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June 3, 2011

#### **VIA E-FILING**

Rosemary Chiavetta, Secretary Pennsylvania Public Utility Commission Commonwealth Keystone Building, 2<sup>nd</sup> Floor 400 North Street Harrisburg, PA 17120

> Re: Petition of Duquesne Light Company for Approval of its Energy Efficiency and Conservation and Demand Response Plan Docket No. M-2009-2093217

Dear Secretary Chiavetta:

Please find enclosed for filing Duquesne Light Company's Answer to Comverge, Inc's Petition to Intervene, filed on May 25, 2011 in the above-referenced proceeding.

If you have any questions, please do not hesitate to contact me.

Sincerely yours

**Enclosures** 

cc: All Parties listed

on the Certificate of Service

## CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of Duquesne Light Company's Answer to Comverge, Inc's Petition to Intervene has been served upon the following persons, in the manner indicated, in accordance with the requirements of § 1.54 (relating to service by a participant):

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#### BEFORE THE

#### PENNSYLVANIA PUBLIC UTILITY COMMISSION

Petition of Duquesne Light Company :

For Approval of its Energy Efficiency : Docket No. M-2009-2093217

and Conservation and Demand Response

Plan

# ANSWER OF DUQUESNE LIGHT COMPANY TO COMVERGE, INC'S PETITION TO INTERVENE

Pursuant to 52 Pa. Code § 5.66, Duquesne Light Company ("Duquesne Light" or "Company") hereby files this Answer to Comverge, Inc's ("Comverge") Petition to Intervene, filed May 25, 2011 in the above-referenced proceeding.

## I. Background

1. On May 9, 2011, Duquesne Light filed a petition ("Petition") requesting that the Commission modify Duquesne Light's Energy Efficiency and Conservation ("EE&C") Plan ("Current Plan") to approve proposed changes to the approved Demand Response ("DR") Programs. Specifically, Duquesne Light asked that the Commission approve a proposed change to eliminate the residential and small/midsized commercial and industrial ("C&I") air conditioning cycling demand response programs as they are not cost effective. The resulting funds from the residential DR program (\$2,928,071) were proposed to be shifted to the existing residential energy efficiency programs and held in reserve until Duquesne determines the most prudent use of the funds for the residential customers and files with this Commission for approval to expend those funds in a particular program(s). The resulting funds from the small/midsized C&I DR program (\$892,000)<sup>1</sup> were proposed to be shifted into the existing large C&I DR program, which has shown very cost effective demand reductions.

1

<sup>&</sup>lt;sup>1</sup> \$992,000 minus \$100,000 ramp-up costs already expended.

- 2. Duquesne Light also asked the Commission to issue an Order approving the Petition if possible by June 9, 2011, to allow the Company to not spend additional ramp-up funds on the residential and small C&I DR programs that are not beneficial to the ratepayers.
- 3. On May 19, 2011, the Duquesne Industrial Intervenors ("DII") filed an Answer to Duquesne Light's Petition ("DII Answer") objecting, in summary, to the proposed transfer of funds to the large C&I DR program and raising issues it felt should be addressed.
- 4. On May 19, 2011, the Office of Consumer Advocate ("OCA") also filed an Answer noting possible long term benefits from a residential DR program and that a stakeholder meeting be held prior to recommending to the PUC where to allocate the residential DR budget of \$2,928,070.
- 5. Duquesne Light responded to the Answers filed by DII and the OCA on May 25, 2011 in order to respond to questions raised in the Answers and to supplement the record.
- 6. On May 25, 2011, Comverge, Inc. filed an Intervention opposing the Company's proposal to eliminate the residential and small/midsized C&I DR programs. Specifically, Comverge raises concerns regarding (1) the Company's proposal to eliminate the residential and small C&I DR program because very similar residential and small C&I programs have been proven to be cost effective in other EDC Act 129 programs; (2) the Company's TRC calculation, especially the treatment of costs/benefits as short term; and (3) the effects of terminating the residential DR program on residential customers.

## II. Answer

7. Duquesne Light does not object to Comverge intervening in this proceeding, however, the Commission needs to be aware that Comverge has a direct financial interest in this matter. Comverge is the conservation service provider ("CSP") that Duquesne would have used to operate the residential and small C&I DR programs. Comverge is the entity that would receive the \$3.7 million budget (less incentives paid to customers of \$353,000). Comverge neglected to raise this conflict of interest in its filing. Comverge was not a part of Duquesne's initial EE & DR approval proceeding either. It is only after realizing it may lose this possible revenue and profit, Comverge has requested intervention.

## Duquesne's TRC Test Calculation is Accurate

- 8. Comverge alleges that Duquesne failed to conduct a reasonable TRC test of the residential program and asserts that "such a dramatic change in TRC outcomes is only possible if the Company treats benefits as very short term." Comverge Intervention at 3. Comverge also calls Duquesne's TRC test results into question because it varies significantly from other EDCs with identical programs that are cost effective. TRC test ratios for different EDCs may vary significantly from each other due to different costs (TRC denominator) and variations in the value of avoided utility capacity and energy benefits (TRC numerator).
- 9. Comverge cites PPL and PECO's DR programs as being very similar to Duquesne's and having "positive" TRCs. Comverge Intervention at 4. The treatment of costs and benefits under the TRC test varied among EDCs at the time of original EE&C plan filings in July 2009. Specifically, how to treat DR payments to CSPs and participants from EDCs was unclear when EDCs filed their plans. The Commission acknowledged that EDCs needed clarification on the treatment of DR payments in its TRC Tentative Order entered May 6, 2011 at Docket No. M-2009-2108601 ("TRC Tentative Order").

The Commission proposed the following: "Based on a thorough review of rationale underlying the California Protocols, we propose that payments made by EDCs directly to DR program participants or to DR CSPs should be included as a cost in the calculation of the PA TRC test. In order to be fair to EDCs that have excluded such costs from the TRC calculation in their EE&C plans to date, we propose that all payments to CSPs and payments by the EDCs to participant in DR programs be treated in the timeliness described in the preceding section." TRC Tentative Order at 13.

Consistent with the Commission's rationale above, Duquesne included all payments to participants and CSPs as program costs within the TRC test. Even though Duquesne's treatment of these payments is consistent with the Commission's proposed treatment, other EDCs do not have to follow the same rationale for their Plan. The Commission will accept EDC treatment of payments (to CSPs or DR program participants) in the TRC test in the manner each EDC treated the payments in their filed and approved EE&C plans. PECO did not include payments to participants as costs within its TRC

- calculation. Accordingly, PECO could have very similar residential and small DR programs, however, because the treatment of costs within the TRC test varied, the resulting TRC can be different.
- 10. Additionally, there are enormous fixed costs associated with rolling out a residential and small C&I DR program. Much of that is due to communication infrastructure that is required to send the signals to disconnect air conditioning load and to restart that load. The variable cost of serving a particular customer is not nearly as significant as these large fixed costs. PPL and PECO have a much larger customer base to spread those fixed costs over than a much smaller utility like Duquesne. Such a difference has a large impact on the total benefits of such a program. PECO can garner a lot more load reductions for the same fixed cost than Duquesne expects to achieve (5 MW).
- 11. In addition to the known and accepted differences between EDC treatment of TRC costs, TRC benefits vary significantly between EDCs based on the value of capacity and energy in the respective transmission system zonal capacity markets. Energy and capacity costs are higher in eastern PA than in western PA. DLC's zonal capacity values reflect a relative absence of transmission system congestion costs, not applicable for many other PA EDCs. For example, 2012-2013 for PENLC or PECO range from \$133.46 to \$139.82 per MW-day compared to \$16.46 per MW-day in Duquesne's territory.<sup>2</sup> There is a difference in energy prices between the Duquesne zone and the PECO zone too, with the PECO zone having a consistently higher LMP than the Duquesne zone. Accordingly, Duquesne's programs also yield lower TRC test results than other PA EDCs because a large portion of program benefits the avoided cost of capacity and energy is much lower.

## Duquesne's TRC Test Calculation is Reasonable and in Compliance with Commission Order

12. Duquesne's treatment of costs, benefits and effective program periods remain in compliance with the Commission's Order<sup>3</sup> approving Duquesne's EE&C Plan ("Duquesne EE&C Plan Order"). The Commission stated, "For the purposes of Act 129 cost recovery, at this time, we shall allow demand response CSPs to enter into contracts

<sup>3</sup> Opinion and Order entered October 27, 2009, Docket No. M-2009-2093217.

<sup>&</sup>lt;sup>2</sup> Duquesne acknowledges that the prices merged closer together in the latest PJM RPM capacity auction.

- up to, but not beyond, November 30, 2013." See Duquesne EE&C Order at 85. Duquesne is not authorized to recover costs beyond the current program period and has therefore limited the scope of its planning horizon to that period. The Duquesne residential and small C&I DR programs will not operate this summer and were only intended to operate in June through September 2012 since the overall Plan ends May 31, 2013. Therefore, all savings and the majority of the costs of the program are contained in one year.
- 13. Duquesne's calculation is substantially correct in the original filed EE&C plan and in its May 9 Petition requesting modification of its DR programs. We have determined that we inappropriately used the 2013 capacity price rather than 2012 capacity pricing. As a result of this correction, the TRC calculation for the residential and small C&I DR program is now a lower number. Using the corrected capacity pricing, the TRC is 0.033 rather than 0.05 as reported earlier. The actual TRC formula and calculation are attached as Attachment A and is believed to be fully accurate.

## Duquesne is not Harming its Customers by Eliminating the DR Program

- 14. Comverge implies that the Company is harming its residential customers by not offering a DR program to the residential customers. Comverge states that it is "concerned about Duquesne's failure to fully explain the *implications of eliminating* the residential DR program." Comverge Intervention at 6. The much greater harm for residential customers, Duquesne believes, is charging them for a costly program that does not produce meaningful results. Duquesne wishes that it had a cost effective program to offer residential customers through direct load control DR programs, but it does not at this time. Nor does the Company wish to charge those residential and small/midsized C&I customers \$3.7 million for a program that produces such little demand reduction and, additionally, causes those customers inconvenience by shutting their air conditioning off on the hottest days of the summer.
- 15. Duquesne believes that its future Time-of-Use ("TOU") programs could be beneficial to its residential and small C&I customers. A TOU program is much more flexible than an air conditioner cycling program with greater benefits as those residential (and small/midsized) customers can moderate their entire electric load, not just air

conditioning, from peak times. And customers will be able to choose which appliances to reduce consumption during peak times rather than just one appliance such as an air conditioner. Duquesne expects there will be other opportunities and product offerings in the future that residential and small C&I customers will have the choice to take advantage of which will be much more cost efficient and productive than the residential DR program.

16. Duquesne also notes the Answer filed by the OCA, which represents residential customers. The OCA's Answer supported Duquesne's objective of achieving its Act 129 compliance goals in as cost effective and prudent a manner as possible and did not oppose the modifications the Company proposed in its May 9 Petition. OCA Answer at 3.

## III. Conclusion

Wherefore, Duquesne Light Company respectfully requests that the Commission modify the Duquesne Energy Efficiency Plan to (1) approve the changes to the Current Plan to eliminate the residential and small C&I demand reduction programs; (2) transfer the funds of the small C&I program to the large C&I DR program, (3) hold in reserve the budget funds from the residential DR program pending further collaboration with interested stakeholders, and Commission approval and (4) issue a final Amended Order as soon as practical and if possible, by June 9, 2011 so that funds are not continued to be spent on an unproductive residential and small C&I DR program.

Respectfully Submitted,

Duquesne Light Company

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Dated June 3, 2011

#### TRC Formulae

The formulae for the net present value (NPV $_{TRC}$ ), the benefit-cost ratio (BCR $_{TRC}$ ), and the levelized costs are:

 $\begin{array}{lll} NPV_{TRC} & = & B_{TRC} - C_{TRC} \\ BCR_{TRC} & = & B_{TRC}/C_{TRC} \\ LC_{TRC} & = & LCRC/IMP \end{array}$ 

The  $B_{TRC}$ ,  $C_{TRC}$ , LCRC, and IMP terms are defined as follows. The first summation in the  $B_{TRC}$  equation should be used for conservation and load management programs. For fuel substitution programs, both the first and second summations should be used.

Terms

- 1) UAC<sub>t</sub>: Utility avoided supply costs in year t
- 2) TC<sub>t</sub>: Tax Credits in year t
- 3) UAC<sub>at</sub>: Utility avoided supply costs for the alternative fuel in year t
- 4) PAC<sub>at</sub>: Participant avoided costs in year t for alternate fuel devices

The petition does not address a fuel substitution program and no tax credits are applicable, variables 2-4 and not applicable. This is a one year program where costs and benefits occur in the program year, no effective discounting of either applies as shown below:

$$B_{TRC} = \sum_{t=1N} \frac{UAC_t + TC_t}{(1+d)^{t-1}} + \sum_{t=1}^{N} \frac{UAC_{at} + PAC_{at}}{(1+d)^{t-1}}$$

$$B_{TRC} = \sum_{t=1N} \frac{127,576 + 0}{(1+0.069)^{1-1}} + \sum_{t=1}^{1} \frac{0+0}{(1+d)^{t-1}}$$

$$B_{TRC} = \frac{127,576}{1}$$

#### Attachment A

Terms:

1)  $PRC_t$ : Utility program costs in year t

2) PCN<sub>t</sub>: Net Participant Costs

3) UIC<sub>t</sub>: Utility increased supply costs in year t

Customers are not subject to costs associated with participating in programs addressed in this petition. Additionally, the utility does not incur increased supply costs associated with program addressed in the petition (applicable to fuel substitution programs). Accordingly formula variables 2 and 3 and not applicable herein.

$$C_{TRC} = \sum_{t=1}^{N} \frac{PRC_t + PCN_t + UIC_t}{(1+d)^{t-1}}$$

$$C_{TRC} = \sum_{t=1}^{N} \frac{3,920,272 + 0 + 0}{(1+0.069)^0}$$

$$C_{TRC} = \sum_{t=1}^{N} \frac{3,920,272}{1}$$

$$BCR_{TRC} = B_{TRC}/C_{TRC}$$

$$B_{TRC}/C_{TRC} = 127,576/3,920,272$$

$$B_{TRC}/C_{TRC} = .03$$

Source of inputs follow:

Source of formula inputs have been revised to reflect DLC Zonal RPM planning period action results for 2012-2013 \$16.46/MW-Day instead of the previous \$27.73 taken from the 2013-2014 RPM planning period. This change revises project TRC test ratio from 0.04:1 to 0.03:1.

Calendar
Months
RPM Planning Period
RPM Auction Price
Act 129 Program Years
EE&C DR Plan DR Programs
Current Dian

						DR Measurement	ĺ	
2009		2010		2011		2012		2013
10 11 12	1 2 3 4 5	6 7 8 9 10 11 12	1 2 3 4 5	6 7 8 9 10 11 12	1 2 3 4 5	6 7 8 9	10 11 12	1 2 3 4 5
20	09 - 2010	2010 - 20	111	2011 - 20	112	2012-2013	1	
\$	104.82	\$174.00	)	\$110.00	)	\$16.46	]	
Р	Y1 2009	PY2 201	0	PY3 201	0	i	PY4 2010	)
						!		
						[		
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#### Residential / Small Commercial DR Cost-Effectiveness Calculations

		Unit Benefits	Extended Benefits	
Comverge Cost	\$3,734,283		<del></del>	
DLC Cost	\$185,989			
Total Cost	\$3,920,272			
kW Reduced	5,000	\$6.01	\$30,039.50	5000
kWh Saved	361,248	\$0.27	\$97,536.96	
Participants	7,526			
-			\$127.576.46	

D F:		
Benefits	Assum	intions
	, 100 aii	ID GIOTIO

Capacity	PJM Base Residual Auction Results 2012-	-2013 (\$/MW-Day)	\$16.46	
		(\$/MW-Year)	\$6,007.90	
		\$/kW-Year	\$6.01	
Energy	Based on State of Market Report for PJM \$/MWh	\$/MWh	\$270	_

Energy	Based on State of Market Report for PJM \$/MWh	\$/MWh	\$270
	(average price for top 100 hours)	\$/kWh	\$0.27
		·	

 TRC test Ratio
 Benefits
 \$127,576

 TRC Costs
 \$3,920,272

 TRC test Ratio
 0.033