Net Metering is Iowa Law!

Andrew Johnson, Winneshiek Energy District, March 31, 2020

Now is a great time to install solar for most farm, home, and business owners in Iowa. After many years of policy battles at the Utilities Board and Legislature, Iowa's solar advocacy community – including your Energy Districts – has won a major victory. SF 583 has been signed by the Governor, and makes net metering the law of the land for the foreseeable future. Here, we attempt a comprehensive explanation, including:

1. Iowa's new net metering tariffs, near term
2. Value of Solar process defined, but postponed
3. Vigilance on the new tariffs, action on tax credits

Iowa's New Net Metering Tariffs

Senate File 583 codifies net metering for new customers in Iowa law until 2027, or total customer-owned generation surpasses 5% of statewide peak electric demand (once enrolled, customers have 20-year contracts). In an era when utilities in many states have successfully rolled back net metering this is remarkable.

The bill applies to Alliant and MidAmerican, Iowa's two large investor-owned and rate-regulated electric companies. Consumer-owned utilities (municipal electric utilities, and rural electric cooperatives) are not rate-regulated by the state, and so not covered by this law. It directs the utilities to file new net metering tariffs utilizing one of two new billing structures (they choose which option to file).

The new Net Billing tariff should function similar to the existing net billing tariff (without Alliant's artificial system size cap). Customers will be charged for energy usage the same as other customers in their rate class, and credited the surplus kilowatt-hours (kWh) fed to the grid. These credits would then offset kWh purchases in future billing periods.

In the new Inflow Outflow tariff, customers will be charged for energy usage the same as other customers in their rate class. They will be credited the value of surplus energy fed to the grid not as kWh credits (as in Net Billing), but in dollars, at an "outflow purchase rate". The outflow purchase rate will be full retail volumetric rate, and so in theory, the same value to the customer as with Net Billing.

Customers in both tariffs choose either a January or April ending date for the annual cycle. Net Billing customers receive 50% of the avoided cost rate as cash-out credit for surplus kWh, while Inflow Outflow customers forfeit any surplus monetary credit altogether. Customers in either tariff should plan carefully with their installer, and consider installing a system sized to produce slightly less than annual consumption to avoid forfeiting surplus generation at the annual cutoff date.

The tariffs apply to distributed generation systems that are located on the customer's side of the meter, are under one megawatt AC, and are sized to produce no more than 110% of a customer's annual electric usage.

Elements common to both new tariff options include:

- Guardrails are designed to ensure the customers are truly receiving full retail value for net metered electricity.
- Current net metering/net billing customers continue with their existing contracts, which remain transferable to new owners.
- New customers receive the terms of their tariff for a 20 year contract period, which is transferable to new owners (this needs vigilance in tariff development).
- Distributed generation customers shall not be limited in any way by their peak demand, and shall not be billed any fees or charges beyond those billed to customers in the same rate class that are not distributed generation customers.
- Utilities shall not create separate rate classes in a general rate case for distributed generation customers prior to 2027 (when a Value of Solar approach may take effect).

The bill's language on new tariffs has shortcomings. Some may be clarified in the tariff development process at the Utilities Board, while others may remain less than ideal. The inability to carry over even a low level of credits (whether kWh or $$) from one year to the next is one unfortunate aspect.

The failure to affirm that distributed generation systems owned through third party power purchase arrangements (PPAs) are eligible, and that the renewable energy credits of distributed generation systems remain with the system owner (which is currently the case), are also unfortunate. Both of these should be affirmed by the Utilities Board in the tariff development process.

Another significant question mark is the treatment of customer monetary credits under the Inflow Outflow tariff billing approach. The IRS has previously acknowledged that net metering utilizing kWh credits represent a simple exchange of energy, and are not benefits subject to taxable income. It is unknown whether a shift to monetary, versus energy (kWh) bill credits, would be construed as income and subject to taxation. This would reduce the economic viability of solar ownership for customers.

We defended net metering – together with many of you – in the Distributed Generation docket at the Iowa Utilities Board (IUB) for over three years, 2014-2017. We defended it again from the Sunshine Tax bill in Iowa Legislature in early 2019. And we defended it from subversion in the recent Alliant rate case, also before the IUB.

We worked hard for you again on this round. The new law isn't perfect, and will require vigilance (more below), but the solar opportunity for Iowans is still shining brightly.

Value of Solar

What about the VOS you may have heard of? The new net metering law does indeed include a Value of Solar (VOS) tariff approach, but it doesn't take effect until customer-owned distributed generation reaches 5% of Iowa's peak electrical demand, or when utilities choose to begin the process in or after 2027. We'll first explain where VOS comes from, and then provide details on the Iowa VOS.

Net metering has always been a rough approximation of a fair balance of trade between a solar owner and their utility. Benefits flow both ways, with owners utilizing the distribution grid effectively as storage for surplus production, and utilities gaining energy at times and locations of higher-than-average value.

Utilities across the country have attacked net metering by claiming it unfairly shifts costs from solar owners to others. Solar advocates respond that distributed solar actually provides many values to utilities and the grid while incurring minimal costs, and that utilities simply want to eliminate the competition and lost sales that solar owners represent.

As these battles have been playing out across the country at regulatory bodies and legislatures, "successor net metering tariffs" have gained traction. The most logical and fair of these is a Value of Solar (VOS) tariff. A VOS approach is typically lead by a state regulatory body, which commissions a study to define the actual values that solar adds to the grid, subtract any costs, and establish a tariff that pays solar owners accordingly for surplus production fed to the grid.

The Minnesota Public Utilities Commission established a Value of Solar methodology back in 2014, which quickly became a model for the nation. For those wanting a deep dive into VOS, the Institute for Self-Reliance's 2014 report on the MN model is highly recommended, as is the 2019 ICF analysis of 15 state VOS related studies, completed for US Department of Energy.

In the new Iowa law, as noted above, the Utilities Board will initiate a proceeding to develop a value of solar methodology either when customer-owned distributed generation reaches 5% of Iowa peak electrical demand (it's less than 1% now), or when utilities choose to begin the process in or after 2027. When triggered, the Board shall initiate a formal proceeding to establish a methodology that "calculates the benefits and costs an eligible distributed generation facility provides to, or imposes upon, the electric system."

> "The value of solar methodology shall be determined through a study conducted by an independent third party and overseen by the board. Interested parties shall have the opportunity to comment and offer testimony on any proposed value of solar methodology before it is approved by the board. The benefits and costs in a value of solar methodology shall include all of the following factors as appropriate and supported by known and measurable evidence:
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> 1. The cost of energy and fuel.
> 2. Generation capacity and reserves.
> 3. Transmission capacity and charges.
> 4. Distribution capacity.
> 5. Transmission and distribution line losses.
> 6. Fixed and variable costs associated with plant operations and maintenance.
> 7. Environmental compliance costs.
> 8. Integration costs.
> 9. Grid support services.
> 10. Other factors, based on known and measurable evidence of the cost or benefit of solar operations to the electric utility's electric system

The resulting value of solar rate (in $$/kWh) will then become the outflow crediting rate in the Inflow Outflow tariff described in the previous section. If a utility did not have an Inflow Outflow tariff, they must establish one to utilize the VOS. Remember, the outflow (VOS) rate applies only to kWh a customer feeds to the grid. Production consumed on site simply offsets purchases.

Once a VOS methodology is approved, the outflow credit rate shall not vary more than 5% annually, whether from the original non-VOS rate, or based on the utility's annual re-computation of the VOS rate required by the law. The Board shall review and update the VOS methodology at least every three years. New customers entering on the VOS tariff shall receive the VOS outflow rate in effect at the time of interconnection for a fixed period of 20 years, regardless of subsequent changes in the rate, or changes in facility ownership.

The VOS can is kicked down the road in this law, but it is important both for the future, and the present. Many questions will arise if and when the VOS methodology is initiated, and much will depend upon which "independent third party" conducts the study, the individuals on the Utilities Board at that time, and what happens nationally with VOS in the interim.

Regardless, the designation of VOS as the eventual net metering successor tariff in Iowa law supports a set of principles that we have advanced for many years (including in the recent Alliant rate case, see this testimony, pp 13-16), and which may be important in the intervening years as well:

1. that the service territory monopoly granted by regulators to utilities is subsidiary to the first monopoly held by customers and communities
2. that this first monopoly includes a customer right to self-generate, and to directly (on the customer side of the meter) consume, store, or otherwise utilize self-generated energy without utility interference;
3. that customer-owned generation (solar or otherwise) is not a one-way "cost adder" as utilities often claim, but an integral part of a 21st century two-way grid with costs and benefits flowing in both directions, and customer-owned solar brings many quantifiable benefits to utilities, non-solar customers, and the grid.

The Solar Road Ahead

The Utilities Board has ordered Alliant and MidAmerican to continue the current net metering tariffs until new tariffs are filed and approved that comply with the current law. The law takes effect July 1.

If the utilities file tariffs quickly, and they appear to fully comply with the letter and spirit of the law as we and others understand it, they may receive rapid approval by the IUB and be in effect by fall. If the filed tariffs appear to subvert the letter or spirit of the law, we or others may file for a contested case, and the docket could drag on. Important issues to confirm include:

- Customers on either tariff will receive the economic equivalent of full retail net metering
- New customers receive a 20-year contract with both tariffs (NB and IO)
- Third party ownership (PPAs) are fully eligible
- Renewable energy credits (RECs) belong to the system owner, as they do now

The tariffs *should* be about as good, or better than, the current net metering tariffs available to customers. Alliant customers currently are subject to artificial demand-based caps on solar system sizes eligible for net metering. These caps should not be allowed under the new tariffs, which would be an improvement.

Should customers considering solar wait for the new tariffs? Probably not, unless they're Alliant customers in a situation where the current tariff is especially onerous. There is always risk in new tariffs, and the current tariffs represent workable certainty for most customers.

As we have written previously, customers connecting systems in 2020 also have the certainty of a federal solar tax credit of 26%, and a corresponding Iowa tax credit pegged at half the value of the federal. The federal credit drops to 22% in 2021, and then to zero in 2022 for residential systems, and 10% for commercial.

Though legislators both federal and state are consumed by the current public health and economic crisis, efforts to improve the tax credit situation both predate the crisis and continue within potential stimulus measures.

At the federal level, these efforts are focused on both multi-year extension of the credits prior to phase-down, and also establishing a direct payment option (versus waiting for a credit). At the state level, the focus is on decoupling from the federal (so that if/as federal credits phase down, the Iowa credits continue), and expanding the annual dollar cap available, which is severely oversubscribed.

Communication with your state and federal legislators about these issues is important, now and into the future.