



Energy Solutions Forum

Energy Solutions Forum is an energy policy data company and the official policy partner of Clean Energy Connections.

The ESF Policy Primer provides an educational background on federal and state policy implications on the current event topic.

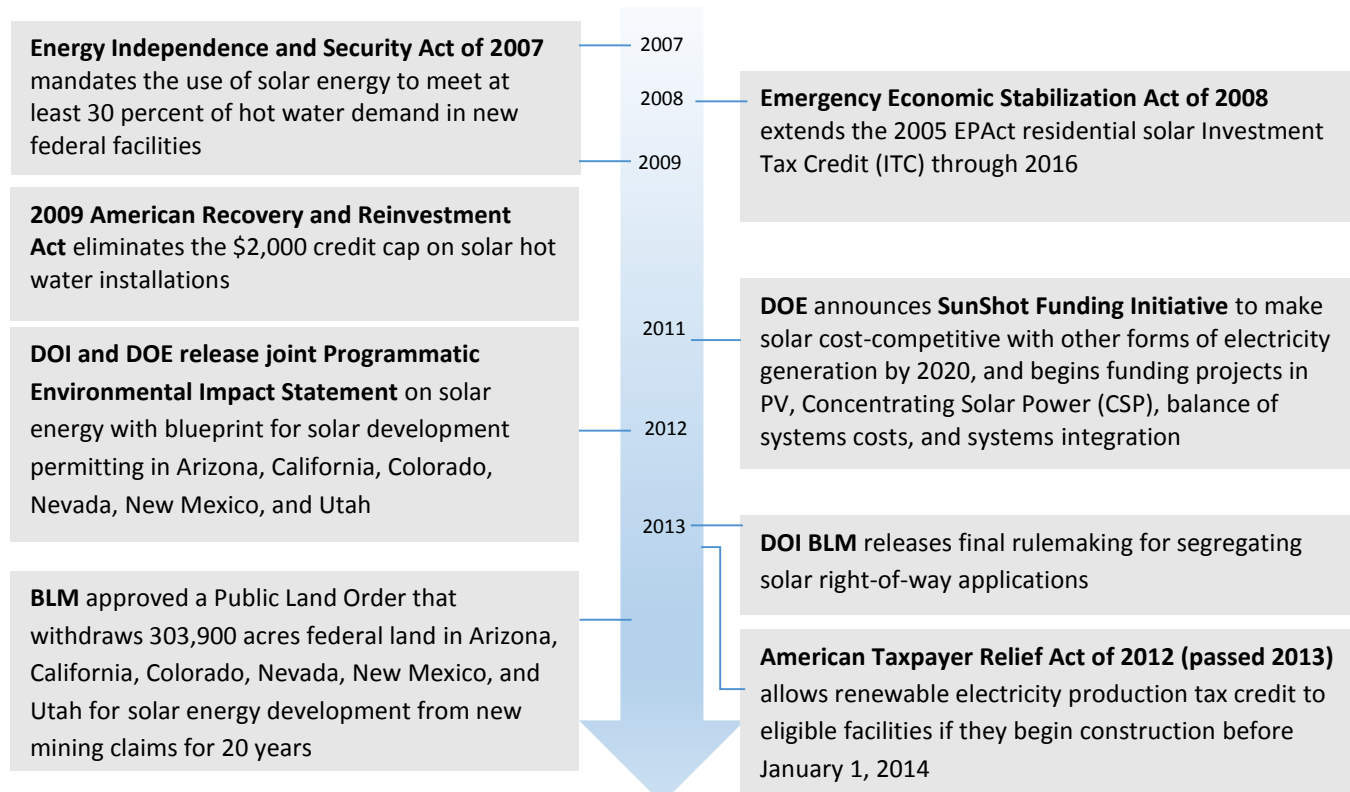
ESF® Policy Primer

The Expansion of Distributed PV in the Age of the Grid Edge

Clean Energy Connections, March 4, 2014

Solar energy provides the opportunity for electricity production with no direct greenhouse gas emissions. Investment tax credits (ITCs) for solar energy projects, federal funding programs, and state renewable energy portfolio standards have increased the industry's ability to complete utility-scale, residential, and commercial installations. The Energy Policy Act of 2005 created a 30 percent ITC for commercial and residential solar energy systems. The ITC provides a stable incentive for solar projects and reduces tax liability for purchasers of qualifying solar energy technologies. The ITC's multiple-year extension (under the Emergency Economic Stabilization Act of 2008) through 2016 provides market certainty for long-term investments that drive competition and innovation. Since ITC implementation in 2006, solar installations have witnessed a compound annual growth rate of 76 percent.

Federal Policy Milestones Supporting Solar Energy



Sources: DOE EERE, BLM, SEC data

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State Policies Support Solar Energy

State-level policies that support solar energy development include renewable portfolio standards (RPS) with solar carve outs, net metering laws, interconnection standards, and solar access and permitting laws. More than 40 states have passed net metering legislation that allows customers to offset electricity costs with rooftop solar power exported to the grid. Interconnection standards specify requirements for customers and utilities to connect a system to the grid. Many states also have solar easement and solar access laws, protecting solar projects from state and local restrictions.

See www.dsire.org/solar for comprehensive state-level solar energy incentives and policies.

Regulatory Spotlight

The BLM and Right-of Way Permitting

In May 2013, BLM issued a rule to segregate public lands with pending Right-of-Way (ROW) applications for renewable energy projects or identified as potential renewable development sites from land appropriations. The rule provides a two-year segregation period to eliminate conflicts from mining claims and avoid delays after filing of ROW applications. Since 2010, BLM has approved 25 utility-scale solar projects with approximately 8GW total-capacity and currently has 70 pending applications. The 2012 Solar Energy Program prioritizes utility-scale development on BLM-administered land in six southwestern states –Arizona, California, Colorado, Nevada, New Mexico, and Utah.

Key States to Watch

California	Arizona
<ul style="list-style-type: none"> • Ranks first nationally with 4,167 MW of currently installed solar capacity • \$2.2B California Solar Initiative aims to install 1,940 MW of new solar by 2017 • AB 327 removes 2015 Net Energy Metering (NEM) suspension and calls for a new program by July 1, 2017, with option for uncapped NEM • 2011 RPS requires 33% energy procurement from renewables by 2020 • Solar Rights Act guides PV installation on historic properties and Solar Shade Control Act provides solar easements 	<ul style="list-style-type: none"> • Invested \$590M and installed 719 MW of solar capacity in 2012 • Provides net metering at \$0.70/kW monthly charge for new residential solar customers. • Arizona's RPS – Renewable Energy Standard – set at 15% by 2025, increasing annually • Provides Solar Energy Credit on residential installers' personal income taxes and Corporate Tax Credit on non-residential installers' corporate or personal taxes • Completed 250 MW Agua Caliente PV project and 280 MW Solana CSP project in 2013
New York	
<ul style="list-style-type: none"> • Invested \$257M for solar installation in 2012, a 91% increase from 2011 • RPS requires IOUs to procure 29% electricity from renewables by 2015 • The 2012 NY-Sun Initiative, a public-private partnership, funds PV installations through 2023. It provided \$54M state funding paired with \$120M private investment in 2013 to add 64 MW solar-capacity • NYSERDA' Solar PV Incentive Program offers On-Bill-Recovery Loans and Smart Energy Loans • 2013 NYS Unified Solar Permit program reduces solar project costs by streamlining statewide permitting processes 	

Sources: DOE, EnerKnol Data, DSIRE, state energy and commerce offices, SEIA

Looking Ahead

Strong federal and state policies support solar generation projects at the utility, residential, and commercial scale. As states experience growth in the PV sector, these policies will continue to ensure long-term growth. As industry anticipates the ITC expiration in 2016, the next three years will likely experience a surge in new solar applications and installation projects.

About Energy Solutions Forum

Energy Solutions Forum is an energy policy research and data company based in the NYC ACRE program at the NYU Poly incubator. Follow @EnergySolForum for policy research and stay plugged in with ESF Calendar, the industry's go-to resource for energy business events in and around NYC.

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