

Exhibit No. ___ DN-1T
Dockets UE-141335
Witness: David Nightingale

**BEFORE THE
WASHINGTON STATE UTILITIES AND TRANSPORTATION COMMISSION**

DOCKET UE-141335

In the Matter of the

**Petition of King County, Washington,
BNSF Railway, Frontier Communications
Northwest, Inc., Verizon Wireless, and
New Cingular Wireless PCS, LLC. For a
Declaratory Order to address the
degradation of service from Puget Sound
Energy due to the physical deterioration
of the Maloney Ridge Line underground
cable.**

TESTIMONY OF

DAVID NIGHTINGALE

**STAFF OF
WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION**

Assignment of Costs for Maloney Ridge Distribution Line Replacement

November 19, 2014

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1 I. INTRODUCTION

2

3 Q. Please state your name and business address.

4 A. My name is David Nightingale. My business address is the Richard Hemstad
5 Building, 1300 South Evergreen Park Drive SW, Olympia, Washington, 98504-
6 7250.

7

8 Q. By whom are you employed and in what capacity?

9 A. I am employed by the Washington Utilities and Transportation Commission
10 (“Commission”) as a Senior Regulatory Engineering Specialist in the Energy Section
11 of the Regulatory Services Division. I have held that position since February 2009.

12

13 Q. What are your duties as a Senior Regulatory Engineering Specialist?

14 A. My duties have included the analysis of resource acquisition prudence, energy
15 resource planning, requests for proposals for acquisition of new resources, reliability
16 and power quality service levels for non-residential customers, greenhouse gases
17 emissions performance standard compliance, grid integration and valuing of
18 emerging technologies, compliance with the energy conservation and renewable
19 portfolio standards of the Energy Independence Act (“EIA”), and energy
20 conservation program development and implementation. In addition, I represent Staff
21 in various advisory and oversight roles for energy planning and conservation.

22

23 Q. Please describe your education and relevant employment experience before you
24 joined the Commission in 2009.

1 A. I hold a Bachelor of Arts degree in Business Administration from Western
2 Washington University, Bellingham. I also hold a Bachelor of Science degree in
3 Energy Engineering from the University of Washington, Seattle, where my studies
4 focused on fluid dynamics, thermodynamics, model energy code research, and
5 alternative energy. I performed research and designed projects, including testing
6 residential conservation standards in four fully-instrumented model homes, cost-
7 effectiveness of residential solar hot water heating, and design of a small wind
8 turbine system on Orcas Island.

9 From 1987 to 1991, I worked for RW Beck and Associates, an engineering
10 consulting firm in Seattle. My responsibilities included county and state waste and
11 recycling system planning, landfill development, and waste-to-energy (renewable
12 biomass) project evaluation and analysis for clients in Washington and Alaska.

13 From October 1991 through January of 2009, I worked for the Washington
14 State Department of Ecology in various capacities; as a planner, engineer, technical
15 unit supervisor, statewide technical-lead, and policy staff. My projects included
16 technical review and regulatory compliance of renewable biomass projects, such as
17 landfill gas to energy projects, variously-fueled pyrolysis plants and proposals, and
18 fluidized-bed and mass-burn waste-to-energy plants. I was also responsible for
19 technical review and regulatory assistance for coal combustion products recycling
20 and disposal options for TransAlta's Centralia power generation plant, as well as
21 combustion products disposal for Avista's Kettle Falls wood-fueled electric
22 generating plant.

23

1 Petitioner's would avoid over 97% of the facility's costs. This would be a significant
2 change from the status quo. Currently, and historically all the Maloney Line's
3 construction and maintenance costs have been allocated solely to the customers
4 actually served by it, and have not been shared by any other Schedule 24 customers.
5

6 **Q. Please summarize your analysis of the issues presented by the Petition and your**
7 **conclusions as to those issues.**

8 A. In summary, my analysis of the issues included: review of the contracts between the
9 parties; review of the applicable tariffs (specifically Tariff G, Schedules 80 and 85);
10 a visit to Maloney Ridge and the customer sites served by the Maloney Line; and,
11 my review of Mr. Ball's analysis of the economic viability of a replacement
12 distribution line. Based on this work, I conclude that the Maloney Line has
13 exceeded its useful life and should be replaced. However, I further conclude that to
14 have PSE replace the facility would be "economically unfeasible". Consequently, the
15 Maloney Line's customers should be financially responsible for any and all parts of a
16 Maloney Line replacement.² Further, the costs to replace, operate, and maintain the
17 new distribution lines should be provided pursuant to PSE's Tariff G as well as a
18 contract between PSE and Maloney Line customers.
19

20 **Q. Please briefly describe the location and nature of the Maloney Line.**

21 A. The Maloney Line was installed in 1971-1972 by PSE at the request of General
22 Telephone Company of the Northwest ("General Telephone or GTC") to serve a

² Puget Sound Energy Electric Tariff G, Schedule 80, General Rules and Provisions, Fourth Revision of Sheet No. 80-d, 9. REFUSAL OF SERVICE, states in part "[t]he Company shall not be required to provide service if to do so would be economically unfeasible."

1 microwave communications tower located in the Mr. Baker-Snoqualmie National
2 Forest just east of the town of Skykomish, in Northeast King County. It starts at
3 power "Pole 15" on Foss River Road, NE, where it goes underground for
4 approximately 8.5 miles³. The line has been operational since its installation.

5 The Maloney Line provides energy to three sites: a Burlington Northern
6 Santa Fe (BNSF) railroad switching station via a pad-mounted transformer
7 approximately 2112 feet from the last overhead pole; the original General Telephone
8 site located on Maloney Ridge; and, a newer site on Sobieski Mountain.

9 The BNSF railroad switching station is connected to the Maloney Line at a
10 relatively low elevation. The other customers connect to the Maloney Line at high
11 elevations, over 3,300 feet above sea level. From Pole 15, the Maloney Line runs
12 underground along forest service roads until it reaches the junction box where a
13 separate line splits off to serve Sobieski Mountain. From that point, the Sobieski
14 Mountain cable runs cross-country in a more direct route.

15 The underground cable installed by PSE was manufactured with an insulating
16 compound called High Molecular Weight Polyethylene and is similar in construction
17 to about 4,300 miles of underground cable installed by PSE from 1965 to 1979.⁴ The
18 Maloney Line is single-phase energized at 7.2 kV.⁵ At each of the three retail
19 customer sites there is one or more a transformers that reduce voltage from 7.2 kV to
20 240 volts.⁶

³ Petition for Declaratory Order, Page 1, Paragraph 1, and, attachment "Agreement Relating to Extension of Electrical Service" dated September 23, 1971 between Puget Sound Power and Light Company and General Telephone Company of the Northwest, Inc., page 2, section 1 "Installation".

⁴ PSE responses to Staff Data Requests 21 and 22, part a.

⁵ PSE response to Petitioners' Data Request 02, part C.

⁶ PSE response to Petitioners' Data Request 02, part D.

1 PSE has only four retail customers on the Maloney Line: Strata
2 Communications (as of 1994); Frontier Communications (the successor to General
3 Telephone); King County Radio Communication Services (as of 1994); and, BNSF
4 (as of 1988).⁷ All customers on the Maloney Line take power through PSE's
5 Schedule 24.⁸

7 III. DISCUSSION

8
9 **Q. Please describe the Maloney Line's origin?**

10 A. The Maloney Line was constructed pursuant to a contract between General
11 Telephone and Puget Sound Power and Light (Puget Sound Energy's predecessor).
12 The contract was executed in 1971. In that contract General Telephone agreed to
13 "pay all Puget's actual costs incurred in constructing the Distribution System from
14 Puget's Existing Facilities to the transformer at the Microwave site" which is located
15 on Maloney Ridge.⁹

16
17 **Q. Do you have an opinion as to why a contract was used to build the facility?**

18 A. Yes. Given the Maloney Line's remote location, high construction costs and sole
19 customer in 1971, GTC, with a light load, it is likely that PSE demanded that
20 General Telephone pay all PSE's costs to construct and maintain the distribution line
21 to Maloney Ridge. Without this arrangement it is reasonable to conclude that the line

⁷ PSE response to Petitioners' Data Request 05, Attachment A.

⁸ PSE response to Petitioners' Data Request 05, part B.

⁹ Petitioners' Petition for Declaratory Order, attachment "Agreement Relating to Extension of Electrical Service" dated September 23, 1971 between Puget Sound Power and Light Company and General Telephone Company of the Northwest, Inc., page 3, Section 5, Payment for Installation.

1 was economically unfeasible for PSE to build, and would not have been built. I base
2 my opinion on my review of the original 1971 contract, the information provided by
3 PSE in this docket, and the analysis of current economic viability in Mr. Ball's
4 testimony.¹⁰

5
6 **Q. Is the original contract between PSE and GTC still in force today?**

7 A. No. I understand from the Petitioner's pleading that the original 1971 contract
8 between PSE and GTC "is now void."¹¹ In its place, PSE and the Maloney Ridge
9 customers executed successor contracts in 1994 and 1995.¹² To my knowledge, these
10 agreements are still in force.

11
12 **Q. In your opinion, do the successor agreements contain terms that affect the
13 outcome of this dispute?**

14 A. Yes. First, I believe it important to note that the successor agreements in force today
15 contain substantially the same terms as the 1971 contract regarding economic
16 feasibility. Specifically, each successor contract contains recitals that reference
17 paragraph 13 of PSE's Tariff G, Schedule 85 ("Schedule 85") regarding economic
18 feasibility, which at that time stated:

19 "ECONOMIC FEASIBILITY – The Company shall not be required to
20 construct any distribution extension under this schedule if such extension is,
21 in the reasonable judgment of the Company, economically unfeasible.
22 Service may, however, be provided to customers on terms which require

¹⁰ PSE response to Staff Data Request 007.

¹¹ Petitioners' Petition for Declaratory Order, paragraph 25, page 11.

¹² PSE's response to Staff Data Request 05, Attachment A, Maloney Ridge Contracts.pdf. Specifically, the contracts were executed on September 20 and December 12, 1994 and March 29 and June 6, 1995, respectively.

1 payment of an amount sufficient to justify the Company's investment in
2 facilities."¹³

3
4 The current Schedule 85 does not contain this paragraph but refers to Schedule 80
5 which contains broader language. It states: "[T]he company shall not be required to
6 provide service if to do so would be economically unfeasible."¹⁴

7 In my opinion, the provisions referenced above clearly place the
8 responsibility of building a new line on PSE only if the Company finds it
9 economically feasible to do so. From my analysis of the pleadings and Mr. Ball's
10 testimony, the Maloney Line is not economically feasible. Therefore, PSE is under
11 no obligation to replace the Maloney Line at its cost.

12
13 **Q. Do you believe the parties understood the intent of the successor agreement's**
14 **references Schedule 85?**

15 **A.** Yes. The 1971 agreement and its successor agreements consistently and repeatedly
16 make reference to PSE's tariff provisions regarding the lack of obligation of PSE to
17 provide services when it is economically unfeasible to do so. While Staff did not
18 participate in the negotiations between the parties, my reading of these agreements
19 strongly suggest that the parties understood or should have understood the deal they
20 were making with PSE.

21 As noted above, the successor contracts' expressly reference Schedule 85
22 and its requirement of economic feasibility For example, the 1994 and 1995

¹³ Puget Sound Power & Light Company, Electric Tariff G, Schedule 85 Line Extensions, Fourth Revised Sheet No. 85-f, effective June 6, 1991 through April 11, 1997, shown as Exhibit No. DN-2. This tariff condition is now incorporated by reference to Schedule 80 in Schedule 85, Additional Term and Service, section 16, on Sheet 85-r.

¹⁴ Puget Sound Energy Electric Tariff G, Schedule 80, Fourth Revision of Sheet No. 80-d., section 9. Refusal of Service, last paragraph, effective August 1, 2006, shown as Exhibit No. DN-3.

1 agreements reference PSE's Schedule 85, Schedule 80, or Electric Tariff G (which
2 includes both schedules), in five of their eleven paragraphs. In fact, the first
3 paragraph of the agreements states:

4 "Scope of Agreement. This agreement governs the operations of the System
5 and recovery of the costs associated therewith. Electrical service provided
6 by Puget to Customers shall be governed by the terms and provisions of
7 Puget's Electric Tariff G."¹⁵
8

9 Tariff G and Schedules 80 and 85 are also prominently referenced in the agreement's
10 final paragraph. It states:

11 "Applicability of Other Provisions. This Agreement is subject to the General
12 Rules and Provisions (Schedule 80) of Puget's Electric Tariff G and to
13 Schedule 85 of such Tariff, as such Schedules may be revised from time to
14 time upon approval of the Washington Utilities and Transportation
15 Commission. Any conflict between this Agreement and Puget's Schedule 80
16 and 85 shall be resolved in favor of such tariff provisions."¹⁶
17

18 The specific reference to Schedule 85 in the successor agreements regarding
19 economic unfeasibility is telling. The parties to the current agreements should have
20 understood that the economic feasibility of the Maloney Line was the critical
21 determinant of PSE's decision to require GTC to pay all of the original project
22 construction costs.¹⁷ They should now understand that PSE's responsibility to build a
23 replacement line would be governed by the same tariff test – the project's economic
24 feasibility. Therefore, they should have known that if the Maloney Line needed to
25 be replaced, it would very likely still fail the economic feasibility test in PSE's tariff.
26 And, if it fails, the Maloney Line customers would have to pay for its replacement.

¹⁵ PSE response to Staff DR 05, Attachment A, Maloney Ridge Contracts.pdf.

¹⁶ *Id.*

¹⁷ The original agreement demonstrates that the Maloney Line was not economically feasible in 1971, and that it was only constructed by PSE so long as the customer was willing to pay all costs of construction and maintenance. This point was made directly in Mr. Jason Sanders' Declaration in Support of PSE's Statement of Fact and Law, page 2, paragraph 3.

1 **Q. Do you believe the Maloney Line is now or will later prove to be economically**
2 **feasible?**

3 A. No, I do not. The economic feasibility of the project has not materially changed since
4 its originally construction. I have seen no evidence to suggest that the Maloney
5 Line's economic assumptions will significantly change going forward. Mr. Ball, has
6 examined the current economic viability of the Maloney Line and its replacement.
7 His analysis clearly demonstrates that construction of a replacement line is now and
8 likely will continue to be economically unfeasible for PSE.

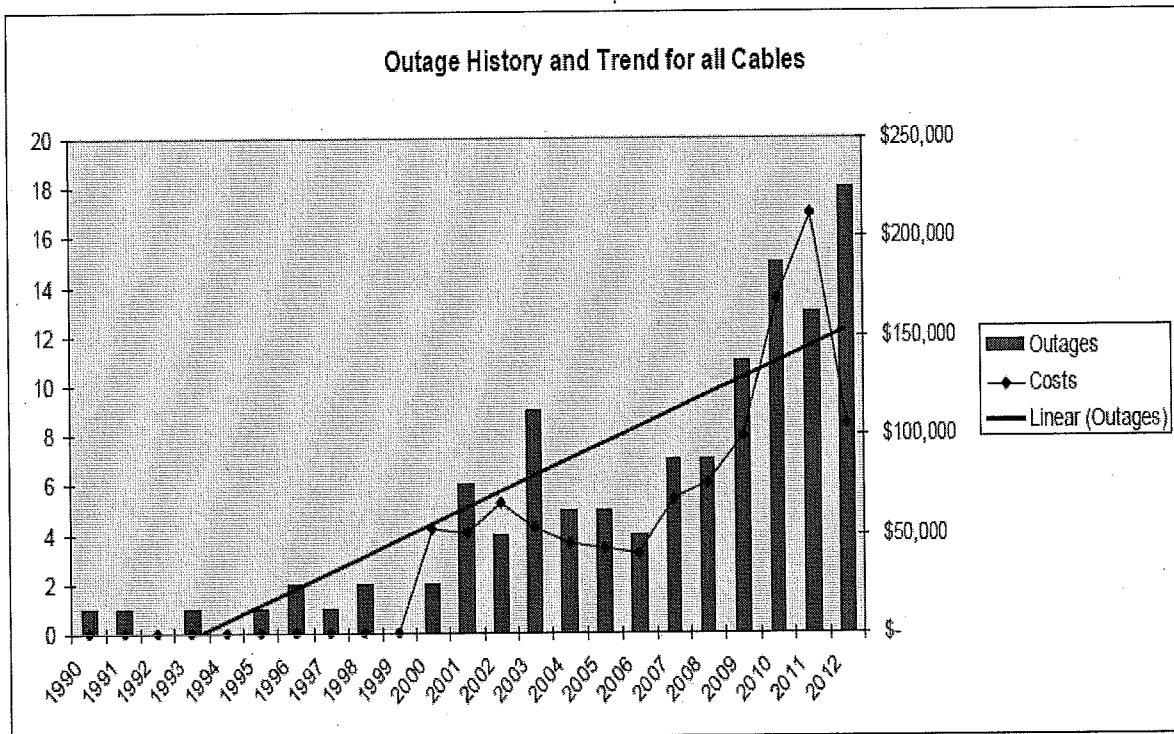
9
10 **Q. In your opinion, have the tariff provisions referenced in the successor**
11 **agreements materially changed?**

12 A. No. Neither the applicable line extension tariff, Schedule 85, nor the overarching
13 General Rules and Provisions, Schedule 80, have materially changed since the
14 execution of the successor agreements. It remains the obligation of the customers to
15 pay for the costs of installing, maintaining, or replacing the Maloney Line so long as
16 the project remains economically unfeasible.

17
18 **Q. The Petitioners allege that the Maloney Line is unreliable and that PSE should**
19 **be required to ensure that the facility provides safe and reliable service. Do you**
20 **agree?**

21 A. First, I agree that the Maloney Line has experienced increasing outages over the last
22 twenty years, and that Petitioners have incurred significant cost repairing the project,
23 see Figure 1. However, the facility remains functional today and it may be for a few
24 more years before its condition would mandate replacement. Based on the applicable

1 tariffs, I do not agree that PSE should be financially responsible for improving
2 reliability through replacing the Maloney Line or any other means.



3
4 Figure 1¹⁸

5 As I stated above, the successor agreements explicitly refer to Tariff
6 Schedules 80 and 85, which govern the responsibilities of the parties including the
7 upgrading or replacement facilities that maintain or improve reliability as requested
8 by customers.

9 The applicable provisions of Schedule 80 place the cost burden of requested
10 system improvements regarding reliability on the requestor – in this case, the
11 Petitioners.

12 The relevant provisions of Schedule 80 state:

¹⁸ PSE's response to Staff Data Request 33, Attachment A.

1 “Where a change in existing Electric Facilities is requested or required by a
2 Requesting Entity, the Requesting Entity shall pay the Company for the costs
3 due to such change, including the cost of additional facilities that are
4 necessary, in the sole judgment of the Company, to maintain the existing
5 level of reliability, as well as the cost to enhance reliability beyond the
6 existing level of reliability if the Project requested by the Requesting Entity is
7 intended to enhance reliability for the Requesting Entity. Where a
8 Requesting Entity requests a Project that replaces existing Electrical
9 Facilities, the requesting Entity shall pay the Company for all of its Costs,
10 including, but not limited to , the cost of all Electrical Facilities removed or
11 no longer of use, due to such Project.[Emphasis mine]”¹⁹
12

13 Pursuant to this Schedule’s definitions, the Petitioners are considered a “Requesting
14 Entity” who, through their petition in the docket, are requesting changes to the
15 existing distribution line to ”enhance reliability beyond the existing level of
16 reliability.” Under Schedule 80, the cost of requested improvements or, as in this
17 case, facility replacement fall squarely on the requesting entity, not on the more
18 general group of Schedule 24 customers. In summary, I conclude that Schedule 80
19 places the financial responsibility for any replacement of the Maloney Line on the
20 requesting customers of that line - the Petitioners in this docket.
21

22 **Q. In summary, what did Mr. Ball examine and conclude?**

23 A. The expected level of revenue from the Maloney Ridge customer’s over the next 35
24 years is \$296,809 and the expected level of costs of replacing the Maloney Line
25 using the same time period is \$10,071,832. Mr. Ball also examined the economic
26 viability of dramatically increased customer use as well as various options for
27 improving service on the Maloney Line. None of these variations of economic
28 assumptions Mr. Ball examined showed that the revenues on the line will cover any

¹⁹ PSE Tariff G, Schedule 80, Sheet No. 80-nn, Construction of Electric Facilities, section 34, b. Conditions, ii.

1 more than 11% the costs over the 35 years for even a less expensive partial
2 replacement of the Maloney Line. This is clear evidence that the Maloney Line
3 replacement is economically unfeasible.
4

5 **Q. Are the services provided by the Maloney Line customers important and even**
6 **essential public services to the area served?**

7 A. Yes, the services provided by the Maloney Line's customers are essential services,
8 and support emergency communications, law enforcement, and 911 services.²⁰
9

10 **Q. Are there any provisions in the contract or applicable tariffs that mention these**
11 **types of essential public services?**

12 A. There are no provisions in the successor contracts regarding essential public services.
13 However, I note that Schedule 80, Sheet 80-g, provides a preference to restoring
14 power during outages to "facilities which are essential to the public welfare."
15

16 **Q. Does the preference for restoration of facilities essential to public service in**
17 **Schedule 80 specify who must pay for installation or replacement of distribution**
18 **lines?**

19 A. No. There is no such reference in that specific section of Schedule 80.
20

²⁰ Petition for Declaratory Order paragraphs 16-24.

1 **Q. What meaning do you take from that omission?**

2 A. I interpret the omission to mean that the preference for restoration of services does
3 not have any bearing on the merits of this proceeding regarding who is responsible
4 for funding the maintenance or replacement of any part of the Maloney Line.
5

6 **Q. What is the basis for the Petitioners' request that PSE spread the cost of a
7 replacement cable to the customers across all PSE customers?**

8 A. In the Petition for Declaratory order they state that, "PSE's relevant rules and
9 policies do not allow it to require contributions-in-aid-of-construction from multiple
10 customers for the capital costs of replacing an existing line that is part of its
11 distribution system serving multiple customers."²¹ Further, the Petitioners state that
12 they believe that "PSE's refuses to replace the Maloney Ridge Line unless
13 Petitioners and other customers on the line pay for the entire cost of replacing the
14 line" as "unduly discriminatory and not supported by the Service Agreements, PSE
15 Electric Tariff G, or Washington Utility Law."²²
16

17 **Q. Do you agree that "PSE's relevant rules and policies do not allow it to require
18 contributions-in-aid-of-construction from multiple customers for the capital
19 costs of replacing an existing line that is part of its distribution system serving
20 multiple customers."?**

21 A. No. The Petitioners' argument ignores the implications of the fact that the Maloney
22 Line has been and remains an economically unfeasible line extension, as shown by

²¹ Petition for Declaratory Order, paragraph 29, page 12.

²² Petition for Declaratory Order, paragraph 32, pages 13-14.

1 Mr. Ball's testimony. Under such conditions, according to PSE's Electric Tariff G,
2 Schedule 80, PSE is not required to provide service if to do so would be
3 economically unfeasible.²³ This tariff provision provides an exception to the usual
4 treatment of spreading the cost among distribution lines serving groups of customers
5 where such a line is economically feasible. However, this provision does not
6 prohibit the company from establishing contracts for uneconomic service in cases
7 such as the Maloney Line. And this directly contradicts the Petitioners' statement
8 that PSE is not allowed to impose costs of a line extension replacement directly on
9 those served by that line.

10 Because the current contract does not mention the possible future need for
11 replacement of the distribution line, does not mean that as conditions change and
12 infrastructure wears out, that it is unreasonable to expect that one day it would need
13 replacement. Similarly, the lack of mention of replacement in the successor
14 agreements does not mean that the costs of replacement necessarily must be
15 recovered in a manner different than agreed to in the original 1971 contract.

16
17 **Q. How does the decreasing reliability of the Maloney Line in recent years**
18 **compare to expectations for currently available underground lines?**

19 A. The Maloney Line has been in service since at least 1972, approximately 42 years.
20 PSE has replaced about 56% of the underground lines with similar construction as
21 the Maloney Line due to deterioration.²⁴ The industry expectations for current

²³ PSE Electric Tariff G, Schedule 80, Fourth Revision of Sheet N0. 80-d, section 9.

²⁴ PSE response to Staff Data Request 22.

1 technology replacement underground power lines is that they will last between 2 and
2 2.5 times as long as the HMWPE cable used in the Maloney Line.²⁵

3
4 **Q. Do you agree with the Petitioners argument that the proposed rate treatment by**
5 **PSE is unduly discriminatory?**

6 A. No. The prohibition for discriminatory rates is found at RCW 80.28.100 and states
7 that rates will be applied evenly between customers for those “under the same or
8 substantially similar circumstances or conditions.” The facility’s history, cost,
9 number of customers and financial viability makes it unique – there are no
10 “substantially similar circumstances or conditions” that stand up to reasonable
11 comparison.²⁶ Because the Maloney Line’s circumstances are unique, the terms of
12 its successor contracts are not unduly discriminatory and does not impose an
13 unacceptable burden on its customers. Given its lack of economic viability, it would
14 be appropriate to exclude its cost from the costs associated with the rest of the
15 distribution system operated by PSE.

16
17 **Q. What is your response to the Petitioners’ pointing to Schedule 80, Sheet 85-k**
18 **regarding PSE’s replacement of line extensions?²⁷**

19 A. This section of the PSE Electric Tariff G spells out who owns parts of the
20 distribution line extension and does not indicate who will be responsible for the cost
21 of any line extension services. Consequently, this section has no bearing as to PSE’s

²⁵ PSE’s response to Staff Data Request 23.

²⁶ There is only one other customer on PSE’s system that has a contractual arrangement with provisions that may be similar to that executed by the Maloney Line’s customers. See PSE response to Staff Data Request 15.

²⁷ Petitioners’ Petition for Declaratory Order, paragraph 40, page 16.

1 responsibility to build a new line for the Maloney Line's customers, let alone who is
2 responsible for paying for any such replacement.

3
4 **Q. What is your recommendation as to the replacement of the Maloney Line?**

5 A. I recommend that the Commission find the Maloney Line economically unfeasible. I
6 further recommend that, consistent with the applicable tariffs, the Commission
7 conclude that any replacement of the Maloney Line be paid for by those being served
8 by it and not PSE's other customers.

9
10 **Q. Do you recommend that the Commission order the company to provide certain
11 modifications to the successor contract between the parties?**

12 A. Yes. I recommend that the Commission order the parties to amend the successor
13 contract to incorporate a condition stating that "any costs for replacement of any or
14 all sections of the Maloney Ridge distribution line shall be paid for by the customers
15 served on that line, so long as the Maloney Line remains economically unfeasible."

16
17 **Q. Does this conclude your testimony?**

18 A. Yes, it does.

19