

1 responsible for the design and administration of electric and gas rates for the
2 Company. I assumed my current position in March 2005. In this capacity, I am
3 responsible for the development and administration of unbundled rates for PHI's
4 ACE and Delmarva Power & Light Company subsidiaries.

5 **4. Q: Have you filed testimony in any other proceedings?**

6 **A:** Yes. I have previously presented and/or filed testimony as a witness
7 before the Delaware Public Service Commission (referred to herein as the
8 Commission or PSC), the Maryland Public Service Commission, the New Jersey
9 Board of Public Utilities and the State Corporation Commission of Virginia.

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

11 **A:** The purpose of my testimony is to:

- 12 1. Provide the rate design supporting the Company's proposed increase in gas
13 delivery revenue in the amount of \$11.915 million, as recommended in the
14 direct testimony of Company Witness VonSteuben. The proposed rate design
15 incorporates the results from the Cost of Service Study (COSS), as contained
16 in the direct testimony of Company Witness Tanos. It also addresses the
17 Advanced Metering Infrastructure (AMI) costs detailed in the testimony of
18 Company Witness Ziminsky. In addition, my recommended rate design also
19 considers the unitized rate of return (UROR) for each customer service
20 classification in the allocation of overall revenue requirements among service
21 classifications.
- 22 2. Provide a decoupling mechanism to the gas delivery rate structure for the
23 Residential (RG), General Gas (GG) and General Gas Firm Transportation

1 (GVFT) Service Classifications, which is intended to better levelize and
2 stabilize recovery of delivery-related costs over the course of each year. The
3 decoupling mechanism is a modified fixed variable (MFV) rate structure. The
4 major objective of this approach is to eliminate the relationship between
5 delivery revenue and the level of customer gas consumption.

6 3. Provide a description of a new tariff rider, the Volatility Mitigation Rider
7 (Rider VM) delineating a proposed alternative ratemaking mechanism for
8 delivery-related uncollectible expenses as described in the testimony of
9 Company Witness Ziminsky.

10 4. Provide a description of a new tariff rider, the Utility Facility Relocation
11 Charge Rider (Rider UFRC), related to the recovery of costs associated with
12 infrastructure relocations required as a result of projects undertaken by various
13 government agencies in the State of Delaware.

14 5. Provide a description of proposed miscellaneous changes to the DPL
15 Delaware Tariff for Gas Service.

16 6. Provide proposed rates and tariff revisions supporting the Company's
17 proposed interim rate increase of \$2.5 million.

18 **GAS DELIVERY RATE DESIGN**

19 **6. Q: What are the goals and objectives guiding your proposed modifications to the**
20 **Company's gas delivery rate structure?**

21 **A:** The major goals or objectives driving the modifications proposed for the
22 delivery rate structure are as follows:

- 1 1. Provide retail gas delivery rates which are reflective of the underlying costs to
2 provide gas delivery service. Rates which accurately reflect underlying costs
3 necessarily provide a greater degree of fairness with respect to the amount
4 each customer pays for delivery service.
- 5 2. Establish a delivery rate structure which provides a level of stability to
6 delivery revenues and reduces or eliminates the relationship between delivery
7 revenue and energy consumption.

8 **7. Q: How do you propose to modify delivery rates to better reflect the underlying**
9 **costs of providing gas delivery service?**

10 **A:** The design of gas delivery rates which accurately reflect costs can be
11 evaluated by the degree to which the rate structure meets two major criteria. The
12 first criterion involves the extent to which rates for customers in a given service
13 classification fully recover the delivery costs allocated to that class. The next
14 criterion involves the extent to which the rate structure for a service classification
15 accurately reflects the functionalized costs associated with providing delivery
16 service to that class.

17 The measure of success at achieving the first criterion is the UROR. The
18 UROR is a simple mathematical expression which relates the relative return from
19 each service classification to the overall return from the entire system, i.e., all
20 service classifications taken together. A UROR greater than 1.0 means that the
21 service classification is providing a greater than average return; while a UROR
22 less than 1.0 means that the service classification is providing less than the
23 average return for the entire system. Movement of all service classification

1 URORs to 1.0 in a single rate change would require significant shifts in allocation
2 of revenue requirements between service classifications and, consequently, would
3 have large inter-class rate impacts. Therefore, customer impact should be
4 considered as a balancing factor in any effort to achieve the goal of setting all
5 service classification URORs at unity. To balance both the UROR goal and the
6 concerns involving customer impacts, I established a general limitation that no
7 service classification would see an increase of more than 150% of the overall
8 average delivery percentage increase. Using these criteria, the UROR for all
9 service classifications can be moved to 1.0. The results of the allocation of the
10 proposed delivery rate increase are provided in Schedule JFJ-1.

11 **8. Q: Please describe how the pro-forma revenue requirement adjustment for AMI**
12 **has been incorporated into the rate design.**

13 **A:** The Company is proposing a pro-forma adjustment of \$2.055 million to
14 include the costs of AMI for Delaware gas customers through the end of 2010.
15 This period covers the end of the deployment period and essentially represents the
16 full costs of AMI for gas customers. The COSS results provided in the testimony
17 of Company Witness Tanos is based on test year information, exclusive of any
18 pro-forma adjustments. In an effort to better reflect the pro-forma AMI costs
19 across the gas service classifications, a set of AMI-specific allocation factors has
20 been developed outside of the test year COSS. These factors are provided as
21 Schedule JFJ-1A. The factors were used to allocate the pro-forma overall AMI
22 adjustment into the rate class-specific incremental revenue requirements. The
23 results are provided in Table 3 of Schedule JFJ-1. In order to avoid any

1 unintended inter-class subsidies, the AMI revenue requirements are added to the
2 revenue requirements developed in Tables 1 and 2 of Schedule JFJ-1 to address
3 inter-class equity issues, exclusive of the AMI adjustment.

4 The Company plans to update the test period revenue requirements for
5 actual results when the data becomes available. The COSS will also be updated at
6 that time and will include the costs for AMI, including any pro-forma
7 adjustments. The rate design will also be updated at that time to reflect the
8 updated COSS as well as updated billing determinants.

9 **9. Q: How do you propose to modify delivery rates to better reflect functionalized**
10 **costs?**

11 **A:** As previously noted, the next criterion for evaluating whether rates
12 accurately reflect underlying costs involves the extent to which the rate structure
13 for a specific service classification accurately reflects the functionalized costs
14 associated with providing delivery service to that class. Delivery costs can be
15 functionalized into two major categories: customer costs and demand costs. (The
16 COSS also functionalizes certain costs related to gas purchases as commodity
17 related. For purposes of the MFV rate design, these costs have been included in
18 the demand component of the rates for Service Classifications RG and GG.)
19 Customer costs include such things as metering, billing and customer care. The
20 basis for these costs is primarily driven by the number of customers served.

21 The second major category, demand costs, relates to the infrastructure
22 costs associated with the reliable delivery of natural gas. This category includes
23 pipes, valves and pressure regulation equipment, as well as equipment for system

1 protection and control. The underlying cost basis for this category of costs is the
2 maximum load, or demand, that must be served at any given time, by any
3 component on the system.

4 One feature that both of these categories has in common is that they are
5 both essentially fixed costs and are not dependent on the level of customer energy
6 consumption. Delivery rates that accurately reflect cost causation would,
7 therefore, be designed with a customer charge component and a demand
8 component which recognizes the customer's contribution to the overall load
9 which the delivery system is designed to serve. For larger customers, specifically
10 those taking service under Service Classification MVG (Medium Volume Gas)
11 and LVG (Large Volume Gas), and the corresponding gas firm transportation
12 service classifications (MVFT and LVFT), the gas delivery rate structure already
13 reflects this cost causation standard. The rate design for these service
14 classifications includes a customer charge and a charge for a contract level of gas
15 demand, referred to as Maximum Daily Quantity (MDQ).

16 The current rate design for the Residential, GG and GVFT Service
17 Classifications consists of a customer charge and a charge based on the volume of
18 gas delivered. The MFV rate design proposed for these service classifications
19 better aligns service classification cost recovery mechanisms to demand and
20 customer charges, to the greatest extent practicable.

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1 **10. Q: Please describe the proposed changes to the gas delivery rate design for the**
2 **RG, GG and GVFT Service Classifications.**

3 **A:** The proposed change to the gas delivery rate structure to a MFV rate
4 structure involves modifying the rate design to a two-part rate structure,
5 consisting of a customer-related charge and a demand-related charge. Under the
6 proposed approach, the level of costs recovered through the customer charge and
7 demand charge, respectively, would be fully based on the results of the COSS
8 functional allocations. The details of the proposed cost recovery levels for the
9 customer and demand charges by service classification are provided in Schedule
10 JFJ-2.

11 **11. Q: Please explain the mechanism proposed for developing a demand factor**
12 **Service Classifications RG, GG and GVFT.**

13 **A:** A new billing determinant will be developed and referred to as the
14 Delivery Demand Contribution (DDC) Factor. The DDC factor had previously
15 been defined as the “Design Day Contribution” in testimony filed in Docket No.
16 09-277T. In order to avoid confusion and comparison to the design day
17 calculation performed for cost of service purposes, it was decided to rename the
18 rate design factor. The DDC Factor is intended to better align customers delivery
19 rates with the underlying costs associated with overall design of the delivery
20 infrastructure. The design basis for a gas delivery system, that is, the basis for
21 determining the size of components such as gas mains, distribution lines, valves
22 and other supporting equipment, is the usage requirement under the coldest

1 anticipated conditions during the heating season. The DDC is intended to provide
2 a measure of an individual customer's contribution to the maximum system load.

3 An overall DDC Factor is developed for each service classification. The
4 DDC Factor is based on sales for the prior January and February billing months,
5 as well as sales from the previous August, as recorded in the Company's
6 accounting records. The DDC factor is calculated as follows:

- 7 1. Heating usage per degree day is calculated as follows:
 - 8 a. Total service classification usage for the January and February billing
9 months is determined.
 - 10 b. Non-heating usage for the period is calculated using the usage level for
11 the August billing month divided by the billing days for August,
12 multiplied by the total billing days for January and February.
 - 13 c. Heating usage is determined by subtracting the non-heating usage
14 calculated in step 1.b from the total usage determined in Step 1.a.
 - 15 d. The heating usage determined in Step 1.c. is divided by the total
16 degree days in the January and February period.
- 17 2. The heating usage per degree day is multiplied by the Design Degree Days of
18 65 to develop a heating usage contribution to the DDC Factor.
- 19 3. A baseline non-heating usage level calculated as the August usage level
20 divided by the August Billing days is added to the heating contribution
21 calculated in Step 2.

22 The development of the proposed aggregate DDC factors is provided in
23 Schedule JFJ-3. The factors provided are currently based on data from the test

1 year (12 months ending December 2009.) These factors would be updated based
2 on the most recent data available at the time of a Commission decision in this
3 proceeding.

4 The DDC will also be developed for each customer premise using
5 information available in the Company's Customer Information System and the
6 same calculation method delineated in Schedule JFJ-3. The final step in the
7 process is to reconcile the sum total of the individually developed customers DDC
8 factors with the aggregate DDC. As with the aggregate DDC, the most recent
9 data available at the time of the Commission's decision in this proceeding will be
10 used to develop customer-specific DDC's.

11 Workpapers detailing the development of the proposed new rates are
12 provided in Schedule JFJ-4.

13 **12. Q: Please provide a summary of the efforts that have taken place thus far to**
14 **develop an MFV rate design for Delmarva's Delaware customers.**

15 **A:** In Order No. 7420 in PSC Regulation Docket No. 59, the Commission
16 approved the potential adoption of a MFV rate design for electric and gas delivery
17 utilities within the context of a rate case proceeding. However, the order further
18 provided the Commission with the flexibility to address rate design changes
19 outside of a base rate case if the situation is warranted. On June 25, 2009, the
20 Company filed MFV rate design proposals for electric and gas which included the
21 development of rates on a revenue neutral basis, when compared to the revenue
22 requirement approved by the Commission in Order No. 6903 in Docket No. 06-

1 284. The electric filing was assigned Docket No. 09-276T, while the gas filing
2 assigned Docket No. 09-277T.

3 On September 18, 2009 the Company filed for a change in its electric
4 distribution base rates. That filing, which was assigned Docket No. 09-414, also
5 included provisions for an electric MFV rate design. On April 16, 2010, the
6 parties in that case reached a settlement on the approach to be taken to move
7 forward with electric MFV rates.

8 On a parallel path, the parties in Docket No. 09-277T have been meeting
9 since January 2010 in an effort to reach consensus on the features and details of
10 the gas MFV rate design. The group last met on June 25, 2010 and has reached a
11 consensus on the gas MFV rate design. The rate design included in my testimony
12 reflects the agreements reached in the working group. It includes a degree of
13 gradualism in the design of the proposed customer charge, which is intended to
14 mitigate the impact of the rate structure change to customers on the high end of
15 the bill impact range.

16 **13. Q: Please describe the Company's proposal to introduce gradualism into the**
17 **rate design.**

18 **A:** Included in DE PSC Order No. 7420 in PSC Regulation Docket No. 59
19 regarding revenue decoupling, the Commission acknowledged Staff's position in
20 the proceeding that the modified fixed variable (MFV) rate design include
21 provisions for rate gradualism. Throughout the distribution case proceeding in
22 PSC Docket No. 09-414, as well as in the gas decoupling proceeding in Docket
23 No. 09-277T, this has been understood to mean that consideration will be given to

1 affording some protection to customers who could experience significant bill
2 impacts as a result of the transition to the new rate design.

3 As part of the evaluation of the gas MFV rate design, two major factors
4 have been identified in contributing to the customer bill impact associated with
5 the transition to the MFV. The first is the customer's overall usage level.
6 Customers with lower usage levels will see a more significant impact due to the
7 increased customer charge than higher usage customers. The second factor is the
8 relationship of the customer's winter usage, upon which the DDC is based, to
9 their summer usage. The bill impact related to load factor varies proportionally to
10 the extent to which a customer's usage is leveled throughout the year.

11 An analysis was performed using a revenue neutral rate design with the
12 customer charge designed to fully recover customer-related costs. A revenue
13 neutral rate design is provided in Schedule JFJ-5. The results of the bill impact
14 analysis are provided in Schedule JFJ-6. The results of the bill impact analysis
15 indicate that the highest adverse bill impacts, on a percentage basis, are associated
16 with customers with low overall usage levels. Further, the results show that the
17 impact to these customers, on a dollar per month basis, is essentially equivalent to
18 the customer charge change of approximately \$5.00.

19 In an effort to mitigate the impact on the low usage customers, I propose
20 that the movement to a fully cost based customer charge be moderated to
21 introduce a measure of gradualism into the proposed rate design.

22
23

1 **14. Q: What customer charge would be proposed on a revenue neutral basis?**

2 **A:** A range of customer charge levels between current levels and the fully
3 cost based levels were modeled. For each customer charge option, the
4 relationship between the percentage impacts to the monthly bill impact in dollars
5 was evaluated. The results are presented in the Schedule JFJ-7. For Service
6 Classification RG, a customer charge level of \$13 provides the most widespread
7 and stable impact mitigation, resulting in an average impact for customers with a
8 10% impact or greater of \$4.24. For the GG service classification, a Customer
9 Charge of \$40.00 provides comparable mitigating results.

10 **15. Q: Has the Company performed a billing comparison for the under the**
11 **proposed revenue neutral customer charge level?**

12 **A:** Yes. An analysis of the bill impacts is provided in Schedule JFJ-7. The
13 results of the moderating the customer charge to a level of \$13.00 would result in
14 approximately 92% of the residential customers having bill impacts of plus or
15 minus 10%. Approximately 7% of the customers would see a bill impact of
16 greater than 10%. However, for those customers with bill impacts greater than
17 10%, the average monthly bill impact is about \$4.40.

18 For customers on Service Classification GG, the population of customers
19 whose bill impact meets or exceeds 10% is reduced from 49% to 45%.

20 **16. Q: Has the Company performed a billing comparison for the overall proposed**
21 **rate changes?**

22 **A:** Yes. In addition to the analysis of the impact of the rate structure
23 modification, a bill impact analysis was performed to demonstrate the combined

1 impact of the proposed rate increase, as well as the proposed rate design
2 modifications across Service Classifications R and GG. A billing comparison was
3 also performed for Service Classification MVG and LVG.

4 With the proposed MFV delivery rate design, which decouples the charge
5 for delivery service from the level of gas consumption, the familiar bill
6 comparison analysis, based on a constant usage amount, is not as informative as it
7 had been for previous rate changes. The monthly volumetric component of the
8 customer's delivery charge is replaced with the DDC component, which is fixed
9 throughout the year. The fixed DDC billing determinant is based on winter loads
10 and is dependent upon winter usage patterns. As a result, the bill impact is
11 dependent upon the relationship between the customer's winter heating usage and
12 their usage during the rest of the year. A customer with monthly usage that is
13 fairly constant throughout the year is less impacted than a customer whose winter
14 usage is significantly higher than their non-summer use.

15 To provide a more meaningful presentation of the bill impact, page 1 of
16 Schedule JFJ-8 provides the impact over a range of summer and winter usage
17 level combinations. Schedule JFJ-8 highlights the average residential monthly
18 winter usage per customer of 140 CCF. For a residential customer with a usage
19 pattern at or near that of the class average usage pattern, the average monthly bill
20 impact is estimated to be \$6.99 or 8.1% of their total annual bill.

1 **VOLATILITY MITIGATION (VM) RIDER**

2 **17. Q: What is the purpose of the proposed Rider VM?**

3 **A:** As described in the testimony of Company Witnesses Ziminsky and
4 Wathen, the Company is proposing an alternative ratemaking approach to the
5 recovery of pension and other post employment benefit expenses, as well as the
6 recovery of uncollectible expenses. Rider VM is intended to mitigate the impact
7 of the volatility associated with annual expense levels associated with the pension
8 and other post employment benefits, as well as uncollectible expenses. The rate
9 delineated in proposed Rider VM is intended to recover a three-year rolling
10 average of pension, OPEB and uncollectible costs. It is proposed that the rate
11 would be reset annually, based on the current three year average of these costs.
12 The rate would be subject to deferred accounting treatment and the difference
13 between that average and the currently incurred amounts would be recorded as a
14 deferred asset/liability and subject to true up in as part of the annual adjustment
15 process. The testimony of Company Witness VonSteuben provides the details of
16 the initial amount requested for recovery through this rate. Schedule JFJ-9
17 provides the calculation of the rate, which is designed on a volumetric basis on an
18 equal level to all service classifications. Tariff Sheets delineating the terms and
19 conditions of the proposed alternative rate are provided as Schedule JFJ-10.

1 and the Company's allowed weighted cost of capital. The total revenue
2 requirements for the period would be divided by the projected level of delivery
3 revenue for the period during which the UFRC is to be effective (January – June,
4 or July – December). This result is expressed as a percentage carried to 2 decimal
5 places and will be applied to the delivery portion of customer bills during the
6 effective period of the UFRC.

7 The UFRC will also be subject to an annual reconciliation of revenues
8 derived from the UFRC and the actual level of revenue requirements. This
9 reconciliation will be calculated for the 12 month period ending December 31 of
10 each year. The reconciliation adjustment will be recouped or refunded over a 1
11 year period and will be included in the July UFRC adjustment. Interest will be
12 included in the reconciliation balance should the total annual UFRC revenues
13 exceed the associated revenue requirements.

14 The initial UFRC will be set at 0.00%. Schedule JFJ-11 provides an
15 illustrative example of the development of a UFRC rate. A proposed Tariff Rider
16 UFRC is included in the revised tariff sheets provided in the Application Book.

17 **SEASONAL RECONNECTION CHARGE**

18 **20. Q: Please describe the proposed Seasonal Reconnection Charge.**

19 **A:** The Company proposes to institute a Seasonal Reconnection Charge for
20 customers who seasonally request to terminate their gas service. The
21 Reconnection Charge schedule would be the same as the Restoration Charge
22 levels delineated in Section XV, Paragraph B of the Company's Tariff for Gas

1 Service. Additionally, the customer would be responsible for the amount of
2 avoided customer charges during the term of the seasonal disconnection.

3 **21. Q: What is the reason for recommending this new charge structure at this time?**

4 **A:** The Company has experienced a number of customers who elect to
5 discontinue service on a seasonal basis. Even though these customers are
6 disconnected from the system, the Company still provides the infrastructure
7 required to provide service to them. Additionally, because the customers take
8 service during the heating season, the gas delivery infrastructure must be designed
9 to accommodate them. With the implementation of a MFV rate design, along
10 with the proposed cost-based customer charge, recovery of these delivery –related
11 costs will be more levelized during the course of the year. As a result, the impact
12 of these seasonal disconnections will be more pronounced. Ultimately, as new
13 rates are established, the cost of service which the disconnected customers are
14 seeking to avoid is borne by the remaining customers in their service
15 classification. The introduction of a reconnection fee for these circumstances is
16 intended to discourage this behavior by sending a price signal for this option
17 which is more reflective of the costs associated with serving these customers even
18 during periods that they are disconnected.

19 **22. Q: Are you proposing any additional tariff changes?**

20 **A:** Yes. In addition to the tariff changes previously noted, there are several
21 minor changes proposed for clarification or editorial reasons. The revised tariff
22 sheets are provided in clean and redline format in Appendix A in the Application

1 Book of this filing. A matrix summarizing the proposed changes is provided as
2 Schedule JFJ-12.

3 **INTERIM RATE INCREASE**

4 **23. Q: Is the Company seeking to implement an Interim Rate Increase?**

5 **A:** Yes. In the event the Commission exercises its discretion to suspend the
6 proposed increase in base rates for a period not greater than seven months, the
7 Company intends to place in effect, subject to refund, delivery rates designed to
8 produce an annual increase in test period revenue of \$2,500,000 dollars effective
9 August 31, 2010, pursuant to 26 Del. C. § 306(c).

10 **24. Q: Please describe how the Interim Rates were developed.**

11 **A:** The interim rates were developed using the existing rate structure of each
12 service classification and using the interim base revenue increase of \$2,500,000 to
13 achieve an equal percentage increase to total delivery revenue of 3.78% for each
14 service classification. The increase is based on annualized revenue using test year
15 billing determinants excluding adjustments. The Company is not proposing any
16 changes to the existing rate “structures”. The Company is only proposing price
17 “level” changes using the existing rate structures of each service classification.
18 The Company proposes to increase each delivery rate component by the proposed
19 percentage revenue increase of 3.78%. Workpapers providing the development of
20 the interim rates are provided as Schedule JFJ-13. Tariff sheets reflecting the
21 interim rates are included as Appendix B in the Application book.

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1 **25. Q: What is the impact of the Company's Interim Rates on the customer's bills?**

2 A: Attached to this testimony as Schedule JFJ-14 are typical billing
3 comparisons for the interim increase. With the proposed interim base rate
4 increase, on August 31, 2010, a typical residential customer using an average of
5 120 CCF in a winter month would see a bill increase of \$2.06, from \$167.25 to
6 \$169.31.

7 **26. Q: Are you supporting any Minimum Filing Requirements (MFR)?**

8 A: Yes, I am supporting the following MFRs:
9 Schedule D
10 Schedule 3A (with Company Witness Ziminsky)

11 **27. Q: Does this conclude your testimony?**

12 A: Yes, it does.