



Net Metering: Balancing the Costs and Benefits

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About the IEE at Vermont Law School

- **The Institute for Energy and the Environment serves as a resource on energy law and policy. The Institute distributes scholarly, technical, and practical publications and serves as a center for graduate research on energy issues, with an environmental awareness.**
- **The Institute is part of Vermont Law School's Environmental Law Center which is located in South Royalton, VT.**

Overview

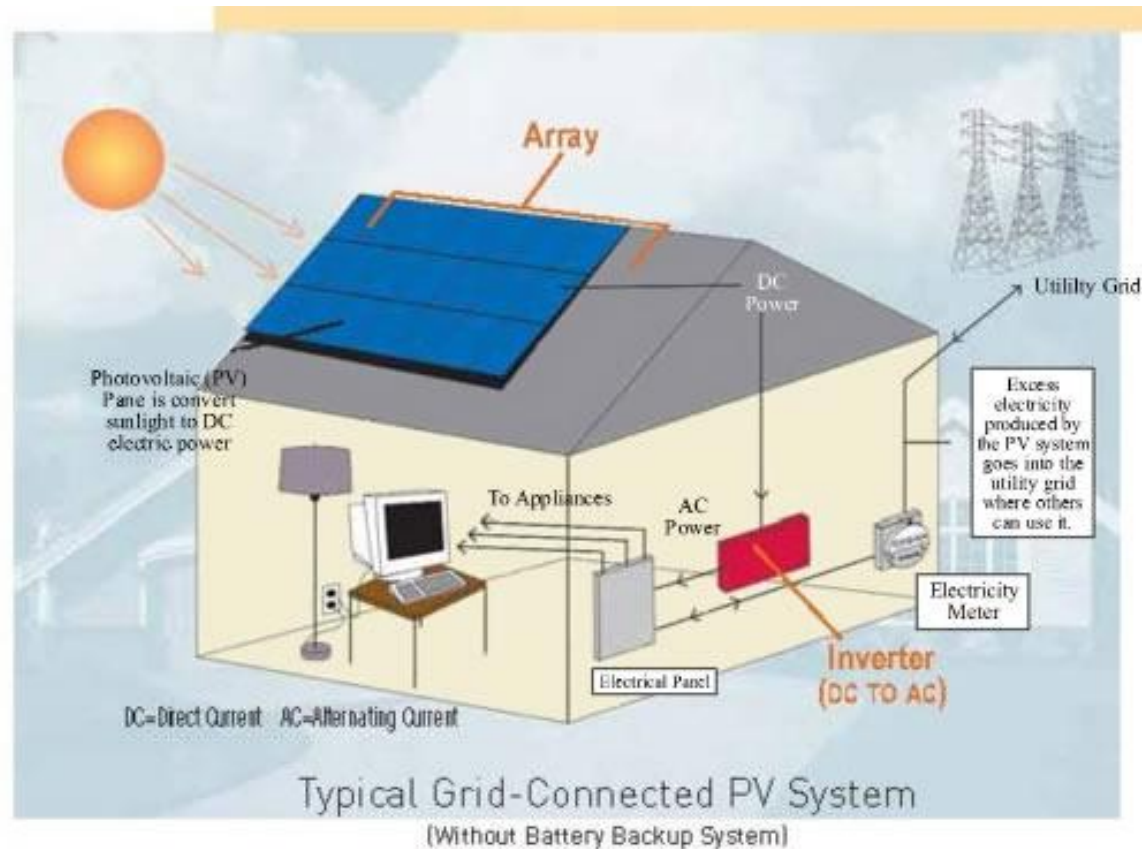


- Costs and Benefits Of Net Metering
- Developing a Net Metering Policy

Overall Message:

All Utilities are different, but net metering has a place in each utility's generation mix.

A Net Metered System





Not All Utilities are the Same

- Rural Utilities have higher fixed costs per Customer
- Urban Utilities Serve More Commercial and Industrial Customers
- Some Utilities Need to Meet Renewable Portfolio Standards



Concerns for Utilities

- Is a net metered generator a competitor who sells higher priced electricity than could be found elsewhere?
- Will other customers have to pay for these higher rates and is that fair?
- If net metering is adopted by a significant percentage of customers in the future, how will the utility continue to cover fixed costs as revenues decline?
- Is the utility providing a storage service with the electric grid, for which the costs aren't being compensated?



Cross Subsidization

Utility Concern: Net metered customers benefit by receiving credits for each kWh produced. However, these credits don't take into account the fixed costs bundled into the typical customer's rate. Thus, net metered customers are subsidized because the value of the kWhs fed into the grid is less than the bundled rate.

The Reality: From a marginal cost perspective, a net metered customer may in fact be providing power to the local grid that is much cheaper than peak electricity costs to generate and deliver. There may well be circumstances where net metered customers are subsidizing the rest of the system through net



Cross Subsidies

Typical Cross Subsidies in Rate Making:

1. Customers who are bad credit risks or are late are not charged higher rates
2. Rural customers cost more to serve than customers in town
3. Residential customers tend to cost the utility more in terms of fixed costs (poles, wires, transformers) and line loss as compared to commercial and industrial customers, especially in rural areas.
4. Residential customers don't need as high a reliability levels as demanded by commercial and most industrial customers, yet often pay for this service



Benefits to Society, Utility & Generator

- Reduction of air emissions (social)
- Lower costs of energy during some peak time periods (utility)
- Some peak capacity benefits (utility)
- Avoiding transmission and distribution losses through distributed generation (utility)
- Avoiding the need for batteries (generator)
- Getting paid more for your renewable electricity than wholesale rates (generator)



Developing a Net Metering Policy

- Utilities or states **must balance the costs and benefits** when considering a net metering policy.
- It is unlikely that the number of net metered customers would cause higher grid management costs or under recovery by a utility.
- However, if this was a potential problem for smaller rural utilities or cooperatives, a utility could institute a cap on the number of kWh allowed to be net metered.



Developing a Net Metering Policy

Resources

IREC Model Rules:

www.irecusa.org

Freeing the Grid:

www.newenergychoices.org

Database of State Incentives for Renewables and Efficiency

www.dsireusa.org





Take Away Point

Overall Message:

All Utilities are different, but net metering has a place in each utility's generation mix.

- Distributed Generation Sources Offers Benefits to Utility and Society
- Utilities can create a net metering policy that is right for them
- Net Metering offers Benefits to Customer Generators

Thank You!



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