

**EXHIBIT NO. ___(IP-1T)
DOCKET UE-161123
PSE SCHEDULE 451
WITNESS: IRENE PLENEFISCH**

**BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,**

Complainant,

v.

PUGET SOUND ENERGY,

Respondent.

Docket No. UE-161123

**PREFILED DIRECT TESTIMONY OF
IRENE PLENEFISCH
ON BEHALF OF MICROSOFT CORPORATION**

October 12, 2016

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**PREFILED DIRECT TESTIMONY OF
IRENE PLENEFISCH**

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PUGET SOUND ENERGY
PREFILED DIRECT TESTIMONY OF
IRENE PLENEFISCH

I. INTRODUCTION

Q. Please state your name, business address, and position with Microsoft Corporation.

A. My name is Irene Plenefisch. My business address is 1 Microsoft Way, Redmond, WA 98052. I am a Government Affairs Director for Microsoft Corporation (“Microsoft”).

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

A. Yes, I have. It is Exhibit No. ____ (IP-2).

Q. What are your duties as Government Affairs Director for Microsoft?

A. As Government Affairs Director, I work in Washington State on a variety of public affairs issues that are important to Microsoft. This work includes energy policy matters discussed in this testimony.

Q. Please summarize your testimony.

A. Microsoft has established corporate goals relating to energy supply. PSE’s proposed Schedule 451 would help us achieve those goals for our corporate campus in Redmond and our leased office space in Bellevue because it would allow us to procure our own power supply for those facilities. By removing our Schedule 40 power supply load from PSE, we would alleviate PSE’s future predicted shortfalls in generation resources. Finally, by paying the exit fee that

1 PSE proposes, Microsoft would ensure that PSE's remaining bundled customers
2 are fully protected from potential adverse impacts of Microsoft's use of Schedule
3 451.

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

5 A. My testimony will outline Microsoft's energy policy goals and provide an
6 explanation of our proposed use of Schedule 451, implications for alleviating
7 potential generation shortfalls, and determination of the exit fee.

8 **II. MICROSOFT'S GOALS FOR POWER SUPPLY**

9 **Q. Please describe how power is presently supplied to Microsoft in the Puget
10 Sound region.**

11 A. Microsoft purchases power from PSE under several different rate schedules.
12 Approximately 80% of our load is on Schedule 40. This is the rate schedule under
13 which PSE supplies power to our Redmond campus and to the facilities we lease
14 in Bellevue. These include the City Center building, offices in the Bravern towers
15 and Lincoln Square, and Civica.

16 **Q. How does Microsoft use the power supplied by PSE under Schedule 40?**

17 A. The power serves office buildings that Microsoft owns and leases. In the Puget
18 Sound area, Microsoft owns and leases a total of approximately 15 million square
19 feet of real estate. About 40,000 people a day work at our main campus in
20 Redmond. Thus, while we are a commercial customer of PSE, the size of our
21 loads in a single location resembles that of an industrial customer.

22 **Q. What are Microsoft's corporate goals for power supply, generally speaking?**

1 A. Microsoft Corporation has had a standing commitment to sustainability for some
2 time. The company has been tracking and reducing emissions since 2007, and it
3 has been 100% carbon neutral since 2012. Microsoft also has a 100% renewable
4 energy commitment, which it meets through direct purchases of renewable energy
5 and the purchase of renewable energy credits.

6 **Q. How do Microsoft's corporate goals relate to Microsoft's focus on cloud
7 computing?**

8 A. As the world increasingly races to a future based on cloud computing, the energy
9 and sustainability practices of the data centers that power the cloud have become
10 an increasing focus. In fact, across the technology sector, we see a growing
11 emphasis on sustainability and efforts to operate greener data centers. Microsoft is
12 interested in extending this emphasis to its main campus operations.

13 **Q. What experience does Microsoft have in obtaining power supplies for its
14 facilities?**

15 A. Microsoft has an internal energy group that specializes in the energy supply chain
16 for its global portfolio of over 50 large data centers. The Microsoft energy team
17 has extensive experience on a range of sophisticated power supply transactions. In
18 our most recent fiscal year, the team arranged over 2.5 million megawatt hours of
19 power supply in over 20 countries, including arrangements in eight of the 50 US
20 States. Wherever Microsoft has facilities, it engages with local utilities and
21 independent power producers to identify sources of reliable, affordable,
22 sustainable energy.

1 Microsoft currently has agreements in place to purchase 175 megawatts of wind
2 energy from the Pilot Hill Wind Project in Illinois; about 60 miles south of
3 Chicago, 110 megawatts of wind energy from the Keechi Wind Farm in Texas;
4 and RECs for 20 megawatts of energy from the Remington solar farm in Virginia.
5 Commitments like Pilot Hill or Keechi ensure a cleaner grid to supply energy to
6 our data centers and facilities.

7 **Q. How does Microsoft propose to address its main campus operations?**

8 A. The immediate goal for the Microsoft Campus is to lower its consumption of
9 fossil-fueled power in Washington State. We will therefore be considering one or
10 more suppliers of carbon-free power. We do not presently have any supply
11 agreements in place.

12 **Q. How does Microsoft's anticipated use of Schedule 451 relate to
13 implementation of its energy policy goals for its data centers?**

14 A. The Schedule 451 initiative aligns with the existing efforts of Microsoft's data
15 centers globally. Currently approximately 44% of the electricity used by our data
16 centers comes from renewable sources. Microsoft has committed to exceeding
17 50% renewable electricity for its data centers by the end of 2018, and over 60%
18 early in the next decade. This is a significant commitment considering the
19 magnitude of the global data center expansion.

20 **Q. How does Microsoft expect to achieve this transition?**

21 A. As Microsoft works to rely on a larger percentage of wind, solar and hydropower
22 electricity, it is doing so under the following guiding principles: 1) we commit to
23 transparency with the public on our progress; and 2) we intend to focus on

1 sustainability efforts in areas where we have significant investments. Being able
2 to source renewable energy for all of Microsoft's global operations is key to our
3 sustainability strategy. Microsoft aims to work with utilities and independent
4 power producers to achieve this ambitious goal in every location, and particularly
5 in Washington State.

6 **Q. What are Microsoft's goals for power supply to the Redmond campus and its**
7 **offices in Bellevue?**

8 A. Microsoft is committed to ensuring its corporate operations – both in our data
9 centers and in our office operations – contribute to the worldwide effort to convert
10 from a carbon-based economy to one based on renewable sources. For our main
11 campus, then, we believe that achieving this goal will require: the ability to
12 control our procurement of energy, the ability to decrease our carbon output and
13 increase our use of renewable energy, and the ability to manage our costs so that
14 we can properly resource our sustainability efforts.

15 **Q. Why can't Microsoft meet these goals by using PSE's new Voluntary Long**
16 **Term Renewable Energy, Schedule 139?**

17 A. Schedule 139 does not meet Microsoft's needs because it does not provide us with
18 direct access to the market. Schedule 139 is a sleeve arrangement: PSE will
19 ultimately select resources and enter into contracts with suppliers. Having PSE as
20 an aggregator may be a good arrangement for customers with loads that are
21 smaller and more dispersed than Microsoft's Schedule 40 load. Microsoft,
22 however, is capable of and wishes to select its own suppliers, enter into contracts

1 with them, and assume the related risks and benefits. It does not need
2 aggregation-type services from PSE and should not have to pay for them.

3 **Q. Are there other ways in which Schedule 139 does not align with Microsoft's**
4 **goals?**

5 A. There are several additional reasons that Schedule 139 is not a good fit for us.

6 First, the aggregate amount of energy available under Schedule 139 is only 75
7 aMW and our load is 50 aMW; if PSE is serving a lot of other customers under
8 Schedule 139 there might not be enough power for Microsoft.

9 Second, we would have to take all of our main campus power under Schedule 139
10 and would have no opportunity to serve part of the load with other carbon free
11 resources that are even more cutting-edge than those defined as "Renewable"
12 under Schedule 139. That can both drive up our costs and limit our ability to
13 support innovative technologies. For example, Microsoft, in partnership with
14 McKinstry, is developing a fuel cell data center lab to test and demonstrate highly
15 efficient distributed fuel cell systems to power data centers and accelerate
16 development of distributed fuel cell technology. We recently were awarded a
17 matching grant from the Washington State Department of Commerce for this
18 effort. Under Schedule 139, it appears we could not use such a system to meet any
19 portion of the Schedule 40 load.

20 A third concern is cost predictability. Schedule 139 power is procured through a
21 PSE-run process and the price of delivered power hinges on an "Energy Charge
22 Credit" that is updated through PSE rate cases. Thus PSE effectively controls the
23 cost of power under Schedule 139 and costs are not certain from one year to the

1 next. Microsoft wants more certainty in its pricing and can achieve more certainty
2 by conducting its own procurement process, as we have already done for many of
3 our data centers throughout the US and the world.

4 III. SCHEDULE 451

5 **Q. Please briefly describe how Microsoft would take service under Schedule**
6 **451.**

7 A. If Microsoft took service under Schedule 451, we would move some or all of the
8 energy load presently served under Schedule 40 at the Redmond campus and
9 leased office space in Bellevue onto Schedule 451. Prior to initiating service
10 under Schedule 451, we would have to secure an energy supply from one or more
11 third-party providers; work with PSE to upgrade our meters (which is expected to
12 take several months); and work with PSE to arrange for transmission and perhaps
13 other services under PSE's OATT. Please see sections 2.1, 4.1 and 8.1 of
14 proposed Schedule 451.

15 **Q. To the extent that Microsoft's energy is provided by a third-party supplier**
16 **under Schedule 451, would Microsoft continue to support PSE's low income**
17 **and other programs?**

18 A. Yes, absolutely. As per the proposed Schedule 451 guidelines, Microsoft would
19 continue to pay charges associated with PSE's low income and conservation
20 programs, as well as distribution losses, decoupling and other adjustments, and
21 various charges under PSE's OATT. These charges are detailed in Section 10.1.
22 Note that Microsoft could also be required to pay "[a]ny applicable future rider,
23 surcharge or charge as approved by the Commission."

1 **Q. Has Microsoft negotiated an agreement with PSE to implement the**
2 **provisions of Proposed Schedule 451?**

3 A. Yes, we have negotiated the Schedule 451 Service Agreement that PSE has
4 included with its initial filing. This service agreement reiterates the charges that
5 we will pay as a Schedule 451 customer, establishes an exit fee (which I discuss
6 in more detail below), and contains meter locations, billing and payment
7 provisions and other provisions needed for Microsoft to initiate service under the
8 new tariff schedule.

9 **IV. RELATIONSHIP OF SCHEDULE 451 TO COLSTRIP RETIREMENT**

10 **Q. Are you aware that PSE has proposed to retire Colstrip Units 1 & 2?**

11 A. Yes, I am aware that PSE and several other parties have entered into an agreement
12 to retire Colstrip Units 1 & 2 by July 2022.

13 **Q. Does Schedule 451 relate directly to Colstrip retirement?**

14 A. No, there is no direct relationship between the two. As I mentioned above, by
15 Microsoft moving its load from Schedule 40 to Schedule 451, we will alleviate
16 predicted future shortfalls that occur for any reason.

17 **Q. Does Schedule 451 require Microsoft to help pay PSE's costs associated with**
18 **Colstrip retirement?**

19 A. Schedule 451 does not address Colstrip closure costs. To date, Microsoft, like
20 other customers, has contributed to the reserves that PSE intends to apply to
21 Colstrip closure costs.

22 **V. EXIT FEE**

23 **Q. Does Microsoft anticipate paying an exit fee?**

1 A. Yes, we are in agreement with paying the exit fee that PSE has calculated. We
2 believe this fee fully protects existing ratepayers from having to pay any costs
3 associated with generating assets that would be stranded by Microsoft meeting its
4 load under Schedule 451. The calculation also provides some limited recognition
5 that when PSE experiences a shortfall in generation resources, PSE ratepayers
6 would benefit from Microsoft having moved its load onto Schedule 451.

7 **Q. Do you feel this amount is fair?**

8 A. We feel it is very fair, even favorable, to customers who remain bundled
9 ratepayers of PSE. Microsoft engaged Gary Saleba of EES Consulting, Inc. to
10 provide an independent analysis, which is contained in Exhibit No. ____ (GSS-
11 1T). Based both on PSE's analysis and Mr. Saleba's analysis, we believe the
12 amount of the agreed-upon exit fee is far greater than any reasonably foreseeable
13 adverse impact on other ratepayers.

14 **Q. Why is Microsoft willing to pay an exit fee that substantially exceeds**
15 **potentially stranded costs?**

16 A. Microsoft is committed to ensuring that its efforts to increase the sustainability of
17 its operations do not come at the expense of other ratepayers. We believe that the
18 proposed exit fee represents an assurance that ratepayers will be held harmless.

19 **Q. Does Microsoft believe the Commission should approve Schedule 451 and the**
20 **proposed service agreement for Microsoft under Schedule 451?**

21 A. Yes, we believe this arrangement is beneficial for Microsoft, for PSE and for
22 remaining fully bundled ratepayers. It will help Microsoft meet its corporate
23 sustainability goals while achieving more certainty in the costs of its Washington

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State operations. And it fully protects ratepayers from any near-term adverse financial impact while, in the long run, providing them with a substantial financial benefit.

VI. CONCLUSION

Q. Does this conclude your prefiled direct testimony?

A. Yes.