

CASE: UM 2032
WITNESS: CAROLINE MOORE

**PUBLIC UTILITY COMMISSION
OF
OREGON**

STAFF EXHIBIT 300

Second Reply Testimony

January 19, 2022

1 **Q. Please state your name, occupation, and business address.**

2 A. My name is Caroline Moore. I am a Division Administrator employed in the
3 Utility Strategy and Integration of the Public Utility Commission of Oregon
4 (Commission or OPUC). My business address is 201 High Street SE, Suite
5 100, Salem, Oregon 97301.

6 **Q. Have you previously provided testimony in this case?**

7 A. Yes. I previously sponsored Exhibit Staff/100 and Exhibit Staff/200.

8 **Q. What is the purpose of your testimony?**

9 A. The purpose of my testimony is to clarify final Staff's positions, respond to the
10 testimony of the Interconnection Customer Coalition (ICC) and Joint Utilities
11 (PacifiCorp, Portland General Electric, and Idaho Power Company) filed on
12 December 11, 2020, and provide an update on several developments since the
13 previous round of testimony.

14 **Q. How is your testimony organized?**

15 A. My testimony is organized as follows:

16	Background.....	2
17	Network Upgrade Cost Allocation for Oregon QFs	8
18	Interconnection Service for Oregon QFs.....	16
19	Conclusions and Staff Recommendations	17

BACKGROUND**Q. Please provide a brief history of this investigation.**

A. The Commission opened an investigation into the treatment of Network Upgrade costs for Qualifying Facilities (QFs) on July 29, 2019.¹ The scope adopted for the investigation included the following issues:

1. Who should be required to pay for Network Upgrades necessary to interconnect the QF to the host utility?
2. Should on-system QFs be required to interconnect to the host utility with Network Resource Interconnection (NRIS), or should QFs have the option to interconnect with Energy Resource Interconnection Service (ERIS) or an interconnection service similar to ERIS?

Depending on the resolution of these two questions, a second phase of the docket may be necessary to address a third question:

3. If the answer to Issue No. 1 is that users and beneficiaries of Network Upgrades (which typically are primarily utility customers) should pay for the Network Upgrades necessary to interconnect the QF to the host utility, how should that policy be implemented?²

On August 24, 2020, the Joint Utilities filed opening testimony. On October 30, 2020, OPUC Staff (Staff), ICC, and NewSun Energy, LLC, provided response testimony. Following that, ICC, the Joint Utilities, and Staff provided a round of reply testimony on December 11, 2020.

¹ See Docket No. UM 2000, Commission Order No.19-25.

² See Docket No. UM 2032, ALJ Traci A. G. Kirkpatrick issues Ruling; disposition: issues list adopted.

1 On January 21, 2021, the procedural schedule was temporarily suspended.
2 A new procedural schedule was adopted on November 29, 2021, placing the
3 date for All Parties' Second Round of Testimony on January 19, 2022—roughly
4 one year from the previous round of testimony.

5 **Q. Please summarize parties' positions to date.**

6 A. The Joint Utilities argue that QFs should continue to bear the cost of Network
7 Upgrades without reimbursement so that retail customers remain indifferent to
8 the cost of interconnecting QFs and to encourage efficient siting of QFs. The
9 Joint Utilities also argue that QFs should continue to interconnect under NRIS
10 to avoid shifting deliverability costs to retail customers.

11 Conversely, ICC and NewSun (collectively "QF Parties") argue that the
12 Commission should assume that all Network Upgrades provide system-wide
13 benefits and, therefore, should be borne by all users of the system via the
14 Transmission Provider. The QF Parties also assert QFs should have the option
15 to select NRIS or ERIS based on their business objectives.

16 Staff proposes that QFs and other users of the system should share the
17 costs of Network Upgrades proportionally to the benefits the Network Upgrades
18 provide. Staff also believes that NRIS is the most practical interconnection
19 service for QFs from a cost allocation perspective.

20 **Q. It has been over a year since the previous round of testimony was**
21 **filed. Has anything occurred in that time that could impact the issues**
22 **under consideration in this investigation?**

1 A. Yes, I believe that several developments have altered the backdrop for this
2 investigation:

3 **Oregon Policy:** The state legislature adopted several transformative
4 energy policies during the 2021 Legislative Session. One such bill,
5 House Bill (HB) 2021, focuses on rapid decarbonization of large
6 investor-owned utilities and promotes small-scale and community-based
7 renewable energy development in the state.³ In addition to driving
8 significant non-emitting resource need, HB 2021 includes multiple
9 provisions targeting the development of renewable energy projects
10 located in the state that are 20 MW or smaller, including a \$50 million
11 revolving community renewable energy project grant program that will
12 begin taking applications March 2022.⁴ The bill also calls for examination
13 of community-based renewable energy development to offset fossil fuel
14 generation and allows local governments to drive acquisition of
15 renewable resources that meet the communities' goals through
16 community-wide green tariffs. Absent the introduction of a new small-
17 scale resource acquisition framework, these policies may increase QF
18 development and associated QF Network Upgrades in the near-term.

19 **Federal Policy:** The new federal administration has adopted or
20 proposed a range of policies targeted at upgrading the current

³ Or Laws 2021, ch. 508.

⁴ Oregon Department of Energy, Update on Implementation of House Bill 2021 - Benner, Del Mar, Cornwell (presentation); accessed January 14, 2022 at:
<https://olis.oregonlegislature.gov/liz/202111/Downloads/CommitteeMeetingDocument/251173>.

1 transmission system.⁵ For example, the US Department of Energy
2 announced a coordinated transmission deployment program to
3 implement both the Infrastructure Investment and Jobs Act (IIJA), signed
4 November 15, 2021, and previously enacted authorities and funding, on
5 January 12, 2021. These federal activities may create new funding,
6 planning, technical assistance, and other resources to drive transmission
7 expansion, but much is yet to be understood about how these programs
8 will impact the costs and strategies for transmission development in
9 Oregon.

10 **FERC Policy:** On July 15, 2021, FERC issued an Advance Notice of
11 Proposed Rulemaking (ANOPR) seeking comment on the potential need
12 to reform and revise existing regulations to improve, among other things,
13 regional transmission planning and generation interconnection cost
14 allocation.⁶ FERC sought comments on its two previously adopted
15 interconnection cost allocation methods for Network Upgrades –
16 crediting and participant funding.⁷ With respect to participant funding,
17 which is generally only available to independent Transmission Providers,
18 FERC asked whether it should eliminate this option and require that all
19 Transmission Providers use only the crediting policy, which is generally

⁵ See https://www.energy.gov/sites/default/files/2022-01/Transmission%20NOI%20final%20for%20web_1.pdf (Accessed on January 14, 2021).

⁶ *Building for the Future through Electric Regional Transmission Planning and Cost Allocation and Generation Interconnection*, Docket No. RM21-17-000, 176 FERC 61,024 (July 15, 2021) (2021 WL 3013526).

⁷ *Id.*, ¶ 100.

1 the only option available to non-independent Transmission Providers.⁸

2 Under the crediting policy, interconnection customers provide upfront
3 funding for interconnection-related Network Upgrades but are
4 reimbursed by the Transmission Provider. FERC asked whether this
5 upfront funding requirement imposed on the interconnection customer
6 should be replaced with one or more of the following alternatives:

7 (a) Transmission Providers provide upfront funding for all
8 interconnection-related Network Upgrades; (b) Interconnection
9 customers contribute to the upfront funding of interconnection-related
10 Network Upgrades through a fee; (c) Transmission Providers provide
11 upfront funding for only higher voltage interconnection-related Network
12 Upgrades; and/or (d) Allocate the upfront cost of interconnection-related
13 Network Upgrades on a percentage basis.⁹ FERC has received
14 hundreds of pages of comments in response to its ANOPR and has held
15 a technical conference, but has not yet issued a Notice of Proposed
16 Rulemaking on the topics covered in the ANOPR.

17 These developments do not directly impact the federal and state policies
18 for the treatment of Network Upgrades for QFs. And there remains uncertainty
19 about the ability of federal programs will change the costs and risks associated
20 with QF Network Upgrades. However, the focus on in-state renewable

⁸ *Id.*, ¶¶ 123-130.

⁹ *Id.*, ¶¶ 131-45.

1 resource development along with the federal push to consider a broad range of
2 tools for transmission expansion, including federal funding and cost allocation
3 for Network Upgrades, puts the decisions before the Commission in different
4 light than when Docket No. UM 2032 was opened and scoped nearly two years
5 ago.

1 **NETWORK UPGRADE COST ALLOCATION FOR OREGON QFS**

2 *STAFF'S PROPOSAL*

3 **Q. Please summarize Staff's proposal for the allocation of Network**
4 **Upgrade costs for QFs.**

5 A. Staff proposes that Network Upgrade costs should be allocated to QFs and
6 other users of the transmission system commensurately with the benefits that
7 the Network Upgrades provide. From Staff's perspective, this approach is
8 consistent with the Commission's existing guidance, but has not been
9 implemented by the utilities.¹⁰

10 In the first round of testimony, Staff recommended that Network Upgrade
11 costs that exceed the utility's avoided Network Upgrade costs should be
12 allocated to QFs and other users of the transmission system commensurately
13 with the benefits that the Network Upgrades provide. Staff proposed
14 quantifying avoided Network Upgrade costs in Docket No. UM 2000 and
15 exploring methods quantify system benefits of Network Upgrades and
16 allocation methodologies in Phase II of this investigation.¹¹

17 In the second round of testimony, Staff did not change its position, but
18 noted that approximating these values using a cost-sharing formula could
19 provide a balance of fairness and practicality:

¹⁰ Staff/100, Moore/19-22; Staff/200 Moore/6.

¹¹ Staff/100, Moore/35.

- 1 • Step 1: Establish an avoided Network Upgrade cost per utility so that
2 retail customers cover the QF's Network Upgrade costs up to this
3 amount.
- 4 • Step 2: For any Network Upgrade costs above the utility's avoided
5 Network Upgrade costs in Step 1, hold the QF responsible for 75
6 percent and the Transmission Provider for the remaining 25 percent.¹²
- 7 Staff also noted that, if the Commission wishes to simplify resolution
8 further, it could adopt a one-step percentage allocation formula.¹³

9 **Q. Has Staff's position on Network Upgrade cost allocation for Oregon**
10 **QFs changed?**

11 A. No. However, developments in this investigation and over the course of 2021
12 lead Staff to favor use of the simpler, quicker percentage allocation formula.

13 **Q. Please elaborate.**

14 A. First, the parties seem to agree that it will be difficult, if not impossible, to
15 develop a more specific avoided network upgrade and quantifiable system
16 benefits test for QF Network Upgrades.^{14,15} Notably, no party has proposed or
17 cited an example of a cost allocation method from another jurisdiction that is
18 not based on a bright line or other general rule of thumb.

19 Second, resolving QF Network Upgrade issues quickly will better position
20 the utilities to meet aggressive emissions reduction targets and other State

¹² Staff notes that all users of the system would bear these costs through transmission rates.

¹³ Staff/200, Moore/11.

¹⁴ Joint Utilities/300, Wilding-Macfarlane-Williams/19; Joint Utilities/400, Vail-Bremer-Foster-Larson-Ellsworth/10.

¹⁵ ICC/100, Lowe/13-20.

1 policy goals. Even if it is possible to identify a quantifiable system benefits test
2 in Phase II of this investigation, that complex effort would not begin until the
3 third quarter of 2022 at the earliest. Staff is particularly concerned about the
4 utilities' readiness to interconnect an influx of rural, community-based, and
5 small-scale generation across the state.¹⁶

6 Finally, streamlined resolution will help parties work through the range of
7 activities required to safely, affordable, and reliably meet the State's new policy
8 goals. And, while federal policy makers work through the expansion of the
9 transmission network, a streamlined near-term effort to identify a simple, yet
10 reasonable, cost allocation framework for QF Network Upgrades may net the
11 greatest overall benefit for retail customers.

12 **Q. In Staff's opinion, what are the Commission's practical options for a**
13 **one-step percentage allocation formula?**

14 A. In previous testimony, Staff discussed the benefits and costs of several
15 approaches, including the Joint Utilities' current 'but for' approach,¹⁷ the FERC
16 bright line approach,¹⁸ and Idaho's Cassia Sharing Method.¹⁹ Based on this
17 discussion, the one-step percentage allocation options are:

- 18 1. **100 percent QF:** Affirm the Joint Utility's current practice of assuming
19 there is no system-wide benefit unless the upgrade was identified in a
20 planning study and allocate all QF Network Upgrade costs to the QF,

¹⁶ Staff/100, Moore/11.

¹⁷ Staff/100, Moore/15-24.

¹⁸ Staff/100 Moore/23-25.

¹⁹ Staff/100 Moore/25-27.

1 unless the QF can establish the Network Upgrade has a quantifiable
2 system-wide benefit.

3 2. **100 percent Transmission Provider:** Adopt the ICC and New Sun
4 proposal to assume all Network Upgrades have system-wide benefits,
5 require the Transmission Provider to reimburse the QF for all Network
6 Upgrades based on the assumption that Network Upgrades benefit the
7 system, but allow the Transmission Provider to rebut this assumption
8 and allocation by showing there is no system benefit associated with a
9 Network Upgrade.

10 3. **Sharing formula:** Adopt a cost sharing percentage that roughly
11 approximates the system benefits of QF Network Upgrades. For
12 example, a QF is reimbursed for 25 percent, 50 percent, or 75 percent
13 of Network Upgrades.²⁰

14 **Q. Does Staff recommend a particular option?**

15 A. Yes, Staff finds that a sharing formula for QF Network Upgrades would more
16 accurately reflect the Commission policy to allocate costs to those that benefit
17 from the upgrades. It will encourage both the Transmission Provider to make
18 prudent determinations when identifying deliverability constraints and
19 associated upgrades and the QF to make efficient siting decisions.

²⁰ See IPUC Order No. 30453 (Case Nos. IPC-E-06-34 and IPC-E-06-35) (2007 WL 4868416 (IPUC adopting adopted funding agreements between Idaho Power and Qualifying Facilities based on agreement adopted in Cassia opinion in which 25 percent of the costs are provided by the project as a nonrefundable contribution in aid of construction (CIAC); 25 percent of the costs are funded by Idaho Power and included in Idaho Power's rate base; and 50 percent of the costs will be funded by projects as an advance in aid of construction (AIAC) subject to refund. See also *Cassia Gulch Wind Farm, LLC v. Idaho Power Company*, IPUC Order No. 30414 (Case No. IPC-E-06-21) (2007 WL 258063).

1 **Q. Have the Joint Utilities provided evidence that QF Network Upgrades**
2 **have zero system value?**

3 A. No. The Joint Utilities describe the rigor of their transmission planning
4 practices, including those that consider least-cost options among the utility's
5 set of proxy supply-side and transmission resources.²¹ Staff does not dispute
6 the importance or rigor of these practices. However, this analysis does not
7 provide any information about the impact to the system when a QF-driven
8 Network Upgrade is added. The Joint Utilities have not demonstrated, for
9 example, that increased transmission capacity between different load pockets
10 of a utility system will only be used to deliver the output of a single generator
11 during forecasted periods of worst-case deliverability constraints.

12 **Q. Have the QF Parties provided evidence that all QF Network Upgrades**
13 **benefit the system?**

14 A. No, and Staff has explained why this approach exposes retail customers to
15 unreasonable risk.²²

16 **Q. Are there ways mitigate the risk to retail customers under the**
17 **percentage sharing approach?**

18 A. Staff notes its sharing method allocates costs to the QF. If a percentage of the
19 cost of a Network Upgrade is likely to harm retail customers, it is likely that the
20 percentage of the cost allocated to the QF would be too high to make the
21 project economic. Further, the purpose of allocating a percentage of the cost

²¹ Joint Utilities/300, Wilding-Macfarlane-Williams/19-25; Joint Utilities/400, Vail-Bremer-Foster-Larson-Ellsworth/17-25.

²² Staff/200, Moore/10.

1 to the utility is to match the benefit of the upgrade with the cost. Customers are
2 not harmed if they are paying for upgrades that benefit the transmission
3 system.

4 Staff recommends the Commission consider whether any changes to the
5 cost allocation methodology adopted in this docket are warranted to protect
6 customers after the conclusion of Docket No. UM 2111. Staff suggests that
7 parties and the Commission monitor the FERC rulemaking regarding allocation
8 of interconnection costs to evaluate different methods FERC may consider for
9 allocating costs of Network Upgrades. Staff also expects that more will be
10 known about the ability of federal transmission funding and other incentives to
11 offset ratepayer costs for transmission upgrades in Oregon, too.

12 *OTHER PARTIES' POSITIONS*

13 **Q. Please summarize the QF's parties' proposals to allocate Network** 14 **Upgrade costs for QFs.**

15 A. ICC and NewSun argue that all Network Upgrades benefit all users of the
16 system. Therefore, Network Upgrades should be paid for by all users of the
17 system.^{23, 24} The QF parties recommend that if the Commission continues to
18 require a demonstration of system-wide benefits, the burden should be on the
19 Transmission Provider to prove that an upgrade does not have system-wide
20 benefits and should not be borne by all users of the system.^{25, 26}

²³ ICC/100, Lowe/11-12.

²⁴ NewSun/100, Rahman/11-13.

²⁵ ICC/100, Lowe/19-20.

²⁶ NewSun/200, Andrus/15-16.

1 **Q. Have the QF Parties' positions changed?**

2 A. Not materially. ICC agrees with Staff that costs should be allocated
3 commensurate with the benefits and that benefits and can be explored further
4 in Phase II. ICC also advocates for, "the Commission to move forward without
5 delay and allow stakeholders to engage in discussing the full range of possible
6 policies that could more accurately assign the costs of Network Upgrades to all
7 users and beneficiaries."²⁷

8 **Q. How does Staff respond?**

9 A. Staff agrees that streamlined resolution of this investigation would be
10 beneficial.

11 **Q. Please summarize the Joint Utilities' proposal to allocate Network
12 Upgrade costs for QFs.**

13 A. The Joint Utilities argue QFs are the sole beneficiary of QF Network Upgrades
14 and believe that allocating all QF Network Upgrades to the QF is important to
15 ensure that the retail customers bear only those costs that are prudent,
16 economically justified, consistent with PURPA, and that result in just and
17 reasonable retail rates.

18 **Q. Have the Joint Utilities' positions changed?**

19 A. No, but the Joint Utilities have taken an additional position on cost recovery in
20 the event that the Commission adopts a policy that allocates costs to
21 beneficiaries other than QFs.

22 **Q. Please summarize the Joint Utilities' position on cost recovery.**

²⁷ Interconnection Customer Coalition/200, Lowe/5.

1 A. The Joint Utilities propose that the utilities should receive treatment similar to
2 pre-approval for full cost recovery for any QF Network Upgrade that is
3 allocated to the utility above the avoided Network Upgrade cost.²⁸ The Joint
4 Utilities also propose that multi-state utilities should receive guaranteed
5 recovery for any costs rejected by other states.²⁹

6 **Q. How does Staff respond?**

7 A. Staff does not believe that allocating QF Network Upgrade costs to users of the
8 system should absolve utilities from making prudent decisions about necessary
9 transmission system upgrades, when performing interconnection studies or
10 constructing upgrades. With respect to the Joint Utilities' assertion related to
11 rate recovery, Staff notes that decisions regarding ratemaking are resolved in
12 ratemaking proceedings.

²⁸ Joint Utilities/300, Wilding-Macfarlane-Williams/32-33.

²⁹ Joint Utilities/300, Wilding-Macfarlane-Williams/33.

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INTERCONNECTION SERVICE FOR OREGON QFS

Q. Please summarize Staff's position.

A. Staff still agrees with the joint Utilities that requiring NRIS is an appropriate method to minimize retail customer risk related to excessive deliverability costs under PURPA. However, Staff is open to the QF Parties' proposal to allow ERIS, but only with certain conditions and to the extent that it is allowed under PURPA's mandatory purchase obligation.

Q. Has Staff's position changed?

A. No. Staff still believes that NRIS best positions the Commission to protect retail customers but ERIS could be considered an alternative mechanism to overcome issues related to QF Network Upgrades.

CONCLUSIONS AND STAFF RECOMMENDATIONS

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Q. Please summarize Staff’s current position on the treatment of Network Upgrades for Oregon QFs.

A. Staff’s position has not materially changed since its December 11, 2020, Second Reply Testimony. Staff still finds that QFs should be responsible for Network Upgrades above the utilities’ avoided Network Upgrade costs and compensated for any additional system-wide benefits. Staff also maintains that NRIS is the most practical interconnection service for QFs. However, developments within this investigation, state policy, and federal policy lead Staff to support quick and simple implementation of this cost allocation policy rather than a protracted investigation in Phase II.

Q. Does this conclude your testimony?

A. Yes.