BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

CITY OF SEATAC, Complainant and Petitioner, v. PUGET SOUND ENERGY, INC., Respondent.	NO. UE-010891 NO. UE-011027
CITY OF CLYDE HILL, AN OPTIONAL MUNICIPAL CODE CITY, Complainant and Petitioner, v. PUGET SOUND ENERGY, INC., Respondent.	AFFIDAVIT OF LYNN F. LOGEN

STATE OF WASHINGTON)
) ss.
COUNTY OF KING)

LYNN F. LOGEN being first duly sworn upon oath, states as follows:

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1. I am the Tariff Consultant for Puget Sound Energy, Inc. ("PSE"). My job duties include overseeing implementation and application of PSE's tariffs, including Schedules 70 and 71 of Electric Tariff G, which are at issue in this proceeding.

2. I have been PSE's Tariff Consultant since 1997. Prior to that, I held the position of Manager, Rates and Tariffs for seven years. In that position, I had the same job duties as I currently have as Tariff Consultant. For approximately 15 years prior to that, I held various management positions for Puget Power in rates and regulation, billing and customer service departments, which required extensive knowledge of PSE's tariffs. My training and responsibilities in my current position include understanding PSE's electrical system, including system requirements and costs.

3. In order to avoid any delays to the street improvements on the City of SeaTac's 170th Street Project, PSE and SeaTac negotiated and entered into an interim agreement with reservations of rights under which PSE's overhead facilities will be converted to underground, with the ultimate terms and conditions of that undergrounding to depend on resolution through litigation of issues raised in this proceeding and in Docket No. UE-010778. Based on the interim agreement, PSE has begun ordering and delivering materials to the project, and SeaTac's contractors have begun work, without any delay to the City's project.

4. There are critical differences between a three-phase (600 amp) feeder system and a single-phase (200 amp) system when converting an overhead electric system to underground.

5. A "feeder" circuit on PSE's distribution system is the backbone directly from the substation. A feeder is a three-phase, heavy wire, high capacity circuit protected by the substation circuit breaker. A feeder is never single-phase. By contrast, a regular distribution circuit consists of lighter, lower capacity conductors, that is separated from the feeder circuit by fuses.

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6. Conversion of an above-ground three-phase feeder system to an underground system is fundamentally different than conversion of a single-phase system to an underground system. Undergrounding of a three-phase feeder system such as the one in Clyde Hill or SeaTac requires construction of a parallel single-phase underground system to serve individual, single-phase customers that were formerly served by one phase of the overhead, three-phase feeder system prior to the conversion. This is because an overhead feeder system contains conductors on each pole that can serve as points at which a regular distribution circuit can be connected through a fuse or fuses to the three-phase feeder, while an underground feeder system is encased in heavy insulation and does not contain open conductors that provide access to the feeder.

7. Stipulated Exhibit No. H, which is PSE's Standard 6750.5000, Underground Distribution System Design, demonstrates some of the above issues. Figure 1 on page 2 shows an electrical diagram of a single-phase system running parallel to a three-phase feeder. The design criteria regarding "Switch Design" on page 3 further describes the purpose of the parallel system. The design criteria regarding "200-Amp Taps" on page 3 describes the requirement that all 200-amp (single-phase) taps from a feeder shall be fused. A true and correct copy of Stipulated Exhibit No. H is attached hereto for the Commission's convenience.

8. Developed commercial areas in PSE's service territory contain electrical systems that are all three-phase. By contrast, PSE installs single-phase systems in areas that are purely residential, and does not install three-phase systems in a residential area unless load exists in the area that needs such a system. In residential areas, any three-phase system is generally limited to feeder backbone to carry load that the single-phase systems tap off of, and/or to carry load from one commercial area to another through the residential area.

9. Although the houses that tap off of the facilities to be converted to underground along South 170th Street in SeaTac

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and along 92nd Avenue N.E. in Clyde Hill are residential dwellings, with single-phase load, the three-phase feeder that they tap off of is part of PSE's distribution backbone that carries three-phase load to these areas, as well as to other areas in PSE's system that require three-phase service. Thus, from PSE's perspective, the electric system in these areas is not "used exclusively for residential purposes" within the meaning of Schedule 70, Section 2.

10. The Declaration of Tom Gut dated August 10, 2001, at paragraph 5, lines 9-12, could be misleading if not clarified. Mr. Gut is correct that the South 170th Street plans call for single-phase services to individual dwellings. His reading of the plans is consistent with my descriptions, above, of how a parallel, single-phase system will need to be installed when the existing overhead is converted to underground. However, his declaration speaks in terms of "an isolated three-phase feeder circuit" and a "secondary cable system" providing services to individual dwellings. It is the parallel, single-phase system that will be added and isolated from the three-phase system to provide underground single-phase service with appropriate fusing. The three-phase system will continue to connect to the rest of PSE's distribution system, as it does now. Using the word "secondary" to describe the single-phase system could be confusing, because the term "secondary" typically describes the voltage of the system, not the fact that the system is the second (and parallel) system to the three-phase system.

11. PSE has estimated that the total cost for the SeaTac Conversion will be $454,870.00. If the existing overhead system were a single-phase rather than a three-phase system, PSE estimates that the cost of the conversion would be $222,632.39. Similarly, PSE has estimated that the total cost for converting the existing overhead facilities along 92nd Ave. N.E. in Clyde Hill will be $382,521. If the existing overhead system along 92nd Avenue N.E. were a single-phase system, PSE estimates that the cost of that conversion would be $194,107.37.

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12. If SeaTac is permitted to pay for the SeaTac Conversion under Schedule 70 rather than Schedule 71, it will pay only $20.33 per centerline foot of all public thoroughfares within the Conversion Area utilizing surface-mounted transformers. PSE estimates this amount at $20.33 x 1,700 feet, or $34,561.00. If Clyde Hill is permitted to pay for the conversion of 92nd Ave. N.E. under Schedule 70 rather than Schedule 71, it will pay only $20.33 per centerline foot of all public thoroughfares within the Conversion Area utilizing surface-mounted transformers. PSE estimates this amount for the 92nd Ave. N.E. section of the Clyde Hill Project at $20.33 x 2,912.5 feet, or $59,211.13.

13. During the eleven years that I have been responsible for PSE's tariff interpretation and application, I have consistently interpreted Schedule 70 to apply only to conversions of single-phase systems to underground, and I have consistently interpreted Schedule 71 to apply to conversions of three-phase systems to underground. I am not aware of any cases in which three-phase systems have been converted to underground under Schedule 70. Thus, the suggestion by SeaTac and Clyde Hill that they are being asked to pay more than other customers in their position for the underground conversions at issue, and thereby being discriminated against, is incorrect. PSE is requiring SeaTac and Clyde Hill to pay exactly what any other customer would be required to pay who is seeking conversion of a three-phase overhead system to underground.

14. A "Conversion Area" under Schedules 70 and 71 is often defined primarily by reference to a particular street, since PSE's facilities generally run along a street. Such a Conversion Area includes the dwellings on each side of the street as well as the street itself, but it may not include side streets or dwellings on those side streets if those facilities are not being converted to underground. In the case of the SeaTac Conversion, only the facilities along South

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170th Street are being converted to underground. Conversion of side streets is limited to conversion up to the first pole on each side street.

15. For conversion projects containing a single-phase system in a portion of the project area and a three-phase system in another portion, PSE converts the single-phase portion of the system to underground under Schedule 70 and the three-phase portion of the system to underground under Schedule 71. Thus, an applicant obtains the benefit of Schedule 70 for portions of a project that are single phase, while PSE preserves the distinctions in Schedule 70 and 71 that permit PSE to better recover the additional costs involved in conversions of three-phase feeder to underground. PSE has applied Schedules 70 and 71 to the Clyde Hill LID in this manner, as set forth in Stipuated Facts Nos. 9 – 12 and Stipulated Exhibit No. D. A true and correct copy of Stipulated Exhibit No. D is attached hereto. The significance of the highlighting is described in Stipulated Facts Nos. 10-12. I drew the highlighting on Exhibit No. D.

16. PSE's cost estimate to Clyde Hill in June 2000 was broken down consistent with PSE's interpretation of the tariff, as explained in Stipulated Fact No. 16 and shown in Stipulated Exhibit E. A true and correct copy of Stipulated Exhibit E is attached hereto.

17. SeaTac's Motion at page 7, lines 16 and 17, states that "PSE does not even offer three-phase service to residential customers except under certain circumstances and at a special rate." I believe this statement is misleading. One could just as well say that PSE does not even offer *single-phase* service to residential customers except under certain circumstances and at a special rate. Three-phase service is available to any residential customer upon request, subject to charges associated with three-phase service, as is evident from reviewing Schedule 7 cited in SeaTac's Motion.

18. I have personally inspected 92nd Avenue N.E. in Clyde Hill and the surrounding area. 92nd Avenue N.E. is

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significantly wider than the side streets that branch off of it. Clyde Hill has two main through streets, 92nd Avenue N.E. and N.E. 24th Street, as evidenced on the Thomas Bros. Maps, a copy of which is attached hereto as Exhibit I, and as shown in Stipulated Exhibit No. G submitted by Clyde Hill, a copy of which is also attached hereto. 92nd Avenue N.E. connects to N.E. 8th Street, which is a primary point of entry into Clyde Hill from Bellevue's downtown commercial areas. It continues all the way through Clyde Hill to approximately N.E. 34th Street and the entrance to State Highway 520. This contrasts with the other public side streets in the Clyde Hill LID boundary, where PSE has agreed that Schedule 70 applies, as shown on Exhibit D, pink highlighting.

19. During the eleven years that I have been responsible for PSE's tariff interpretation and application, I have consistently interpreted Schedule 70 and Schedule 71 to apply only to conversions of PSE's facilities located in rights of way, and not on private property under a PSE easement or by prescriptive right. This interpretation of Schedules 70 and 71 was passed on to me by my predecessor, Bill Baker, under whom I worked for six years prior to his retirement. Where PSE's existing overhead facilities are located on private property under a PSE easement or by prescriptive right, PSE generally has been willing to convert the facilities to underground, but requires the applicant to pay 100% of the costs of the conversion.

20. Attached hereto as Exhibit J is a sample of PSE's form Schedule 70 Underground Conversion Agreement. This particular sample was filled in for the Schedule 70 portion of the Clyde Hill project, but has not been executed.

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Lynn F. Logen

SUBSCRIBED and SWORN to before me this ____ day of _____ 2001 by LYNN F. LOGEN

Print Name:
Notary Public in and for the State of Washington.
My commission expires:_____

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