

European Solar and Energy Storage Solutions

Solar power generation compensation standards



Overview

Compensation mechanisms for electricity generation systems installed behind the meter are under scrutiny in several jurisdictions in the United States. Legislators in 29 states introduced bills to amend net metering provisions in 2014, and in 33 states in the 2015 legislative session as of August 20, 2015 (Haynes 2015).

Compensation mechanisms for electricity generation systems installed behind the meter are under scrutiny in several jurisdictions in the United States. Legislators in 29 states introduced bills to amend net metering provisions in 2014, and in 33 states in the 2015 legislative session as of August 20, 2015 (Haynes 2015).

We start by identifying the time frame of PV electricity generation compensation mechanisms in each region. The time frame of the available compensation is a critical support policy characteristic as it signals the flexibility to PV unit owners on the use of excess electricity generated.

NREL provides resources on energy compensation mechanisms, such as net metering, designed to reward distributed generation (DG) system owners for generating self-consumed and exported electricity to the utility grid. Well-designed compensation mechanisms are one of several policy and regulatory options that can address challenges associated .

Compensation mechanisms are one of several policy and . regulatory options that can address challenges associated with deploying DG systems. Others include: • Direct financial incentives (e.g., cash rebates, tax credits) • Low-interest financing programs • Clean electricity standards (for clean DG systems).

Establish different solar compensation rates for small and large-scale projects. Establish special rates based on project location or site-type. Use rate adders and subtractors based on system size, location, and design within net-metering and other per-kilowatt-hour compensation programs. What are compensation mechanisms for grid-connected distributed generation systems?

This short report defines compensation mechanisms for grid-connected, behind-the-meter distributed generation (DG) systems as instruments that comprise three core elements: (1) metering & billing arrangements, (2) sell rate design, and (3) retail rate design.

What are the possible arrangements for metering & billing of DG?

We detail the three possible arrangements for metering & billing of DG: net energy metering (NEM); buy all, sell all; and net billing. Deployment of grid-connected DG systems can be enabled through public policies and regulatory mechanisms, including well-designed compensation mechanisms.

What billing scheme does a PV plant use?

Currently, most PV plants with self-consumption are supported by a net billing scheme called Scambio Sul Posto, valid for systems with capacity of up to 500 kW .

What are the FERC requirements for large generators?

- 2003: FERC issues standard interconnection agreement and procedure for large generators
- 2005: FERC 661 requires a wind power factor range of +/- 0.95 if required by studies.
- 2016: FERC 827 requires all large non-synchronous generators to maintain a dynamic +/- 0.95 at the high side of the project substation, at all generation levels. 8.

What is the power factor of 100 MW power supply?

- 100MW •Unity power factor: 100MVA, 100MW, 0MVAR
- 0.95 power factor: 105MVA, 100MW, 33MVAR
- 0.90 power factor: 111MVA, 100MW, 48MVAR
- Higher MVA = higher current, higher losses

7 Regulatory Timeline

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Power Coordination (CREPC) to conduct studies and work relevant to the interests of its state electricity official members. At its October 2013 meeting, the SPSC/CREPC asked DOE's ...

Update Report of ESIA study for 250 MW Solar Power Project,

generation capacities in India and its neighbouring countries. Ayana (ARPPL) through its special purpose vehicle (SPV) Ayana Ananthapuramu Solar Power Ltd (AASPL) is developing the 250 ...



Grid-connected Distributed Generation: Compensation ...

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Compensation for Distributed Solar: A Survey of Options to

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Photovoltaic distributed generation - An international review on

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