

**FAX**BEFORE THE  
PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of Protocols for the )  
Measurement and Verification of Energy ) Case No. 09-512-GE-UNC  
Efficiency and Peak Demand Reduction )  
Measures )

PUCO

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COMMENTS OF  
THE DAYTON POWER AND LIGHT COMPANY  
ON APPENDIX A OF COMMISSION ENTRY

The Dayton Power and Light Company ("DP&L" or the "Company"), consistent with paragraph 22 of the June 24, 2009, Entry in this proceeding of the Public Utilities Commission of Ohio ("PUCO" or the "Commission"), hereby submits its initial comments with respect to the five policy issues identified in Appendix A of such Entry.

1. Should the Commission Evaluate Performance of Utility Programs on the Basis of Achieved Gross or Net Savings, or Both?

In Appendix A, at page 2, the Entry makes the provisional recommendation that gross savings be used for reasons that include:

- o Trying to quantify the amount of "net" savings to attribute to utility programs as opposed to other causes of the savings is a complex and non-exact process;
- o Because there is not a long history of ratepayer funded energy efficiency programs and because rates in Ohio are relatively low, there is a high probability that energy efficiency programs will have a high net to gross savings ratio; and
- o Use of gross savings is consistent with the Total Resource Cost test that the Commission has adopted.

DP&L strongly agrees that this provisional recommendation should be adopted for the reasons identified in the Entry and other reasons.

The Commission is correct that the computation of net savings is a complex and non-exact process, but may be vastly understating the complexities involved. There are enormous complexities and uncertainties to overcome and subjective judgments to be made by consensus

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even to develop the gross savings values that will be reflected in the Technical Reference Manual. (At the public hearing on July 8, 2009, the Commission's consultant stated that the TRM should be developed on a gross savings basis and that he was unaware of any State that had attempted to develop a TRM using a net savings measure.) Much of the consultant's presentation at that public meeting was focused on the difficulties in computing even the gross savings values given that one number is known (actual usage at some point in time) and that is being compared to an unknown that can only be estimated (what usage would have otherwise been). We are at the beginning of an enormously complex process to develop and implement a vast array of new programs. At such a time, the Commission would be wise to make policy choices that apply not only its traditional considerations of what is in the public interest, but also apply the principle to "Keep It Simple."

A net savings method is necessarily far more complex and subjective in that surveys or other sources of data would be needed to try to quantify human behavior, i.e., what percentage of participants in a program were motivated by the program and what percentage would have engaged in those activities even in the absence of the program? While after-the-fact surveys can shed some light on that issue, survey results can vary widely depending on how questions are phrased. At an extreme, so much time could be spent by the parties to this proceeding trying to develop unbiased and scientifically valid surveys that it would detract from the immediate objective of actually implementing programs.

Additionally, "net savings" computations depend on influences that can fluctuate and would need to be recomputed over and over again. While differences of opinion can arise as to the specific method for computing the gross savings from replacing one type of light bulb with a more efficient model, once a consensus is achieved and the savings computational method is

reflected in the TRM, that method can be applied consistently over time. But, a net savings approach would require a constant re-evaluation of whether a new more effective public interest television advertising campaign, or this year's speeches by political leaders, or some other outside influence that arose for the first time in the current evaluation year were the real "causes" for the replacement.

2. How Should Baseline Efficiency and Market Penetration Be Defined for Determining Energy Savings and Demand Reductions?

The Entry includes a provisional recommendation that the baseline used for calculating savings should be set at the minimum efficiency requirements of federal standards and state codes or current market practice, whichever is higher.

As an initial overview comment, DP&L urges the Commission initially to opt for the approach that is less complex and has fewer administrative burdens, and then, if it believes further review is warranted, to revisit this issue at a future date when all participants have more experience and the programs are more mature. In applying the foregoing principle of "Keep It Simple," DP&L urges the Commission to utilize the "as found" condition for setting the baseline whenever possible. The "as found" calculation is reasonably clear and straight forward: energy usage of the replaced system minus energy usage of new system.

In a new construction situation or a replacement on failure, DP&L believes that the baseline should be the federal standard and state codes. Determining what would be some type of "market practice" introduces uncertainty, complexity and administrative costs unnecessarily. In many circumstances, there will be little or no "market practice" data available. At other times, the data that will be available will be partial, or old, or from other parts of the country that may not be representative, or all of the above. Another variable is the current state of the economy. As companies struggle to cut costs, a common "market practice" is to repair and extend a piece

of equipment's useful life indefinitely. Given these considerations, if the baseline is tied to "market practice," the potential is high for disputes to arise over the source or reliability of the data. Ultimately, it becomes highly questionable as to whether there is any tangible benefit to be gained that offsets the administrative burdens and costs associated with resolving such disputes.

As a further illustration of the problems of applying a "market practice" approach is the effect of early adopters. The hypothetical is posed where there are two entities in a region that have certain characteristics that are the same as between them, but make them unique in comparison to other entities. When the first entity orders highly energy efficient equipment, it presumably will get credit for all the energy savings that are achieved relative to the minimum federal standard. But when the second entity orders the same special purpose energy efficiency equipment, how would the "market practice" approach be applied? Would that second entity get no credit because it is merely installing the same kind of equipment that is now the "market practice" standard as established by the only similarly situated entity within the region? While this 2-party hypothetical is unrealistic, similar results could readily occur under more complex scenarios. For example, there are a limited number of different grocery store chains in the region. To the extent one or several of these chains are "early-adopters" and install certain types of high efficiency equipment today, does that mean that the other chains that make a decision later should not get full credit for their installations because they are now just bringing their equipment up to the market practice in the industry? That would be an inappropriate result that the Commission can avoid by opting for the more administratively simple approach of a baseline that uses minimum federal standards and does not introduce the complexities of "market practice."

For early replacement programs, we believe that the baseline should be the “as found” condition. This is a straight forward and manageable calculation. For instance, if an old motor, which is still operating and may continue to operate for years to come, is replaced with a high efficiency motor, the energy savings in actuality is the difference between the two. And to determine savings over time, there is really only one number that can be administratively determined – that is the number of years that the new equipment is expected to be in service.

While there is a surface plausibility to the Entry’s discussion about using only the remaining useful life of the old equipment, the reality is that the administrative complexities of trying to determine that outweigh any benefit. An implicit assumption within the Entry’s discussion is that there is some number of years that can be objectively identified as the “remaining useful life” of the old equipment. But that is not really true. While there are values ascribed for “remaining useful life” for tax purposes or for book depreciation purposes, the reality is that some kinds of equipment can be repaired and operate well beyond their tax depreciable life.

Even in the context of consumer goods, remaining useful life is an abstraction that creates excessive complexity. In this regard, the first question that should be asked of a proponent of this approach is: “What is the useful remaining life of a refrigerator that is still operating and is already 30 years old?” Such a refrigerator has clearly lasted far longer than any average useful life statistic that may be available and applied to refrigerators generally, so any formula based on an average initial useful life would incorrectly assume that the refrigerator has zero (or even a negative) remaining useful life. The 30-year refrigerator is precisely the kind of refrigerator that an energy efficiency program should be targeting for replacement. But, depending on how the formula is ultimately developed, the computed level of savings for replacing this refrigerator

could actually appear to be smaller than the savings for replacing a refrigerator that was only five years old.<sup>1</sup>

In its review of this remaining life issue raised in the Entry, DP&L has also tried to examine how this would actually operate under the programs that DP&L is actually implementing. For example, one of DP&L's programs involves removing (and not replacing) approximately 14,000 refrigerators and freezers. There is an administrative burden, but a manageable one, to identify brand names and model numbers for each refrigerator or freezer that it will be removing and that information can be used to estimate approximate annual usage data. The administrative burden and complexity increases greatly if, for each of these 14,000 refrigerators and freezers, the Company also has to try to determine how many years the refrigerator or freezer would remain in place. What DP&L would suggest be used instead for these types of removal without replacement programs is a single useful life value that would be applied across the entire program. Again "keeping it simple" will allow time and money to be spent on program implementation and not complex research efforts to develop a data base from which the energy savings value of a single refrigerator removal.

3. Should Reported Energy Savings and Demand Reduction  
Use Retroactive or Prospective TRM Values?

The Entry makes the provisional recommendation that cost and savings estimates in the TRM be based on the best available information at the time the estimates were made and that any necessary changes that are made based on new data or subsequent experience should be applied

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<sup>1</sup> This anomaly could occur if a zero or very small useful life is assumed for the 1979 refrigerator. In such a case, the calculated savings would be based almost completely on just the difference between the new 2009 refrigerator's efficiency and the efficiency of a new "typical" 2009 refrigerator. In contrast, with a 2004 refrigerator, there would also be credit given for the difference between the new 2009 refrigerator's efficiency and the efficiency of the 2004 efficiency multiplied by the remaining useful life of the 2004 refrigerator.

prospectively only. The Entry further notes that the Commission has yet to decide whether to apply new information to adjust remaining useful life values of a current year's investment.

This question has legal implications that significantly constrain any policy debate.

DP&L will not burden the record with case citations, but respectfully submits that no one would seriously dispute that it would be unlawful to use new information developed in 2013 to reset the saving values from a program initiated in 2009, apply those reset values to the computed levels of savings in 2010-12, and then impose penalties for a failure to meet the 2010-12 standard. The Commission's provisional recommendation in this regard is also well-grounded in principles used in determining prudence and rate recovery. Those evaluations are also made by examining what was known at the time the decisions were made; not what became known years later.

DP&L further submits that it is appropriate on fairness and policy grounds, as well as the "Keep It Simple" principle, to fix the stream of estimated future energy savings based on what was known at the time the measure was implemented. For example, if in 2009, the best information known at the time suggested that implementing a particular measure would save 1000 kwh per customer in each of the next five years, but information developed late in 2011 suggested that the value was actually 900 kwh or 1100 kwh, the 1000 kwh value should still be applied as saved each year through 2014 for those customers who took advantage of the measure in 2009. The Commission should not adjust in late 2011 the 2012-14 savings values for those measures implemented in 2009. The Commission could, of course, establish that for new implementations as of 2012, the revised value for each of the subsequent five years would be used.

4. Should Cost-Effectiveness Be Measured at the Measure, Project, Program, or Portfolio Level?

The Entry makes the provisional recommendation that the Commission will approve reasonable programs and overall portfolios for each utility that are cost-effective as defined by the TRC test. The Commission states that this recommendation is intended to permit flexibility to experiment with different implementation strategies, to encourage deployment of emerging technologies, and to support low-income programs. By applying the test at the portfolio level, the Commission opted not to require that each individual measure, project or program meet the TRC test, but noted that it anticipates that most programs would pass the TRC test.

DP&L generally supports the recommendation that the TRC be applied at the portfolio level for the reasons stated by the Commission. Additionally, and in keeping with a theme repeated often in these comments, application at the portfolio level helps to “Keep it Simple.” There may be as many as 1000 measures compiled by the utilities as part of the process outlined in Appendix B of the Entry. Applying the TRC test for each and every one of those measures individually could cause the implementation process to grind to a halt.

5. What Expectations Should the Commission Establish for Energy Savings and Demand Reduction Determination Certainty?

The Commission has made the provisional recommendation that the utilities and Independent Program Evaluator use “best practices” to establish quality assurance and quality control procedures that include field site inspections and to provide full documentation of analyses. The Commission has further set as a requirement for addressing random errors, that any evaluation sampling provide results at a 90 percent confidence level with 10 percent precision. In its discussion of these recommendations, the Commission noted the inherent trade-off between the costs of making such evaluations and their precision.



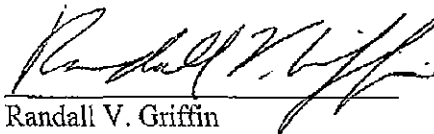
DP&L does not object to the use of "best practices" as a standard, with the understanding that "cost" remains an element of the standard. "Best practices" in this context means practices generally employed in the industry to achieve a reasonably reliable result at a reasonable cost.

With respect to the 90 percent confidence level with 10 percent precision, DP&L would raise only a cautionary note against placing too much meaning on such a standard. This is a statistical measure that is typically applied in the context of determining what sample size is necessary to provide a specified level of confidence that the value that would be obtained from an overall population is within a certain range of the value from the sample. Actual end-results may vary from expectations for any number of reasons even if the sample is the appropriate size and the methodology for selecting the sample and obtaining the data was unbiased.

CONCLUSION.

WHEREFORE, for the foregoing reasons, The Dayton Power and Light Company urges the Commission to affirm those aspects of its Entry supported herein and to modify its Entry in accord with the recommendations made herein.

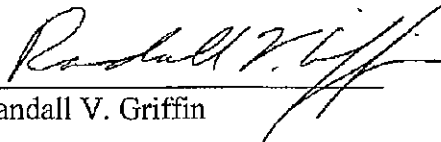
Respectfully submitted,



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**CERTIFICATE OF SERVICE**

I certify that a copy of the foregoing has been served either electronically or via first class mail, postage prepaid, this 24<sup>th</sup> day of July, 2009 upon the individuals and companies listed as parties in Case No. 09-412-GE-UNC in the Commission's Notice of Service of July 14, 2009.

  
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Randall V. Griffin