

1 **Q. Mr. Young, are you the same individual who submitted testimony on September 23,**
2 **2004 under Exhibit No. __ (JGY-1T) and Exhibit No. __ (JGY-2T).**

3 A. Yes. I am.

4 **Q. Have you reviewed the testimony of Staff, Public Council and Intervenors filed**
5 **September 23, 2004 in this proceeding?**

6 A. I have limited my review to those portions of the testimony filed on September 23 that
7 relate to gas rate spread and rate design.

8 **Q. What are your observations following that review?**

9 A. As one might expect, the witnesses representing customers which have their gas
10 transported by PSE under Schedule 57 believe that Schedule 57 rates are excessive and
11 that there should be no increase in the level of Schedule 57 volumetric rates. I would also
12 note that Staff Witness Joelle Steward acknowledged that PSE's proposed increase for
13 Schedule 57 was too high, "since it is already considerably above parity." Exhibit __
14 (JRS-1T), p. 36, line 15-16. Although I disagree with her conclusion that Schedule 57
15 should still receive an increase, her testimony is supportive of the fundamental point
16 made in my testimony filed on September 23, namely that Schedule 57 is currently
17 subsidizing all other rate schedules.

18 **Q. Did Public Council witness Jim Lazar directly address the issue of Schedule 57.**

19 A. His testimony is contradictory, and he never explains its contradictions.

20 **Q. What do you mean by that?**

21 A. Although he quarrels with PSE's cost of service study, his testimony recognizes that the
22 "parity ratio" for Schedule 57 is currently far higher than that of any other schedule,
23 regardless of whether PSE's cost of service study is used or if what he describes as the
24 "Commission-Basis" cost of service methodology is used. In Exhibit No. __ (JL-1T) at
25 page 36 he summarizes the parity ratios as shown in the "Company Study" and the
26 "Revised Study" as follows. (I understand the "Revised Study" to be what he describes
as the "Commission-Basis" study.)

Table 13: Comparison of Company and Commission-Basis Gas Cost of Service Study (Including Gas Costs)

Class	Company Study	Revised Study
Residential	98%	99%
C&I Small	107%	106%
C&I Large	109%	103%
Interruptible 85	98%	96%
Interruptible 86	102%	95%
Interruptible 87	98%	96%
Transportation (Schedule 57)	154%¹	143%²

See also, Exhibit No. ___ (JL-7). As can be seen from his table, he acknowledges that regardless of the adjustments he contends should be made in PSE's cost of service study, Schedule 57 rates are grossly disproportionate to the rates charged to other major classes. He argues at Exhibit No. ___ (JL-1T), p. 2, lines 14-16 that "The rate changes ordered in this proceeding should be relatively uniform between customer classes, and relatively uniform among the various rate elements within the residential class," and at p. 5, lines 12-13 that "I recommend that a more uniform assignment of the increase be imposed on all customer classes, so that all customers bear a fair share of the increase." Although his "Revised Study," if accepted by the Commission, might support that conclusion as to other classes, there is no basis for that conclusion as to Schedule 57. He argues at p. 35, line 22 through p. 36, line 2 that "both the Company study and the revised study place most classes within a 'range of reasonableness' that dictates that a uniform percentage

¹ Note that Mr. Lazar's table does not conform to his exhibit, JL-7. In JL-7 he shows the "unadjusted parity ratio" for Schedule 57 in the "company study" as 1.55 and the "adjusted parity ratio" as 1.57.

² Again, Mr. Lazar's table does not conform to his exhibit, JL-7. In JL-7 he shows the "unadjusted parity ratio" for Schedule 57 in the "revised study" as 1.44 and the "adjusted parity ratio" as 1.46. I cannot find that Mr. Lazar ever explains this discrepancy.

1 increase be applied to all major customer classes.³ Under Mr. Lazar's "Revised Study"
2 the parity ratio of Schedule 57 is between 35% and 51% higher than the parity ratio of
3 any of the other major classes. He never explains why Schedule 57 should be subject to
4 any increase, much less an increase that is uniform with the other major classes, given
5 that current disparity.

6 **Q. Mr. Lazar quarrels with PSE's use of a single "peak day" to allocate costs to peak
7 demand. He contends that instead, the average of the five highest days should be
8 used. What is your experience with the design of energy delivery systems to meet
9 peak demand?**

10 A. In designing facilities to provide energy at the coldest periods, a line always needs to be
11 drawn. But, it is important to keep in mind that if a system is sized to meet less than the
12 actual peak demand, it will not be adequate to keep people warm and provide their other
13 energy needs at the actual peak. The average of the five highest days will be less than the
14 peak day. Indeed, over the period of a day, the average for that day will be less than the
15 peak hour of demand. Energy delivered at 10 p.m. is not able to provide heat at 6 a.m.,
16 when the need for heating likely will be the greatest. Historically, Seattle Steam has
17 found that the peak hour load is approximately 35% higher than the average hour of a
18 peak day. Accordingly, to meet the peak demand, we must size our facilities based on the
19 design peak hour usage and not that of peak day usage, much less an average of four or
20 five peak days. Therefore, the cost of facilities to serve customers is a function not of the
21 peak day, but instead is a function of the peak hour.

22 **Q. What is the effect of using an average of a number of peak days instead of using a
23 single design peak day?**

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25 _____
26 ³ Mr. Lazar claims that "Rentals," which are currently at 53% of parity under either study, should be exempt from
this proceeding. Exhibit No. ___ (JL-1T), p. 38, line 24-25. Exhibit No. ___(JAH-8), page 1 (revised 7/19/04) shows
that Special Contracts and CNG are comparatively minor parts of the PSE rate base. As a result, I assume that when
Mr. Lazar speaks of "major classes" he is excluding Special Contracts and CNG.

1 A. The result would be a further understating of the costs to serve certain customer classes,
2 since the use of the peak day to allocate costs is already less than the design realities,
3 which are based on the peak hour unless the expectation is that at the true peak,
4 customers will be cold and unable to meet their other energy needs.

5 **Q. You testified that is your experience with Seattle Steam. In your opinion is the
6 situation similar in the natural gas distribution business?**

7 A. Yes, both steam and natural gas are gases and their flow through pipe is governed by
8 similar physical principles. In both cases, energy must be delivered “on demand” because
9 customers generally cannot “save up” energy for the peak period.

10 **Q. What are your conclusions regarding the selection of a factor to be used in
11 allocating between customers the cost of common facilities that cannot be directly
12 assigned?**

13 A. As I have noted above the size of the underground pipe is based on the expected peak
14 flow. However, since the peak hour flow data is usually available for only a limited
15 number of large end-users, the system design peak day should be used, even though it
16 results in an understatement of the actual cost incurred to serve highly temperature
17 sensitive customers such as residential space heating. To use anything else than the
18 design peak day would deviate further from the realities of cost incurrence.

19 **Q. Does the demand for steam fluctuate with the changes in temperature?**

20 A. Yes, as with natural gas, while there is a base load steam demand 12 months a year, when
21 the outdoor temperature declines the demand for steam increases correspondingly.

22 **Q. What is the fallacy in using the average of the five coldest days in the past three
23 years to allocate costs?**

24 A. The use of an average of five days ignores the fact that the system was designed and
25 constructed to deliver adequate volumes of natural gas during the peak hour of the coldest
26 day expected. The use of any average incorrectly understates the facts of the actual
system.

1 **Q. Staff witness James Russell argues at Exhibit __ (JMR-1T), p. 33-35, that focusing**
2 **on the peak day distorts the difference in the cost to serve residential users and the**
3 **cost to serve other users, particularly interruptible users, because interruptible**
4 **users are able to use the system most days, and the cost of installing larger pipes for**
5 **peak days is a relatively small part of the cost of installing the system in the first**
6 **place. Do you agree with his analysis?**

7 A. No. I emphatically do not.

8 **Q. Would you explain why not.**

9 A. Mr. Russell is looking at the differential cost of a two-inch pipe versus a one-inch pipe,
10 which is not the applicable comparison when allocating costs between interruptible and
11 non-interruptible customers. (It may be the applicable comparison when allocating costs
12 between some firm customer classes, such as commercial users, with different peaking
13 characteristics than the residential classes. Demand by residential classes in the peak
14 period drives the company's peak demand.) As I said in my testimony filed on
15 September 23, Seattle Steam's plants are at the far north end of the PSE main distribution
16 network extending to Seattle from Northwest Pipeline's South Seattle meter station
17 located southeast of Renton. Seattle Steam receives its natural gas from a twelve-inch
18 supply main. PSE's distribution system, which is made up of mostly two and four-inch
19 pipes, also receives gas from that supply main. The supply main that Seattle Steam and
20 the distribution system receive gas from would be extremely expensive to expand or
21 replace, and on the peak day, that supply main is unable to meet the demand of both
22 PSE's non-interruptible and its interruptible customers. Because Schedule 57 customers
23 can be shut out of the PSE system entirely during peak periods, PSE is not required to
24 expand or replace its supply mains, which would be extremely expensive, and it is able to
25 receive revenue from its large diameter supply mains during periods when but for the
26 transportation customers, the capacity of those supply mains would go underutilized.

Q. Does that complete your cross-answering testimony?

1 A. Yes, it does.

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