



# The Solar Industry's Evolving Role in the Nation's Energy Future

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## Key Points:

- **With 1,164 megawatts of PV solar installed at year-end 2009, the U.S. total has skyrocketed to nearly 15,000 megawatts since then.**
- **Federal policies such as the Investment Tax Credit and state-level Renewable Portfolio Standards continue to provide support for the U.S. solar industry, driving solar installations to historic levels.**
- **PV module prices plummeted 20 percent from \$0.90 per watt in 2012 to around \$0.72 per watt in 2014. Moving forward, the decline in module prices will likely taper off, with prices falling from \$0.72 per watt in 2014 to about \$0.40 per watt in 2030.**
- **In the next two years, utility-scale projects will likely dominate new installations as utilities and developers rush to take advantage of the Investment Tax Credit before it sunsets. Total solar installations will pull back significantly beginning in 2017, led by drastic reductions in utility-scale projects.**
- **Reducing the Investment Tax Credit from 30 percent to 10 percent will increase PPA rates. For projects funded by sponsors with tax appetite, PPA prices will increase by about \$15 per megawatt-hour, and for projects that utilize third party tax equity investors, PPA prices will increase by approximately \$20 per megawatt-hour.**
- **The rapid adoption of solar is forcing regulators to promote a modern grid that can manage high levels of intermittent resources, such as solar.**
- **How successful regulators will be in promoting a modern grid will largely dictate the growth trajectory for U.S. solar.**

## Introduction

The U.S. solar industry is experiencing exceptionally rapid growth, largely due to falling photovoltaic (PV) solar prices and generous federal and state subsidies. Installations across all market segments – residential, non-residential, and utility-scale – will continue to grow. The U.S. had installed 1,164 cumulative megawatts (MW) of PV solar at year-end 2009, that total has skyrocketed to nearly 15,000 MW since then. Correspondingly, the average installed price for solar across all market segments has fallen by half since 2009 to around \$2.40 per watt (W) in Q3