Public Service Department Comments on S.202 Portable Solar

TJ Poor, Director of Regulated Utility Planning

My testimony today will describe the Department's current position with S.202 as introduced, and those issues that, if addressed, would enable the Department to support the measure. Safety and Consumer Protections, including affordability, are paramount in the Department's consideration of this bill.

Safety

I am not an expert on safety, so I will let Mr. Desrochers and the utilities primarily speak to safety. I bring it up here because it is paramount.

- **Underwriters Laboratories listing is a critical component of the bill that we support**.
    - UL Solutions released a white paper in December 2025 on "plug-in photovoltaics" (PIPV) and are pursuing an Outline of Investigation (UL3700). They conclude that "special risk mitigation requirements are necessary to allow the safe use of PIPV products. In the absence of these special measures, PIPV can present **electric shock hazards and fire hazards to consumers,** potentially defeating protective technologies required for public protection without any awareness that the previous protection has been compromised. Allowing PIPV to be plugged into any existing branch circuit with no mitigation for the above concerns is not supported by UL Solutions. There are potential engineered solutions that can be applied and will be necessary to promote safe use of PIPV products"

    - I recommend changing the word "certified" to "listed" (page 2, line 9). My understanding is that UL-listed devices are a complete finished item that meets safety standards, while UL-certified refers to individual components or safety or performance systems. Listing is preferred for consumer stand-alone products.

Structure

As designed, the bill does not allow for net metering, but it does allow for export to the grid. My understanding is that as currently structured, a customer would:

- Offset real-time consumption at the variable retail rate. (this makes perfect sense)

- When exporting to the grid, it is unclear with utility billing practices whether any generation that is netted with consumption within a month will still receive the retail rate.
    - For example, utilities with AMI could have the ability to only compensate generation that offsets consumption in real time (with hourly negative readings reflecting export not being compensated).

- **Department's preference is that there is no exported generation, and if there is that it not be compensated (similar to the Utah structure).**
    - I suggest you discuss with the utilities potential issues with bypassing the interconnection rule. The rule was recently updated with Interstate Renewable Energy Council best practices to ensure any inadvertent export from all systems not configured to export has utility review.

Observations Cost to Consumers

- These products are currently expensive – although it represents an option for renters, it is an expensive one.
- A 1.2kW system might produce roughly 1,000kWh per year (10% capacity factor – 1.2kW * 8760 hours * 10% = 1051kWh). At $0.20/kWh of credit, that is $210 per year.
- Ms. Stryker of Brightsaver noted $3/watt – let's say those costs drop by 1/3 – that is still a significant up-front cost of $2400 ($2 * 1200 watts) and a 11-12-year payback. We should all just be clear in discussing this appliance and proposed legislation that **it is not a solution for low-income Vermonters.**
- For now, at least, this is a measure for those who can afford it. That is OK as long as:
    - There are no state or ratepayer subsidies for the technology (which I currently there aren't); and
    - Similar to the Utah structure, Generation that is exported is not compensated

Consumer Protection

- I agree with **a Clean Energy States Alliance publication** that notes "as a new product, states may want to promulgate consumer protection requirements, such as for claims about savings, regulations, and safety. To encourage safe installations, clear guidelines, educational, and how-to materials would need to be developed." https://www.cesa.org/resource-library/resource/plug-in-solar/
- It may be worth inviting the Attorney General's Office in for their opinion on this.

- Observe that with a 100% Renewable or Clean Energy Standard, this measure has no impact on greenhouse gas emissions. People may be willing to invest for climate reasons, but they will be making no impact to Vermont's greenhouse gas inventory.

Conclusion

The Department can support the concept of S.202, so long as safety concerns are met, issues around exported generation are managed, and consumer protections are ensured.