



Net Metering in Mississippi

The use of renewable energy is on the rise in Mississippi and across the nation. Some residential electricity consumers generate their own electricity at their homes (usually through solar or wind power) to help lower their monthly electric bill. Commercial electricity consumers have also sought means to supplement their electricity use. In Mississippi, a prime example would be poultry farms which can combine solar collection on their chicken houses as well as the consumption of chicken waste to produce and burn methane gas, to utilize two renewable energy sources.¹ At times, some of these residential or commercial consumers produce more energy than they can use and wish to sell it back to their electric utility, a process known as net metering.

Net metering can be viewed in a broader context of distributed generation of electricity using a variety of different technologies including renewable energy resources such as biomass, solar, wind, hydro, tidal or geothermal - based on a region's geographic and energy resources. This larger view encompasses issues of grid stabilization, the use of micro-grids, the increased use of smart-metering, and balancing environmental benefits with the costs to rate payers.

In this issue brief Advance Mississippi presents the practical facts on net metering, the issues associated with it, and the current rules that regulate net metering in Mississippi.

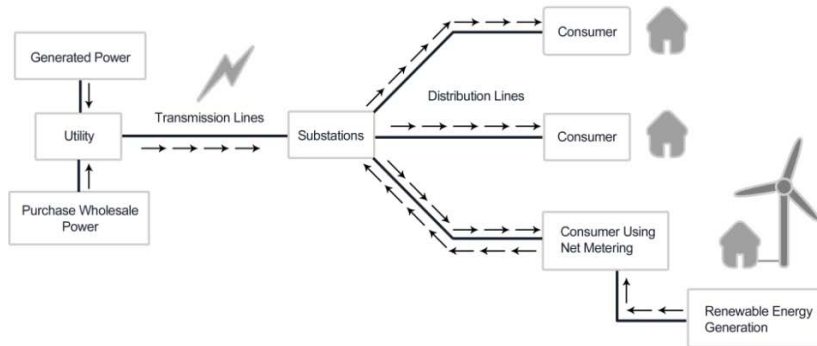
Net Metering Rules

Net metering is defined as "a system that permits customers to own and operate a small generator which serves to offset the amount of energy generation for which the customer is billed. Any unused energy can then be sold back to the utility company. This system facilitates the ease of operating generally small and intermittent generators such as those using solar and wind energy."² In Mississippi biomass, such as agricultural waste, is also a popular renewable fuel source. The diagram³ on following page demonstrates how net metering works.

¹ ["Alternative energy costly for most farms"](#) Delta Farm Press: 03/25/2010

² Advance Mississippi Energy Glossary

³ Diagram by Advance Mississippi, 2011.



Currently 46 states and the District of Columbia have adopted net metering policies that dictate specific policies including the rate at which a consumer can sell electricity back to a utility and its other consumers.⁴

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In Mississippi, Mississippi Public Service Commission Rule 29 allows consumers to generate electricity on the customer side of the meter to offset utility provided power.⁵ This rule reiterates that utilities must enter into a net metering agreement upon request and requires that rates be just and reasonable but imposes no limits to how much electricity can be sold.

Entergy Mississippi, Inc provides a process for net-metering for small⁶ (no larger than 20 megawatts) and large⁷ generators through MPSC Rule 29. Entergy has teamed up with Smart Sync to utilize solar panels and net metering through a partnership with the Jackson Housing Authority and Decker Architects to create a national model for future affordable housing construction.⁸

Mississippi Power, a Southern Company, also provides “net metering for customers who are installing sources of renewable energy for their homes or businesses. Through our grid interconnection, we make sure their lights stay on when necessary, and we provide credits for any excess energy they return to the grid.”⁹

TVA’s “Green Power Switch”¹⁰ program allows customers to volunteer to pay more for their electricity with the assurance that power was generated from renewable sources. to increase the available renewable

⁴ “Net metering for renewable energy: Rules, regulations, and policies” – <http://bit.ly/iayV7g>

⁵ “Rule 29 – Special Rule for Cogeneration and Small Power” – <http://bit.ly/fMRZpW>

⁶ “Small Generators Interconnection Procedures” – <http://bit.ly/hSiebE>

⁷ “Connecting Large Electric Generators to the Entergy Distribution System” – <http://bit.ly/f33TFF>

⁸ 2010 Low-Income Customer Assistance Progress Report: The Power To Care – <http://bit.ly/gnzssG>

⁹ Southern Company 2009 Annual Report – <http://bit.ly/fSTbgB>

¹⁰ “Green Power Switch” – <http://bit.ly/b8gmt5>



power on its grid, TVA developed “Generation Partners” to purchase 100% of qualifying renewable generation from consumers of participating power distributors in a dual metering arrangement.

Issues with Net Metering

When consumers generate their own electricity and feed it into their residential or commercial facility on their side of the meter, there is no electricity exchange with their provider. Because they are meeting their own power needs, they pull less power off the grid. However, when consumers generate excess power – more than they consume – and want to push that power onto the grid, several policy issues must be considered including ensuring ratepayers do not subsidize their net metering neighbors, providing for grid integrity and reliability, and protecting consumers with safe technology.

Cost: Wholesale vs. Retail

The Net Metering standard proposed in the Energy Policy Act of 2005 would oblige an energy provider to allow a net-metering customer to interconnect his generator with the grid and sell any excess generated energy to the energy provider – if certain requirements are met. However, the proposed standard did not address setting a rate or value for that excess energy.

The debate then is over how much utilities should pay for this intermediate excess power. Some argue it should be at the retail rate, that consumers should receive the same amount money for the electricity they sale as the electricity they buy. While this position seems reasonable at first glance, it creates a system where ratepayers are forced to subsidize their net metering neighbors.

Retail price is the price consumers pay for electricity received from their utility, while wholesale price is the price that utilities pay for electricity when they purchase it on the market. Customers who participate in net metering, like any business, want to be appropriately compensated for the power they generate. However, since they do not bear the non-generation costs utilities face to provide consistent and reliable power, those expenses should not be included when calculating the value of their net-metered electricity.

There are costs to electricity besides the cost of generation. Utilities pay for the construction of transmission and distribution lines, for improvements and sustainability measures to ensure the power grid is balanced, for maintenance of power lines, and for reliability – ensuring when you flip your light switch the power is there. Those costs are built into the final retail cost of the power. A consumer using net metering does not incur those costs in generation, so selling that power to their fellow consumers through the utility means their neighbors pay those costs twice. It is not fair to other ratepayers if a utility buys net metered electricity at the retail cost. Even at wholesale cost, a consumer using net metering benefits because the wires used to sell their power onto the grid have been paid for by someone else.

In addition, regulated utilities in Mississippi are required to purchase power at the lowest reasonable cost for reliable power which prohibits them from buying power at retail rates when wholesale rates are available. Forcing utilities to purchase power at something other than the lowest reasonable cost will mean higher prices to electricity customers.

Grid Integrity

The network of electrical wires that carry electricity from various power plants to transmission lines to substations and through transmission lines to homes and businesses are interconnected to prevent



catastrophic failures and massive regional blackouts. The grid is constructed to maintain balance from the various generation points through delivery to consumption points. Net metering requires the proper technology to ensure this balance is not disrupted with periodic inspections of the generating facility to guarantee the proper practices, technology and measures are being maintained.

Safety

An important part of any net metering policy is ensuring the safety of the consumer, their neighbors and the utility's linemen. There must be measures in place to make sure that the generator is not sending electricity to the utility when a line is not in use. And any high voltage transmitter or receiver must have the proper capacity to prevent dangerous electrical failures at a home or business.

Environmental Benefits

Net metering can provide the public as well as utilities with environmental benefits, as noted with the TVA projects. Electricity sold through net metering is nearly always generated using renewable sources, some of which (solar, wind) do not emit pollution during operation. By utilizing these sources, utilities are able to expand their energy portfolio with new clean energy sources and consumers know their electricity is environmentally friendly.

Conclusion

Net metering, when correctly implemented, can provide benefits to consumers of electricity and the State of Mississippi. However, any law or rule that is made to facilitate increased net metering must be done with care to ensure the overall concerns of Mississippi's ratepayers are paramount, that ratepayers are not forced to subsidize their net metering neighbors, and that the electric grid in Mississippi remains reliable.

Additional Resources

Mississippi Public Service Commission

<http://psc.state.ms.us/>

U.S. Department of Energy – Energy Efficiency & Renewable Energy – Net Metering Policies

<http://apps3.eere.energy.gov/greenpower/markets/netmetering.shtml>

Advance Mississippi's mission is to advocate for sensible energy policy that will fuel economic opportunity in Mississippi, and educate policy makers, business and community leaders, and the general public about superior energy policies that will foster economic growth. For more information, visit www.advancemississippi.com.