

**THE STATE OF NEW HAMPSHIRE
BEFORE THE PUBLIC UTILITIES COMMISSION**

**DIRECT TESTIMONY OF
STEPHEN R. HALL AND FREDERICK B. WHITE**

Petition to Establish an Alternate Default Energy Service Rate

Docket No. DE 11-216

1 **Q. Please state your names, business addresses and positions.**

2 A. My name is Stephen R. Hall. My business address is PSNH Energy Park, 780 North
3 Commercial Street, Manchester, New Hampshire. I am Rate and Regulatory
4 Services Manager for Public Service Company of New Hampshire (“PSNH”).

5 A. My name is Frederick B. White. My business address is 107 Selden St, Berlin,
6 Connecticut. I am a Supervisor in the Wholesale Power Contracts department of
7 Northeast Utilities Service Company (“NUSCO”).

8 **Q. Have both of you previously testified before the Commission?**

9 A. Yes, we have both previously testified before the Commission.

10 **Q. What is the purpose of your testimony?**

11 A. The purpose of our testimony is to propose a redesigned Rate ADE, as required by
12 the Commission’s Order No. 25,320 issued January 26, 2012 in this docket. In that
13 Order, the Commission denied PSNH’s petition to establish an Alternate Default
14 Energy Service rate (Rate ADE) as proposed, and required PSNH to file a redesigned
15 rate by June 30, 2012. The Commission listed three concerns about the originally
16 proposed Rate ADE and also offered suggestions on the design of the rate and the

1 need for PSNH to work collaboratively with the other parties in an effort to address
2 their concerns.

3 **Q. Please summarize the concerns expressed by the Commission in Order No.**
4 **25,320.**

5 A. In its Order, the Commission listed three concerns with PSNH's proposed design.
6 First, it stated that the pricing of Rate ADE may not reflect market prices if the
7 market suddenly increases or decreases. In particular, if market prices were to
8 increase suddenly, the Commission expressed concern that all other customers would
9 have to shoulder any resulting under-recovery of costs. Second, the Commission
10 stated that because customers under Rate ADE could move freely between Rate ADE
11 and competitive supply for a 24-month period, there was potential for "gaming",
12 increasing the possibility of an under-recovery which would be to the detriment of
13 PSNH's customers taking service under Rate DE. Third, the Commission concluded
14 that PSNH's proposed one cent adder was not supported by the record in the
15 proceeding, and that there was enough uncertainty in the rate design to suggest that
16 one cent may not collect enough revenue to cover unexpected price spikes in the
17 marginal cost of electricity.

18 **Q. Does your revised proposal address the concerns expressed by the Commission**
19 **in its Order No. 25,320?**

20 A. Yes, we believe it does. In addition, the proposal contained herein also addresses
21 concerns expressed by the OCA.

1 **Q. Is PSNH’s proposal similar in design to its earlier proposal?**

2 A. Yes. PSNH’s proposed redesigned Rate ADE builds on its previous proposal in the
3 docket but we have added significant new enhancements that address concerns
4 expressed in the Commission’s Order. PSNH has retained the fundamental aspects of
5 its earlier proposal, but has added some features that reduce risk without significantly
6 reducing the attractiveness of the rate to customers. This last point is extremely
7 important, and we will discuss the balance between risk and attractiveness to
8 customers later in this testimony.

9 **Q. Please provide a general overview of PSNH’s revised proposal.**

10 A. PSNH is proposing a new energy service rate for customers who are returning to
11 PSNH energy service after taking service from a competitive supplier.¹ The new
12 rate, Alternate Default Energy Service Rate ADE, is contained in the illustrative tariff
13 pages that are included as Attachment 1. The pricing under Rate ADE will be based
14 on PSNH’s marginal costs to serve these returning customers plus an adder. We will
15 describe the pricing in more detail later.

16 The purpose of Rate ADE is to provide an option for customers to return to PSNH for
17 energy service at a price in excess of marginal cost while providing a contribution to
18 fixed costs that will benefit all other customers taking energy service from PSNH.

19 **Q. Has the Commission ever approved any similar rate design?**

20 A. Yes – on many occasions. The Commission has approved myriad arrangements
21 involving electric, gas, water and steam utilities where prices were set at levels based

¹ As used in this testimony, any reference to taking service from a “competitive supplier” means that the customer is either taking Supplier Service or Self Supply service as defined in PSNH’s tariff.

1 on the utility's marginal cost of service in order to provide additional contributions
2 toward the utility's fixed costs, to the benefit of other customers.

3 **Q. Please describe the availability of Rate ADE.**

4 Rate ADE will be available to all customers who take delivery service from PSNH.
5 Initially, the availability of Rate ADE will be limited to those customers taking
6 delivery service under Primary General Service Rate GV, Large General Service
7 Rate LG, or Backup Service Rate B (the rate classes for PSNH's largest customers)
8 who return to PSNH energy service after taking service from one or more
9 competitive suppliers for at least twelve consecutive months. Within nine months
10 after Rate ADE becomes effective for larger customers, PSNH will file revised tariff
11 pages making the rate available to all customers, including residential and small
12 commercial customers. PSNH is proposing making the rate available to smaller
13 customers in response to a concern expressed by the OCA during the last proceeding
14 that smaller customers should also be allowed to take service under Rate ADE.

15 **Q. Why is PSNH proposing a delay of up to nine months in the availability of Rate**
16 **ADE to smaller customers?**

17 A. PSNH's smaller customers are billed under a different billing system than its larger
18 customers. Initially, some of the effort required to bill larger customers will be done
19 manually given the more limited number of larger customers. Ultimately, all of the
20 work will be programmed and fully automated. Due to the number of smaller
21 customers, it is not feasible to perform manual billing work. Therefore, for smaller
22 customers, PSNH will need additional time to modify the billing system in order to
23 fully automate the billing and thus is proposing up to a nine-month delay in the

1 availability of Rate ADE to smaller customers in order to allow for the programming
2 of PSNH's billing system to be accomplished. While PSNH will make every effort
3 to complete the programming in less than nine months, we are concerned that
4 committing to a shorter time frame could result in an inability to implement the rate
5 by an earlier deadline in the event that unforeseen problems are discovered during the
6 programming effort.

7 **Q. Please continue with your description of the availability of Rate ADE.**

8 Once a customer terminates service from a competitive supplier following at least
9 twelve consecutive months of such service, any energy service taken by that
10 customer from PSNH during any of the next twenty-four months must be taken under
11 Rate ADE. PSNH's standard Default Energy Service Rate (Rate DE) will no longer
12 be available to such customers during this twenty-four month period, with one
13 exception which will be described below.

14 **Q. Could you provide an illustrative example of how the Availability section of**
15 **Rate ADE will be applied?**

16 A. Yes. As an example, assume that a customer has been taking service from a
17 competitive supplier for at least twelve consecutive months and decides to return to
18 PSNH for energy service. The commencement of service under Rate ADE starts a
19 twenty-four month "clock" during which the customer may take service either under
20 Rate ADE or from a competitive supplier, with no restrictions for transferring from
21 Rate ADE to the competitive market, or vice versa.

1 During this twenty-four month time period, if the customer subsequently switches to
2 a competitive supplier for at least twelve consecutive months, the twenty-four month
3 “clock” is reset and begins counting anew when and if the customer returns to Rate
4 ADE for energy service. If the customer switches to a competitive supplier for less
5 than twelve continuous months and returns to Rate ADE within those twelve months,
6 the twenty-four month “clock” continues to run. Stated differently, the customer can
7 return to a competitive supplier for up to eleven consecutive months and then return
8 to service under Rate ADE without resetting the twenty-four month “clock”. Once
9 the twenty-four month period expires, the customer will thereafter be rendered
10 service under Rate DE (as long as the customer takes energy service from PSNH and
11 unless the customer again qualifies for service under Rate ADE).

12 Because Rate DE will not be available to the customer during the twenty-four months
13 when the “clock” is running, PSNH is also proposing a change to the “Availability”
14 section of Rate DE to clarify that it is not available to customers who are required to
15 take service under Rate ADE. An illustrative tariff page showing that proposed
16 language change is contained in Attachment 2.

17 **Q. Why is the availability of Rate ADE limited to customers who have taken**
18 **Supplier Service or Self-Supply Service for at least twelve consecutive months?**

19 A. Prices under Rate ADE may be less than or greater than under Rate DE, depending
20 upon PSNH’s then-current costs. Since PSNH’s marginal cost of providing energy
21 service is currently lower than its average cost, pricing under Rate ADE will, at the
22 outset, be below the pricing under PSNH’s Rate DE. Therefore, the limitation on
23 availability will ensure that whenever the price under Rate ADE is less than under

1 Rate DE, customers who are currently taking service under Rate DE don't terminate
2 such service for a brief period for the sole purpose of qualifying for service under
3 Rate ADE. Absent the provision limiting the availability, customers could "game the
4 system" by switching from Rate DE to the competitive market and return after a
5 period as short as one month for the sole purpose of qualifying for Rate ADE and
6 receiving a lower price, thereby resulting in revenue loss to the detriment of all
7 remaining Rate DE customers.

8 **Q. Is there anything that would prohibit a customer from leaving Rate DE for a full**
9 **year in order to qualify for Rate ADE?**

10 A. No, there isn't. However, we believe that it is unlikely that a customer would make a
11 decision to leave for a full year for the sole purpose of qualifying for Rate ADE,
12 particularly since it's not certain what the pricing of Rate ADE would be one year
13 later. This limitation on availability will prevent "gaming" by customers who would
14 otherwise frequently switch between service from a competitive supplier and energy
15 service from PSNH.

16 **Q. Why are customers who have taken Supplier Service or Self-Supply Service for**
17 **a period of at least twelve months *required* to take service under Rate ADE?**

18 A. As stated above, Rate ADE will initially be priced below Rate DE, since PSNH's
19 marginal cost of providing energy service is currently lower than its average cost.
20 However, that may not always be the case. In the event that market prices increase in
21 the future, PSNH's marginal cost of providing energy service could be in excess of
22 its average cost, as was the case for many years following restructuring. If that
23 situation again materializes, Rate ADE will be priced *above* Rate DE. Customers

1 who have been taking energy service from the competitive market would then have a
2 financial incentive to return to Rate DE. If this happened there would be increased
3 load under Rate DE at a marginal cost that is higher than average cost, which would
4 result in higher rates for all other customers. To avoid this situation, any customer
5 who returns to energy service from PSNH after at least twelve consecutive months of
6 service from a competitive supplier must take such service under Rate ADE rather
7 than under Rate DE, thereby providing a benefit to all customers served under Rate
8 DE.

9 **Q. Please explain your rationale for the twenty-four month term of service.**

10 A. The term of service under Rate ADE is set at twenty-four months to ensure that
11 customers do not receive an extended period of discounted rates when marginal costs
12 are below PSNH's average energy costs, and to avoid having customers paying a
13 higher rate for an extended period when marginal costs exceed PSNH's average
14 costs.

15 When marginal costs are below the price under Rate DE, returning customers will
16 want to take service under Rate ADE for as long as possible, since Rate ADE will
17 most likely be priced below Rate DE. In that situation, the contribution to fixed costs
18 provided by the adder benefits all other customers taking service under Rate DE, but
19 the lower pricing should end at some point (and only become available again if the
20 customer re-qualifies for service under Rate ADE by taking service from a
21 competitive supplier for at least twelve consecutive months).

22 Conversely, when marginal costs exceed the price under Rate DE, customers will
23 want to return to service under Rate DE rather than under Rate ADE. As discussed

1 above, in this situation, if a customer returns to service under Rate DE, it raises the
2 price for all other customers. Therefore, PSNH would desire a longer term of service
3 under Rate ADE to extend the length of time that the benefits are provided to all
4 other customers.

5 In order to balance these competing objectives, and in view of the uncertainty of
6 future market prices, PSNH is proposing a twenty-four month term of service under
7 Rate ADE.

8 **Q. How will you calculate the price for service under Rate ADE?**

9 A. Pricing under Rate ADE will be determined annually and the rate will remain in
10 effect for a full year unless there is a significant shift in the market, as described
11 below. PSNH is proposing that the initial price for Rate ADE be effective as of July
12 1, 2012 for a twelve-month period. The price will be subject to change if PSNH's
13 forecasted marginal costs have increased by a predetermined amount. We will
14 discuss this potential for price changes later.

15 The price will be a forecast of the marginal cost to provide full requirements service
16 to the New Hampshire load zone, plus an adder.

17 The forecast of the marginal cost will include forward energy market prices, forward
18 capacity market prices, forecasted ancillary service costs, forecasted ISO-NE market
19 administration costs, and forecasted renewable portfolio standard compliance costs,
20 all of which will be determined in a manner consistent with that utilized in filings for
21 Rate DE. In practice, the marginal cost to provide full requirements service to the
22 New Hampshire load zone will be calculated as the change in cost to serve energy

1 service load divided by the change in energy service sales resulting from the removal
2 of migration from the energy service rate forecast.

3 The adder will be equal to the non-operating costs of the wet flue gas desulfurization
4 system (scrubber) divided by forecasted Energy Service sales under Rate DE. Non-
5 operating costs include depreciation, return on rate base including income taxes and
6 any incremental property taxes.

7 **Q. Why will the adder be set equal to the non-operating cost of the scrubber?**

8 A. The adder will be calculated based on the non-operating cost of the scrubber in order
9 to comply with RSA 125-O:18, which requires that all prudent costs of complying
10 with RSA 125-O:13 must be recovered through the utility's default service charge.
11 To comply with that law, PSNH is proposing to calculate the adder based on the non-
12 operating cost of the scrubber and therefore recover those costs through Rate ADE as
13 well as Rate DE. This requirement addresses the Commission's concern in its Order
14 No. 25,320 that the proposed one cent per kWh adder in PSNH's original Rate ADE
15 proposal was not supported by the record. Since the scrubber is now in service and
16 the non-operating cost is known, there is sufficient cost basis to calculate the adder.

17 **Q. Is there any prohibition to recovering the non-operating cost of the scrubber**
18 **through Rate ADE prior to the completion of the Commission's prudence**
19 **review of the scrubber?**

20 A. We don't believe there is any such prohibition. However, in the event that the
21 Commission is concerned about allowing recovery of the non-operating cost of the
22 scrubber to be recovered through Rate ADE prior to completion of the prudence

1 review, the adder could be set at the temporary rate recovery level that the
2 Commission approved for recovery of the cost of the scrubber through Rate DE.
3 That level, approved in Order No. 25,346 dated April 10, 2012 in Docket No. DE 11-
4 250 is 0.98¢ per kWh. The adder could remain at that level until completion of the
5 Commission's prudence review, at which point the adder could then be set at the non-
6 operating cost of the scrubber.

7 **Q. Why will the pricing under Rate ADE be premised on PSNH's marginal costs?**

8 A. Pricing under Rate ADE will be based on PSNH's marginal costs for two reasons: i.
9 to provide customers with the proper price signal; and, ii. to comply with Order No.
10 25,256's finding that "it is reasonable that PSNH be allowed to charge customers
11 who return to its default service an alternative default service rate reflecting the
12 marginal cost to serve that load." Customers who have opted to take service from a
13 competitive supplier have demonstrated high price sensitivity. By pricing closer to
14 marginal cost, PSNH will be sending those customers an appropriate price signal:
15 that the cost of serving those customers is currently less than PSNH's average
16 embedded cost. Such customers will also receive an appropriate price signal if
17 marginal costs increase above PSNH's average embedded cost, because pricing under
18 Rate ADE would then be above the price under Rate DE.

1 **Q. You stated that the rate under Rate ADE would be set for an annual period and**
2 **would not increase unless PSNH’s forecasted marginal costs change by a pre-**
3 **determined amount. Please explain why you are proposing a methodology for**
4 **interim changes to the rate, and how the rate under Rate ADE would change on**
5 **an interim basis.**

6 A. One of the Commission’s concerns expressed in Order No. 25,320 was that pricing of
7 Rate ADE may not reflect market prices. Although PSNH had provided testimony
8 stating that the rate would be subject to change after six months if market prices
9 changed significantly, there was no specific methodology proposed for determining
10 whether to implement such changes. PSNH is therefore proposing specific criteria to
11 use in determining whether the rate should be increased after six months.
12 PSNH will monitor its forecasted marginal costs on a monthly basis and compare
13 those prices to the prices used to calculate the annual rate. If new projections of
14 average marginal costs for the remaining months of the annual period have increased
15 by at least 75% of the amount of adder as compared to the marginal costs for the
16 those same months that were used to determine the annual rate, PSNH will file a
17 request with the Commission to increase the rate under Rate ADE for the last six
18 months of the annual period.

19 **Q. Why are you proposing an increase of 75% as the benchmark to use to**
20 **determine whether the rate should increase?**

21 A. The value that Rate ADE will provide to all other customers is the increment above
22 PSNH’s marginal cost of serving the load. That increment is the adder to marginal
23 cost used to determine the rate. In order to ensure that Rate ADE will continue to
24 provide benefit, PSNH proposes that using an increase in marginal costs of 75% of

1 the amount of the adder will provide protection to all other customers and a sufficient
2 cushion to ensure that there is still some contribution to fixed costs in the rate. If a
3 higher percentage of the adder was used, then there is a greater chance that the
4 margin would not be sufficient enough to produce value to all other customers during
5 periods of time when market prices are rapidly increasing. Conversely, if a lower
6 percentage was used, it would result in more frequent rate changes, making the rate
7 less attractive to customers.

8 **Q. Your proposal only addresses how the rate will be changed after six months if**
9 **forward market prices increase. How will you minimize any under-recoveries**
10 **that might occur as a result of serving load under Rate ADE during the time**
11 **period until the rate is increased?**

12 A. Potential under-recoveries will be minimized in two ways. First, by using an increase
13 in marginal costs of 75% of the amount of the adder (rather than 100%) to trigger a
14 filing for a change to the rate, there is some cushion built in since even at a 75%
15 level, there is still a modest contribution to fixed costs. Second, in order to ensure
16 that additional load doesn't enroll under Rate ADE for the remaining months of the
17 current six-month period, PSNH proposes that it be allowed to close the availability
18 of Rate ADE to new customers until the rate is modified if projected marginal costs
19 increase by more than 75% of the adder. By closing the availability of Rate ADE, no
20 additional load could enroll at prices that could be close to marginal cost. While all
21 existing customers would be entitled to remain on Rate ADE, any risk of under
22 recovery would be minimized by the closing of the rate to new load.

1 The ability to close the rate to new customers addresses one of the concerns that the
2 Commission expressed in its Order No. 25,320. That concern was that if market
3 prices increased during the six-month period between rate adjustments, Rate ADE
4 with its lower projected marginal cost would be more attractive to customers who had
5 migrated to competitive supply, and those customers could return to PSNH Rate
6 ADE for energy service. The Commission noted that if qualifying load returned to
7 PSNH at a lower-than-market Rate ADE, PSNH would not collect sufficient revenue
8 from returning load to pay for the marginal cost of power. If PSNH has the ability to
9 quickly close the availability of Rate ADE, the circumstance contemplated by the
10 Commission in its Order could not materialize.

11 **Q. If Rate ADE is closed to new customers for a brief period, as described above,**
12 **under what rate will returning customers be served?**

13 A. If PSNH temporarily closes Rate ADE to new customers, any customer returning to
14 PSNH for energy service would be served under Rate DE. This is the exception
15 referred to earlier in this testimony. Since there must be a default energy service
16 available to customers, if Rate ADE is closed then returning customers would be
17 served under Rate DE. Once the rate under Rate ADE is adjusted at the end of the
18 six-month period and Rate ADE is re-opened, all customers who had been placed
19 under Rate DE would be transferred to Rate ADE. Those customers would not be
20 required to re-qualify for service under Rate ADE by taking service from a
21 competitive supplier for twelve consecutive months, and the twenty-four month
22 “clock” for such customers would continue to run during the months in which they
23 took service under Rate DE.

1 **Q. If market prices increased and PSNH subsequently proposed closing the rate,**
2 **would a hearing be necessary in order to close the rate to new customers?**

3 A. No. PSNH will provide information to the Commission each month on forecasted
4 marginal costs and compare that current forecast to the forecasted marginal costs
5 used to establish the rate under Rate ADE. If the difference between the original
6 forecast and the current forecast is 75% or more than the amount of the adder, PSNH
7 will include along with its monthly information filing revised tariff pages containing
8 language closing the availability of Rate ADE to new customers. If the Commission
9 approves the concept proposed by PSNH, it would be a relatively simple matter for
10 the Commission’s Staff to confirm PSNH’s calculations and for the Commission to
11 either issue an order approving the tariff pages, or to allow the tariff pages to become
12 effective after thirty days, as provided under Puc 1603.07(a)(1).

13 **Q. Will the rate under Rate ADE be subject to downward adjustment in the event**
14 **that forward market prices decrease?**

15 A. Yes, it will. As part of PSNH’s monthly monitoring, PSNH will determine whether
16 to propose a decrease to the rate if market prices drop significantly. However, unlike
17 in the case of an increase to forward market prices, a decrease to forward market
18 prices will not result in a potential for under-recoveries and therefore the urgency to
19 change the rate is not as pressing. At worst, if market prices decrease significantly
20 and the rate has not yet changed, some customers might leave Rate ADE and take
21 service from the competitive market. This does not result in an under-recovery to be
22 recovered from all other customers; rather, it results in a potential lost opportunity.
23 The potential lost opportunity was one of the criticisms expressed by the OCA when
24 they opined that if no customers take service under Rate ADE, there will be no

1 benefit to regular default service customers. During a period of declining market
2 prices, it will be necessary to reduce the rate under Rate ADE in order to preserve the
3 benefits to all other customers, since customers would otherwise likely leave Rate
4 ADE for the competitive market, or would not commence service under Rate ADE
5 due to lower market pricing available from the competitive market.

6 **Q. Earlier, you alluded to the need to balance risk reduction with maintaining**
7 **attractiveness of the rate to customers. Could you elaborate on this point?**

8 A. Certainly. It's important to keep in mind the purpose of Rate ADE: to provide an
9 option to customers who have already migrated in a manner that benefits all other
10 customers who are served under Rate DE. While the concern expressed by the
11 Commission and the OCA about protecting all other customers from the potential of
12 losses has merit, it is absolutely essential that Rate ADE is still attractive to
13 customers who have migrated.

14 PSNH could design the rate in a manner that would completely eliminate any risk for
15 all other customers. For example, PSNH could design a rate that changes on a
16 monthly or hourly basis and/or put restrictions into the rate that would prevent
17 customers from either leaving or commencing service under certain conditions (i.e.,
18 restrictions that would completely eliminate any possibility of "gaming"). However,
19 doing so would no doubt result in a design that was so restrictive that few, if any,
20 migrated customers would actually take service under the rate. Moreover, such a
21 design could create an unworkable administrative challenge for PSNH's billing
22 systems. As we stated above, one of the criticisms voiced by the OCA and
23 referenced in the Commission's Order was that if no customers took service under

1 Rate ADE, then there would be no benefit for all other customers. By making the
2 rate too restrictive in an effort to absolutely eliminate risk to all other customers, it
3 would produce a self-fulfilling prophecy of creating no benefit for all other customers
4 since no migrated customer would be willing to take service under the rate.
5 PSNH's proposal in this testimony attempts to balance the need to reduce risk for all
6 other customers with the need to make the rate attractive to migrated customers,
7 thereby producing benefit for all other customers.

8 **Q. Is there any risk associated with not approving Rate ADE and maintaining the**
9 **status quo?**

10 A. Yes, there is. Over one-third of PSNH's energy load has migrated to the competitive
11 market. This migration has resulted in fixed costs being recovered from customers
12 who remain on Rate DE, thus increasing the rate. Market prices are currently low
13 due to very low gas prices. It's not clear how long gas prices will remain low, but as
14 long as they do, migration will continue and possibly increase. If PSNH does not
15 have an alternative available to offer to customers who have migrated, the cost
16 incurred by customers served under Rate DE will continue to increase if migration
17 continues to increase. Therefore, the risk of doing nothing is that the rate under Rate
18 DE will continue to either remain high or will even increase for customers remaining
19 on Rate DE as long as market prices remain low. PSNH believes that it is important
20 to establish this rate as soon as possible so that customers will have another
21 alternative that has the benefit of mitigating migration. Conversely, if market prices
22 increase significantly causing PSNH's marginal costs to return to a level in excess of
23 average costs, migrated customers will have a financial incentive to return to PSNH

1 for energy service at a time when additional load results in higher average costs.
2 Without Rate ADE, Rate DE would increase under that scenario.

3 **Q. Have you performed any analysis to assess the level of risk to all other**
4 **customers associated with Rate ADE?**

5 A. Yes, we have. One primary concern that was expressed during the last proceeding
6 was that if customers are able to switch to and from Rate ADE without restriction, it
7 could create under-recoveries to be shouldered by all other customers, since the
8 annual rate under Rate ADE would be more attractive to customers during those
9 months when market prices are high, and less attractive when market prices are low.
10 The concern was that customers would take service under Rate ADE only during
11 high cost months and would migrate back to the competitive market during low cost
12 months.

13 We've performed some analysis of that scenario to provide perspective on the
14 amount of potential exposure that exists for all other customers. Our analysis
15 incorporated assumptions about the following parameters:

- 16 1. market price movements;
- 17 2. the amount of sales which react to price movements; and
- 18 3. the amount of adders to marginal costs to determine retail price (both
19 PSNH's adder and 3rd party suppliers' adders).

20 Our analysis also incorporated the effect of the safeguards described above for re-
21 pricing Rate ADE and for closing the rate to new customers, to the extent that
22 marginal costs increase significantly due to a shift in market prices.

23

1 Although we believe that, in general, both customers and suppliers prefer multi-
2 month transactions, the analysis includes an assumption that two-thirds of all
3 customers are able to react perfectly to price signals on a monthly basis. Since most
4 customers will not have the ability to react immediately to market price shifts, this
5 assumption presents a “worst case” assumption with respect to the risk that Rate DE
6 customers will face once Rate ADE is in effect. The analysis shown in Attachment 3
7 further assumes that one-third of the load that returns under Rate ADE reacts to
8 longer term price signals.

9 **Q. Please describe Attachment 3.**

10 A. Attachment 3 contains a summary of five scenarios. In each scenario we have
11 assumed that 40 MW of load that has migrated returns to PSNH under Rate ADE and
12 is able to move back and forth between service under Rate ADE and service from the
13 competitive market on a monthly basis. This assumes that customers will have
14 perfect knowledge of market prices and will be able to make decisions on their
15 source of energy on very short notice. We have also assumed that 20 MW of load
16 per month returns to or leaves Rate ADE on a longer term basis, based on a
17 comparison of Rate ADE to a 12-month forward looking rate from competitive
18 suppliers. Inherent in this assumption is the idea that some customers utilize a longer
19 term view of electricity prices and are less likely to switch on a month-to-month
20 basis.

21 With regard to pricing, we assumed that Rate ADE is priced one cent above PSNH’s
22 forecasted marginal cost (since the non-operating costs of the scrubber are
23 approximately one cent per kWh), and that competitive supply is priced one-half cent

1 above marginal costs for short-term rates and one cent above marginal costs for long-
2 term rates. Finally, we assumed that Rate ADE includes the safeguards described
3 above (closing the rate to new customers and changing the rate after six months if
4 forecasted marginal costs increase by at least 75% of the amount of the adder).
5 The differences between the scenarios are the changes in market price that occur once
6 the rate is set under Rate ADE. In the first scenario, we have assumed that market
7 prices do not shift. The second scenario assumes that market prices shift upward by
8 10% following the setting of the rate under Rate ADE. The third scenario assumes a
9 downward shift of 10% in market prices. The fourth scenario assumes that market
10 prices shift upward by 5% in each month, while the fifth scenario assumes market
11 prices shift downward by 5% in each month. Some of the assumptions we have
12 made with respect to market prices are highly unlikely to occur, but we have included
13 them in an effort to bound the analysis.

14 The results of our analysis indicate that downside risk associated with customers
15 switching back and forth on a monthly basis is largely offset by upside potential. For
16 example, the possible outcomes of the analyses that we performed show a range of a
17 very small (approximately \$3,000) increase in fixed costs to a \$5.7 million annual
18 contribution (reduction) to fixed costs. Obviously, the amount of benefit to be
19 realized from implementation of Rate ADE will be largely dependent on the amount
20 of load that returns.

1 **Q. You stated that your analysis in Attachment 3 assumes that two-thirds of**
2 **customers under Rate ADE have the ability to switch between Rate ADE and**
3 **the competitive market on a monthly basis. Have you done any analysis**
4 **assuming that a smaller percentage of customers have that ability?**

5 A. Yes, we have. Attachment 4 contains a summary of the analysis we performed
6 assuming that only one-half of customers have the ability to switch back and forth on
7 a monthly basis, instead of the two-thirds assumed in Attachment 3. All of the other
8 assumptions in each of the five scenarios summarized in Attachment 4 are the same
9 as those used to develop Attachment 3.

10 As shown in Attachment 4, if the proportion of customers who switch between Rate
11 ADE and the competitive market on a monthly basis is less than two-thirds, the
12 benefits of Rate ADE are significantly improved. The analysis shows annual
13 contribution to fixed costs could be as high as \$8.6 million.

14 As stated above, we believe that the majority of customers will not be switching back
15 and forth on a monthly basis. As the proportion of customers who do so decreases,
16 the benefits of Rate ADE to customers taking service under Rate DE increase.

17 **Q. Have you calculated a proposed rate for effect July 1, 2012?**

18 A. Yes, we have. The rate we are proposing for Rate ADE for effect on July 1, 2012 is
19 6.40¢ per kilowatt-hour.

20 **Q. Please describe how that rate was calculated.**

21 A. Attachment 5 shows the calculation of the rate of 6.40¢ per kilowatt-hour. To
22 determine that rate, we added 1.03¢ per kilowatt-hour, which represents the non-

1 operating costs of the Scrubber, to the marginal cost of providing energy service, or
2 5.37¢ per kilowatt-hour. The detail supporting the non-operating costs of the scrubber
3 are shown on pages 2 and 3 of Attachment 5. The calculation of the marginal cost of
4 providing energy service is shown on Attachment 6.

5 **Q. Please describe how you calculated the marginal cost of providing energy**
6 **service.**

7 A. To calculate the marginal cost of providing energy service, we utilized the same
8 power supply portfolio model that is used to calculate the ES rate. For forward
9 market prices, we utilized prices as of April 16, 2012. The model was run with two
10 different levels of migration, and the cost difference between the two runs was
11 divided by the change in MWh sales to arrive at the cents per kilowatt-hour rate. We
12 will update the marginal cost (and therefore the rate) using the same forward market
13 prices that will be used for determining the ES rate for the second half of the year.
14 That ES rate filing will be made in early May, with an update in June, so this
15 testimony may be supplemented at that time with a revised rate proposal.

16 **Q. How do you propose to reconcile the difference between the revenue received**
17 **through Rate ADE and the cost incurred in serving the load?**

18 A. As in the case of PSNH's original proposal, the reconciliation will be performed as
19 part of the standard Energy Service reconciliation. The cost associated with serving
20 the load will automatically be included in standard Energy Service costs. The
21 revenue received by PSNH from customers served under Rate ADE will be added to
22 the standard Energy Service revenue in the reconciliation of revenue and expense.

1 Any over- or under-recovery associated with load under Rate ADE will flow through
2 to all customers served under PSNH's standard Energy Service Rate DE.

3 **Q. Will you be monitoring the results of Rate ADE?**

4 A. Yes. Each month, PSNH will calculate the difference between the revenue received
5 and the cost of serving the load and will report that information to the Commission
6 and the parties. By monitoring the results monthly, all parties will remain apprised of
7 the status of the benefits produced by Rate ADE, and will also have early notification
8 in the event that market prices increase unexpectedly, thus triggering the need to
9 close the rate to new customers.

10 **Q. Please summarize your proposal.**

11 A. PSNH's proposal addresses the concerns expressed by the Commission and the OCA
12 in their consideration of PSNH's prior proposal. PSNH has incorporated safeguards
13 into the design of Rate ADE that reduces the already low risk for all customers
14 remaining on Rate DE, yet keeps Rate ADE attractive to customers who have
15 migrated. The risk of doing nothing by rejecting Rate ADE is most likely higher than
16 the relatively small risk associated with approval of PSNH's proposed Rate ADE.
17 PSNH urges the Commission to approve this proposal to enable customers to begin
18 reaping the benefits that Rate ADE can provide.

19 **Q. Does this complete your testimony?**

20 A. Yes, it does.