



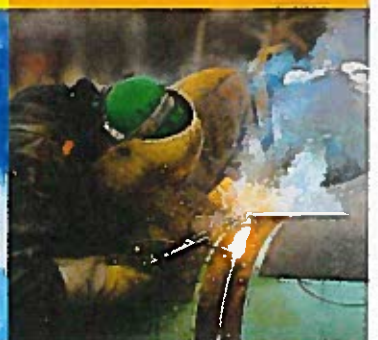
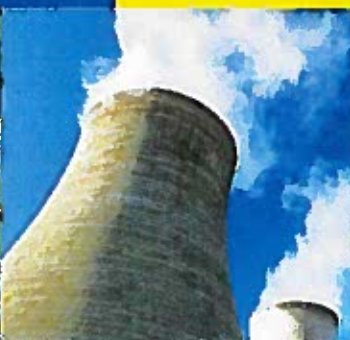
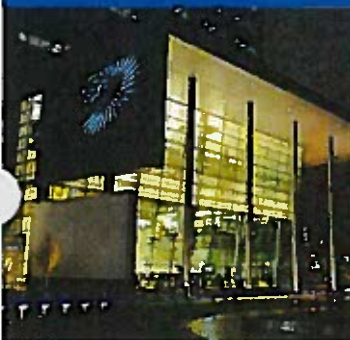
DTE Energy®

Written Comments: House Bills 5861-5865

Camilo Serna

Vice President of Corporate Strategy

May 22, 2018



Good morning, Chairman Glenn, Vice Chair Hauck, Vice Chair Lasinski, and members of this Committee. My name is Camilo Serna. I am the Vice President of Corporate Strategy at DTE Energy. Thank you for providing me the time to speak here today on House Bills 5861 through 5865.

The changes in power generation and grid technology are exciting. As Michigan transitions its energy infrastructure, the role of renewables and other technologies will increase. It is critical to understand how these technologies impact affordability and reliability as the grid modernizes. I commend you for taking the time to evaluate the policies before you today and throughout your tenure.

DTE is firm in our commitment to reduce carbon emissions by 80 percent, and advancements in generation technology are, and will continue to be, a part of that. Renewable technology is and will continue to play a greater role in our generation portfolio. DTE has deployed 1,000 MW of renewables, and recently announced plans to double this amount by 2022.

DTE Energy's 50 MW Demille (Lapeer) Solar Project



Photo Credit: John Jackson

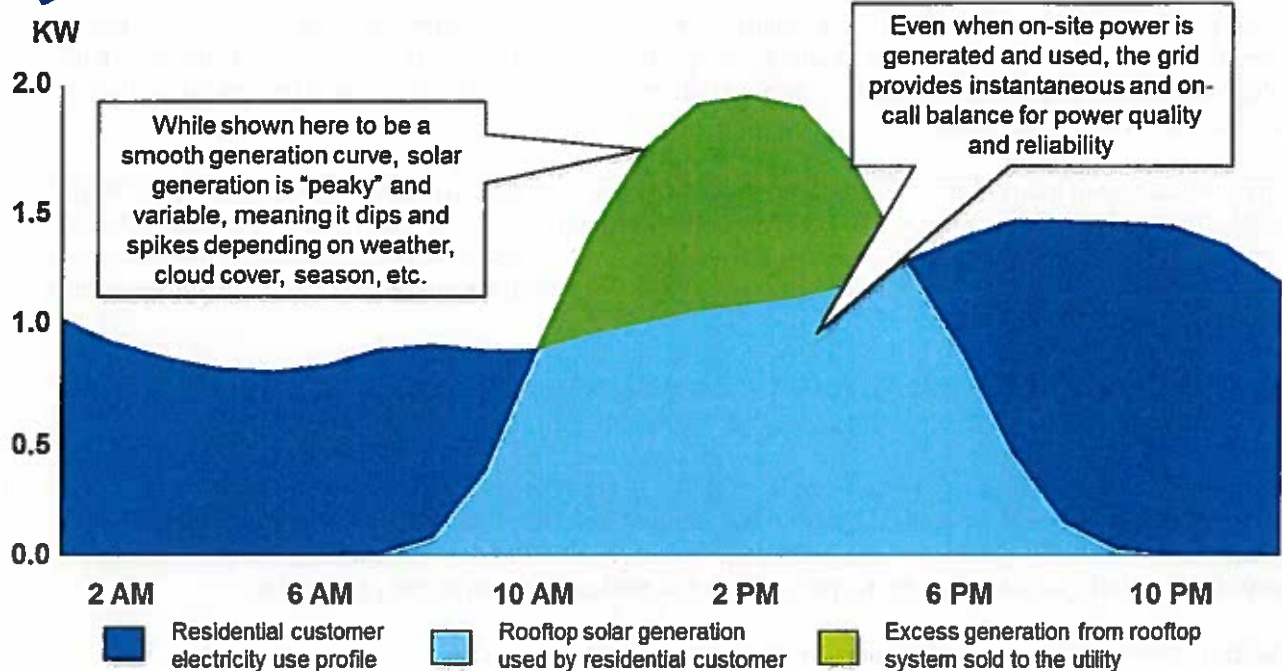
As we discuss distributed generation, mainly rooftop solar, we need to keep in mind a key tenet in the principle of "cost of service," meaning that the cost customers see reflects the true cost to serve them. The Michigan Public Service Commission (MPSC) is required to set rates based on cost by law and evaluate prudence of investments under this principle. This ensures that equity and fairness are at the center of all discussions and decisions around energy infrastructure development and investment. The consistent adherence and commitment to equity and fairness also mitigates cross subsidization and cost shifting for the fixed costs of electricity for there-when-you-need-it infrastructure, like poles, wires, and power generation.

This fixed-cost infrastructure is available and connected to distributed generation customers for safety and reliability purposes. The grid supports distributed generation customers when they have excess power that they want to return to DTE and when they need power to meet their home energy needs. Customers with rooftop solar panels, for example, continue to need their local energy company for a host of reasons. Solar panels are intermittent, so local energy companies provide 24/7, on-call services for reliability.¹

¹ Grid services include 1. instantaneous management of kilowatt hours of energy to balance demand; 2. power quality to stabilize voltage, without which momentary outages or flickers will occur; 3. inrush currents for when large motors, like air conditioners or refrigerators, turn on, exceeding the amount of real power required to operate the motor by five times; 4. distribution capacity in the form of transformers, conduits, and associated protection equipment to balance intermittent nature of distributed resources; 5 marketplace grid transaction management of excess generation to sell excess generation in real-time

Illustrative

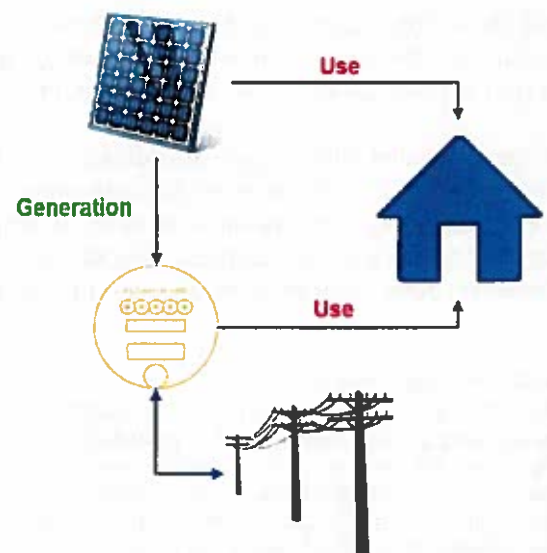
Daily Residential Customer Load and Distributed Solar Production on a Sunny Day



In the most basic sense, net metering is a billing mechanism for distributed generation. It was designed as a pilot over thirty years ago, and was structured to incentivize and encourage investment in rooftop solar. The intention was for regulators, policymakers, customers, and energy companies to learn about the technology through incentivized early adoption. So while its design was to pilot the technology, we, and the energy generation industry, have deepened our understanding of how distributed generation fits into the grid over the past three decades. We see the way distributed generation pushes and pulls electricity and the costs associated with serving customers using distributed generation.

Traditional net metering uses simple math: the distributed generation customer's energy exported is netted against the amount they draw from the local energy company. Net metering was designed as such mostly due to analog meters that were in use when net metering was first implemented and could only capture the net effect. This design, however, masks the true cost of service for fixed infrastructure and compensates customers the full retail rate² for energy exported.

Traditional Net Metering Tariff Structure



$$\text{Electric bill} = (\text{Total use} - \text{Total generation}) \times \text{Retail Rate}$$

² A full retail rate for customers includes fuel, distribution infrastructure, transmission, generation capacity, surcharges, customer service and billing, etc.

Net metering passes along the costs of the customer's fair share of maintaining the grid to his or her neighbors, creating a subsidy of about \$780 per year, or approximately \$65 per month. To be clear, this is not lost revenue to the energy company. It is the fixed-costs of infrastructure shifted to non-net metered customers.

As a pilot program, the intention was to eventually succeed net metering with a tariff that more accurately reflected the cost of service once the technology was ready to compete. That is what led Senators Mike Nofs and John Proos and a bi-partisan super majority of the Michigan Legislature to direct the MPSC to study the cost of service for distributed generation.³

Michigan is just one of many states looking to revise or replace outdated distributed generation policies and, ultimately, move beyond net metering. Of the nearly 40 states with net metering, 15 states, including Michigan, have or are considering replacing net metering.⁴ The reason states are acting early to address the economics before the technology is widespread is because the cost-shift associated with net metering would expand and drive costs up for non-net metered customers.

DTE believes the process put in place by the 2016 energy legislation is a step in the right direction. A robust process was initiated by the MPSC over a year ago and provided multiple parties a forum to present their analysis.

The MPSC recently provided a ruling that indicates that it is appropriate to move past net metering and implement a new billing mechanism called the "inflow/outflow" model. In future rate reviews by energy companies, the specific rates for the inflow/outflow mechanism will be set. The rate review proceeding will provide another opportunity for multiple parties to participate within the context of a contested proceeding.

Within that context, DTE does not support the proposed bills for 4 reasons.

First, as mentioned above, they would retrace the path of the bipartisan 2016 energy law that are already proceeding and have yet to be fully implemented.

Second, these bills maintain and expand net metering subsidies associated cost-shifts for the fixed-costs of infrastructure. The expansion of the subsidies goes beyond net metering. HB 5862 and HB 5863 create additional rates⁵ that bypass accepted cost of service and fairness principles.

Third, the proposed bills expand subsidies in a virtual manner to customers who would subscribe remotely to distributed systems rather than on their property.⁶ In fact, HB 5861 mandates that the MPSC "encourage"⁷ adoption of some technologies and services over others.

Finally, in terms of microgrids, these bills advance subsidies for services that can be met more efficiently and cost-effectively through other technologies and processes that already exist and that are available to any customers.

³ Public Act 342, Subsection 6a(14)

⁴ Source: NC State – NC Clean Energy Technology Center

⁵ House bill 5862; proposed amendment to 2008 Public Act 295, Section 173(6)(A)(iii)(b) and House Bill 5863; proposed amendment to 2008 Public Act 295, Section 178(5). Includes energy generated, generation capacity, avoided line losses, avoided transmission capacity, avoided or deferred distributed system investments, voltage support and regulation, health and environmental benefits resulting from pollution reduction, reduced fuel price risk to utility customers, reasonable quantifiable economic development benefits including job creation and local tax revenue benefits, any costs to the electric provider incurred to serve distributed generation customers reflecting actual penetration levels.

⁶ There is already a cost-based option for customers who wish to subscribe to renewable energy systems who cannot afford or wish not to invest in their own distributed energy system. DTE's MiGreenPower voluntary program was created to provide greater access to renewable energy for all customers. 1,447 DTE customers have signed up for MiGreenPower in less than one year. A voluntary program for business and industrial customers is currently under development.

⁷ House Bill 5861; proposed amendment to 2008 Public Act 295, Section 235(4). "The Commission shall formulate and implement policies consistent with this part that encourage all of the following" ...subscriptions, ownership, development, creation, financing, and operations, development of mechanisms, incentives, and financing options, and achievement of up to 2050 MW by 2025.

They also restrict the ability to provide critical grid services to customers by barring standby rates⁸ for backup services. If the costs to serve customers with fixed infrastructure are restricted, and energy companies cannot recover for investments in poles, wires, generation and back-up service for distributed generation customers, reliability investments cannot be made.

House Bill 5865 mandates that electric companies establish microgrids at critical facilities for hospitals, prisons, police, fire, water treatment, and other critical services.⁹ But the bill also explicitly prohibits energy companies from charging standby rates.¹⁰ In addition to being inconsistent with cost of service principles, this means the energy company is either not compensated for providing backup service, and thereby the microgrid is subsidized by other customers. Or, alternatively - and in a starker outcome - the energy company simply does not provide standby service in event the microgrid goes down. Neither of these outcomes seem like it benefits the customer, especially when there are multiple, more cost-effective ways to provide additional reliability services.

In totality, under these policies, the cycle of cost shifting and driving costs up for fixed infrastructure for non-distributed generation customers will expand, making energy more expensive for all customers over time in Michigan.

We believe it is the right time to be having thoughtful discussions on the transformation of the grid and the technologies that will be a part of Michigan's energy infrastructure for decades to come. Rooting all discussions on energy policy in the cost of service principles, fairness, and equity will support the state's move to a cleaner energy future while ensuring safe, reliable and affordable power that benefits all customers.

Thank you again for your time; I would be happy to answer any questions you may have.

⁸ House Bill 5865; proposed amendment to 1939 Public Act 3, Section 10a(9)(E), (H)

⁹ House Bill 5865; proposed amendment to 1939 Public Act 3, Section 10a(9)(G)

¹⁰ House Bill 5865; proposed amendment to 1939 Public Act 3, Section 10a(9)(E), (H)

