

**BEFORE THE
PUBLIC SERVICE COMMISSION OF UTAH**

**In the Matter of the Application of
Rocky Mountain Power for Authority
to Increase its Retail Electric Utility
Service Rates in Utah and for Approval
of its Proposed Electric Service
Schedules and Electric Service
Regulations, Consisting of a General
Rate Increase of Approximately
\$161.2 Million Per Year, and for Approval
of a New Large Load Surcharge**

Docket No. 07-035-93

Rebuttal Testimony of

Maurice Brubaker

**Concerning Cost of Service,
Revenue Allocation and Rate Design**

On behalf of

Utah Industrial Energy Consumers

September 3, 2008
Project 8923



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

2 A Maurice Brubaker. My business address is 1215 Fern Ridge Parkway, Suite 208,
3 St. Louis, Missouri 63141-2000.

4 **Q WHAT IS YOUR OCCUPATION?**

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

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

8 A I am appearing on behalf of the Utah Industrial Energy Consumers (UIEC). Members
9 of UIEC purchase substantial quantities of electricity from Rocky Mountain Power
10 Company (RMP) in Utah, and are vitally interested in the outcome of this proceeding.

1 **Q HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY IN THIS PHASE OF THE**
2 **PROCEEDING?**

3 A Yes. I previously submitted direct testimony in this phase of the proceeding on
4 July 21, 2008.

5 **Q ARE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE DESCRIBED IN**
6 **THOSE EARLIER TESTIMONIES?**

7 A Yes. This is included as Appendix A to my April 7, 2008 direct testimony in the
8 revenue requirement phase of this case.

9 **Q WHAT IS THE PURPOSE OR YOUR TESTIMONY?**

10 A My testimony will respond to the testimony of other parties who have asserted
11 positions contrary to those taken by me in my direct testimony. In particular, I will
12 respond to the testimony of Division witness Dr. Abdulle with respect to his interclass
13 allocation proposal and his rate design for Schedule 9; to Committee of Consumer
14 Services witness Mr. Chernick with respect to his proposals on embedded cost of
15 service; to UAE witness Mr. Higgins on his cost of service proposal; and to Western
16 Resource Advocates witness Mr. Mendelsohn with respect to the vintage pricing
17 proposal.

18 **Q PLEASE SUMMARIZE YOUR REBUTTAL TESTIMONY.**

19 A My rebuttal testimony may be summarized as follows:

- 20 1. The recommendation of Division witness Dr. Abdulle to increase Schedule 9 by
21 more than the overall average increase is based on RMP's flawed cost of
22 service study, and should be rejected.
- 23 2. Dr. Abdulle's recommendation with respect to Schedule 9 rate design, which
24 places more emphasis on the level of energy charges as compared to demand
25 charges, is misplaced and should not be accepted.

- 1 3. Committee of Consumer Services witness Mr. Chernick's recommendations with
2 respect to the classification of a larger percentage of generation fixed costs to
3 the energy category should be rejected because:
- 4 a. It unrealistically assumes that all load could be met with combustion turbine
5 peaking units.
- 6 b. It uses a mixture of gross plant costs and costs incurred by other utilities in
7 other states to make the calculation supporting the recommendation.
- 8 c. The methodology is conceptually flawed and internally inconsistent because
9 it allocates additional capital costs for base load facilities to high load factor
10 customers but does not afford these customers the correspondingly lower
11 energy costs that go with that higher capital cost allocation.
- 12 4. Mr. Chernick's recommendation to classify/allocate a portion of transmission
13 investment on energy (beyond the current 12CP 75/25 method) should be
14 rejected as unsupported and inconsistent with industry practice.
- 15 5. Mr. Chernick's recommendation to classify/allocate a significant proportion of the
16 distribution system as energy-related is unsupported and departs materially from
17 generally accepted industry practices. His proposals for distribution weighting
18 factors are similarly unsupported and should be rejected.
- 19 6. Prior to considering changing interclass rate relationships, it is important to have
20 the benefit of the results of a number of analyses and studies. These include
21 more adequate sampling of the hourly loads of non-demand metered customer
22 classes, an accurate determination of the effects of peak-making weather on
23 class loads, a study of the cost of standing by to serve temperature sensitive
24 load, and an identification of the cost-causing peaks to use for cost allocation, as
25 well as a determination of whether any energy weighting to the allocation of
26 generation and transmission fixed costs is appropriate. These study needs are
27 outlined in more detail at page 21.
- 28 7. Western Resource Advocates witness Mr. Mendelsohn's recommendation with
29 respect to RMP's vintage pricing proposal adds nothing to RMP's original
30 testimony, and does not require further rebuttal. His recommendations should
31 be rejected.

1 **Response to Division Witness Dr. Abdulle**

2 **Q DOES DR. ABDULLE MAKE A RECOMMENDATION ON THE ALLOCATION OF**
3 **THE PHASE 1 RATE INCREASE AMONG CUSTOMER CLASSES?**

4 A Yes. Insofar as it affects Schedule 9, that recommendation appears at pages 5 and 6
5 if his direct testimony.

6 **Q WHAT IS THAT RECOMMENDATION?**

7 A Dr. Abdulle recommends that Schedule 9 receive a rate increase 1.63% more than
8 the jurisdictional average increase. This recommendation was made in the context of
9 the increase proposed by RMP, which was approximately 7%. Dr. Abdulle does not
10 explain how he would adjust his recommendation to reflect a lower overall increase,
11 such as the 2.5% increase that the Commission actually awarded RMP in Phase 1.

12 **Q PUTTING ASIDE THE QUESTION OF WHAT THE SPECIFIC RECOMMENDATION**
13 **WOULD BE AT THE AWARDED LEVEL OF RATE INCREASE, DO YOU HAVE**
14 **ANY CONCERNS ABOUT THE BASIS FOR DR. ABDULLE'S RECOMMENDED**
15 **SPREAD OF THE RATE INCREASE?**

16 A Yes. Dr. Abdulle bases his recommendations on the results of the cost of service
17 study filed by RMP in this case. As I discussed in detail in my direct testimony in this
18 phase of the proceeding, RMP's class cost of service study is unreliable and should
19 not be used for purposes of allocating any rate increase in this proceeding. Those
20 deficiencies primarily concern the quality of the load research information which
21 develops the demands for the non-demand-metered customers, and the lack of
22 correspondence between the demands determined for the Utah jurisdiction in the

1 aggregate, as compared to the summation of the demands determined for the
2 individual rate classes within Utah for purposes of the class cost of service study.

3 As discussed more fully in my direct testimony (beginning at page 11), there is
4 a substantial disparity between the aggregate demands of the Utah jurisdiction as
5 determined from the jurisdictional load studies, and the demands of the individual
6 retail customer classes within Utah as determined through a combination of metered
7 data for Schedule 9 and other demand-metered classes and the load research
8 information for classes that are not demand-metered, such as residential and small
9 commercial customers. This substantial disparity is perhaps a manifestation of the
10 unreliability of the ancient load research samples that RMP uses to construct the
11 class loads.

12 Other problems include the lumping together of rate schedules into classes
13 and potential differences in load characteristics between commercial and industrial
14 customers within Schedule 9.

15 **Q ARE THERE OTHER PROBLEMS WITH RMP'S CLASS COST OF SERVICE**
16 **STUDY THAT RENDER IT UNSUITABLE FOR USE?**

17 A Yes. In his direct testimony in this phase of the proceeding, witness Higgins
18 (appearing for UAE and Wal-Mart), points out some other problems with the cost of
19 service study.

20 **Q WHAT ARE THOSE PROBLEMS AND HOW DO THEY AFFECT THE SUITABILITY**
21 **OF THE STUDY?**

22 A Two problems, in particular, were noted by Mr. Higgins. First, he points out that in
23 adjusting the cost allocations to match the rate mitigation cap in accordance with the
24 Revised Protocol, RMP's adjustment to the cost of service study produced anomalous

1 changes in the various cost functions. Furthermore, all of the rate moderation
2 associated with the mitigation cap was related to changes in the allocation of
3 generation costs. Accordingly, the moderation adjustment should not affect the
4 revenue requirement associated with transmission, distribution and general plant, but
5 should only affect the costs associated with the generation function. Since RMP's
6 adjustment was not so-limited, its cost of service study overstates the costs allocable
7 to Schedule 9, and understates the Schedule 9 rate of return.

8 Second, the cost of service study does not adequately identify and assess the
9 costs associated with meeting temperature sensitive load. It fails to consider the
10 need to hold generation reserves to serve loads occasioned by high temperature
11 excursions on little or no notice, and because the development of loads in the cost of
12 service study is based on so-called "normal" rather than the "peak making" weather,
13 which the system is designed to serve.

14 **Q PLEASE ELABORATE.**

15 A There is no question about the fact that the residential peak demands are driven by
16 high summer temperatures. Temperatures vary from hour to hour, day to day, and
17 month to month, and so do loads. RMP must have the capability of serving these
18 peak loads whenever they occur. Because of the highly variable residential class
19 load shape, there will be many hours when the built or contracted capacity that is
20 required to cover the peak demands is not needed to serve load because the load is
21 not at its peak.

22 To the extent that the temperature-sensitive load was to be served from
23 owned generation capacity, that capacity is not required to serve system load in many
24 hours, but the costs continue to be incurred and must be paid by someone. To the
25 extent that capacity purchases were made, either for the year or season, there will be

1 many hours when the full amount of contracted capacity and corresponding energy is
2 not required to serve native load. To the extent that the surplus power is sold back to
3 the market during hours when temperatures are more moderate and loads are lower,
4 there is a high probability that RMP will not cover its costs.

5 The 12CP 75/25 method does not adequately identify and allocate these
6 costs, and mis-classifying even more of the costs as energy-related would only make
7 matters worse.

8 **Q HOW LARGE ARE THE LOAD SWINGS FOR RESIDENTIAL CUSTOMERS?**

9 A For the test year, the response to UIEC Data Request No. 22.28 (attached) indicates
10 that the maximum demand for the residential class occurred in July and was
11 1,938,000 kW, while the lowest residential monthly peak demand occurred in October
12 with a magnitude of 986,000 kW. This is a swing of 952,000 kW, or almost a ratio of
13 two to one.

14 **Q WHAT ARE THE RESIDENTIAL CLASS LOAD VARIATIONS ON A HOT SUMMER**
15 **DAY?**

16 A According to the hourly load data presented by RMP in response to CCS Data
17 Request No. 10.2, the residential class also exhibits a significant and pronounced
18 variation in load from the night time valleys to the day time peaks. Based on this
19 information for the months of July and August of 2006 which was provided, the swing
20 in residential load between the nighttime valley and the afternoon peak is often more
21 than two to one, and sometimes approaches three to one. This implies a daily load
22 swing on the part of residential customers of over 1 million kW.

23 **Q WHAT IS YOUR CONCLUSION?**

1 A For the reasons expressed in my testimony, as well as these additional reasons
2 highlighted by Mr. Higgins, no reliance should be placed on RMP's cost of service
3 study.

4 **Q DOES DR. ABDULLE HAVE A RECOMMENDATION WITH RESPECT TO RATE**
5 **DESIGN FOR SCHEDULE 9?**

6 A Yes. This appears at page 23 of his direct testimony.

7 **Q WHAT IS DR. ABDULLE'S RECOMMENDATION FOR SCHEDULE 9 RATE**
8 **DESIGN?**

9 A Dr. Abdulle recommends that any amount of increase in excess of what RMP has
10 proposed for Schedule 9 be placed on the energy charges in Schedule 9. He says:
11 "To encourage energy conservation, the Division's proposal for Schedule 9 puts the
12 additional revenue on the energy charges." He goes on to say, "The Division's
13 proposal is superior to the Company's in that it encourages energy conservation and
14 will help curb the summer peak."

15 **Q DOES DR. ABDULLE EXPLAIN WHAT HE MEANS BY "ENERGY**
16 **CONSERVATION"?**

17 A No, he does not. In the first citation noted above, it seems he may be drawing a
18 distinction between kilowatthours of energy usage and kilowatts of demand by
19 focusing on kilowatthours and calling that energy conservation. However, in the
20 second citation noted above, he seems to be mixing kilowatthours of energy usage
21 and peak demands. The statement that increasing energy charges will "...help curb
22 the summer peak." is completely unsupported. The way to encourage reductions or
23 moderations in the level of, or growth in the level of, summer peak demand for rate

1 schedules that have separately levied demand charges is to increase the demand
2 charges relative to the energy charges.

3 Increases in kilowatthour charges may simply result in more moderate use at
4 times when temperatures are less extreme, and equal or more intensive use at the
5 time of the temperature extremes that cause the peaks to occur. This would be
6 entirely counter-productive.

7 On the other hand, demand charges give the customer a continuous incentive
8 to avoid setting a higher demand because higher demands at any time will trigger a
9 higher billing demand and, therefore, a higher cost.

10 **Q CAN YOU ILLUSTRATE?**

11 A Yes. Consider two rate design alternatives that produce the same total revenue
12 when applied to the billing determinants for a rate schedule. Assume Rate A has a
13 \$12 per kW-month demand charge and a 2.0¢ per kWh energy charge, and that Rate
14 B has a \$6 per kW-month demand charge and a 3.2¢ per kWh energy charge.

15 Consider now the consequences to a customer adding one kWh of
16 consumption at the time of that customer's maximum demand. In the case of Rate A,
17 the additional cost would be the charge for one kW of demand at \$12 and for one
18 kWh of energy at 2.0¢ for a total of \$12.02. For Rate B, the impact would be one kW
19 of demand at \$6 and one kWh of energy at 3.2¢ per kWh for a total cost of \$6.032.
20 Obviously, Rate A provides the customer with a much greater degree of incentive not
21 to add load in such a way as to increase its maximum demand because the cost is
22 roughly twice as much as under Rate A, which has a very much-diluted price signal.

23 **Q WHAT IS YOUR OVERALL RECOMMENDATION FOR SCHEDULE 9 RATE**
24 **DESIGN?**

1 A Any increase in Schedule 9 at this time should be accomplished by increasing the
2 charges in the existing rate by an equal percentage.

3 **Response to Committee of Consumer Services' Witness Mr. Chernick**

4 **Q HAVE YOU REVIEWED THE TESTIMONY OF MR. CHERNICK ON BEHALF OF**
5 **THE COMMITTEE OF CONSUMER SERVICES?**

6 A Yes.

7 **Q WHAT IS MR. CHERNICK'S POSITION ON THE CLASS COST OF SERVICE**
8 **STUDY?**

9 A While he indicates that it should "...serve only as a guide to class rate spread."
10 (Chernick Direct at page 4), he makes recommendations for several changes in the
11 cost of service study that would effectively shift costs from demand-related or
12 customer-related categories to the energy-related category. The end result would be
13 to allocate more costs to large, high load factor customers and less to the low load
14 factor customers, such as residential and small commercial.

15 **Q WHAT IS MR. CHERNICK'S POSITION ON THE CLASSIFICATION OF FIXED**
16 **GENERATION-RELATED COSTS?**

17 A He disagrees with RMP's 75% demand-related and 25% energy-related classification
18 of the fixed costs associated with generation facilities.

19 **Q DOES HE EXPRESS HIS UNDERSTANDING OF THE BASIS FOR THIS**
20 **CLASSIFICATION?**

1 A Yes. At page 6 he states his understanding that the 75% / 25% split was a
2 compromise between the Pacific Power & Light Company's (PP&L) 50% / 50%
3 classification and Utah Power & Light Company's (UP&L) 100% demand
4 classification. After the PP&L/UP&L merger, numerous task forces were convened
5 and the 75% / 25% (combined with the use of 12 monthly coincident peaks) emerged
6 as a compromise for jurisdictional allocation purposes.

7 **Q IS MR. CHERNICK'S UNDERSTANDING CONSISTENT WITH YOURS?**

8 A Yes. The 75% / 25% (as well as the 12 coincident peak approach) was the product of
9 a compromise primarily for purposes of jurisdictional allocation. Later, this
10 methodology was applied to the allocation of costs among retail customer classes
11 within a jurisdiction.

12 **Q DOES MR. CHERNICK AGREE WITH THE 75% / 25% SPLIT?**

13 A No. As expressed beginning at page 7 of his testimony, it is his view that a larger
14 proportion of fixed costs should be classified as energy, and a correspondingly
15 smaller part as demand.

16 **Q HOW DOES MR. CHERNICK QUANTIFY HIS CONCEPT?**

17 A He uses what he calls a "peaker" method. Under this approach, the capital cost of a
18 base load generating facility is considered to be energy-related to the extent that it
19 exceeds the capital cost of a combustion turbine peaking unit – which he takes as the
20 measure of the cost to meet demand.

21 **Q HOW DOES HE APPLY THIS CONCEPT?**

1 A As explained at page 8 of his testimony, he looks at the GROSS (i.e., undepreciated)
2 capital costs per kilowatt for existing PacifiCorp coal plants and also at the cost of
3 some collection of peaking units constructed by other utilities in other states.

4 **Q IS THE REVENUE REQUIREMENT FOR FIXED COSTS ASSOCIATED WITH**
5 **GENERATION FACILITIES BASED ON THE NET PLANT IN-SERVICE OR THE**
6 **GROSS PLANT IN-SERVICE?**

7 A It is based on the net plant in-service. To the extent that Mr. Chernick has relied
8 upon the gross plant in-service, he has misstated the level of capital costs associated
9 with coal plants – overstating them to the extent of the difference between the gross
10 plant and the net plant value.

11 **Q WHAT IS THE DIFFERENCE BETWEEN THE GROSS PLANT VALUE AND THE**
12 **NET PLANT VALUE FOR PACIFICORP'S COAL PLANTS?**

13 A As of December 31, 2007, the gross investment in steam plants is \$4.8 billion, while
14 the net plant value is \$2.4 billion.

15 **Q YOU MENTION THAT HE USED INVESTMENT COSTS FOR PEAKERS OWNED**
16 **BY OTHER UTILITIES IN OTHER STATES. DOES HE EXPLAIN WHY HE DID**
17 **NOT USE PACIFICORP'S PEAKERS?**

18 A Yes. In Footnote 3 on page 8 he indicates that PacifiCorp does not own any peakers
19 built in the same period as its coal plants.

20 **Q DOES PACIFICORP HAVE ANY PEAKING UNITS TODAY?**

1 A It has fewer than 400 megawatts, out of a total of over 11,000 megawatts. None of
2 RMP's recent additions have been peakers. (See RMP's response to UIEC Data
3 Request Nos. 21.1 and 21.2, attached.)

4 **Q IS RMP BUILDING ANY PEAKING UNITS?**

5 A No. The resource expansion plan in RMP's 2007 IRP does not include any peakers.

6 **Q WHAT IS YOUR ASSESSMENT OF MR. CHERNICK'S APPROACH?**

7 A I will respond to that in two parts. First, the computational part, and second the
8 conceptual part.

9 From a computational point of view, i.e., how did he do the calculations, I find
10 them to be seriously flawed. Not only did he use gross plant instead of net plant for
11 RMP's coal units, but he used peaking unit costs from other utilities in other states of
12 mixed vintages that may or may not correspond to the years in which PacifiCorp
13 added coal facilities. Further, he apparently used gross plant rather than net plant for
14 these as well. And, of course, on top of all of that, RMP has only a few peaking units
15 and is not building any more peaking units ... so the relevance of the entire approach
16 is questionable.

17 **Q PLEASE ADDRESS THE CONCEPTUAL ISSUES ASSOCIATED WITH HIS**
18 **APPROACH.**

19 A As noted above, the peaker approach designates any capital costs spent on
20 generating units that exceeds the capital cost of a peaking unit as having been
21 incurred to produce energy at a lower cost than from a peaking unit, and classifies
22 those costs as energy-related.

23 Fundamentally, this approach is erroneous and internally inconsistent even if
24 its basic premise were to be accepted.

1 **Q PLEASE EXPLAIN.**

2 A Keep in mind that a utility system is designed to achieve the lowest overall, or total,
3 cost of serving the entire population of customers reliably, consistent with least cost
4 integrated resource planning concepts. To accomplish this objective, a utility builds
5 that combination of facilities which is designed to serve the loads of all of its
6 customers, at all times, at the lowest overall net cost, taking into consideration both
7 the fixed capital costs and the variable fuel costs. This defines the fixed or
8 demand-related costs and the variable costs of the utility system.

9 The peaker method pretends that it would be possible to serve an entire utility
10 system's demand requirements using only peakers. There is no such utility system in
11 existence, and the fuel costs associated with such a system, if it could ever exist,
12 would not be cost-effective or prudent.

1 **Q WHAT IS THE PRACTICAL EFFECT OF TREATING A PORTION OF THE**
2 **CAPITAL COSTS OF BASE LOAD GENERATING FACILITIES AS ENERGY**
3 **RELATED AS OPPOSED TO DEMAND-RELATED?**

4 A The effect of classifying a greater proportion of fixed costs as energy-related is to
5 increase the amount of cost that is allocated to high load factor customers, as
6 compared to low load factor customers. As an example, under RMP's class cost of
7 service study, Schedule 9 customers are responsible for 16.5% of the 12 coincident
8 peak demands, but 18.7% of the energy. The difference is the result of Schedule 9
9 customers having higher load factors than other customer classes. Thus, classifying
10 costs as energy-related, as opposed to demand-related, would shift costs to
11 Schedule 9 and other high load factor customer classes, and away from the
12 residential and other lower load factor classes.

13 **Q HOW DOES MR. CHERNICK PROPOSE TO ALLOCATE THE FUEL COSTS FROM**
14 **RMP'S GENERATING PLANTS?**

15 A He proposes to allocate them strictly on an energy basis. This means that the cost
16 per kilowatthour of energy (adjusted for losses) is the same for each customer class,
17 regardless of load factor, and regardless of how much capital cost of generation
18 facilities was allocated to those customers.

19 **Q IS THIS AN INTERNALLY CONSISTENT APPROACH?**

20 A No, it is completely inconsistent and is one of the most fundamental flaws in the
21 peaker approach.

1 **Q PLEASE ELABORATE.**

2 A As indicated above, the practical effect of Mr. Chernick's recommendation is to
3 increase the proportion of capital costs of base load generation facilities allocated to
4 high load factor customers. He does this on the theory that some additional dollars
5 (above the cost of building a peaker) were incurred in order to reduce energy costs.
6 Yet, he allows the lower load factor customers to share completely in the benefits of
7 the lower fuel costs associated with these base load plants that he allocates
8 disproportionately to high load factor customers.

9 While the approach would still be of questionable validity, it would at least be
10 consistent to allocate more of the low cost energy to the customer classes that are
11 allocated the higher share of capital costs. In other words, instead of each customer
12 class being charged the same cost per kilowatthour for energy, customer classes with
13 above-average load factors (who would pay an above-average cost per kilowatt for
14 capacity under Mr. Chernick's theory) would be entitled to receive a correspondingly
15 greater percentage of their energy from the base load facilities that presumably
16 (according to Mr. Chernick) would benefit them more.

17 Since Mr. Chernick makes no attempt to take into consideration the lower
18 energy costs associated with the base load facilities that are disproportionately
19 allocated to high load factor customers, his entire approach is internally inconsistent
20 and should be rejected.

21 I should note that RMP's 75% / 25% allocation method already suffers from
22 this infirmity, so extending it further as Mr. Chernick proposes would aggravate an
23 already inappropriate allocation.

24 **Q USING TEST YEAR DATA, CAN YOU ILLUSTRATE THE BENEFIT TO**
25 **RESIDENTIAL CUSTOMERS OF THE 75% / 25%, 12 CP, ALLOCATION AS**

1 **CONTRASTED TO AN ALLOCATION BASED ON THE ANNUAL SUMMER PEAK**
2 **DEMAND?**

3 A Yes. The annual coincident peak allocation factor can be calculated from Craig
4 Paice's exhibit as 42% for the residential class. Page 3, Tab 4, of Mr. Paice's exhibit
5 shows that the residential class was allocated 32.7% of generation demand costs.
6 The difference between the allocation factors, as applied to \$327 million of generation
7 demand-related revenue requirement is approximately \$30 million per year. Making
8 the same calculations for transmission costs produces an additional benefit of
9 approximately \$9 million. As a result, the benefit already enjoyed by the residential
10 class from allocations using the 12CP 75/25 method is approximately \$40 million per
11 year.

12 **Q WHAT IS YOUR OVERALL CONCLUSION?**

13 A In the absence of a comprehensive analysis considering both capital costs and fuel
14 costs, the traditional method of treating both capital costs and fuel costs on an
15 average basis and allocating capital costs on demand and energy costs on energy is
16 the appropriate approach.

17 **Q DOES MR. CHERNICK MAKE SIMILAR CLASSIFICATION ARGUMENTS WITH**
18 **RESPECT TO THE TRANSMISSION SYSTEM?**

19 A Yes. He argues that a larger percentage of the transmission system should be
20 considered energy-related, but does not attempt any quantification of such a
21 classification nor make any attempt to determine the impact on the cost of service
22 study. Most of his brief discussion of the transmission system consists of speculation
23 about the purpose for which the system was built ... and therefore should be
24 disregarded.

1 **Q HOW DOES THE FEDERAL ENERGY REGULATORY COMMISSION (FERC)**
2 **PRICE TRANSMISSION CAPACITY?**

3 A FERC transmission tariffs price transmission capacity on the basis of demand only,
4 without any energy component. This pricing approach is in recognition of the fact that
5 the primary purpose for building most transmission systems is to integrate the loads
6 and generation, and to interconnect with other generating entities in order to provide
7 reliable service. Of course, having made these investments for reliability purposes,
8 there may be some additional benefits achieved as a result of utilizing the available
9 capacity margins in these systems for economy transactions. However, that does not
10 diminish the fact that for most transmission lines (there will always be some
11 exceptions) the primary purpose of construction was for reliability. That is, they are
12 capacity-related.

13 **Q IS THERE ANY BASIS IN MR. CHERNICK'S TESTIMONY FOR TREATING THE**
14 **INVESTMENT IN TRANSMISSION FACILITIES ANY DIFFERENTLY THAN HAS**
15 **RMP?**

16 A No.

1 Q DOES MR. CHERNICK ALSO PROVIDE TESTIMONY CONCERNING CERTAIN
2 DISTRIBUTION ISSUES?

3 A Yes. He makes similar comments about energy classification/allocation on the
4 distribution system. He provides a lot of verbiage about high load hours and about
5 energy losses and equipment overloads but provides no hard evidence. He
6 essentially rebuts his own arguments at page 22 of his testimony when, in reference
7 to RMP's distribution design guidelines he states:

8 "The Study identifies a number of ways in which **expected energy**
9 **use, especially in hours close to peak in load** or time, affects both
10 design standards and investment." [Emphasis added.]

11 Of course, energy usage "...in hours close to peak in load..." is the classic
12 definition of demand. High usage in a few hours – and Mr. Chernick mentions an
13 eight-hour rating – is much closer to maximum demand than to energy. This
14 reference provides absolutely no basis for Mr. Chernick's recommendations.

15 Q IS IT CUSTOMARY TO CLASSIFY TO ENERGY, OR TO ALLOCATE USING AN
16 ENERGY COMPONENT, ELEMENTS OF THE DISTRIBUTION SYSTEM?

17 A No. In fact, it is rare that anyone even suggests doing so. The National Association
18 of Regulatory Commissioners (NARUC) January 1992 "Electric Utility Cost Allocation
19 Manual" provides the following with respect to the distribution system at page 89:

20 "To ensure that costs are properly allocated, the analyst must first
21 classify each account as demand-related, customer-related, or a
22 combination of both. The classification depends upon the analyst's
23 evaluation of how the costs in these accounts were incurred. In
24 making this determination, supporting data may be more important
25 than theoretical considerations.

26 Allocating costs to the appropriate groups in a cost study
27 requires a special analysis of the nature of distribution plant and
28 expenses. This will ensure that costs are assigned to the correct
29 functional groups for classification and allocation. As indicated in
30 Chapter 4, all costs of service can be identified as energy-related,
31 demand-related, or customer-related. **Because there is no energy**

1 **component of distribution-related costs, we need consider only**
2 **the demand and customer components.”** [Emphasis added.]

3 While proposals like Mr. Chernick’s are made once in a while, I am not aware of any
4 commission that has adopted an energy allocation of distribution investment.

5 **Q DOES MR. CHERNICK ALSO HAVE A POSITION WITH RESPECT TO**
6 **DISTRIBUTION WEIGHTING FACTORS?**

7 A He provides some calculations. At page 23 of his testimony he states that he looked
8 at two methods that he believes recognize the size of individual substations and the
9 effect of multiple peaks on substation sizing. Here is what he says:

10 “For the first method, I computed the ratio of the monthly peak on the
11 substation to the annual peak on the substation, from Attachment CCS
12 10.28, squared the result so as to rapidly reduce the contribution as
13 load falls, and summed the squares over the substations to derive the
14 monthly weights. The second approach is similar, but starts with the
15 ratio of the monthly peak on the substation (in MW) to the substation’s
16 capacity (in MVA).”

17 Note that there is absolutely no support provided for this particular formulation
18 of weighting. There is no basis to believe that these calculations have any meaning
19 at all, and certainly no reason to believe that they are more scientific or technically
20 correct than the approach used by RMP.

21 Accordingly, this recommendation also should be rejected.

22 **Q DESPITE ALL OF THE SUGGESTIONS MADE BY MR. CHERNICK, WHAT IS**
23 **YOUR UNDERSTANDING OF THE COMMITTEE OF CONSUMER SERVICES’**
24 **POSITION WITH RESPECT TO THE SPREAD OF THE INCREASE IN THIS CASE?**

25 A It is my understanding from reading the testimony of Mr. Gimble that the Committee
26 of Consumer Services recommends an equal percentage allocation of the revenue
27 increase among customer classes and rate schedules. As noted in my direct

1 testimony in this phase of the proceeding, I agree with the Committee of Consumer
2 Services on this recommendation.

3 **Additional Studies Required Before**
4 **Altering Interclass Rate Relationships**

5 **Q BASED ON YOUR PREVIOUS TESTIMONY, WHAT NEEDS TO BE DONE**
6 **BEFORE CONSIDERING THE ALTERATION OF EXISTING INTERCLASS RATE**
7 **RELATIONSHIPS ON A COST OF SERVICE BASIS?**

8 A I believe that the following must take place prior to considering any change in the
9 interclass rate relationships:

- 10 1. Completion of a sampling program adequate to accurately estimate the hourly
11 loads for the residential and other non-demand metered classes.
- 12 2. Development of an accurate modeling of the effect of “peak-making weather” on
13 class loads.
- 14 3. A study of the cost of standing by to serve temperature sensitive loads such as
15 the residential class, which exhibits very substantial seasonal and daily load
16 swings that are based on temperature and other factors.
- 17 4. Identification of the cost-causing system peak demands that should be used for
18 cost allocation, and an evaluation of whether there should be any energy
19 weighting to the allocation of generation and transmission fixed costs.

20 All of the above are required in order to develop a reasonable basis for
21 determining class cost responsibility.

22 **Response to Western Resource Advocates Witness Mr. Mendelsohn**

23 **Q HAVE YOU REVIEWED THE DIRECT TESTIMONY OF MR. MENDELSON ON**
24 **BEHALF OF WESTERN RESOURCE ADVOCATES?**

25 A Yes, I have.

26 **Q WHAT DOES MR. MENDELSON ADDRESS?**

1 A He addresses the proposed Schedule 500, RMP's anti-growth vintage pricing
2 proposal.

3 **Q DOES HE SUPPORT THIS CONCEPT?**

4 A Yes, he does. In fact, he likes it so much he wants to reduce the threshold from
5 10,000 kilowatts to 5,000 kilowatts. He also supports the concept of a more stringent
6 large customer contract, and offers some suggested language which appears in
7 quotation marks, but does not have any source reference.

8 **Q HAS MR. MENDELSON PROVIDED ANY ADDITIONAL SUPPORT FOR THE**
9 **ANTI-GROWTH VINTAGE PRICING PROPOSAL BEYOND WHAT WAS**
10 **PRESENTED BY RMP IN ITS DIRECT TESTIMONY?**

11 A No. Mr. Mendelsohn has not added anything to the argument in support of the anti-
12 growth vintage pricing. Accordingly, the direct testimony presented by my colleague,
13 Mr. Chalfant, (as well as my direct testimony) adequately responds to Mr.
14 Mendelsohn's testimony on this subject. His recommendations should be
15 disregarded, as should RMP's.

16 **Q DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

17 A Yes, it does.

CERTIFICATE OF SERVICE

(Docket No. 07-035-93)

I hereby certify that on this 3rd day of September 2008, I caused to be e-mailed, a true and correct copy of the foregoing Rebuttal Testimony of Maurice Brubaker **Concerning Cost of Service, Revenue Allocation and Rate Design** to:

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