

**EXH. WTE-1CT
DOCKET UE-20____
2020 PSE PCORC
WITNESS: WILLIAM T. EINSTEIN**

**BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,**

Complainant,

v.

PUGET SOUND ENERGY,

Respondent.

Docket UE-20____

PREFILED DIRECT TESTIMONY (CONFIDENTIAL) OF

WILLIAM T. EINSTEIN

ON BEHALF OF PUGET SOUND ENERGY

**REDACTED
VERSION**

DECEMBER 9, 2020

PUGET SOUND ENERGY
PREFILED DIRECT TESTIMONY (CONFIDENTIAL) OF
WILLIAM T. EINSTEIN

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PUGET SOUND ENERGY

**PREFILED DIRECT TESTIMONY (CONFIDENTIAL) OF
WILLIAM T. EINSTEIN**

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- Exh. WTE-2 Professional Qualifications of William T. Einstein
- Exh. WTE-3C Skookumchuck Amended and Restated Power Purchase Agreement
- Exh. WTE-4C Lund Hill Amended Power Purchase Agreement
- Exh. WTE-5 2017 Request for Proposal for Renewable Energy
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1 **PUGET SOUND ENERGY**

2 **PREFILED DIRECT TESTIMONY (CONFIDENTIAL) OF**
3 **WILLIAM T. EINSTEIN**

4 **I. INTRODUCTION**

5 **Q. Please state your name, business address, and position with Puget Sound**
6 **Energy.**

7 A. My name is William T. Einstein, and my business address is 355 110th Ave. NE,
8 Bellevue, Washington, 98004-5591. I am employed by Puget Sound Energy
9 (“PSE”) as Director of Product Development and Growth.

10 **Q. Have you prepared an exhibit describing your education, relevant**
11 **employment experience, and other professional qualifications?**

12 A. Yes, I have. It is Exhibit WTE-2.

13 **Q. What are your duties as Director of Product Development and Growth for**
14 **PSE?**

15 A. My present responsibilities include overseeing the operation of PSE’s equipment
16 leasing, street lighting and telecommunications siting programs. I also am
17 responsible for the development and marketing of new customer products
18 including PSE’s electric vehicle program, Solar Choice program, Green Direct
19 program, and new billing and payment options.

1 **Q. What topics are you covering in your testimony?**

2 A. My testimony addresses the current status of PSE's Green Direct program and the
3 prudence of the power purchase agreements ("PPAs") PSE contracted for to
4 provide energy to Green Direct customers—the Skookumchuck Wind Energy
5 PPA project ("Skookumchuck") and the Lund Hill Solar PPA project ("Lund
6 Hill"). PSE requests a Commission determination on the prudence of the Green
7 Direct PPA resources for Green Direct program participants.

8 **II. THE GREEN DIRECT PRODUCT**

9 **A. Background and Overview of Green Direct**

10 **Q. Please summarize the Green Direct product.**

11 A. "Green Direct" is the product name for PSE's Voluntary Long Term Renewable
12 Energy Purchase Rider under electric Schedule 139 created to meet the renewable
13 energy needs of PSE's governmental and large corporate customers who consume
14 at least 10,000 megawatt-hours (MWh) annually. The primary purpose of the
15 product is to provide large existing customers with a direct access to an affordable
16 renewable energy option for up to 20-year contract terms.

17 **Q. How did PSE determine the need for a product like Green Direct?**

18 A. Many of PSE's large corporate and governmental customers have goals to meet
19 50 percent or more of their loads with renewable energy within the next 10-15
20 years. However, many of these customers do not have options beyond purchasing

1 Renewable Energy Credits (“RECs”) for acquiring renewable energy to meet their
2 energy and sustainability goals in Washington. While some commercial
3 customers have entered into their own PPAs in other regions, most customers do
4 not have the resources or ability to self-procure their own renewable energy
5 supplies. As none of the participating customers operate under electric Schedule
6 449 as open access customers, it was not possible for these customers to sign
7 agreements on their own for long-term renewable energy at a known cost.

8 Accordingly, in communications with customers regarding their sustainability
9 goals, PSE determined that several of PSE’s large corporate and governmental
10 customers desired a renewable energy product supplied by PSE from dedicated
11 renewable energy projects that provided a known cost over time, and that would
12 allow them to achieve their near- and long-term carbon reduction goals.

13 Customers were also interested in a structure that drove the development of new
14 renewable energy projects and provided additional renewable energy for the state
15 and regional energy grid. To obtain this “additionality,” these customers were
16 willing to wait for the construction of new resources and sign long term
17 agreements ahead of the project development.

18 With these key criteria from customers, PSE developed the Green Direct product
19 which provided customers the opportunity to purchase renewable power directly
20 from PSE. This product ultimately resulted in customers signing agreements
21 ranging in term from 10 to 20 years based on what was most suitable in meeting
22 their financial and sustainability goals and in accordance with their respective

1 organizational policies. This product also maintained the participating customers'
2 status as fully bundled utility customers. Due to customer interest, PSE ultimately
3 proposed two phases of Green Direct to accommodate demand.

4 **Q. How was the Green Direct program established?**

5 A. Phase 1 of Green Direct was proposed by PSE and approved by the Commission
6 as electric Schedule 139 in Docket UE-160977. PSE held extensive conversations
7 with Commission Staff, customers, and stakeholders leading up to the initial filing
8 in July 2016, which was then approved by the Commission in September 2016.
9 Initial launch customers expressed their strong support for the product during the
10 approval process for electric Schedule 139. For Phase 1, the Commission initially
11 authorized PSE to subscribe up to 75 average megawatts (“aMW”) under the
12 tariff, before conducting a review of the product’s impacts. Under the first filing,
13 the Commission also approved PSE’s proposed pricing for the Skookumchuck
14 PPA to be built in Lewis County, Washington, which would account for the first
15 43 aMW (137 megawatts (MW)) of Green Direct.

16 For Phase 2, in July 2018, PSE proposed, and the Commission approved in
17 Docket UE-180544, a second offering which added the 42 aMW (150 MW) Lund
18 Hill PPA in Klickitat County, Washington. In addition, due to a difference in
19 pricing between the Phase 1 Skookumchuck and Phase 2 Lund Hill PPAs, PSE
20 proposed, and the Commission approved, a blended set of price strips for the two
21 projects which essentially created a portfolio combining both phases of Green
22 Direct. Finally, in Docket UE-180851 the Commission also approved a 10 aMW

1 expansion of Green Direct to accommodate additional customer demand by
2 utilizing the full build-out potential of the Lund Hill project, increasing the total
3 program size to 85 aMW.

4 **Q. How have customers responded to Green Direct?**

5 A. Customer support for Green Direct has been tremendous. Since the initial
6 approval of electric Schedule 139 by the Commission, more than 40 customers
7 have subscribed to participate, representing 85 aMW of load, indicating the
8 product is fully subscribed for the first 10 years of the program. Since the closing
9 of Phases 1 and 2, current and potential program customers have expressed strong
10 interest in subscribing to future phases of Green Direct. This requested demand
11 could double the size of the existing program.

12 **Q. What is the current status of Green Direct?**

13 A. Phase 1 of Green Direct began operation in early November 2020, with the
14 commercial operation of Skookumchuck. To prepare to start customer billing, on
15 September 17, 2020, in Docket UE-200817, PSE filed a revision to the electric
16 Schedule 139 Resource Option Charges to meet the guidelines set by the
17 Commission in the Final Order in PSE's 2019 general rate case.¹ PSE worked
18 closely with stakeholders, including Commission Staff and Green Direct
19 customers, in preparation for this proposed tariff change, which was approved by

¹ Dockets UE-190529, UG-190530, UE-190274, UG-190275, UE-171225, UG-171226, UE-190991 and UG-190992 (consolidated).

1 the Commission on October 15, 2020. The updated electric Schedule 139
2 Resource Option Charges addressed various items resulting from the Final Order
3 and realigned various customer terms to correspond to the terms in the
4 Skookumchuck PPA. PSE began billing Phase 1 participants when
5 Skookumchuck came into operation in November 2020.

6 For Phase 2, the Lund Hill PPA will go into effect with PSE receiving renewable
7 energy, delivered to PSE's system, beginning on March 1, 2021. To avoid
8 potential delays to the start of Phase 2 of Green Direct and to incorporate the use
9 of union labor through a Project Labor Agreement, PSE worked with Avangrid
10 Renewables LLC ("Avangrid Renewables"), the Lund Hill project developer, to
11 amend the PPA. Per the amended PPA, Avangrid Renewables will deliver
12 renewable energy to PSE ahead of the completion of Lund Hill for the original
13 price. Lund Hill is currently anticipated to reach commercial operation in mid-
14 2021. However, as noted above, PSE will begin billing the Phase 2 participants on
15 March 1, 2021, to correspond with the delivery of renewable energy under the
16 PPA.

17 **Q. Has PSE addressed the reporting and tracking of power costs for Green**
18 **Direct?**

19 A. Yes, PSE has worked with Commission Staff to address the reporting of power
20 costs for Green Direct. Please refer to the Prefiled Direct Testimony of Susan E.
21 Free, Exh. SEF-1T, for PSE's proposal for the reporting and tracking of Green
22 Direct power costs.

1 **Q. Are the PPAs used for the Green Direct program in service and providing**
2 **power for Green Direct program participants?**

3 A. As explained above, Skookumchuck is in service and participating customers
4 have already begun being billed for the service. The Lund Hill PPA will go into
5 effect in March 2021, which will be during the pendency of this proceeding.
6 Accordingly, a prudency determination for each PPA is now appropriate.

7 **Q. Did PSE make any commitments in conjunction with the Commission's**
8 **approval of Green Direct?**

9 A. Yes. PSE committed to track all costs and benefits of electric Schedule 139
10 separately and identifiably in its Power Cost Adjustment ("PCA") mechanism; to
11 seek a prudency determination for and recovery of the costs associated with the
12 acquisition of any PPA in a general rate case or Power Cost Only Rate Case; to
13 file its National Renewable Energy Laboratory ("NREL") annual reports in
14 Docket UE-160977; and to engage interested parties in advance of acquiring the
15 next set of resources or filing a tariff revision to assure that the best-priced
16 resources are acquired through a more transparent and competitive process.²

² *In the Matter of Tariff Revisions Filed by Puget Sound Energy, Docket UE-160977, Order 01 ¶ 10 (Sept. 28, 2016).*

1 **Q. What is the status of those commitments?**

2 A. PSE has fulfilled, or is in the process of fulfilling, the commitments it made in
3 that case, as follows:

- 4 • PSE will track all costs and benefits of electric Schedule
5 139 separately and identifiably in its PCA mechanism when
6 the projects come on line as described in Ms. Free's
7 testimony;
- 8 • PSE is seeking a prudency determination for the PPAs
9 entered into under electric Schedule 139 in this case;
- 10 • The NREL report is related to all of PSE's voluntary
11 renewable programs and PSE completed and filed its first
12 NREL report on July 31, 2018, and most recently on July
13 28, 2020, in Docket UE-160977. Since Green Direct had
14 not yet begun generating electricity at the time of the most
15 recent report, the Green Direct reporting was limited to
16 REC's purchased for Green Direct participants between July
17 1 and December 31, 2019; and
- 18 • As described below, PSE followed a comprehensive and
19 competitive process which resulted in the lowest cost
20 option for customers compared to alternatives. To the
21 extent PSE seeks to further expand Green Direct in the
22 future, it will follow a similar process soliciting input from
23 interested parties through a transparent and competitive
24 process.

25 **B. The Skookumchuck and Lund Hill Resource Acquisitions Were**
26 **Prudent Resource Acquisitions**

27 **Q. Please describe the scope of PSE's prudency request in this case.**

28 A. PSE is requesting that the Commission determine that the Green Direct PPAs are
29 prudent resource acquisitions for Green Direct program participants.

1 **Q. Is PSE requesting a determination that the Skookumchuck and Lund Hill**
2 **PPAs are prudent for all customers?**

3 A. Not at this time, nor is PSE including either PPA resource in the power cost
4 baseline rate in this proceeding. The output of Skookumchuck and Lund Hill are
5 reserved for customers participating in Green Direct and will be isolated from
6 non-participating electric customer loads.

7 **Q. How will PSE address any temporal differences between Green Direct**
8 **customer load and Green Direct project generation, if any?**

9 A. Green Direct customer usage and generation from the Skookumchuck and Lund
10 Hill will both vary somewhat, over time, albeit likely in de minimis amounts. PSE
11 has worked to align that usage and production on an annualized basis. As
12 explained in Ms. Free's testimony, to ensure that costs and benefits associated
13 with these variances are allocated solely to Green Direct participants, PSE worked
14 collaboratively with Commission Staff and other stakeholders on a reporting plan
15 to track costs and benefits separately pursuant to statute. Please see Ms. Free's
16 testimony for PSE's proposal for tracking Green Direct costs and benefits.

1 **Q. Are you familiar with the Commission's prudency standards surrounding**
2 **new resource acquisitions?**

3 A. Yes. Please see the Prefiled Direct Testimony of Cindy L. Song, Exh. CLS-
4 1HCT, for an explanation of the Commission's prudency standard for a new
5 resource acquisition. As discussed by Ms. Song, the basic principles are need,
6 cost-effectiveness, an assessment of alternatives, the involvement of management
7 in the decision-making process, and contemporaneous record-keeping. As set
8 forth below, Skookumchuck and Lund Hill were prudent resource acquisitions.

9 **Q. Please describe the resources utilized to provide the resource options under**
10 **Green Direct.**

11 A. As noted above, Skookumchuck is a 137 MW wind project located in Lewis
12 County, Washington, and was the resource selected to support Phase 1 of Green
13 Direct. Skookumchuck was developed by RES America Developments, Inc. and
14 Southern Power. In April 2017, PSE executed a 20-year PPA with Skookumchuck
15 Wind Energy Project, LLC for the full output of the facility. The Skookumchuck
16 PPA, as amended and restated on January 11, 2019, is provided as Exhibit WTE-
17 3C to my testimony.

18 Lund Hill is a 150 MW solar project located in Klickitat County, Washington, and
19 was selected to support Phase 2 of Green Direct. Lund Hill was developed by
20 Avangrid Renewables. In November 2018, PSE executed a 20-year PPA with
21 Lund Hill Solar, LLC for the full output of the facility. The Lund Hill PPA, as

1 amended on November 26, 2019, is provided as Exhibit WTE-4C to my
2 testimony.

3 **Q. How did PSE determine that Skookumchuck and Lund Hill were**
4 **appropriate resource acquisitions to serve Green Direct customers?**

5 A. In discussion with potential product customers, PSE identified several project
6 attributes that helped identify the “need” articulated by product customers and to
7 guide the resource acquisition process. Customers expressed preference for
8 renewable energy projects that: (1) were new projects, thereby providing
9 additionality; (2) were located in proximity to customer load which also helped
10 reduce the cost of transmitting the energy to PSE; and (3) represented
11 comparative cost effectiveness with the rates customers were currently paying to
12 PSE as well as the cost of RECs some customers were already purchasing. Along
13 with these customer-driven considerations, the resource acquisition process
14 attempted to identify projects that were sized appropriately relative to customer
15 demand and approved product sizing (85 aMW), and were located on, or
16 delivered to PSE’s transmission system in order to ensure cost effective
17 deliverability to potential customers. As described below, both Skookumchuck
18 and Lund Hill met these criteria.

1 **Q. Did Skookumchuck and Lund Hill meet the “need” requirement as described**
2 **above?**

3 A. Yes. The need for Skookumchuck and Lund Hill were driven by strong customer
4 demand for a renewable resource option provided directly by PSE. As explained
5 above, customers have been directly involved in shaping the criteria for Green
6 Direct. Skookumchuck met these requirements because it is a new wind energy
7 project, located in western Washington and interconnected to PSE’s system. In
8 addition, as explained in more detail below, it was obtained at a price that was the
9 least cost resource at the time PSE assessed alternatives and executed the PPA.
10 Likewise, Lund Hill will be a new project located in south-central Washington
11 with deliverability to PSE’s system, at a price that was the least cost alternative at
12 the time of PSE’s analysis.

13 **Q. Please describe the evaluation of alternatives performed by PSE for**
14 **Skookumchuck and Lund Hill.**

15 A. PSE sought formal offers for renewable resources to meet the needs of both
16 phases of Green Direct. PSE evaluated the proposals in a manner generally
17 consistent with prior electric resource acquisitions, based on applicable criteria set
18 forth in Exhibit A to the 2017 Request for Proposal (“RFP”) for Renewable
19 Energy (as contained in the fourth exhibit to my testimony, Exhibit WTE-5), and
20 consistent with the customer preferences previously described in this testimony.
21 PSE’s evaluation criteria have been designed and tested over the course of
22 numerous competitive procurement processes. The criteria form the basis of

1 PSE's evaluation, which considers a variety of quantitative and qualitative factors
2 to compare the costs, risks and merits of individual proposals. At a high level,
3 PSE's analysis included consideration of capital costs, transmission costs, ability
4 to meet voluntary product subscriber need, project feasibility, developer
5 experience, acceptable offer terms, and alignment with customer preferences for
6 the product, among other factors.

7 **Q. What alternatives did PSE consider before entering into the Skookumchuck**
8 **PPA?**

9 A. At the early stages of Green Direct, PSE issued an exploratory Request for
10 Information ("RFI") for resources that could meet the needs of a potential new
11 voluntary customer product. At the time, there were only a few potential Green
12 Direct customers, so the focus was on projects in the 5-10 MW range. In response
13 to the RFI, PSE received 18 discrete proposals from eight respondents. Resource
14 types included wind, solar and hydro projects ranging in size from less than
15 1 MW to a little more than 100 MW. While most proposed projects were sized
16 below 20 MW, three proposals offered projects at approximately 100 MW in size.
17 In addition to the RFI proposals, PSE received two unsolicited offers for wind
18 resources larger than 100 MW around the same time. Because of the number and
19 robust scope of the RFI proposals, PSE determined a RFP process was
20 unnecessary.

21 The RFI is provided as the fifth exhibit to my testimony, Exhibit WTE-6.

1 **Q. What were the results of PSE's analysis of the RFI results?**

2 A. PSE's analysis determined that the RFI proposal costs (between \$[REDACTED]/MWh and
3 more than \$[REDACTED]/MWh levelized) were significantly greater than what customers
4 were willing to pay. However, the two large unsolicited proposals submitted
5 outside of the RFI process offered economies of scale that made them
6 comparatively more cost effective and resulted in approximately half the cost of
7 the alternative smaller projects. Of the two projects, the Skookumchuck PPA
8 offered the lowest cost option for customers at \$[REDACTED]/MWh levelized compared
9 to all other alternatives.

10 The sixth exhibit to my testimony, Exhibit WTE-7HC, contains the results of the
11 RFI process, showing that Skookumchuck was the lowest cost option.

12 **Q. What alternatives did PSE consider before entering into the Lund Hill PPA?**

13 A. On August 18, 2017, PSE issued an RFP to acquire a second renewable energy
14 resource for the Green Direct program. In response to the 2017 RFP, PSE
15 received 45 discrete proposals from 31 respondents. Resource types included
16 wind and solar projects ranging in size from less than 20 MW to 600 MW. Most
17 proposals offered between 100 and 200 MW.

18 The 2017 RFP is provided as the fourth exhibit to my testimony, Exhibit WTE-5.

19 **Q. What were the results of the RFP cost analysis performed by PSE?**

20 A. The evaluation was conducted in late 2017 and in the first quarter of 2018 at a
21 time when renewable prices had begun to drop. By the end of the evaluation,

1 several respondents had further lowered their pricing. PSE selected the Lund Hill
2 PPA with a levelized cost of \$ [REDACTED]/MWh, which represented the lowest cost
3 option for customers compared to alternatives.

4 The seventh exhibit to my testimony, Exhibit WTE-8HC, contains the results of
5 the RFP process, showing that Lund Hill was the lowest cost option.

6 **Q. Please describe the internal approval process for entering into the**
7 **Skookumchuck and Lund Hill PPAs.**

8 A. PSE convened an array of internal subject matter experts to vet relevant aspects of
9 the PPAs prior to seeking management approval. Relevant subject matter experts
10 include but are not limited to legal (inside and outside counsel), risk control,
11 insurance, IT, accounting, power costs, trade floor, energy delivery, transmission
12 contracts, permitting, real estate and environmental compliance. Engaging a wide
13 array of subject matter experts ensures that the contractual terms of the PPAs are
14 fair and minimizes risk to all customers.

15 **Q. Did PSE involve executive management in its resource acquisition process?**

16 A. Yes. The PPAs for the Skookumchuck and Lund Hill projects were approved by
17 the Energy Management Committee (“EMC”) and signed by David Mills, PSE’s
18 former Senior Vice President of Energy Supply. The evaluation team presented
19 several updates to the EMC during PSE’s resource alternatives analyses for Green
20 Direct.

1 **Q. What contemporaneous documentation does PSE have regarding the**
2 **acquisition process?**

3 A. In addition to the RFI and RFP materials discussed above, the eighth exhibit to
4 my testimony, Exhibit WTE-9HC, contains copies of presentations to the EMC
5 regarding the status of the Green Direct program which contemporaneously
6 documents PSE's decision making throughout the PPA selection process. In
7 addition, the ninth exhibit to my testimony, Exhibit WTE-10C, contains internal
8 memoranda requesting approval to execute the Green Direct PPAs.

9 **Q. When will the Skookumchuck and Lund Hill resources be placed in service?**

10 A. Skookumchuck was forecast to begin delivery in the first quarter of 2019, but due
11 to delays in obtaining federal and local permits, the project began commercial
12 operation in November 2020. PSE started billing customers who enrolled in the
13 first phase of Green Direct on the full commercial operation date. Under the Lund
14 Hill PPA, PSE will receive renewable energy, delivered to PSE's system,
15 beginning on March 1, 2021, and will commence billing for those customers that
16 enrolled in the second phase of Green Direct at the same time.

17 **Q. Has PSE demonstrated that Skookumchuck and Lund Hill were prudent**
18 **resource acquisitions?**

19 A. Yes, it has. As set forth above, both resource acquisitions were needed due to
20 customer demand for the Green Direct program, PSE selected the least cost
21 options after a careful evaluation of alternatives, management was closely

1 involved in the review and approval process, and PSE has provided
2 contemporaneous documentation of the review and approval process.
3 Accordingly, the Commission should determine that Skookumchuck and Lund
4 Hill were prudent resources for program participants.

5 **III. CONCLUSION**

6 **Q. Does that conclude your prefiled direct testimony?**

7 **A.** Yes, it does.