

August 19, 2025

Oversight Committee for the study of
Economic Valuation of Distributed Solar Power Generation and Storage in Washington State
The Washington State Academy of Sciences
Provided via email at: yos.wsas@gmail.com

RE: Interim Report: Economic Valuation of Distributed Solar Power Generation and Storage in Washington State- June 2025

Dear Committee Members:

The Washington Public Utility Districts Association (WPUDA) appreciates the opportunity to review and provide comments on the 2025 Interim Report on the Economic Valuation of Distributed Solar Power Generation and Storage in Washington (Interim Report). Public Utility Districts (PUD) provide retail electric service to approximately 30 percent of Washington state homes and businesses; we are essential partners in ongoing efforts to grow behind-the-meter renewable energy systems within Washington state's resource portfolio.

Towards that end, PUDs have a very wide range of experience with behind-the-meter renewable integration. Four PUDs exceed the 4% threshold of mandatory Net Metering with Kittitas PUD close to 13.5%.¹ A different set of 4 PUDs have had a very different experience; all with solar development less than 0.25%. A primary difference among these PUDs is retail rates. The electric rates for the first four PUDs average about two and one-half times that of the later four PUD. This leads to WPUDA's first and primary comment regarding Phase 2 of this study: Every utility is unique and values that emanate from distributed solar and storage technologies will vary.

¹

	Renewable Penetration*	Retail Rate (\$/kWh)**		Renewable Penetration*	Retail Rate (\$/kWh)**
Franklin PUD	4.2%	0.073	Chelan PUD	0.1%	0.028
Jefferson PUD	6.5%	0.117	Douglas PUD	0.1%	0.023
Kittitas PUD	13.5%	0.109	Grant PUD	0.3%	0.050
Klickitat PUD	5.7%	0.105	Pend Oreille PUD	0.2%	0.066
Averages	7.5%	0.101		0.2%	0.042

* From: <https://www.energy.wsu.edu/RenewableEnergy/NetMetering.aspx>, December 2024 report.

** From an internet search of utility web pages.

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Advocating for our members who provide not-for-profit, locally controlled utility services for the people of Washington

Therefore, WPUDA strongly supports the Oversight Committee's plan to develop mechanism and formulas for calculating various values associated with distributed solar.

Oversight Committee, will develop recommendations for methods that can be used for calculating the value of distributed solar, distributed storage, and distributed solar+storage while recognizing that the value of the input variables will be unique to each utility region. (Interim Report page 5)

We ask that the final report note that differences in input variable can lead to significant differences in the value that utilities and their customers are calculated to receive from distributed solar.

WPUDA's second comment is in response to the Oversight Committee's decisions to disregard consideration of cost.

The Oversight Committee discussed whether or not to consider deployment costs related to putting a technology into active use. They decided that for this phase of the project, the quantification of "value" is independent of the costs to deploy and use the asset. That is, "value" in policy design is not "net of deployment costs." Decisions about whether to adopt a particular policy mechanism and to choose one design over another might take into consideration both value and deployment cost, but the two elements are conceptually distinct. Further, valuation of costs requires distinct methods that are beyond the scope and Interim budget of this project. Phase 2 will focus on producing value methodologies as inputs to these policy decisions but will not recommend specific policy choices around the cost-effectiveness or fairness of different mechanisms. (page 30)

Here, it is important for the Oversight Committee to emphasize that this focus on "value" does not directly lead to the superior public policy. Indeed, the policy with the most "value" may not be cost-effective on either an absolute or incremental basis. Further, simply acknowledging that "costs to ratepayers and others of a particular policy choice / design are a critical consideration" is not sufficient. WPUDA asks for the final report to clearly state that "net value", and "incremental value" are the economically correct way to differentiate among policy choices.

Furthermore, it is important for the final report to recognize that PUDs and municipal utilities do not have the luxury to ignore costs. The 2023 E3 study Benefits and Costs of Net Energy Metering in Washington found that for the utilities studied, utility revenues fell by \$2 to \$3 for every dollar of reduced costs. As not-for-profit entities, public utilities cannot run a deficit. Therefore, any reduction in revenue from a policy choice must be "recovered" from customers, including low-income customers, through increased retail charges. It is important that "distribution of benefits" considerations include changes in retail rates necessary to recover otherwise "lost revenue."

Third, the Interim Report state that "researchers will examine the policy tools (like retail rates, procurement programs, incentives, or planning efforts) that can enable specific benefits or combination of benefits." (page 2) WPUDA supports this research so long as it fully evaluates the

consequences of the aforementioned policy tools. For example, a utility incentive program that fully covers the cost of installing distributed generation would provide significant benefits to persons co-located behind the meter. However, the utility would also have to increase retail rates to recover the up-front and ongoing costs. To be useful, this examination would need to consider both sides of a policy tool's ledger.

Furthermore, any examination of retail rates must consider that governing boards balance a host of competing objectives when setting the forms and amounts for: fixed charges, energy rates, the demand charge, a minimum monthly amount, seasonal differences, time-of-use rates, peak period charges, etc. While information of the effect on solar development of different forms and amounts for retail rates would be helpful, the final report must acknowledge that other considerations may drive a governing board's ultimate decisions. PUD board members are ultimately responsible to the needs and wishes of the citizens who elect them.

Finally, the Interim Report stated that during their interviews of interested parties, there was a desire expressed for "a longer term, structured and facilitated collaborative process among stakeholders to identify, discuss, and strive to come to common understanding and agreement regarding a vision of the future for solar and storage, values, principles, explicit benefits, appropriate approaches, and guidelines for establishing rates/compensation." (page 24) WPUDA would support and participate in a collaborative process intended to achieve "agreement regarding a vision of the future for solar and storage, and ... guidelines for establishing rates/compensation." (page 24) However, we would object to a process that attempted to define "values, principles, explicit benefits, [and] appropriate approaches." (page 24) WPUDA agrees with the Interim Report statement that the "value of the input variables will be unique to each utility." (page 5) Flexibility rather than fixed values or explicit benefits is needed to accurately reflect utility-specific conditions.

In conclusion, WPUDA and our member PUDs appreciate the Interim Report's detailed study design to assess the economic value of distributed solar generation and storage. We support the overall approach and especially applaud the acknowledgment that varying utility circumstances will drive the value of distributed generation. We are concerned about Oversight Committee's intentional decision to focus only on benefits. It is WPUDA's position that the final report should instead focus on methodologies to calculate "net benefits" and "incremental benefits." This is essential for utility Governing Boards to make fully informed decisions that drive Washington towards a clean energy future while maintaining low-cost and reliable electric utility service to the citizens of Washington.

Thank you for the opportunity to provide these comments.

Sincerely,

A handwritten signature in black ink, appearing to read 'Nicolas Garcia', with a stylized flourish extending to the right.

Nicolas Garcia, Policy Director
Washington Public Utility Districts Association

Categories of the Value Stack that Require Calculation Mechanisms or Formulas Rather than Fixed Values

<u>Avoided generation capacity;</u> <u>Avoided transmission capacity;</u> <u>Avoided distribution capacity</u>	These values depends on the correlation of the utility's peak load with that of region. Also important is whether the transmission used to serve that utility is at or near capacity. Finally, the degree to which storage will help depends on its duration as compared to periods of peak loads, projections of starting charge (50%, 80%, 99%) and the time and availability of energy to "refill" that storage. These values for distributed solar generation are likely to be small west of the Cascades where utility loads peak at night in the winter over multi-day cold spells.
<u>Avoided energy</u>	This value can be estimated with locational marginal price data from the real-time markets
<u>Avoided generation O&M;</u> <u>Avoided cost of carbon</u>	The value here depends on the marginal generating resource(s) and changes in operation or facility due to variations in hydro generation, transmission constraints, retail loads and other factors.
<u>Reduction of criteria pollution emissions in excess of permit limits; Reduction of Criteria and hazardous air pollutants (e.g., SO₂, NO_x, PM) due to reduced dispatch of generation plants that use carbon-based fuels</u>	This value depends on the marginal resource(s) and whether it is located in a non-attainment area for a criteria air pollutant.
<u>Fuel hedging</u>	This value depends on the marginal resource(s). For hydrogeneration, storing water (fuel) for use in a more valuable time could be economically beneficial; especially during periods of low river flow.
<u>Avoided cost of purchasing energy from renewable resources for CETA</u>	The value depends on whether the host utility anticipate to be at least 80% carbon free starting in 2030. At present, most PUDs are 85-90% carbon-free.
<u>Resource diversity</u>	The value is contingent on whether the generation is coincident with load and can make up for a loss of other resources.

<u>Avoided transmission losses;</u> <u>Avoided distribution losses</u>	The value is contingent on the location of the displaced resource, loading on the transmission/distribution line, ambient temperature, and other factors that change over time
<u>Support for de-energizing power lines for reducing fire risk; Distribution and transmission operations and maintenance</u>	This value is highly location specific and dependent on wildfire risks, transmission/distribution system design (loop vs single wire), maintenance cycles, and other risks (vehicle-power pole collisions). May provide short-term relief for the “behind-the-meter” power uses. Unlikely to be helpful for multi-hour events.
<u>Ramping of hydroelectric dams</u>	Solar generation likely increases ramping needs while storage has the opposite effect
<u>Reliability</u>	Non-dispatchable resources undermine reliability. Uncertainty of production, moment-to-moment variability can induce grid instability. Further, inverter-based resources do not have the same ability absorb these fluctuations as do more traditional resources with spin momentum – at the time of the Spain/Portugal blackout inverter-based resources were over 60% of the operating resource stack.

Categories of the Proposed Value Stack that are Transfers Rather than Provide Actual Value

<u>Utility bill affordability</u>	While beneficial for solar system owners, fixed costs shift to other utility customers
<u>Local tax revenue;</u> <u>State tax revenue</u>	It is a well-established principle that taxes are a transfer rather than creator of wealth.
<u>Jobs</u>	