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March 12, 2010

VIA EXPRESS MAIL

James J. McNulty, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120

Re: Implementation of the Alternative Energy Portfolio Standards Act of 2004: Standards for the Participation of Demand Side Management Resources – Technical Reference Manual Update, Docket No. M-00051865

Dear Secretary McNulty:

Enclosed for filing please find an original and fifteen (15) copies of the comments of the UGI Distribution Companies submitted in response to the Commission's February 2, 2010 Tentative Order at the above docket. Copies of these comments have been sent electronically to Gregory A. Shawley at gshawley@state.pa.us and Kriss Brown at kribrown@state.pa.us.

Should you have any questions concerning these comments, please feel free to contact me.

Very truly yours,

Mark C. Morrow

Counsel for the UGI Distribution Companies

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Implementation of the Alternative Energy Portfolio Standards Act of 2004: Standards for the Participation of Demand Side Management Resources – Technical Reference Manual Update	:	Docket No. M-00051865

COMMENTS OF THE
UGI DISTRIBUTION COMPANIES

UGI Utilities, Inc., UGI Penn Natural Gas, Inc. and UGI Central Penn Gas, Inc. (collectively the "UGI Distribution Companies" or "UGI") appreciate this opportunity to comment on the Commission's February 2, 2010 Tentative Order at the above docket, published in the February 20, 2010 edition of the Pennsylvania Bulletin.

Introduction

In *Implementation of Act 129 of 2008 – Total Resource Cost (TRC) Test*, Docket No. M-2009-2108601 (Order entered June 23, 2009) ("TRC Order") the Commission recognized "the focus of Act 129 and TRC testing is not on particular technologies but rather on bottom line energy efficiency and demand reduction." TRC Order, p. 6 (Emphasis added.).

The direct end use of natural gas for heating purposes in lieu of electricity can be a very powerful tool for achieving bottom line energy efficiency. This is so because natural gas, from a source to site basis, is more than two times more energy efficient than electricity due to conversion losses and transmission and distribution lines losses,

considering the mix of generation resources in Pennsylvania or PJM. A 2008 study conducted by Black & Veach on behalf of the American Gas Foundation concluded an approximately seven percent (7%) shift in end-use heating loads from electric to natural gas could (a) result in $18-29 billion in energy savings nationwide, (b) avoid the need for 63-80 GW of generation capacity, and (3) reduce both overall gas consumption (because of the significant loss of natural gas through the electric generation process, and considering the portion of natural gas-fired electric generation on the grid) and greenhouse gas emissions. In testimony presented by the Gas Research Institute to the Commission's November 2008 *en banc* hearing on energy efficiency at Docket No. M-2008-2069887, Ronald Edelstein, using census data, concluded that if all electric heating applications in Pennsylvania were converted to natural gas, Pennsylvania's residential electric consumption could be reduced by between 16 and 31 percent. In the Commission's investigation into compliance with the provisions of Section 410(a) of the American Recovery and Reinvestment Act of 2009, Docket No. I-2009-2099881, UGI submitted comments which estimated that if 50,000 electric water heaters along its lines were converted to natural gas, "(a) about 0.38 Bcf per year of natural gas would be saved resulting in downward pressure on natural gas prices, (b) 355,000 fewer MWhs per year of electricity would have to be generated at power plants resulting in downward pressure on wholesale electric prices, (c) after accounting for transmission losses, end-use customers would use about 160,000 fewer MWh per year and (d) carbon dioxide emissions would be reduced by about 22,900 tons per year, or the equivalent of taking 3,200 cars off the road." UGI and others at that docket also recognized that while EDCs may have an incentive under Act 129 to avoid penalties, their interests are not sufficiently

aligned to necessarily pursue the most cost-effective conservation measures, and it accordingly was not surprising that only PECO Energy, a combination natural gas and electric distribution company, included meaningful fuel substitution programs in its Act 129 filing.[1]

The Commission's TRC Order adopted a TRC test methodology, based on the California Standard Practice Manual, which includes detailed procedures for judging fuel substitution programs under the TRC test. TRC Order, Appendix pp. (ii)-(iv). The TRC Order also recognized that third parties could present, in Act 129 hearings, evidence of potential improvements in EDC-proposed Act 129 plans, and that EDCs would have to provide plan measure-specific TRC test information so "any new technologies [have] sufficient opportunity to establish whether they are able to contribute to the energy efficiency and demand reduction goals of Act 129."

Consistent with these directives several natural gas distribution companies presented detailed fuel substitution proposals, supported by expert testimony, during the Act 129 hearings, and while the Commission approved the fuel substitution programs proposed by PECO and PPL, it referred the fuel substitution proposals raised in these cases to a working group charged with developing final recommendations by March 31, 2010. At the fuel substitution working group, sample (1) water heating, (2) space heating, (3) clothes drying, (4) larger scale combined heat and power and (5) micro (residential sized) combined heat and power fuel substitution programs have been evaluated under the TRC test using composite data for electric avoided costs supplied by EDCs and projected gas costs provided by the Bureau of CEEP. The first four of these sample

[1] PPL included a fuel substitution program limited to a closed thermal storage electric home heating schedule where homeowners were unlikely to find it cost effective to convert to gas because of the location and construction of the homes.

programs show significant cost-benefit ratios, and UGI believes these programs (adjusted to use EDC-specific avoided cost data or otherwise) could significantly improve EDC Act 129 programs by delivering mandated savings at a lower cost to EDC ratepayers than many of the electric-centric programs being pursued by EDCs. The fifth program, micro-CHP, is not yet cost effective, but represents a proven technology that might be very cost effective if it were deployed at a sufficient scale to drive down per unit costs.

TRM Revisions

At least one EDC, Allegheny, has asserted in written comments submitted to the fuel substitution working group that TRM revisions may be necessary to implement a fuel substitution programs. At the February 26, 2010 meeting of the fuel substitution working group, however, there seemed to be consensus among Commission staff that fuel substitution programs could be implemented without TRM revisions.

The Commission has already approved fuel substitution programs for PECO and PPL, and may direct or encourage additional fuel substitution programs after receiving the recommendations of the fuel substitution working group. It may also thereafter potentially rule on the merits of the specific fuel substitution program proposals advanced by NGDCs in many Act 129 proceedings and require or encourage the adoption of similar programs. Therefore, UGI believes it would be appropriate to at least provide some guidance in the TRM concerning these programs in the current revision of the TRM.

UGI believes the Commission should reaffirm in the TRM, as it has in the TRC Order, that the focus of Act 129 and TRC testing is not on particular technologies but rather on bottom line energy efficiency and demand reduction. Moreover, the

Commission should clarify such technologies may include fuel substitution programs passing the TRC test and approved by the Commission, and that EDCs should not favor conservation measures which encourage the use of electric appliances for heating purposes in lieu of appliances fueled by other fuels if a fuel substitution program would be more cost- effective under the TRC test. Finally, the TRM should clarify that the electric energy and demand savings associated with fuel substitution programs should be evaluated in the same manner as other energy efficiency measures are evaluated - by looking to the reduction in electric energy consumption and demand levels resulting from the installation of a appliance fueled by an alternate fuel. Proposed language is set forth in Appendix A of these comments.

Respectfully submitted,

Mark C. Morrow

Counsel for the UGI Distribution Companies

Dated: March 12, 2010

APPENDIX A

(Proposed revision to the TRM)

~~Annex~~

Technical Reference Manual
for
Pennsylvania Act 129
Energy Efficiency and Conservation Program
and
Act 213
Alternative Energy Portfolio Standards

Pennsylvania Public Utility Commission

2010 Draft – for Review and Comment

Pennsylvania Technical Reference Manual

1 Introduction[2]

The Technical Reference Manual (TRM) was developed to measure the resource savings from standard energy efficiency measures. The savings' algorithms use measured and customer data as input values in industry-accepted algorithms. The data and input values for the algorithms come from AEPS application forms, standard values including Energy Star standards, or data gathered by Electric Distribution Companies (EDCs). The standard input values are based on the best available measured or industry data.

The standard values for most commercial and industrial (C&I) measures are supported by end- use metering for key parameters for a sample of facilities and circuits, based on the metered data from past applications in other states. These C&I standard values are based on five years of data for most measures and two years of data for lighting.

Some electric input values were derived from a review of literature from various industry organizations, equipment manufacturers, and suppliers. These input values are updated to reflect changes in code, federal standards and recent program evaluations.

1.1 Purpose

The TRM was developed for the purpose of estimating annual energy savings for a selection of energy efficient technologies and measures. The TRM provides guidance to the Administrator responsible for awarding Alternative Energy Credits (AECs). The revised TRM serves a dual purpose of being used to determine compliance with the ~~Alternative Energy Portfolio Standards (AEPS)~~ **AEPS** Act, 73 P.S. §§ 1648.1-1648.8, and the energy efficiency and conservation requirements of Act 129 of 2008, 66 Pa.C.S. § 2806.1. While the focus of the AEPS Act is on the promotion of particular defined technologies, the focus of Act 129 and the associated Total Resource Cost ("TRC") test is not on particular technologies, but rather on bottom line energy efficiency and demand reduction. Such energy efficiency and demand reductions may come from the substitution or replacement of electric consumption with appliances fueled by alternative fuels or other technologies, and such fuel substitution or alternative technology programs should be judged for purposes of determining if they pass the TRC cost test and for the purposes of determining electric consumption and demand savings in a non-discriminatory manner without a preference for high efficiency electric measures that are less cost-effective under the TRC test than alternative measures.

The TRM will continue to be updated on an annual basis to reflect the addition of technologies and measures as needed to remain relevant and useful.

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[2] Note: Information in the TRM specifically relating to the AEPS Act are shaded in gray.

Resource savings to be measured include electric energy (kWh) and capacity (kW) savings. The algorithms in this document focus on the determination of the per unit savings for the energy efficiency and demand response measures.

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