17 Solar Energy Zones (SEZs) - totaling about 285,000 acres of public lands - that will serve as priority areas for commercial-scale solar development, with the potential for additional zones through ongoing and future regional planning processes. If fully built out, projects in the designated areas could produce as much as 23,700 megawatts of solar energy, enough to power approximately 4 million homes. The program also has flexibility, on a case-by-case basis, for the possibility of carefully sited solar projects outside SEZs on about 19 million acres in variance areas, and the program proactively identified lands that are excluded from utility-scale solar energy development because of the potential for significant resource and land use conflicts.

Leveraging Private Sector Leadership: The Since 2001, EPA's Green Power Partnership has worked with businesses, local and state governments, schools, and Federal agencies to expand the use of clean renewable energy, including solar. More than 1,500 organizations have been recognized for their leadership as Green Power Partners, together purchasing enough green power annually to avoid carbon emissions equivalent to more than 2.4 million homes. *Today, EPA announced that the Green Power Partnership will aim to double the use of on-site renewable energy, including solar energy, at Partner facilities by the end of the decade. To support this goal, last month, EPA is announced a new On-site Renewables Challenge within the Green Power Partnership.* As part of the Challenge, EPA is inviting Partners to commit to increasing the amount of energy they produce and use from on-site renewables by the end of the decade.

V. Leading By Example

The Federal Government is leading by example. On December 5, 2013, President Obama signed a *Presidential Memorandum on Federal Leadership on Energy Management* directing the Federal Government to consume at least 20 percent of its electricity from renewable sources by 2020 – more than double the current level. The Presidential Memorandum encourages agencies to prioritize onsite development and consumption of renewable energy, deployment of renewable energy on contaminated lands, and improved energy management practices to make the energy used by the government go further. In addition, to lead by example, the Federal government is:

Launching a Capital Solar Challenge: Over the last 5 years, the Federal government has worked to lead by example when it comes to reducing carbon emissions, increasing energy efficiency and expanding the use of clean energy. *Last month, the Administration launched a Capital Solar Challenge, which will direct Federal agencies, military installations, and Federally-subsidized complexes to identify opportunities to deploy solar renewable energy at Federal locations across the National Capital Region.* The President charged the Energy Department and GSA to assist agencies in leading the Capital Solar Challenge with the goal of developing solar renewable power on Federal rooftops, covered parking, and appropriate open land. This program will capitalize on innovative financing and procurement models such as aggregated solar purchases and energy performance contracts, to help lower their cost of electricity. The Capital Solar Challenge will align with efforts in the District to increase solar renewable energy on Federally assisted housing as well as municipal buildings.

Renewable Energy on Military Installations: The Department of Defense - the single largest consumer of energy in the United States - is committed to deploying 3 gigawatts (GW) of renewable energy on military installations, including solar, wind, biomass, and geothermal, by 2025. Almost all will be third-party financed, using existing authorities, requiring no up-front capital cost to the Department. Within the last three years, the Department has more than doubled the number of renewable energy projects in operation with approximately 800 megawatts in place today. The Department of Defense is planning for a number of renewable energy projects over the next six years including potentially more than 500 MW of solar.

GreenGov Initiatives: With more than 1.8 million civilian employees, 360,000 buildings, and \$415 billion in annual purchasing power, the Federal Government has an obligation to lead by example when it comes to its environmental, energy and economic performance. GreenGov comprises White House sustainability initiatives to encourage recognition and collaboration among the Federal community including GreenGov Awards, Spotlight Communities, Challenges, Workshops, and other interagency efforts.

VI. Looking Forward

President Obama's Climate Action Plan lays out steady, responsible national and international action to slow the effects of climate change and leave a cleaner, more stable environment for future generations. Building on significant progress to double generation of electricity from wind, solar and geothermal, the plan calls for promoting American leadership in renewable energy as well as unlocking continued long-term investment in clean energy innovation. Moving forward, the Administration is committed to both lowering the cost and improving the performance of solar energy technologies while supporting reliable and seamless grid integration.

Calling for Private and Public Sector Commitments: On May 9, President Barack Obama announced private and public sector commitments to create jobs and cut carbon pollution by advancing solar deployment and energy efficiency. The commitments represent thousands of homes that will go solar and more than 850 megawatts of solar deployed – enough to power nearly more than 130,000 homes. Leaders from the private and public sectors – altogether, more than 300 – are advancing solar across sectors: multifamily housing, homebuilder and home improvement, rural electric cooperatives, financial institutions and retailers. The Administration will continue to work with private and public sector leaders to advance solar deployment.

Building a Skilled Solar Workforce: To enable a skilled workforce to support the growth of solar deployment across America, the DOE's Solar Instructor Training Network will support training programs at community colleges across the country that will assist 50,000 workers to enter the solar industry by 2020. This builds upon SunShot's existing Solar Instructor Training Network of nearly 400 community colleges in 49 states that have trained over 22,000 people to join the solar industry since 2010. These community colleges include:

- San Francisco City College, San Francisco, CA
- Oglala Lakota Community College, Kyle, SD (Oglala Lakota Tribe)
- Kankakee Community College, Kankakee, IL
- St. Phillips College, San Antonio, TX
- Forsyth Technical Community College, Winston Salem, NC
- Greenfield Community College, Greenfield, MA

HUD and DOE are also partnering to advance available educational opportunities in Science, Technology, Engineering, and Mathematics (STEM) fields to support energy literacy and employment opportunities in the solar sector for public housing residents.

Investing in Research and Development to Further Lower Costs, Achieve Greater Technology Performance: The Energy Department will continue to focus on supporting innovative photovoltaic and concentrating solar power technology and manufacturing processes – helping to spur the domestic PV and CSP manufacturing base and supply chain. While soft costs – such as permitting, installation, inspection and interconnection, increasingly make up a majority of a solar system's overall cost, the Department is aggressively working to achieve a 50 percent reduction in non-hardware costs. Last month, the Energy Department announced a \$15 million Solar Market Pathways funding opportunity to support state, tribal

and local leaders in developing multi-year solar plans to install affordable solar electricity for homes and businesses.

Building a More Reliable Grid that Integrates Cleaner Sources of Power: The Climate Action Plan calls for upgrading the country's electric grid to make electricity more reliable, save consumers money on their energy bills and promote clean energy sources. For decades, the United States has chased the promise of clean, domestic energy, and today, we are seeing that dream start to come true. As the costs of solar and other clean energy technologies continue to fall, we have to find a way to seamlessly integrate renewable energy so that we can make electricity more reliable, save consumers money on their energy bills and achieve our national clean energy goals. To achieve this, the Energy Department is working with manufacturers, utilities and public and private sector researchers to overcome the challenges of improving the integration of clean energy technologies into today's energy infrastructure.

Providing Innovative Financing for Deploying Solar: Building on the success of the Defense Department's coordinated efforts to purchase renewables - and leverage its buying power to deploy clean energy technologies like solar - the General Services Administration is identifying opportunities for potential Federal Aggregated Solar Procurements in both the National Capital Region and Northern California. The effort seeks to bring together multiple Federal agencies to capitalize on economies of scale with the goal of lower electricity bills for individual sites, and increased renewable energy production, while reducing internal agency overhead costs by sharing procurement and project management resources.