

Distributed Generation / Customer Sited Incentives

Description:

Distributed generation (DG) provides localized generation that serves a specific part of the grid. It may include generation serving a specific residence or business, a neighborhood, or a region served by a substation. DG has the benefit of reducing stress on large transmission infrastructure by providing distribution level power (as opposed to central generation). Because small-scale renewable energy systems require large upfront investments, many states provide financing and financial incentives to spur adoption of these technologies.

Example State Programs / Discussion of the Policy:

1. **Performance-Based Incentives** - A performance based incentive may take the form of a power purchase agreement, a standard offer payment, or a bill credit providing a certain dollar amount per kilowatt hour (kWh) of power generated. An example is [Rhode Island's Distributed Generation Standard Contracts program](#).
2. **Loans** - By providing low interest financing to an individual utility customer, the state can shift the upfront payment for generation to one that reflects typical utility costs - a monthly payment over time. An example is [Connecticut's Low Interest Loan Program](#).
3. **Bonds** - Through the 2009 American Recovery and Reinvestment Act, states were provided with low interest bond financing for renewable energy and energy efficiency projects through Qualified Energy Conservation Bonds ([QECBs](#)). These may still be available, as many states did not use their full allocation.
4. **On-bill Financing** - If utilities are willing to finance renewable energy investments directly for consumers, legislatures may authorize utilities to lend money and recover their regulated rate of return on the investment from customers through on-bill repayment of the loan. Similar to on-bill programs through utilities, private financing may be available. States can facilitate this by enabling on-bill financing of a renewable energy loan. This gives consumers a convenient way to incorporate their energy investments into their utility bill. For additional information, see '[On-Bill Financing / On-Bill Repayment](#)'.
5. **Third Party Financing** - Third party ownership attempts to address affordability by allowing a system to be purchased by a third party with the generation sold over time to the customer. By doing this, the third party can monetize tax credits, capitalize on commercial benefits like depreciation, and take advantage of large scale financing at low rates to procure systems at a very low cost - passing the savings on to the consumer. For more information, see '[Third-Party Financing](#)'.

Key Components:

Incentive policies may include:

- A definition of what qualifies as DG. Definitions will vary by technology type, and system size and siting limitations.
- A directive to utility commissions or utilities directly to provide a certain level of DG incentive for their customers. This may include an established percentage of sales to go toward these incentives - for example a 3% rate based allocation to incentive programs.
- Third party administration - many states remove the administration from utilities and allocate administration to a third party. This may be preferable if a state is to provide statewide service

across various utility districts or if they feel there is a disincentive for utilities to manage the programs well (because it would reduce sales revenue, for example).

- [Value of Energy Tariffs](#) and [Feed-in Tariffs](#) seek to establish a stable payment schedule over time - these have been traditionally developed for solar energy and targeted at attracting private financing entities by reducing revenue risk.

More Information:

- American Council for an Energy-Efficient Economy (ACEEE) discussion of DG:
<http://aceee.org/topics/distributed-generation>
- U.S. Environmental Protection Agency (EPA), About DG:
<http://www.epa.gov/energy/distributed-generation>
- Clean Energy Finance Forum on DG:
<http://cleanenergyfinanceforum.com/forum-topic/distributed-generation>
- Solar Energy Industries Association: Distributed Solar Policies and Links:
<http://www.seia.org/policy/distributed-solar>
- Search for incentives at The Database of State Incentives for Renewables and Efficiency (DSIRE):
<http://www.dsireusa.org/>