

BEFORE THE
ARKANSAS PUBLIC SERVICE COMMISSION

IN THE MATTER OF THE CONTINUATION,)
EXPANSION, AND ENHANCEMENT OF)
PUBLIC UTILITY ENERGY EFFICIENCY) DOCKET NO. 13-002-U
PROGRAMS IN ARKANSAS)

TESTIMONY

OF

MR. SCOTT DIMETROSKY
APEX ANALYTICS –INDEPENDENT EVALUATION MONITOR

ON BEHALF OF THE GENERAL STAFF OF THE
ARKANSAS PUBLIC SERVICE COMMISSION

NOVEMBER 7, 2013

ENERGY EFFICIENCY PROGRAMS IN ARKANSAS

DOCKET NO. 13-002-U

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1 **Q. Please state your name, position and business address.**

2 A. My name is Scott Dimetrosky and I am President of Apex Analytics LLC. My
3 business address is 1525 Spruce Street, Suite 200, Boulder, CO 80302

4 **Q. On whose behalf are you testifying in this case?**

5 A. I am testifying on behalf of the General Staff (Staff) of the Arkansas Public
6 Service Commission (APSC or Commission).

7 **Q. Please describe your role on the Independent Evaluation Monitor Team.**

8 A. My firm is part of the overall Independent Evaluation Monitor (IEM) team led by
9 Dr. Katherine Johnson of Johnson Consulting Group. My role in particular has
10 been to oversee the impact evaluations in Arkansas.

11 **Q. Please summarize your educational background**

12 A. I have an M.B.A. in Marketing Research & Quantitative Methods from Cornell
13 University and a B.A. in Sociology from the University of Michigan.

14 **Q. Please summarize your professional experience.**

15 A. I am currently President of Apex Analytics, LLC, a five person consulting firm that
16 specializes in energy efficiency program design and evaluation. I have been in
17 the energy efficiency sector for over 20 years. I was a founding member and
18 principal at Quantec, LLC, which merged with the Cadmus Group in 2008. During
19 my 13 years at Quantec and Cadmus, I led some of the largest evaluations in the
20 United States, and also led potential studies in Iowa, Illinois, and Colorado. I
21 joined Opinion Dynamics Corporation in 2010, and left in 2011 to form Apex
22 Analytics.

1 **Q. Have you previously submitted testimony before the Commission?**

2 A. No.

3 **Q. Have you previously submitted testimony before other state regulatory**
4 **commissions?**

5 A. Yes, for MidAmerican Energy on behalf of their 2009-2013 DSM plans.

6 **Q. What is the purpose of your testimony?**

7 A. The purpose of this testimony is to provide responses to the Commission's
8 directive in Docket No. 13-002-U, Order No. 7, for the Parties Working
9 Collaboratively (PWC) to develop a Request for Proposal (RFP) that describes
10 the PWC's detailed recommendations for an Arkansas Energy Efficiency (EE)
11 Potential Study. Specifically, my testimony provides additional clarification
12 regarding the parameters of the Potential Study that were requested on page 21
13 of Order No. 7.

14 **BACKGROUND DISCUSSION**

15 **Q. Please provide some background concerning the Commission's directive**
16 **to the PWC to develop the Potential Study RFP.**

17 A. The PWC requested that the IEM provide assistance to develop the RFP. The
18 PWC worked cooperatively with the IEM to develop the recommendation set forth
19 herein. Communications included three teleconferences (October 4, October 18,
20 and October 30), along with numerous email communications. The IEM
21 managed the RFP document, incorporating comments from PWC members. The
22 final PWC developed RFP is attached hereto as Attachment "A."

1 **SPECIFIC RESPONSES TO THE COMMISSION's QUESTIONS**

2 **Q. Which of the four common types of EE potential will be quantified and over**
3 **what time period?**

4 A. The Potential Study will determine the technical, economic, maximum
5 achievable, and program potential, as defined by the National Action Plan for
6 Energy Efficiency (NAPEE) *Guide for Conducting Energy Efficiency Potential*
7 *Studies*, November 2007, ES-3. The maximum achievable potential and
8 program potential will represent two of the three spending scenarios that are
9 specified in the RFP as achievable potential. Note the RFP divides achievable
10 potential into three scenarios, based on different spending levels. The high
11 spending scenario represents the maximum achievable potential, and assumes
12 no budget constraints. The medium and low spending scenarios represent two
13 alternative program achievable scenarios, both of which have spending
14 constraints. These spending levels will be determined prior to finalization of the
15 project work plan after project initiation. While the study is intended to provide
16 information as to what sectors, segments, end-uses, and specific measures
17 represent the most cost-effective EE potential for Arkansas under different
18 spending scenarios, the study is not intended to make specific program
19 recommendations regarding program design, incentive levels, marketing and
20 outreach, or administration.

21 The 2007 NAPEE Guide to Conducting Energy Efficiency Potential Studies
22 indicates the estimated time period to conduct this potential study is four to
23 tweleve months. Based on the scope of the study and the number of Investor

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1 Owned Utilities (IOUs) (including electric and gas), it is more likely to take at least
2 nine months to complete this study.

3 **Q. Will potential EE program savings be presented as a specific number or**
4 **range with indicated estimates of confidence and precision?**

5 A. Because the methodology for determining EE potential is not limited to selecting
6 statistical samples from a population, it is likely that the study will not include
7 estimates of confidence and precision. However, the achievable spending
8 scenarios are meant to determine some high and low ranges for these estimates.

9 **Q. What time period will the Potential Study cover?**

10 A. The Potential Study estimates will be provided for a ten-year timeframe, from
11 2015 through 2024. The PWC consider this period long enough to understand
12 future trends in EE, yet not too long in which the results become highly
13 unreliable. In addition, because the Potential Study is partly to inform the
14 Commission for 2015-2017 year targets, potential for these three years will be
15 provided separately from the ten-year timeframe.

16 **Q. Will the Potential Study assume only existing commercially available**
17 **technology and/or make assumptions for further innovation?**

18 A. The Potential Study will focus primarily on existing commercially available
19 technology, but bidders have been asked to account for anticipated technology
20 that will be commercially available during the ten-year timeframe of the study.

21 **Q. What will be the sources of data used?**

22 A. The RFP is explicit in that assumptions regarding Energy Conservation Measure
23 (ECM) savings, lifetime, and other parameters should leverage, as much as

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1 possible, version 3.0 of the Arkansas TRM and recent Evaluation, Measurement
2 & Verification (EM&V) efforts. The RFP does not specify additional data sources,
3 but does require that any suggested primary research should specify what data
4 will be collected and how the data will be used for the study (e.g., customer
5 characteristics such as equipment saturations and fuel shares, willingness-to-pay
6 estimates, etc.). In addition, it is expected that the potential study will rely on
7 customer sales and forecast data, disaggregated, as much as available, by
8 customer segment and sub-segment.

9 **Q. What is the basis for knowing that data are available within the cost and**
10 **schedule indicated?**

11 A. In order to maximize the competitiveness of the bids, the RFP does not provide a
12 budget range. The reliance on primary data (e.g., surveys, interviews, and site
13 visits) versus secondary data can have a large impact on the expected cost of
14 the study. Relying on secondary data would shorten the time-frame, lower the
15 budget, but will also provide the lowest scale of accuracy and precision around
16 the EE potential estimates. Increasing the amount of primary data would increase
17 the time-frame and budget, but will also allow the highest scale of accuracy and
18 precision around the EE potential estimates.

19 **Q. How is the budget for the Potential Study estimated?**

20 A. Cost estimates range between [REDACTED] to [REDACTED] depending on the degree
21 to which results are segmented, and the level of detail and data collection
22 required. Ultimately, the level of detail should be driven by the study objectives.

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1 **Q. What are the trade-offs between the Potential Study schedule, costs, and**
2 **accuracy of results?**

3 A. There are clear trade-offs between schedule, costs, and accuracy of the results.
4 More detailed potential studies give shape to or refine existing efficiency efforts
5 (NAPEE 2007, p. 2-3). While information is generally available to disaggregate
6 electricity or natural gas sales into residential, commercial, and industrial sectors,
7 the data needed to further disaggregate sales into building types or end-uses are
8 more difficult to obtain. When data are not available to support a detailed and
9 disaggregated study, primary research may be conducted. This will typically
10 include on-site data collection from a sampling of different building types, along
11 with modeling. This type of research and data collection effort may significantly
12 refine baseline assumptions and accuracy, but it comes at substantial cost.
13 These types of detailed studies tend to cost in the [REDACTED] to [REDACTED] range
14 as previously noted.

15 **Q. Are there some alternative budget, schedule, and quality options that the**
16 **Commission should consider for the Potential Study?**

17 A. As discussed above, there are clear accuracy and quality trade-offs between a
18 more aggressive, budget constrained potential study and those of a more robust,
19 lengthy, and higher priced study. The PWC will review the received bids and
20 determine how much primary data collection, if any, should be included as part of
21 the Potential Study. Determinants of this decision will be the value of the
22 information on the reliability of the results vs. the increased cost and time
23 required to collect such data.

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1 **Q. Will the Potential Study include baseline market studies?**

2 A. Bidders are asked to provide the increased costs and value of primary data
3 collection activities, including such activities as baseline market studies. Bidders
4 are also directed to leverage the existing EM&V activities, which may provide
5 insight into current market conditions.

6 **Q. Will the Potential Study use the existing Arkansas TRM and EM&V data and
7 / or be a basis for a coordinated effort to strengthen and update the
8 Arkansas-specific measure/program baseline information in the TRM and
9 thus be useful in other EM&V activities?**

10 A. A substantial amount of research has gone into developing the TRM, plus there
11 have been significant EM&V efforts. These sources should be leveraged, as
12 much as possible, in developing the Potential Study estimates. In particular, it is
13 expected that the TRM will be the starting point for assumptions regarding ECM
14 savings and lifetime. These values may be updated if the potential study
15 determines there are more reliable estimates, or if there are known future
16 changes to codes and standards that are not captured in the current TRM
17 assumptions. The results from the Potential Study will be used to inform and
18 refine the baseline assumptions in the TRM going forward. Thus this will be a
19 synchronized effort between planning and EM&V. In addition, the Potential
20 Study will provide information regarding incremental measure cost, which is not
21 currently reported in the TRM.

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1 **Q. Will the Potential Study address subsectors of residential, commercial and**
2 **industrial customer classes (low-income residential, multifamily, industry-**
3 **specific industrial)?**

4 A. The Potential Study will identify data by market sector (e.g., residential,
5 commercial, industrial). The RFP also states that bidders should determine the
6 sub-sector stratification for estimating potential, but the potential estimates
7 should be stratified, at a minimum, based on income qualification for residential
8 customers and business type for commercial customers.

9 **Q. Will the Potential Study indicate results as state totals or by service**
10 **territories; or by different regions and demographics?**

11 A. The potential estimates will be established individually for each IOU, and should
12 reflect each IOU's unique avoided costs (including potential transmission and
13 distribution savings), customer base (i.e., sales/customer count by sector and
14 subsector), climate zones, and discount rates. These individual IOU estimates
15 will also be aggregated to provide state-level results.

16 **Q. Will the Potential Study include an assessment of the EE delivery markets**
17 **that do or could serve the Arkansas market?**

18 A. Yes, we are specifically requesting that the Consultants will factor in the market
19 for EE in Arkansas including: Infrastructure (trade allies and trade contractors) to
20 deliver EE programs; the impact of household incomes and commercial and
21 industrial economic strength; the impact of self-direct commercial and industrial
22 customers; and the impact of new EE standards both nationally and locally.

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1 **Q. How will the Potential Study account for inter-utility and cross-fuel EE**
2 **savings opportunities and the administrative improvements recommended**
3 **by the IEM and program evaluators?**

4 A. Measures that have the potential for dual fuel savings (e.g., insulation and other
5 shell measures) will be modeled assuming the full combination of avoided costs
6 representing both fuels. A measure may not appear cost-effective when
7 screened independently for gas or electric savings, but may be cost effective
8 when the single incremental cost is compared against savings from both fuel
9 types. The study will model measures using this latter approach, thus fully
10 accounting for comprehensive fuel savings, inter-utility administrative
11 improvements are considered part of the program design effort, and thus are
12 considered outside the scope of work for this study. Moreover, the assessment
13 of all cost-effective achievable savings opportunities will be based on the implicit
14 assumption that coordinated program delivery and other potential process
15 improvements will be fully exploited in this Potential Study.

16 **SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS**

17 **Q. What are your recommendations?**

18 A. I recommend that the Commission approve the Potential Study RFP developed
19 by the PWC as set forth in Attachment A.

20 **Q. Does this conclude your testimony?**

21 A. Yes, it does.

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing has been served on all parties of record by forwarding the same by electronic service, this 7th day of November, 2013.

/s/ Fran C. Hickman _____

Fran C. Hickman

ATTACHMENT A:

Final PWC developed RFP for an Arkansas EE Potential Study

ENTIRE ATTACHMENT PROTECTED

PUSUANT TO

COMMISSION PROTECTIVE ORDER NO. 9

IN DOCKET 13-002-U