

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION
Comments of the National Association of Energy Service Companies (NAESCO)
On the Implementation of Act 129 of 2008 – Total Resource Cost Test
Strawman for Comments
In Docket No. M-2009-2108601

Submitted by:

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Introduction

NAESCO's current membership of about 65 organizations includes firms involved in the design, manufacture, financing and installation of energy efficiency and renewable energy equipment and the provision of energy efficiency and renewable energy services in the private and public sectors. NAESCO members deliver about \$5 billion of energy efficiency, renewable energy and distributed generation projects each year – about equal to all of the energy efficiency projects delivered by all US utilities combined, according to a recent report by the Lawrence Berkeley National Laboratory.

NAESCO numbers among its members some of the most prominent companies in the world in the HVAC and energy control equipment business, including Honeywell, Johnson Controls, Siemens, Trane, Comfort Systems USA Energy Services, and TAC/Tour Andover. Our members also include many of the nation's largest utilities: Pacific Gas & Electric, Southern California Edison, New York Power Authority, and TU Electric & Gas. In addition, ESCO members include affiliates of several utilities including ConEdison Solutions, FPL Energy Services, Pepco Energy Services, Constellation Energy Products and Services, Energy Systems Group and Direct Energy. Prominent national and regional independent members include Atlantic Energy, DMJM Harris, NORESKO, Onsite Energy, EnergySolve Companies, Ameresco, UCONS, Chevron Energy Solutions, Synergy Companies, Wendel Energy Services, Control Technologies and Solutions, CLT Energy Services, Clark Realty Capital, McClure, SAIC, and Lockheed Martin.

NAESCO member companies have delivered energy efficiency, renewable energy, demand response and distributed generation projects to Pennsylvania institutional, government, industrial, commercial and residential customers for over a decade. Our members have delivered almost all of the \$300 million of projects in the Pennsylvania state (GESA) and local government performance contracting programs during the last few years.

In addition to the project delivery experience of its members, NAESCO has served on a number of advisory groups that assist the administrators of energy efficiency programs in several states, including:

- The New York Evaluation Advisory Group, which is appointed by the New York Public Service Commission to establish the Evaluation, Monitoring and Verification (EM&V)

protocols for the New York energy efficiency programs administered by NYSERDA and the investor-owned utilities.

- The Program Advisory Groups for three California utility energy efficiency programs;
- The Leadership Group of the National Action Plan for Energy Efficiency (NAPEE) and its EM&V Work Group;
- The New York City Energy Policy Task Force;
- The Northeast Regional EM&V Forum;
- The Energy Efficiency Task Force for the Western Governors Association Clean and Diversified Energy Advisory Committee; and,
- The New York State Regional Greenhouse Gas (RGGI) Operating Plan Advisory Group.

NAESCO's experience on these advisory groups, as well as its experience in state proceedings that are developing new energy efficiency programs in North Carolina, South Carolina, Indiana, Oklahoma, Michigan, Illinois, Florida and New Jersey during the past year, provide some perspective on the development of effective energy efficiency programs that may be useful to the Pennsylvania Commission.

Comments

NAESCO would like to offer four comments on several issues raised in the Strawman.

1) The timing for making adjustments to wholesale costs is not clear.

The Strawman, on page 4, states that, "Pennsylvania's version of the TRC test will exclude environmental and societal costs and benefits unless such costs and benefits are otherwise already embedded in the wholesale cost for the generation of electricity." The Strawman then describes, in the section labeled "Prediction Assumptions" on pages 6 and 7, the assumptions the EDCs are to use to predict their avoided electricity supply costs for a fifteen-year period. The Strawman does not appear to specify when or at what frequency the EDCs will be required to recalculate these avoided costs based on new wholesale price components, such as the advent of a federal greenhouse gas cap-and-trade system, and when or at what frequency these recalculated wholesale costs will require the recalculation of the program TRC scores and an adjustment of an EDC's portfolio of programs. NAESCO therefore suggests that the Commission specify in its final Order the required interval for the recalculation of avoided costs

and TRC scores as well as indicia of the level of impact on the cost structure of market changes yet to come that might or should trigger a need for the recalculation of avoided costs.

2) NAESCO recommends that the EDCs be required to calculate and submit TRC scores for individual programs as well as for their entire portfolio of programs.

The Strawman, on pages 5 and 6, describes, in the section labeled “Level at Which to Measure TRC,” three levels at which TRC can be measured – measure, program and the “entirety of all of its programs,” which NAESCO suggests might usefully be called the program portfolio. NAESCO agrees that TRC calculations at the measure level are not particularly useful, but urges that the Commission order the EDCs to calculate and publish TRC scores at both the program and portfolio levels.

The experience in other states has been that program portfolios are dynamic, and evaluation of the total program portfolio must be constantly adjusted to economic conditions and energy market factors that are external to the programs. In the past two years we have seen a sudden run-up and subsequent collapse of natural gas prices, the end of the new construction boom in housing and commercial buildings, the tightening of the credit markets, and a jump in unemployment that is making it difficult for many consumers and businesses to pay their energy bills. Any or all of these factors may make advisable an adjustment in the program portfolio; for example, given the existing housing market, the Commission might decide to shift funding in the short term away from new construction programs to other better performing programs in the portfolio. However, limiting the TRC just to the portfolio level does not permit the Commission and the Act 129 stakeholders to make fully appropriate judgments or provide appropriate input to proposed adjustments to individual programs within the portfolios. Evaluation of the portfolio performance in aggregate is important but individual program performance is equally important to ensure that underperforming programs or program performance anomalies can be identified and corrections to the portfolio implemented.

3) The calculation of program-level TRC scores should use discount factors appropriate to the individual programs.

NAESCO suggests that the establishment of the appropriate discount factor for individual programs should differ in order to reflect the program-relevant costs of capital. Moreover, the establishment of the discount factor (Strawman at page 7), as, “The EDC’s weighted average

cost of capital{to be} calculated each year at the time of the EDC's filing" is particularly puzzling. The EDC cost of capital is not an accurate representation of the cost of capital for many programs, such as residential whole house retrofits and comprehensive retrofits of public and institutional buildings in programs such as the Pennsylvania Guaranteed Energy Savings Agreement (GESA). In the case of residential whole house retrofits, the appropriate discount rate is the cost of a second mortgage or home equity line of credit. In the case of a comprehensive public or institutional building retrofit, the appropriate discount rate is the market rate on municipal leases. In the current market, each of these rates is significantly lower than the weighted cost of capital for the EDCs, and it is highly unlikely that customers participating in EDC programs would utilize more expensive utility capital when cheaper capital is available. The effect of using the higher rate, however, would be to inaccurately lower the Net Present Value and TRC score of an energy efficiency program as well as the portfolio when considered as a whole.

Moreover, it is not clear why the EDC cost of capital would be proposed as the appropriate discount factor. It is NAESCO's understanding that the EDCs will not be investing their capital in programs, but rather recovering the cost of the programs over a short time period. Where then does the use of the EDC cost of capital come into play as a useful proxy for the cost of capital across the portfolio?

4) NAESCO urges the Commission to limit expenditures for investigating Net-to-Gross to methodologies that have proven useful in other jurisdictions.

In NAESCO's experience, the exercise of trying to attribute a stream of energy savings to the existence of a particular EDC energy efficiency program is an expensive proposition, which at the end of the day can never really be determinative since many factors can motivate customer behavior. The effort to establish whether a customer, absent the existence of a particular energy efficiency program or set of incentives, would have made the same or a different investment decision is a complex undertaking with a dubious data value since many customers themselves cannot definitively identify their own investment decision tipping point. While the development of precisely quantified factors for program "free riders," "take-back effect," and "spillover effect" is enticing in theory, it is virtually impossible in practice. The attempt to identify and quantify these factors can be very expensive, delay program rollout and implementation, cause

endless tinkering and program stops and starts, and ultimately prove to be an elusive process with inconclusive results.

California offers perhaps the most salient example of how the best of intentions in this area can lead to a quagmire that has effectively paralyzed Commission governance of EDC programs and EDC management of those programs. California has devoted about \$160 million, about 8% of its 2006-2008 budget for the energy efficiency programs administered by four investor-owned EDCs (Pacific Gas & Electric, Southern California Edison, Southern California Gas and San Diego Gas & Electric) to EM&V activities. The attribution of program savings has been a major focus, because this factor, to a large extent, determines whether the EDCs earn an shareholder incentive payment for their program management. The results of the EM&V process have been so uncertain that, in the relevant proceedings, some parties have taken the position that the EDCs are owed a large incentive payment for exceeding their energy savings targets while other parties believe the EDCs must pay a large penalty because they fell short of their energy savings targets. Such disparities of perspective on the same set of facts after so much time and money have been spent in program evaluation highlight the difficulties.

The Energy Division of the California Public Utilities Commission (CPUC) has recommended in a recent White Paper that the Commission discontinue and replace its Risk Return Incentive Mechanism¹. The start of the next cycle of energy efficiency programs, which was supposed to be January 1, 2009, has been delayed for what now appears to be a full year, to allow time for the CPUC to sort out the issues and decide how to go forward. This stalemate is the result of the dedicated efforts of a very talented CPUC staff, the best consultants money can buy, and very sophisticated consumer and environmental organization stakeholders, whose participation in regulatory proceedings is subsidized by ratepayers. These parties, in NAESCO's opinion, have thoroughly demonstrated that precise attribution of program energy savings is not a productive methodology for evaluating large-scale energy efficiency programs. The CPUC has even suggested, in interim rulings, that the measurement of program savings will be shifted from a net to a gross basis.

NAESCO therefore urges the Commission to order the EDCs to first research various approaches to attribution that are used in other jurisdictions, in particular, those of the New York

¹ "Proposed Energy Efficiency Risk-Reward Incentive Mechanism and EM&V Activities," Energy Division, California Public Utilities Commission, April 1, 2009, Document No. 99882, available at: <http://docs.cpuc.ca.gov/EFILE/RULINGS/99881.htm>

State Energy Research and Development Authority (NYSERDA) and the Massachusetts EDCs. The methodologies used by the referenced organization have demonstrated cost-effectiveness and usefulness to regulators.

Conclusion

NAESCO recommends that the Commission:

- 1) Make clear the timing for utility adjustments of wholesale electricity supply costs and the level and impact of changes in the cost structure that should trigger a re-evaluation;
- 2) Order the EDCs to calculate and submit TRC scores at both the individual program and program portfolio levels;
- 3) Order the utilities to use discount factors appropriate to individual programs in the calculation of program TRC scores; and,
- 4) Restrict the investigation of program Net-to-Gross ratios to methodologies that have proven cost effective and useful in other jurisdictions.

Respectfully submitted by,

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