NREL
NATIONAL RENEWABLE ENERGY LABORATORY

So you have questions about...

Value of Solar Tariffs

Resources & Technical Assistance

Fourth in a series of Policy Basics

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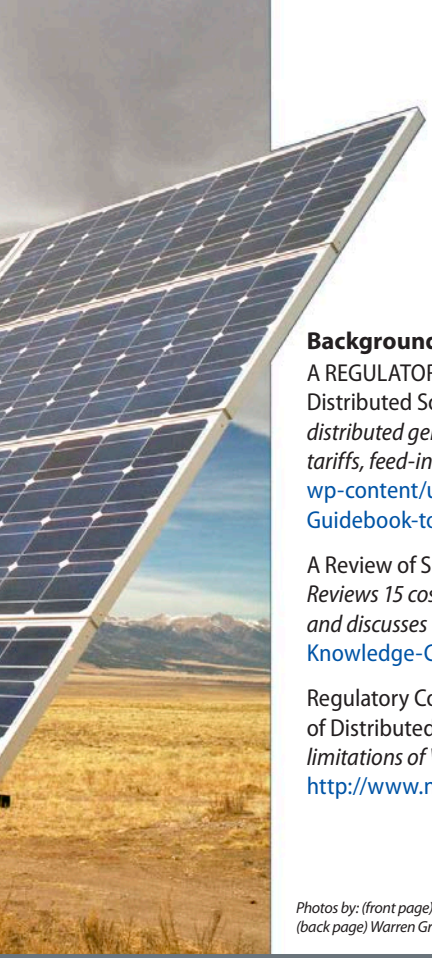

A **value of solar (VOS) tariff** is an example of a rate design that reflects the value of distributed solar generation. A VOS tariff clarifies how much energy is sold in each direction (customer-utility) and how much that energy is valued. Under a VOS tariff, customers continue to purchase all their energy at the utility's retail rate, but are compensated for their solar PV generation at a separate VOS rate ($/kWh). The VOS rate accounts for solar PVs benefits to stakeholders net its costs. Factors that affect this value may include utility variable costs, utility fixed costs, distribution system and transmission line losses, ancillary services, and environmental impacts. Although analyses of distributed solar PV value share common trends, no standard methodology for establishing solar PV value currently exists.

Only two jurisdictions have adopted VOS tariffs: Austin, Texas (2006) and Minnesota (2013). Although there is limited experience and published literature on VOS tariffs, market interest and discussion of VOS tariffs are increasing.

Background

A REGULATOR'S GUIDEBOOK: Calculating the Benefits and Costs of Distributed Solar Generation (2013). *Provides guidance on valuing distributed generation when determining net-metering, value of solar tariffs, feed-in tariffs, and other policies.* http://votesolar.org/wp-content/uploads/2013/09/IREC_Rabago_Regulators-Guidebook-to-Assessing-Benefits-and-Costs-of-DSG1.pdf

A Review of Solar PV Benefit and Cost Studies: 2nd ed. (2013). *Reviews 15 cost-benefit studies on distributed solar generation and discusses various methods employed.* http://www.rmi.org/Knowledge-Center%2fLibrary%2f2013-13_eLabDERCostValue

Regulatory Considerations Associated with the Expanded Adoptions of Distributed Solar (2013). *Chapter 5 discusses the strengths and limitations of VOS tariffs to different stakeholders.* http://www.nrel.gov/docs/fy14osti/60613.pdf

Resources

Current NREL research examines 1) value of solar program designs and market implications and 2) methods for analyzing the value of distributed PV generation. These reports are forthcoming.

The Value of Distributed Photovoltaics to Austin Energy and the City of Austin (2006). http://www.ilsr.org/wp-content/uploads/2013/03/Value-of-PV-to-Austin-Energy.pdf

Minnesota Value of Solar Methodology (2014). *Austin and Minnesota's value of solar methodologies outline the sources of value, costs, and calculations used to determine their VOS tariff rates.* http://mn.gov/commerce/energy/images/DRAFT-MN-VOS-Methodology-111913.pdf

Technical Assistance

NREL's Solar Technical Assistance Team (STAT) is a team of solar technology and deployment experts who ensure that the best information on policies, regulations, financing and other issues is getting into the hands of state government decision makers at the time they need it. For more information please visit: http://www.nrel.gov/tech_deployment/stat.html.

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