

**BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION,)	
)	
Complainant,)	
)	
v.)	DOCKETS UE-170033 and UG-170034 (Consolidated)
)	
PUGET SOUND ENERGY,)	
)	
Respondent.)	
<hr/>)	

**RESPONSE TESTIMONY OF BRIAN C. COLLINS
ON BEHALF OF
THE NORTHWEST INDUSTRIAL GAS USERS**

June 30, 2017

TABLE OF CONTENTS

	<u>Page</u>
Cost of Service – P&A Demand Method.....	6
Accurate Price Signals	14
Revenue Allocation.....	18
Exhibit No. BCC-2: Qualifications of Brian C. Collins	
Exhibit No. BCC-3: Proposed Class Cost of Service	
Exhibit No. BCC-4: Proposed Class Margin Revenue Allocation	

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 **A.** Brian C. Collins. My business address is 16690 Swingley Ridge Road, Suite 140,
3 Chesterfield, MO 63017.

4 **Q. WHAT IS YOUR OCCUPATION?**

5 **A.** I am a consultant in the field of public utility regulation and a Principal of Brubaker &
6 Associates, Inc., energy, economic and regulatory consultants.

7 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND**
8 **EXPERIENCE.**

9 **A.** These are set forth in Exhibit No. BCC-2.

10 **Q. ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?**

11 **A.** I am appearing on behalf of the Northwest Industrial Gas Users (“NWIGU”).

12 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

13 **A.** I will respond to Puget Sound Energy’s (“PSE” or the “Company”) testimony with
14 respect to its natural gas class cost of service and class margin allocation.
15 Specifically, the purpose of my testimony is as follows:

- 16 1. Outline the reasons why the Company has inaccurately allocated demand
17 classified costs related to distribution mains and associated regulating equipment.
- 18 2. Explain why the Coincident Demand method, also called the peak responsibility
19 method, which allocates capacity related cost based on the demands of the various
20 classes of service at the time of the system peak, more accurately reflects cost
21 causation, and as a result, produces better price signals and encourages customers
22 to make economic consumption decisions. The American Gas Association’s *Gas*
23 *Rate Fundamentals, Fourth Edition*, refers to this method as the CP method.
- 24 3. Address the role of least-cost planning in the preferred allocation methodology.
25 The Washington Utilities and Transportation Commission (“WUTC”) invests
26 considerable resources in ensuring that natural gas local distribution companies
27 (“LDCs”) make least cost investments through the preparation and review of
28 integrated resource plans. The Company plans its distribution main system to
29 meet the peak day demand of its customers. Thus, peak day demand best reflects
30 cost causation on the Company’s system. When ratemaking ignores cost causation

1 by allocating a significant portion of distribution main cost on a volumetric basis,
2 ratemaking undermines least cost planning.

3 **Q. WHAT IS YOUR ULTIMATE RECOMMENDATION WITH RESPECT TO**
4 **CLASS MARGIN REVENUE ALLOCATION?**

5 **A.** The Company proposes to increase the gas margin revenue requirement by
6 \$22.8 million, or 5.3%. In light of the Company's proposal to allocate distribution
7 main costs and regulating equipment using the flawed Peak & Average ("P&A")
8 method, I recommend that any margin revenue increase approved by the WUTC be
9 spread to the Company's rate classes based on the results of my proposed class cost of
10 service study using the Coincident Demand method for allocating demand related
11 costs. I propose to move those classes receiving decreases under my proposed cost of
12 service study to 25% of their calculated cost of service.

13 My silence on other aspects of the Company's filing should not be construed as
14 an endorsement or agreement with the Company's position.

15 **Q. HAVE YOU BASED YOUR RATE SPREAD ON THE COMPANY'S**
16 **REQUESTED MARGIN REVENUE REQUIREMENT?**

17 **A.** Yes. To the extent the WUTC accepts adjustments to the Company's proposed
18 revenue requirement, the rate spread would be adjusted accordingly. Bradley Mullins
19 is addressing adjustments to the Company's revenue requirement on behalf of
20 NWIGU. Further adjustments to the revenue requirement will be proposed by other
21 parties.

22 **Q. HAVE YOU REVIEWED THE COMPANY'S PROPOSED GAS COST OF**
23 **SERVICE STUDY?**

24 **A.** Yes.

1 **Q. HOW DOES THE COMPANY ALLOCATE THE COST OF DISTRIBUTION**
2 **MAINS AND ASSOCIATED REGULATING EQUIPMENT TO CLASSES IN**
3 **ITS CLASS COST OF SERVICE STUDY?**

4 **A.** The Company uses the P&A cost allocation method to allocate these costs to classes.

5 **Q. DO YOU AGREE WITH THE USE OF THE P&A METHOD FOR**
6 **ALLOCATING THE COSTS OF DISTRIBUTION MAINS AND**
7 **REGULATING EQUIPMENT TO CLASSES?**

8 **A.** No. The P&A cost allocation method does not best reflect class cost of service and
9 double counts the “average” component of the P&A allocator used to allocate these
10 costs to classes. As a result of this double counting, large high load factor customers
11 are over-allocated the costs of distribution mains and regulating equipment.

12 **Q. PLEASE EXPLAIN WHY THE COINCIDENT DEMAND METHOD MORE**
13 **ACCURATELY REFLECTS COST CAUSATION THAN THE COMPANY’S**
14 **PROPOSED P&A METHOD?**

15 **A.** The Company designs its distribution mains and related regulating equipment to meet
16 the firm coincident demands of the Company’s rate classes on the system peak day.
17 The Company also designs its system of distribution mains and regulating equipment
18 in such a way that all customers are connected to the system. The Company does not
19 design its system to meet the total annual volumes, or average demands, of its rate
20 classes. Only when the distribution main system is designed to meet the peak day
21 demand of its classes is the Company able to deliver gas each and every day of the
22 year to meet its customers’ demands. Thus, the Company incurs the costs of these
23 facilities to meet class coincident demands and to connect all customers to the
24 distribution main system. Allocating the costs of these facilities on a coincident
25 demand basis reflects how these costs are incurred and as a result, more accurately
26 reflects cost causation than does the P&A method, which partially allocates these costs
27 on a volumetric, or average demand, basis.

1 **Q. PLEASE SUMMARIZE YOUR FINDINGS REGARDING PSE’S CLASS COST**
2 **OF SERVICE STUDY.**

3 **A.** My findings are summarized as follows:

- 4 1. The cost of service study proposed by the Company is flawed because it allocates
5 the capacity related cost of distribution mains and regulating equipment (both rate
6 base and expenses) to classes in part using a volumetric allocation factor.
7 Specifically, the Company used the P&A method of cost allocation for distribution
8 mains and regulating equipment. The P&A method does not accurately reflect
9 cost causation because the capacity of the natural gas system is designed to meet
10 firm class coincident demands and not annual class volumes, or class average
11 demands.
- 12 2. A major problem with the P&A allocation is the fact that it double counts the
13 “average” component of demand. Thus, total usage is counted twice in the
14 allocation of demand costs, once in the peak allocation and again in the average
15 demand allocation. The impact of using the P&A method to allocate distribution
16 costs is the over-allocation of capacity costs to high load factor customers.

17 **Q. PLEASE SUMMARIZE YOUR CONCLUSIONS WITH RESPECT TO THE**
18 **DEVELOPMENT OF AN ACCURATE ALLOCATION OF THE COSTS OF**
19 **DISTRIBUTION MAINS AND RELATED REGULATING EQUIPMENT.**

20 **A.** My conclusions are summarized as follows:

- 21 1. The Company’s proposal to allocate distribution main and regulating equipment
22 costs fails to meet the cost of service principle of cost causation. The P&A
23 method is inappropriate for ratemaking in this proceeding because this method
24 does not appropriately reflect how the capacity related costs associated with
25 distribution mains and regulating equipment, including both rate base and
26 expenses, are incurred by the Company.
- 27 2. The Company’s distribution mains and regulating equipment are designed to meet
28 customers’ contribution to the system peak day demand. Distribution mains are
29 also designed taking into account the location of all customers on the system to
30 ensure that they are connected to the Company’s system of mains. Designing the
31 distribution system in this way ensures that there is adequate capacity to provide
32 customers service every day of the year, including the day of coincident peak day
33 demand, and also ensures that all customers are connected to the system of gas
34 distribution mains. Sizing the system to meet peak day demand and connecting all
35 customers to the system effectively ensures the Company’s ability to offer firm
36 service on all high demand days to all customers that desire firm service.
- 37 3. Because distribution main and regulating equipment related costs are incurred to
38 meet the system peak day demand, capacity related costs should be allocated to
39 customers based on their coincident contribution to the system peak day demand.

1 Allocation of distribution main capacity related costs on coincident demand
2 reflects cost causation and properly allocates costs to customers based on their
3 contribution to system load characteristics that caused the Company to incur these
4 costs to provide firm gas delivery.

5 **Q. WHY IS IT IMPORTANT TO DEVELOP AN ACCURATE CLASS COST OF**
6 **SERVICE STUDY?**

7 **A.** An accurate cost of service study is important in designing rates. Designing rates that
8 accurately reflect the cost-causation nature of the distribution system will provide
9 customers with clear price signals to allow them to make economic consumption
10 decisions. To the extent a customer can avoid peak day demand by modifying
11 consumption, or by making investment in plant and equipment that provides greater
12 demand flexibility, that customer can reduce its annual gas delivery charges.
13 Encouraging customers to make economic consumption decisions will improve the
14 Company's asset utilization, improve system efficiency, and result in lower costs for
15 all customers on the system.

16 **Q. WHAT IS YOUR RECOMMENDATION WITH RESPECT TO THE**
17 **ALLOCATION OF THE CLASS MARGIN REVENUE REQUIREMENT IN**
18 **THIS CASE?**

19 **A.** In light of the Company's flawed cost of service study and the Company's proposal to
20 increase the gas margin revenue requirement by \$22.8 million, or 5.3%, I recommend
21 that any approved class margin revenue increase be spread to the Company's rate
22 classes based on my proposed class cost of service. Specifically, I propose to move
23 those classes receiving decreases under my proposed cost of service study to 25% of
24 their calculated cost of service.

25 My proposed class cost of service is shown on Exhibit BCC-3, page 1.

26 My proposed class margin revenue allocation is shown on Exhibit No. BCC-4,
27 page 1.

1 **Cost of Service – P&A Demand Method**

2 **Q. HAVE YOU REVIEWED THE DIRECT TESTIMONY OF COMPANY**
3 **WITNESS JON PILIARIS WITH RESPECT TO THE COMPANY'S**
4 **PROPOSED NATURAL GAS COST OF SERVICE STUDY?**

5 **A.** Yes.

6 **Q. DO YOU TAKE ISSUE WITH ANY ASPECT OF THE COMPANY'S**
7 **NATURAL GAS CLASS COST OF SERVICE STUDY?**

8 **A.** Yes. I disagree with the Company's proposed cost of service study with respect to the
9 allocation of the capacity related costs associated with distribution mains and related
10 regulating equipment.

11 **Q. HOW HAS THE COMPANY ALLOCATED THE CAPACITY RELATED**
12 **COSTS OF DISTRIBUTION MAINS AND REGULATING EQUIPMENT TO**
13 **RATE CLASSES IN ITS COST OF SERVICE STUDY?**

14 **A.** The Company has allocated both rate base and expenses for these facilities to classes
15 in its cost of service study using the P&A allocation method. At page 44 of his direct
16 testimony, Mr. Piliaris describes the allocation of distribution main related costs using
17 the P&A method. This method allocates costs using both the coincident peak day
18 demand for each class and the average demand for each class. For each class, the
19 Company weights that class's percent of total Company coincident peak demand by
20 (1 – the system load factor). The Company weights the class's percent of total
21 Company average demand by the system load factor. These two calculated
22 percentages are then added together to establish a P&A allocator for the class.

23 **Q. IS THE COMPANY'S ALLOCATION OF DISTRIBUTION FACILITIES'**
24 **CAPACITY RELATED COSTS USING THE P&A ALLOCATOR**
25 **APPROPRIATE?**

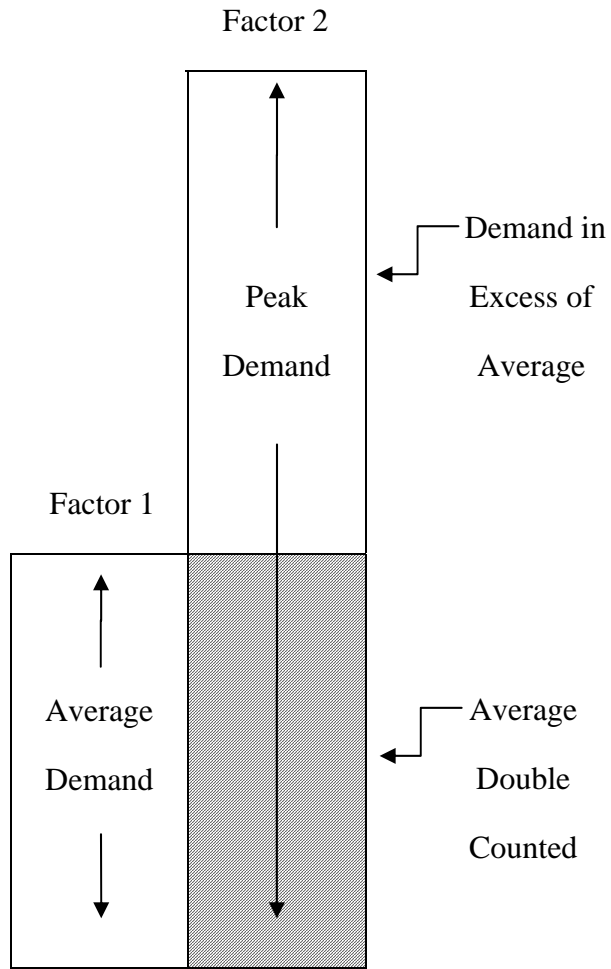
26 **A.** No, it is not. The P&A method does not accurately reflect cost causation because it
27 allocates capacity costs in part using a volumetric, or average demand, component.

1 The Company incurs capacity related costs on a coincident demand basis because it
2 designs its gas system to meet the firm coincident demands of its rate classes. The
3 major problem with the P&A allocator is the fact that it double counts the “average”
4 component of demand. Thus, total usage, or average demand, is counted twice in the
5 allocation of demand costs, once in the peak allocation and again in the average
6 demand allocation. The impact of using the P&A method to allocate distribution main
7 related costs is the over-allocation of costs to high load factor customers.

8 **Q. PLEASE EXPLAIN HOW THE COMPANY’S P&A ALLOCATOR DOUBLE**
9 **COUNTS AVERAGE DEMAND IN DEVELOPING A CAPACITY**
10 **ALLOCATOR FOR DISTRIBUTION FACILITIES.**

11 **A.** The P&A demand allocation is a weighted cost allocation method that uses both peak
12 demand and average demand in arriving at class allocation factors. This is represented
13 graphically in Diagram 1 below. The average demand (Factor 1) is weighted by the
14 system load factor (“LF”). Peak demand (Factor 2) is weighted by $(1 - LF)$. The two
15 weighted demands are added together to arrive at the P&A allocation factor. As a
16 result, arithmetically, average demand receives a full weight of 1, while demand in
17 excess of the average is weighted less than 1 (i.e. by $(1 - LF)$.)

**Peak
and Average
Method**



P&A =

$$(LF \times \text{Factor 1}) + (1 - LF) \times \text{Factor 2}$$

Diagram 1

1 Diagram 1 illustrates the two steps in the process of calculating the P&A
2 factors, the first of which is to determine the average demand component. The double
3 counting of average demand occurs in the next step of the process where each class's
4 contribution to the system's peak demand is determined. In this second step, the P&A
5 method considers the entire peak demand, including the average demand.

6 As a rule, the P&A method double counts the service classes' contributions to
7 average demand, and the Company's P&A method is no exception. Because
8 distribution systems are designed to meet the system peak demand, double counting
9 average demand is inappropriate. Further, because average demand is simply the
10 annual throughput, or usage, divided by the number of days in a year, the Company's
11 P&A method overstates the cost responsibility of customers with load factors higher
12 than the system average.

13 **Q. WHAT ARE THE ADVANTAGES OF THE COINCIDENT DEMAND**
14 **METHOD?**

15 **A.** There are advantages to using the Coincident Demand method over the P&A method.
16 First, the Coincident Demand method does not suffer from a double counting problem
17 that sullies the P&A method. The reason, of course, is that in the Coincident Demand
18 method, the Average component is a subset of the Peak Demand component and
19 counted only once in the allocation.

20 Second, unlike the P&A method, the Coincident Demand method is one of the
21 allocation methods listed in AGA's Gas Rate Fundamentals.

1 **Q. DOES THE COINCIDENT DEMAND METHOD ALLOCATE A PORTION OF**
2 **DISTRIBUTION MAIN RELATED COSTS ON AVERAGE USE (OR**
3 **EQUIVALENTLY, ANNUAL USAGE)?**

4 **A.** Yes. Like the P&A method, it does allocate a portion of the capacity related costs on
5 the basis of annual usage because Average Demand is a subset of Peak Demand.
6 However, unlike the P&A method, the Coincident Demand method counts Average
7 Demand only once when developing the cost allocation factor.

8 **Q. WHAT ARE THE RESULTS OF A COST STUDY USING THE COINCIDENT**
9 **DEMAND METHOD TO ALLOCATE THE COSTS ASSOCIATED WITH**
10 **DISTRIBUTION MAINS AND REGULATING EQUIPMENT?**

11 **A.** The results are that cost of service based rates resulting from a cost of service study
12 using the Coincident Demand method to allocate distribution main and regulating
13 equipment costs better reflect cost causation and send accurate price signals to
14 customers. The results of my proposed cost of service study that allocates the costs of
15 distribution mains and regulating station equipment using the Coincident Demand
16 method are shown on Exhibit BCC-3, page 1. The Company's results of its class cost
17 of service study are shown on page 2 of that exhibit.

18 **Q. YOU STATE THAT THE COINCIDENT DEMAND METHOD REFLECTS**
19 **COST CAUSATION BECAUSE IT REFLECTS HOW GAS DISTRIBUTION**
20 **SYSTEMS ARE DESIGNED. HOW DO GAS COMPANIES DESIGN THEIR**
21 **DISTRIBUTION SYSTEMS?**

22 **A.** Gas distribution companies design and size their distribution systems based on the
23 design day demand or the coincident peak demand requirements of its customers. The
24 Company's design of its system allows it to offer firm service to all customers every
25 day of the year, including the day the system peak day demand occurs. If the
26 Company designed its system based on average day demands, then there may not be
27 adequate capacity to meet the customers' coincident demands on the system peak day.

1 **Q. IS ANNUAL VOLUME, OR AVERAGE DEMAND, A DESIGN CRITERION**
2 **FOR A TYPICAL LDC FACILITY?**

3 **A.** No. Annual volume, or average demand, is certainly a factor considered in identifying
4 the variable cost of operating the system. However, the actual physical size of the
5 distribution mains, compressors, and related equipment is based on customers'
6 contributions to the system peak day demand. Annual volumes or average demands
7 do not describe the main size or system capacity that is necessary to provide firm
8 uninterrupted supply of service to all customers every day of the year. Rather, the
9 system's capacity must be sized for peak day demand, so that all customers can utilize
10 their entitlement to that capacity to receive a firm, uninterrupted, supply of gas every
11 day of the year, including the day of the peak demand.

12 **Q. IS THE COMPANY'S PROPOSAL TO USE THE P&A METHOD IN**
13 **ALLOCATING THE COSTS OF DISTRIBUTION MAINS AND RELATED**
14 **REGULATING EQUIPMENT REASONABLE?**

15 **A.** No. The Company's proposal fails to meet the cost of service principle of cost
16 causation. The P&A method is inappropriate for ratemaking in this proceeding
17 because this method does not appropriately reflect how the capacity related costs
18 associated with distribution mains, including both rate base and expenses, are incurred
19 by the Company. The P&A method allocates the capacity related costs associated
20 with distribution mains and regulating equipment partially on customer throughput.
21 However, companies do not use total customer throughput or usage to design their
22 distribution facilities, but rather use customer coincident peak demands. The P&A
23 method of cost allocation is inconsistent with cost causation on the distribution
24 system. Therefore, allocation of distribution main capacity related costs using P&A is
25 inappropriate because cost allocation does not follow how those costs are actually

1 incurred. As a result, the P&A allocation method creates an unbalanced allocation of
2 distribution costs among customer classes.

3 **Q. SHOULD A COST ALLOCATION METHOD REFLECT HOW COSTS ARE**
4 **ACTUALLY INCURRED ON THE COMPANY’S DISTRIBUTION SYSTEM?**

5 **A.** Yes. A utility’s selection of a particular cost allocation method should be based on
6 whether that allocation method appropriately reflects class cost causation and results
7 in rates that provide accurate price signals to its customers.

8 Because rates should reflect cost causation, the costs used in setting rates
9 should be allocated to classes based on how they cause the costs to be incurred by the
10 Company. Further, the cost allocation method should be consistent with cost
11 causation. Because distribution mains and related regulating equipment are designed
12 to meet the demands of customers and not their gas throughputs or usages, allocating
13 the costs of the distribution system based on demands is appropriate. A utility’s
14 distribution investments must meet its customers’ demands. A utility incurs the cost
15 to construct and operate distribution mains to meet its customer peak day demands.
16 Therefore, peak day demand is an appropriate cost allocation method for allocating
17 capacity related capital costs and expenses, because it allocates costs based on how
18 they are incurred using customer demand and not annual throughput.

19 Allocating costs based on how they are incurred is consistent with the National
20 Association of Regulatory Utility Commissioners (“NARUC”) Gas Distribution Rate
21 Design Manual (June 1989) which states at page 20:

22 **Historic or embedded cost of service studies attempt to apportion**
23 **total costs to the various customer classes in a manner consistent**
24 **with the incurrence of those costs.** This apportionment must be based
25 on the fashion in which the utility’s system, facilities and personnel
26 operate to provide the service. (Emphasis added).

1 Q. DOES NARUC RECOGNIZE THAT DEMAND COSTS CAN BE
2 ALLOCATED BASED ON PEAK DAY DEMANDS?

3 A. Yes. In its 1989 manual, NARUC recognizes that demand or capacity related costs
4 can be allocated to classes based on two factors: (1) peak day demands, and (2) the
5 number of customers. The NARUC *Gas Distribution Rate Design Manual* states the
6 following:

7 **Demand or capacity costs vary with the size of plant and**
8 **equipment.** They are related to maximum system requirements which
9 the system is designed to serve during short intervals **and do not**
10 **directly vary with the number of customers or their annual usage.**
11 Included in these costs are: the capital costs associated with production,
12 transmission and storage plant and their related expenses; the demand
13 cost of gas; and **most of the capital costs and expenses associated**
14 **with that part of the distribution plant not allocated to customer**
15 **costs, such as the costs associated with distribution mains in excess**
16 **of the minimum size** (pages 23-24, emphasis added).

17 Q. DOES THE COMPANY'S DISTRIBUTION SYSTEM ALLOW CUSTOMERS
18 TO RECEIVE VOLUMES OF GAS THROUGHOUT THE YEAR?

19 A. I do not dispute that after the systems are designed and constructed to meet peak day
20 demand, customers use the distribution systems to have volumes of gas delivered
21 throughout the year. However, if customers expect supply sufficient to meet their
22 peak firm demand, then they should pay for adequate distribution capacity to allow
23 gas to be delivered every day to meet their expected demands, including days with
24 above average demands. Otherwise, they will not be allocated adequate capacity to
25 deliver gas on days with above average usage, which would be most cold days, and
26 their service would be interrupted on all of those days.

27 It is the peak day demand which drives the capacity related cost incurred in
28 order to design, construct, implement and maintain a distribution system that is
29 adequate to provide firm service throughout the year, including the peak day, to all

1 customers that want firm service. Distribution systems are sized based on peak day
2 demands to ensure that firm gas supply can actually be delivered every single day of
3 the year. Because cost causation is driven by peak demand, distribution-related costs
4 should be allocated based on peak demand.

5 If the distribution system can meet the peak day demand of its customers, it
6 can meet the demand of its customers on every single day of the year. Daily needs
7 must be met, but the only way that can happen is through a system that is designed to
8 meet the peak day demand. The system must be designed and maintained to meet the
9 peak day demands. If the peak day demand can be met, it follows that all daily
10 demands will be met as well.

11 Using the P&A allocation method to allocate capacity related costs based on
12 perceived benefits resulting from year round use of the Company's distribution system
13 is not based on cost causation factors. There are no objective measures to define such
14 benefits or determine to what extent particular customers derived such benefits, nor
15 has the Company attempted to identify such benefits. In contrast, cost-causation is
16 based on the distribution system's engineering and an understanding of the drivers that
17 determine a utility's costs. The Coincident Demand allocation method best represents
18 cost allocation of capacity related costs on the Company's distribution system.

19 **Accurate Price Signals**

20 **Q. DOES ALLOCATING DISTRIBUTION MAIN AND RELATED**
21 **REGULATING EQUIPMENT COSTS IN PART ON ANNUAL VOLUME OR**
22 **ANNUAL THROUGHPUT ENCOURAGE THE EFFICIENT UTILIZATION**
23 **OF THE GAS DISTRIBUTION SYSTEM?**

24 **A.** No, it does not. The efficient utilization of the distribution system is best
25 accomplished by minimizing the peak day demand in relationship to annual volume.

1 This enhances the customer load factor and reduces the per unit cost of gas delivery.
2 That is, a customer with a higher load factor moves more volume throughout the
3 system relative to the customer's peak day demand. A lower load factor customer on
4 the other hand moves less gas volume through the distribution system in relationship
5 to their peak day demand.

6 **Q. WHAT IS THE IMPORTANCE OF USING AN ALLOCATION METHOD**
7 **THAT RESULTS IN RATES THAT PROVIDE ACCURATE PRICE SIGNALS**
8 **TO CUSTOMERS?**

9 **A.** If customers are given accurate price signals, which are designed based on accurate
10 allocation of costs among customer classes, customers can change consumption
11 behavior in order to manage their costs. If a change in the customer's peak day
12 consumption lowers the utility's costs, and produces greater utilization of existing
13 assets, the utility can avoid cost increases which can be passed on to customers via
14 lower prices. If a utility develops rates reflecting costs that are allocated on its
15 customers' cost responsibility, this encourages energy efficiency.

16 **Q. IS THE USE OF THE COINCIDENT DEMAND METHOD TO ALLOCATE**
17 **CAPACITY RELATED COSTS OF DISTRIBUTION MAINS AND THE**
18 **RESULTING PRICE SIGNALS FROM SUCH AN ALLOCATION**
19 **CONSISTENT WITH THE WUTC COMMITMENT TO LEAST COST**
20 **PLANNING IMPLEMENTED THROUGH UTILITIES' INTEGRATED**
21 **RESOURCE PLANS?**

22 **A.** Yes. The WUTC invests considerable resources in ensuring that natural gas LDCs
23 make least-cost investments through the preparation and review of integrated resource
24 plans. The Company plans its distribution main system to meet the firm peak day
25 demands of its customers. Thus, peak day demand best reflects cost causation on the
26 Company's system. When ratemaking ignores cost causation by allocating a

1 significant portion of distribution main cost on a volumetric basis, ratemaking
2 undermines least-cost planning, resulting in inaccurate price signals to customers.

3 **Q. DO ACCURATE PRICE SIGNALS PROVIDE INCENTIVES TO**
4 **CUSTOMERS TO MINIMIZE THEIR COST OF SERVICE?**

5 **A.** Yes. If a customer wants to minimize its cost of service, the customer could make
6 investments in energy efficiency assets, or modify its operations to shift usage away
7 from the peak day. If the customer shifts consumption away from the peak day and its
8 average annual volume remained the same, then the utility's and customer's annual
9 load factors would improve. The distribution capacity the customer would need to
10 serve its peak day load would decrease. This would release peak day capacity which
11 the utility could then use to serve new customers or serve existing customer growth.
12 This produces greater utilization of existing assets and allows the utility to reduce
13 prices. Basing rates on cost and allocating those costs based on customers' cost
14 responsibility encourages energy efficiency and demand reductions.

15 **Q. WOULD CUSTOMERS HAVE THE SAME ECONOMIC INCENTIVE TO**
16 **MODIFY DEMANDS IF COSTS ARE NOT ALLOCATED BASED ON COST**
17 **CAUSATION?**

18 **A.** No. Under the Company's current proposal for allocating distribution-related costs
19 using the P&A allocation method, if a customer took the initiative to reduce peak day
20 demand or improve its load factor and the distribution costs were partially allocated on
21 volume, this customer's allocated share of the distribution main costs would not be
22 minimized despite taking load off the peak day. As a result, the maximum cost
23 savings would not be available to this customer for taking the initiative to reduce its
24 peak day demand, improve its load factor, and release peak day capacity to the utility
25 which the utility could then use to serve new customers or existing customers' growth.

1 The economic incentive for this customer to undertake procedures that improve
2 economic utilization of the utility's infrastructure would be reduced if distribution
3 main costs are partially allocated on volumes or average demands. In fact, the
4 customer may feel an incentive to reduce usage or even at some point to engage in
5 bypass of the utility, increasing unit cost on the system.

6 In contrast, if the Company allocated the cost of distribution mains on peak
7 day demands, then this customer's allocated share of the costs associated with
8 distribution mains would be minimized if it is able to reduce its peak day demand.
9 The capacity cost savings would be maximized and result in greater compensation to
10 the customer for its cost of improving its load factor (i.e., installing energy efficient
11 equipment or changing production procedures to shift usage away from the system
12 peak day demand), and this customer would have a greater economic incentive to
13 pursue this improvement to its load factor if costs are allocated on peak day demands
14 as compared to costs allocated partially on volume or average demands.

15 **Q. DO ACCURATE PRICE SIGNALS ALSO BENEFIT A UTILITY?**

16 **A.** Yes. If its customers are able to reduce their peak day demands, the utility would be
17 able to use the released peak day capacity to serve new customers or support existing
18 customers' growth without incurring additional distribution-related costs. Thus,
19 reductions in existing customer peak day demands would lower the utility's cost of
20 service. This will result in an improvement to the utility's load factor, increase the
21 utilization of the utility's existing distribution system, and improve the economic
22 utilization of the utility's assets.

1 **Q. WHAT IS YOUR RECOMMENDATION WITH RESPECT TO THE**
2 **ALLOCATION OF DISTRIBUTION MAIN AND RELATED REGULATING**
3 **EQUIPMENT COSTS IN THE COMPANY’S COST OF SERVICE STUDY?**

4 **A.** It would be more appropriate to use the Coincident Demand allocator to allocate the
5 distribution main capacity related costs of the Company. Because gas distribution
6 systems are designed based on peak day demands, the best cost-causation allocation
7 factor for distribution costs among customers is peak day demands. Therefore, I
8 recommend that class coincident peak day demands and not the P&A allocator be used
9 to allocate the costs of distribution mains.

10 **Revenue Allocation**

11 **Q. WHAT IS YOUR RECOMMENDATION WITH RESPECT TO REVENUE**
12 **ALLOCATION?**

13 **A.** Due to the flaws in the Company’s cost of service study and in light of the Company’s
14 proposal to increase the gas margin revenue requirement by \$22.8 million, or 5.3%, I
15 recommend that any margin revenue increase approved by the WUTC be spread to the
16 Company’s rate classes based on the results of my proposed class cost of service study
17 using the Coincident Demand cost allocation method. Because the Company designs
18 its system to meet firm class coincident demands, the coincident demand allocator
19 more accurately reflects how the Company incurs distribution main and regulating
20 equipment costs and would result in much lower increases for large, high load factor
21 classes. However, I propose to move those classes receiving decreases under my
22 proposed cost of service study to 25% of their calculated cost of service. In light of
23 the collaborative process on cost allocation, this is appropriate since my proposed
24 revenue allocation moves rates between the two cost of service bookends: cost of
25 service calculated using P&A, and cost of service calculated on Coincident Demand.

1 My recommended revenue allocation using the Company's proposed revenue
2 requirement increase is shown in Exhibit No. BCC-4, page 1. The Company's
3 proposed class allocation is shown on page 2 of that exhibit.

4 To the extent that the Commission accepts adjustments to the Company's
5 proposed margin revenue requirement, the rate spread would be adjusted accordingly.

6 **Q. ARE RATE SPREAD ISSUES BEING DISCUSSED IN OTHER WUTC**
7 **PROCEEDINGS?**

8 **A.** Yes. For over a year there have been discussions of holding a collaborative process to
9 review the cost allocation policies for Washington electric and gas LDCs. One
10 meeting was held and was attended by many stakeholders in the gas and electric
11 industries, including many of the parties in this proceeding. PSE has filed to allocate
12 natural gas distribution costs using the P&A allocation method which will be disputed
13 by NWIGU in the collaborative for the reasons discussed in this testimony. The P&A
14 allocation method unfairly allocates costs to Schedule 87 and 87T and Special
15 Contract customers and should not be used because we have a pending collaborative
16 process to discuss these issues in Washington.

17 **Q. DOES THIS CONCLUDE YOUR RESPONSE TESTIMONY?**

18 **A.** Yes, it does.