

HOUSE BILL REPORT

E2SHB 2346

As Passed House:

February 16, 2016

Title: An act relating to promoting a sustainable, local renewable energy industry through modifying renewable energy system tax incentives and providing guidance for renewable energy system component recycling.

Brief Description: Promoting a sustainable, local renewable energy industry through modifying renewable energy system tax incentives and providing guidance for renewable energy system component recycling.

Sponsors: House Committee on Appropriations (originally sponsored by Representatives Morris, Smith, Haler, Rossetti, Tarleton, Hayes and Peterson).

Brief History:

Committee Activity:

Technology & Economic Development: 1/12/16, 1/27/16 [DPS];

Appropriations: 2/4/16, 2/9/16 [DP2S(w/o sub TED)].

Floor Activity:

Passed House: 2/16/16, 77-20.

Brief Summary of Engrossed Second Substitute Bill

- Extends the expiration date and per-utility limit for the Public Utility Tax credit that funds annual payments made by utilities to customers under the Renewable Energy Investment Cost Recovery Incentive Program (Cost Recovery Program).
- Expires certain solar sales and use tax exemptions at the end of June 2016 instead of in 2018 or 2020.
- Replaces the Cost Recovery Program with a new production incentive that has a different rate structure and eligibility requirements and shifts administration of the incentive to the Washington State University Extension Energy Program.
- Requires the Department of Ecology to provide guidance for and enforcement of manufacturers' self-directed solar module stewardship and take-back programs.

This analysis was prepared by non-partisan legislative staff for the use of legislative members in their deliberations. This analysis is not a part of the legislation nor does it constitute a statement of legislative intent.

HOUSE COMMITTEE ON TECHNOLOGY & ECONOMIC DEVELOPMENT

Majority Report: The substitute bill be substituted therefor and the substitute bill do pass. Signed by 11 members: Representatives Morris, Chair; Tarleton, Vice Chair; Smith, Ranking Minority Member; DeBolt, Assistant Ranking Minority Member; Fey, Harmsworth, Hudgins, Magendanz, Rossetti, Santos and Wylie.

Minority Report: Without recommendation. Signed by 2 members: Representatives Nealey and Young.

Staff: Jasmine Vasavada (786-7301).

HOUSE COMMITTEE ON APPROPRIATIONS

Majority Report: The second substitute bill be substituted therefor and the second substitute bill do pass and do not pass the substitute bill by Committee on Technology & Economic Development. Signed by 27 members: Representatives Dunshee, Chair; Ormsby, Vice Chair; Buys, Cody, Condotta, Dent, Fitzgibbon, Haler, Hansen, Harris, Hudgins, S. Hunt, Jinkins, Kagi, Lytton, MacEwen, Magendanz, Pettigrew, Robinson, Sawyer, Senn, Springer, Stokesbary, Sullivan, Tharinger, Van Werven and Walkinshaw.

Minority Report: Do not pass. Signed by 5 members: Representatives Chandler, Ranking Minority Member; Parker, Assistant Ranking Minority Member; Wilcox, Assistant Ranking Minority Member; Schmick and Taylor.

Staff: Dan Jones (786-7118).

Background:

Renewable Energy Investment Cost Recovery Incentive Program.

Until June 2021 under the Renewable Energy Investment Cost Recovery Incentive Program (Cost Recovery Program), an electric utility may claim a credit against its public utility tax (PUT) due for incentive payments made by the utility to a customer for electricity produced by eligible renewable energy systems and Community Solar projects. Eligible renewable energy systems are solar energy systems, wind generators, and anaerobic digesters.

Annual Incentive Payments.

An individual, business, or local government that owns an eligible renewable energy system, installed on property it also owns, may apply to receive an annual incentive payment of up to \$5,000 from its electric utility for each kilowatt hour (kWh) of electricity produced by the system. The incentive rate per kWh is determined by applying "economic development" multipliers to a base rate of 15 cents per kWh. The highest rate that results from these multipliers is 54 cents per kWh, for a solar energy system with modules and inverters manufactured in Washington.

Community Solar Projects.

In 2009 the Legislature expanded the Cost Recovery Program to provide annual incentive payments for electricity generated by "Community Solar" projects. A Community Solar project may take one of three forms:

1. a solar energy system placed on local government property that is owned by local individuals, households, or non-utility businesses;
2. a utility-owned solar energy system voluntarily funded by the utility's ratepayers in exchange for credits on their utility bills; and
3. a company-owned solar energy system owned by a limited liability company, a cooperative, a mutual corporation, or association.

The base incentive rate for Community Solar projects is 30 cents per kWh and with "Made-in-Washington" incentives a project may be eligible for a rate of \$1.08 per kWh.

Administration of the Cost Recovery Program.

The Department of Revenue (DOR), with technical assistance from the Washington State University Extension Energy Program (WSU Energy Program), administers the Cost Recovery Program. The WSU Energy Program is a self-supported department within the WSU that provides technical training and assistance in program areas that include renewable energy, technology development and evaluation, and workforce and economic development.

Ownership of Environmental Attributes.

The customer-owner of a renewable energy system retains ownership of the environmental attributes, such as Renewable Energy Credits used for compliance with the Energy Independence Act.

Cap on Total Public Utility Tax Credits Available.

Utility participation in the Cost Recovery Program is voluntary. A utility is allowed a credit against its PUT in return for annual incentive payments made, capped annually at \$100,000 or 0.5 percent of its taxable power sales, whichever is greater. As of 2016 some utilities have reached this cap and stopped accepting new applicants; others have continued to accept new applicants but have reduced rates to each participant proportionately to remain within the cap. Utility-owned Community Solar project payments may only account for up to 25 percent, and company-owned Community Solar project payments only up to 5 percent, of the total PUT funds available for credit.

Electronic Products Recycling.

Since 2009 the Department of Ecology has overseen, and the Washington Materials Management and Financing Authority has operated, an electronic products recycling program that provides for the recycling of televisions, monitors, computers, laptops, and tablets at no direct cost to consumers. Manufacturers fund operations through payments based in part on each manufacturer's in-state market share.

Sales Tax Incentives for Solar Equipment.

A sales and use tax exemption for solar energy systems that produce 10 kilowatts of power or less, or use thermal heat to produce not more than 3 million British thermal units (BTUs) per day, and associated installation charges, expires June 30, 2018. A program that provides a 75 percent refund of the sales and use tax paid on certain renewable energy systems, including

solar energy systems capable of generating more than 10 kilowatts of electricity, expires January 1, 2020.

Cost Recovery Program Data.

The DOR must treat system certifications and the information contained therein as confidential and privileged tax information, disclosing this information only to the extent that it is also maintained by another state or local government agency as a public record, or maintained by a court of record and not otherwise prohibited from disclosure.

System Operations Data.

Utilities can use certain information about solar energy systems, including tilt, azimuth, shading, and global positioning system coordinates, to better understand the daily output profile of a solar energy system and to understand the aggregate output of a fleet of systems.

Summary of Engrossed Second Substitute Bill:

Renewable Energy Investment Cost Recovery Incentive Program.

The Renewable Energy Investment Cost Recovery Incentive Program (Cost Recovery Program), as currently structured, is closed to new participants after May 31, 2016. Participants who enter the program before this date by submitting a certification to the Department of Revenue (existing participants) may submit a second application, this time to the Washington State University Extension Energy Program (WSU Energy Program), for certification to receive annual incentive payments at current incentive rates through June 30, 2020.

Existing participants must submit to the WSU Energy Program system operations data, including tilt, azimuth, shading, and global positioning coordinates. Any application data must be submitted in order for the existing participant to retain certification to receive incentive payments beginning with the program year ending June 30, 2017. The WSU Energy Program may assess a reasonable fee to cover its costs of issuing certifications for existing participants.

A system that was certified under the Cost Recovery Program cannot be certified under the new production incentive program. After June 30, 2020, applications may instead be made directly to the WSU Energy Program for certification to receive payments at new rates, under the production incentive program.

Production Incentive Program.

After June 30, 2016, a person who owns a renewable energy system may apply to the WSU Energy Program for certification establishing the person's eligibility to receive annual production incentive payments from the person's utility for a term of 10 years. "Person" is broadly defined to include an individual, firm, corporation, company, and any other legal entity. Eligible renewable energy systems are anaerobic digesters, wind generators, and solar energy systems, including Community Solar projects. For systems other than a Community Solar project, only the nonutility owner of a system who either owns or occupies the premises where the system is installed and is a customer of the utility is eligible to receive payments for electricity generated by the system.

Annual Incentive Payment Limit.

The WSU Energy Program may authorize an annual payment of up to \$5,000 for a residential-scale system or Community Solar project participant, and \$25,000 for a commercial-scale system. No person may receive incentive payments under the new production incentive program for residential-scale or commercial-scale systems greater than \$25,000 per year.

Incentive Rates.

The incentive rate available depends on the fiscal year (FY) of certification, the system type, and whether the system includes "Made-in-Washington" components. Different rates are available for "residential-scale" systems (systems 12 kilowatts or smaller), starting at 13 cents per kWh in FY 2017; "commercial-scale" systems (systems greater than 12 kilowatts), starting at 8 cents per kilowatt hour (kWh) in FY 2017; and Community Solar projects, starting at 13 cents per kWh in FY 2017. All base rates decline by approximately 2 cents each year. A "Made-in-Washington" bonus is available for solar modules and wind towers and turbines manufactured in the state, which starts at 5 cents per kWh in FY 2017 and declines to 4 cents per kWh beginning in FY 2019.

Administration of the Production Incentive.

Program management, technical review, and tracking responsibilities for administering the Cost Recovery Program are transferred from the Department of Revenue (DOR) to the WSU Energy Program beginning July 1, 2016. The WSU Energy Program must require applicants to provide system operations data, including global positioning system coordinates, tilt, shading, and azimuth. Applicants must file either a copy of the electrical permit or, where such permit is available online, the permit number. The WSU Energy Program must calculate and provide to the utility the amount of the incentive payment due to each applicant. A utility that does not submit production information electronically must negotiate with the WSU Energy Program a fee-for-service arrangement to cover the agency's cost in obtaining the necessary information directly from customers or entering information provided by mail.

The WSU Energy Program must establish a list of equipment eligible for the "Made-in-Washington" bonus rates. The WSU Energy Program must make publicly available online all lists, technical specifications, determinations, and guidelines that it develops.

The WSU Energy Program must establish a one-time fee not to exceed \$75 per applicant to cover its costs in administering the production incentive program. If the WSU Energy Program determines it is unable to implement the program within the funds provided by the \$75 fee, it must report to the Legislature.

The DOR may, in consultation with the WSU Energy Program, adopt any rules necessary for administration of the program.

Community Solar Projects.

A utility or nonprofit organization may organize and administer a Community Solar program. Community Solar projects may be up to 500 kilowatts in size and must have at least 10 participants, all of whom must be customers of the utility providing service at the project's location. An exception to this rule is provided for a Community Solar project organized by a

Public Utility District that enters into an agreement with a Joint Operating Agency to construct and own a project located on property owned by the agency or property that receives electric services from a Public Utility District. In that case, each participant must be a customer of at least one of the Public Utility Districts that is a party to the agreement.

The purpose of a Community Solar project is to facilitate broad, equitable community investment in and access to solar power. The utility or nonprofit organization may establish a reasonable fee to cover its costs and must give project participants clear and conspicuous notice of the portion of the incentive payment that will be assessed as a fee. "Nonprofit organization" means an organization that is tax exempt under Section 501(c)(3) of the Internal Revenue Code.

Ownership of Environmental Attributes.

A system owner retains ownership of the environmental attributes of the system, such as Renewable Energy Credits (RECs) used for compliance with the Energy Independence Act, except that a utility that owns a Community Solar project may contract with the customer for ownership of the environmental attributes. Any such contract must provide the customer clear and conspicuous notice of this term.

Recertification of Expanded Systems.

If an additional system is added at the same location or billing meter as a commercial-scale or residential-scale system, the applicant may seek recertification of an expanded system. Recertification expires on the same day as the original certification for the "residential-scale" or "commercial-scale" and applies to the entire system. The incentive rates and program rules are those in effect as of the date of the recertification.

Cap on Total Public Utility Tax Credits Available.

The per-utility limit on total public utility taxes available as credit to fund the production incentive is 2 percent of the utility's taxable power sales in 2014, or \$250,000, whichever is greater. The WSU Energy Program must not certify additional Community Solar projects in any fiscal year in which 25 percent of the total funds available have already been allocated to Community Solar projects. The same is true for commercial-scale systems.

Solar Module Stewardship and Takeback Program.

The Department of Ecology (Ecology) must by January 1, 2017, establish a process to develop guidance to solar module manufacturers for solar module stewardship plans. The process must be completed by January 1, 2018. "Manufacturer" is defined broadly such that any person can elect to assume the responsibility of registering with Ecology for purposes of complying with the recycling plan requirements. "Solar module" means the smallest nondivisible, environmentally protected, essentially planar assembly of solar cells, or other solar collector technology and ancillary parts intended to generate direct current power under sunlight, including but not limited to interconnections, terminals, and protective devices such as diodes, that is capable of interconnecting with the electric grid.

Stewardship Plan.

A stewardship organization may be designated by a manufacturer to operate and implement the stewardship program.

Each manufacturer must prepare and submit to Ecology a stewardship plan by the later of January 1, 2019, or within 30 days of its first sale in or into the state.

A stewardship plan must include an adequate funding mechanism to finance the costs of the collection, management, and recycling of solar modules and residuals sold in or into the state by the manufacturer, such that it ensures solar modules can be delivered to take-back locations without cost to the last owner or holder. The plan also must accept all solar modules sold in or into the state after July 1, 2016; describe how the program will minimize the release of hazardous substances and maximize the recover of other components, including rare earth elements and commercially valuable materials; provide for take-back at locations that are local and convenient; and identify how relevant stakeholders will receive information required in order for them to properly dismantle, transport, and treat the end-of-life solar modules. The plan must include performance goals.

Enforcement.

Plans will be enforced by Ecology beginning January 1, 2020. Ecology must send a written warning to a manufacturer that is not participating in a plan and may assess a penalty of up to \$10,000 for each sale of a solar module in or into Washington by a manufacturer after the initial written warning. Penalties may be appealed to the Superior Court of Thurston County within 180 days of receipt of notice. Ecology may adopt rules necessary for implementing, administering, and enforcing the chapter.

Stewardship Program Fees.

Ecology may collect a flat fee from participating manufacturers to recover costs associated with the plan guidance, review, and approval process. Annual implementation costs for the program may be recovered by charging every manufacturer an annual fee calculated by dividing Ecology's administrative costs by the manufacturer's pro rata share of the Washington solar module sales in the most recent preceding calendar year, based on best available information. The sole purpose of assessing the fees authorized in this subsection is to predictably and adequately fund Ecology's costs of administering the solar module recycling program. A solar module recycling account is created in the custody of the State Treasurer. All fees collected from manufacturers must be deposited in the account. Expenditures from the account may be used only for administering the Solar Module Stewardship and Take-Back Program.

National Program Option.

A manufacturer may participate in a national program in lieu of preparing a stewardship plan under the state program, if Ecology determines that such participation is likely to achieve environmental outcomes in Washington that are substantially equivalent to those achieved by a departmentally-approved stewardship plan and is likely to be more cost-effective for the manufacturer. Substantial equivalence may be found if Ecology determines that the national program adequately addresses each of the elements of a stewardship plan and includes an enforcement mechanism reasonably calculated to ensure compliance. If a national program is discontinued or no longer provides equivalent environmental outcomes in the state, Ecology must notify the manufacturer and the manufacturer must submit a stewardship plan for approval within 30 days.

Sales Tax Incentives for Solar Equipment.

The expiration date for existing renewable energy sales and use tax exemptions, as applied to solar photovoltaic systems of 500 kilowatts or less, is changed to June 30, 2016.

Production Incentive Data.

System certifications and information contained therein are not confidential tax information and are subject to disclosure.

Appropriation: None.

Fiscal Note: Available. New fiscal note requested on February 17, 2016.

Effective Date: The bill contains an emergency clause and takes effect immediately.

Staff Summary of Public Testimony (Technology & Economic Development):

(In support) This issue started in 2013 and the current bill focuses narrowly on the production tax credit, how the program is administered, and creating efficiencies. Other concerns, such as net metering and distributed energy resources planning, will be folded into an interim discussion but are deliberately not addressed in the bill. Existing public benefit Community Solar programs benefit local governments and a wide range of people, but such projects will not be possible under this bill. In a public benefit project, the electricity generated helps the low-income person pay rent and the ownership of the system goes to that person at the end of the incentive term. The caps should be per person, per Community Solar project. The existing solar incentive program is nearing the end of its useful life. Many in this state are concerned about the impacts of climate change already felt here in Washington. Citizens want to do all they can. Some people invested retirement savings in solar systems without being aware of the cap on total funds available under the public utility tax credit and how it could affect the incentive rates that the system's owner would receive. Existing participants should continue to get the original incentive rates until 2020. People took out loans and will have a debt that won't be paid off until the cap on total funds available for credit to a utility is raised. This program allows in-state manufacturers to be at the forefront of integrating new technology and having a leading edge in the market. Despite generally supporting the bill, there is concern about the nonprofit definition and a ruling by the Department of Revenue (DOR) that if a city owns a utility the city is not eligible under the incentive program and cannot put Community Solar projects on locations like fire stations. Some utilities that will need to reduce rates proportionately may prefer to have that option, rather than the requirement in the bill that new participants be turned away. There are modifications that could make the recycling program more workable. An incentive for distributed wind has been retained, including higher base incentive rates and a "Made-in-Washington" bonus for turbines and towers. This state incentive is even more important for wind power because the federal investment tax credit (ITC) for residential or distributed wind was not extended and will expire this year. Community Solar should be expanded to include Community Wind. The solar industry is creating jobs 20 times faster than the United States economy, and states reaping industry benefits aren't necessarily those with the most sun, but those who have a policy framework in place that enables industry growth. Expanding the revenue caps will facilitate expansion of solar energy. Local officials have endorsed this. Provisions relating to the transition out of the current program into the new one are unclear. Public power cannot benefit from federal incentives, so if utilities are given the opportunity to directly participate,

there must be a differential incentive rate for public power. A new working group has formed of utility representatives, engineers, agencies, nonprofit organizations, manufacturers, and installers and this group is grappling with some of the issues that have been raised in previous versions of this bill.

(Opposed) This bill restricts participation of for-profit entities and in doing so fails to leverage federal incentives available in the form of the federal investment tax credit. By removing a limit on the share of Community Solar projects that can be taken up by utility-owned projects, it puts utilities in a strong position to take all the funds available, creating a conflict of interest for utilities who issue the payments. Community Solar is now limited to nonprofit organization and utilities, but the definition for nonprofit is overly restrictive.

(Other) Some utilities remain concerned about the failure to address the net metering cap. The bill should also ensure fair assignment of fixed costs between solar and non-solar customers. Utilities cannot participate except as hosts of Community Solar projects, but some rural electric cooperatives would like to be able to set up a solar array with an ownership benefit that can be sold to members, similar to Community Solar but with a slightly different organization. The definition of "customer-generator" should be changed to allow utilities to participate. It is important to ensure that existing participants who have been certified but have not received payments can continue to benefit from the program and are not inadvertently excluded. Provisions that encourage utilities to act as change-agents and promoters of deployment and ensure in-state economic benefit are essential. As structured in the bill, the solar incentive program fails to take advantage of the unique position of utilities. Utilities are interested in providing Community Solar to customers in alternative ways. An incentive for smart inverters would increase system capability and maximize the benefits of the system. Streamlining administration of the program is important to utilities who devote significant resources in reaching out to customers to ensure the necessary paperwork is filed for customers to receive their incentive, and it helps to have the Washington State University Energy Program (WSU Energy Program) involved in the administration. Some utilities would like to be able to directly offer a product, passing along the incentive in a different way. Customers are very interested in having the utility be a provider in partnership with installers and others in community. The WSU Energy Program has the expertise to perform the work outlined in the bill if it is funded, and under the current program already provides technical expertise to the DOR in certifying solar photovoltaic systems. There have been more than 10,000 applications since 2005 and more than one-third of these in 2016 alone, almost entirely solar.

Staff Summary of Public Testimony (Appropriations):

(In support) Seattle City Light's Community Solar program has about 1,500 participants. Many are renters or individuals who live in multi-family homes. Community Solar is an important program for making the benefits of solar available to all Washington residents including low-income communities. Seattle City Light will not be able to offer Community Solar to its customers if the incentive rate is not enough to cover the project. The 42-cent incentive in the original bill would be preferable. Municipally owned utilities are not eligible for the 30 percent federal tax credit. More discussion is needed regarding the appropriate fee for transferring over to the WSU Energy Program. The solar tax incentive is funded by taxpayers and should be broadly accessible.

The Sustainable Energy Trust can provide nonprofit owners or administrators of Community Solar with low-interest financing. The nameplate capacity of Community Solar projects from 75 to 500 kilowatts is an important aspect of the bill. This allows Community Solar projects to achieve the economies of scale needed for financial viability. Language from the original bill related to providing low-income communities with access to solar and associated benefits should be included in the final bill. The committee should consider increasing the Community Solar base rate. The federal investment tax credit is available to investor-owned utilities but not to municipal utilities or nonprofits. This means that without adequate Community Solar base rates, projects are likely to be concentrated in investor-owned utility service territories which limits access across the state.

The rate of incentive is an important part of making sure that solar is deployed at the same trajectory that it is today. If the rates cannot be increased, an alternative that looked at preserving the amount that is being spent per system should be considered.

The recycling portion of the bill is important. The rates for the incentives will not increase the volume or support a volume of insulation that is healthy for the industry. The difference between rates for Washington manufacturers and importers is not significant enough.

The provisions that grandfather benefits to existing program participants and provide transparency around incentive payments are good.

(Opposed) It is inconsistent to deny for-profit solar operations access to the program while allowing investor-owned utilities to participate. The reduction in incentive rates is too severe.

(Other) The production incentive that utilities would be eligible for under the bill could create an uneven playing field as it relates to emerging markets. The recycling components of the bill are important but that should happen at the national level. Under current law, solar customers that lease energy do not have access to the incentive under the bill that passed out of committee; they would have access but only if they go through a PUD. This creates a competitive disadvantage. The Community Solar rates may be too low to provide enough incentive to promote participation in these programs. This bill goes too far too fast. It does not give enough time to adjust to the new incentive rates. This could lead to a slowdown in solar adoption.

Residential wind was not included in the extension of the federal tax credit. Without a federal incentive improved state incentive rates are essential for building the market and sustaining the local wind industry.

The bill would require utilities to charge fees to existing customers who signed up for the program without expecting to be charged those fees. The fees should not be the same for Community Solar participants, which tend to be smaller operations. A per-system fee rather than a per-participant fee would be preferable.

The bill should contain a low-income target for utility-owned projects and some support for multi-family housing.

It is not clear in the current bill how the money would flow. In the past the PUD companies paid customers directly. There is a need for clarification that the program does not interfere with PUD normal operations and how program expenses are incurred. Expenses should be deducted from the incentive payments.

The application fee that the WSU Energy Program would be able to charge may not be enough to operate the program effectively; particularly in the initial years.

Persons Testifying (Technology & Economic Development): (In support) Representative Morris, prime sponsor; Fredrick Liebrand, Walla Walla Community Solar; Anne Engstrom; Fran Koehler; Karl Unterschuetz, Itek Energy; Dana Brandt, Ecotech Solar; Jeremy Smithson, Solar Installers of Washington; Rose Feliciano, Seattle City Light; Joni Bosh, NW Energy Coalition; Britton Rife, Distributed Wind Energy Association; Cecile Gernez, Environment Washington; Jaimes Valdez, Northwest Sustainable Energy for Economic Development; and Dave Warren, Washington Public Utility Districts Association.

(Opposed) Hobert Hedrick, Community Solar Association; and David Watterson.

(Other) Kent Lopez, Washington Rural Electric Cooperative Association; John Rothlin, Avista Utilities; Nancy Atwood, Puget Sound Energy; Sheila Riggs and Todd Currier, Washington State University Energy Program; and Tony Usibelli, Department of Commerce.

Persons Testifying (Appropriations): (In support) Rose Feliciano, Seattle City Light; Karl Unterschuetz, Itek Energy; Kim Herman, Washington State Housing Finance Commission; Jerry Berger, InvestSolar; Sheila Riggs and Todd Currier, Washington State University Energy Program; Jeremy Smithson and David Kozen, Solar Installers of Washington; Kelly Samson, AP Systems; James Valdez, Northwest Sustainable Energy for Economic Development; Dave Warren, Washington Public Utility District Association; and Nancy Atwood, Puget Sound Energy.

(Opposed) Hobert Hedrick, Community Solar Associates, LLC.

(Other) Jeff Gombosky, Energy Freedom Coalition of America; Roman Daniels-Brown, Sunrun AEE Solar; Shaun Seaman, Chelan County Public Utility District; Dave Watterson; Britton Rife, Distributed Wind Energy Association; and John Rothlin, Avista.

Persons Signed In To Testify But Not Testifying (Technology & Economic Development): Amy Lee; Kelly Hall, Renewable Northwest; Qiu Min Ji, StoptheSpy; and Suellen Mele, Zero Waste Washington.

Persons Signed In To Testify But Not Testifying (Appropriations): None.