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Sol Power comments on DG evaluation stakeholder workshop #5

Slide 19 scenario #2 - Scenario 2 appears to be impossible or needs further clarification. “Bill credit components remain the same (LRS+T+T+D) for all projects” and “monthly excess over 100% of customer load compensated at ISO-NE wholesale energy rate” are directly in conflict with each other. Either the bill credits are (LRS+T+T+D) or they are NE wholesale rate. Monthly excess over 100% of customer load is the definition of all bill credits. The bill credits cannot be (LRS+T+T+D) and wholesale at the same time. I’m not sure what you’re modeling here, those are two separate scenarios.

Slide 48: net metering benefit ratio - When someone generates a kWh of solar energy with net metering they get a bill credit. I’m assuming that’s DG compensation. That kWh of energy generated by the solar system is then sold and it creates revenue for the utility (and theoretically rate payers). Where is the revenue from the sale of the solar energy credits? It is not the “energy value” shown on your graph. The energy value is roughly 6.4% of the DG compensation. The revenue generated from the sale of solar energy is not 6.4% of the value of the net metering credits.

There are two known numbers resulting from the generation and sale of a solar net metering credit. They don’t need to be estimated for the current year. I understand that you are extrapolating for the future data.

The cost to the utility - the net metering credit DG compensation for the kWh of solar energy generated - I believe this number is broken down by the customer rate class in PUC documents

Revenue for the utility - the revenue that the utility makes from selling the kWh of solar energy - The prices for the customer rate classes are a known quantity. I believe the breakdown of net metering credits by rate class is available in PUC documents. You should be able to calculate the revenue for the utility that results from the sale of energy generated by net metering systems. Where is this number? I don’t see it anywhere on the benefit analysis. It’s a significant figure. You have the DG compensation for the credits, but not the revenue generated by the sale of those credits.

Then you would need to estimate the utility costs for transmitting and distributing the energy generated by the net metering systems. It’s definitely not the full transmission and distribution charges on the bill. The owner of the solar system is responsible for paying for upgrades to the transmission system that are required to transmit the solar energy. The utility does not have to pay for infrastructure upgrades to accommodate net metering energy.

Your graph does have an “energy value.” The “energy value” shown is not equivalent to the net metering energy revenues generated minus the costs of transmitting and distributing that energy. Taking the energy value from a table is not an accurate approach to modeling RI net metering. The utility revenues from the sale of net metering energy is a known quantity. The cost of transmitting and distributing net metering energy can be estimated from billing charges as a worst case scenario. The resulting energy value is not 6.4% of the DG compensation.

There are two significant known quantities in a cost benefit analysis of net metering. They don't need to be estimated. The DG compensation paid by the utility for the energy, and the utility revenue for the sale of that energy. The utility revenue for the sale of the net metering energy is entirely missing.

Please replace "energy value" with two separate values. Utility revenues - a known quantity, and the transmission and distribution costs of the net metering energy - needs to be estimated. Any easy way to estimate the worst case scenario is to use the billing charges. As I said above, that's the worst case because the solar owner pays a large portion of those costs at the time of interconnection. Even in the worst case, the result will be significantly different, and much more accurate than the "energy value" approach at 6.4% of DG compensation.

Slide 6 - Who determined that the following is a key observation? "An expansion of in-state DG deployment should only be pursued in a least-cost manner." Least cost and short sighted thinking is why Rhode Island is ranked among the worst states for quality of transportation infrastructure, but we have one of the highest costs per mile for our spending. Least cost is also a meaningless term without a timeframe and a purchaser. Is it the least cost for the next minute, the next month, the next 10 years? Is it the least cost for the utility shareholders, for ratepayers?

Slide 7 - "Arguing current retail rate compensation is too expensive for non-participating ratepayers to be sustainable." Who is arguing that? Isn't that something we're supposed to be investigating with the models?

Slide 51 - On the VNM cost benefit analysis the energy value is roughly 7.4% of the DG compensation. Can you please provide the numbers you are using for DG compensation and energy value which result in the energy value being 7.4% of the DG compensation?

I opened up the AESC 2021 report and I think it says the energy value is $0.1477 per kWh. That means the DG compensation would be $2 per kWh. Our customers would be pretty happy if they were getting $2 per kWh for DG compensation. That's nowhere close to the actual value of DG compensation. Alternatively if the average DG compensation is around $0.18 per kWh right now (I'll bet you know the actual number) then that would make the energy value $0.013 per kWh. I know your analysis takes place over time, but I don't think the energy value can realistically be 7.4% of the DG compensation for the current VNM design.

Slide 51 - Also on the VNM cost analysis, the energy value of the alternate VNM design is roughly 76% of the current VNM design. Why is the energy value different for the current and alternate VNM designs? Is that a volume reduction in the number of kWh produced with the alternate VNM design because of lower adoption? Or is the data saying that the policy decision to adopt the alternative VNM design reduces the value of all energy by 24%? I'm curious to know what's going on there.

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