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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.)

ENTRY

The Commission finds:

- (1) Ohio Power Company; Columbus Southern Power Company; Duke Energy of Ohio, Inc.; the Dayton Power and Light Company; the Toledo Edison Company; Ohio Edison Company; and the Cleveland Electric Illuminating Company (collectively, electric utilities) are public utilities, as defined in Section 4905.02, Revised Code, and, as such, are subject to the jurisdiction and general supervision of the Commission, in accordance with Sections 4905.04, 4905.05, and 4905.06, Revised Code.
- (2) Columbia Gas of Ohio, Inc.; the East Ohio Gas Company d/b/a Dominion East Ohio; Vectren Energy Delivery of Ohio, Inc.; and Duke Energy of Ohio, Inc., (collectively, gas utilities) are public utilities, as defined in Section 4905.02, Revised Code, and, as such, are subject to the jurisdiction and general supervision of the Commission, in accordance with Sections 4905.04, 4905.05, and 4905.06, Revised Code.
- (3) On June 17, 2009, the Commission issued an entry, establishing a procedure for the development of protocols for the measurement and verification of energy efficiency and peak demand reduction measures. In that entry, the Commission indicated that we would issue a request for proposal for engineering consulting services, to assist the Commission with the evaluation and initial determination of values and protocols for the technical reference manual (TRM) that is being developed in this proceeding. As also noted in that entry, the cost of the engineering consulting services will be shared by the electric utilities and gas utilities, as will be set forth in detail in a subsequent entry.

- (4) Accordingly, staff of the Commission shall issue the request for proposal (RFP) that is attached to this entry, in order to obtain a qualified engineering consultant for the purpose of performing the services described in the RFP. All proposals will be due by August 3, 2009, submitted electronically, and August 4, 2009, submitted on paper, as set forth in the RFP. In order to demonstrate the ability to perform the services according to the RFP, the proposal must show, in detail, the consultant's understanding of the project and the work required. Each proposal must address, with specificity, how the consultant will handle all of the issues in staff's RFP. The consultant must demonstrate that it will be able to perform the required services, showing its clear understanding of the tasks to be completed, the experience and qualification of the personnel who will perform the work, and the anticipated breakdown of costs and timing. The Commission intends to select the consultant by September 2, 2009.
- (5) The Commission notes that, in order to increase the efficiency and transparency while minimizing the cost of the RFP process, the Commission has established an electronic mail list serve and web site for solicitation and acceptance of audit RFP contracts. Therefore, any potential bidder who wishes to receive notice of audit requests for proposals should subscribe to the PUCO RFP list by clicking on the "RFPs - Requests for Proposals" link at:
- <http://www.puco.ohio.gov/PUCO/Docketing/>
- (6) The consultant shall perform the services between September 8, 2009, and December 31, 2010. The consultant shall submit a framework TRM by November 11, 2009, and a recommended 2010 TRM by April 30, 2010.
- (7) The consultant shall perform the services as an independent contractor. Any conclusions, results, or recommendations formulated by the consultant may be examined by any participant to the proceeding for which the report was generated. Further, it shall be understood that the Commission and/or its staff shall not be liable for any acts committed by the consultant or its agents in the preparation and presentation of the report.

- (8) The consultant will execute its duties pursuant to the Commission's statutory authority to investigate and acquire records, contracts, reports, and other documentation under Sections 4903.02, 4903.03, 4905.06, 4905.15, and 4905.16, Revised Code.
- (9) The consultant shall be subject to the Commission's statutory duty under Section 4901.16, Revised Code, which states:

Except in his report to the public utilities commission or when called on to testify in any court or proceeding of the public utilities commission, no employee or agent referred to in section 4905.13 of the Revised Code shall divulge any information acquired by him in respect to the transaction, property, or business of any public utility, while acting or claiming to act as such employee or agent. Whoever violates this section shall be disqualified from acting as agent, or acting in any other capacity under the appointment or employment of the commission.

- (10) Upon request of the consultant or staff, the electric utilities and gas utilities shall provide any and all documents and information requested. The electric utilities and gas utilities may conspicuously mark such documents or information "confidential." In no event shall the electric utilities or gas utilities refuse or delay providing such information or documents.
- (11) Once the exception set forth in Section 4901.16, Revised Code, is satisfied, the following process applies to the release of any document or information an electric utility or gas utility marks as "confidential." Staff or the consultant shall not publicly disclose any document marked "confidential" by an electric utility or gas utility, except upon three days' prior written notice of intent to disclose served upon the utility's counsel. Three days after such notice, staff or the consultant may disclose or otherwise make use of such documents or information for any lawful purpose, unless a utility moves the Commission for a protective order pertaining to such information within the three-day notice period.

- (12) The three-day notice period will be computed according to Rule 4901-1-07, Ohio Administrative Code. Service shall be complete upon mailing or delivery in person.

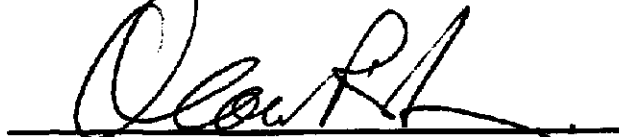
It is, therefore,

ORDERED, That the Commission's staff shall issue a Request For Proposal, evaluate all responses received, and negotiate the detailed scope of work and pricing plan, as described in this entry and the RFP. It is, further,

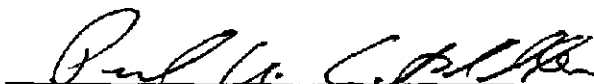
ORDERED, That the electric utilities, gas utilities, and the consultant shall observe the requirements set forth in this entry. It is, further,

ORDERED, That a copy of this entry be served upon Ohio Power Company; Columbus Southern Power Company; Duke Energy of Ohio, Inc.; the Dayton Power and Light Company; the Toledo Edison Company; Ohio Edison Company; the Cleveland Electric Illuminating Company; Columbia Gas of Ohio, Inc.; the East Ohio Gas Company d/b/a Dominion East Ohio; Vectren Energy Delivery of Ohio, Inc.; and all other interested parties of record.

THE PUBLIC UTILITIES COMMISSION OF OHIO



Alan R. Schriber, Chairman



Paul A. Centolella



Ronda Hartman Fergus



Valerie A. Lemmie

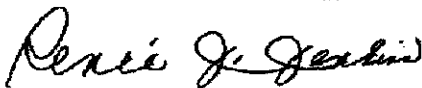


Cheryl L. Roberto

JWK:geb

Entered in the Journal

JUL 08 2009



Renee J. Jenkins
Secretary



**Request for Proposals
(RFP)**

Consultant to Prepare

**State of Ohio Energy Efficiency Technical Reference
Manual
Including
Predetermined Savings Values
And
Protocols for Determining Energy and Demand Savings**

Issued by:

Public Utilities Commission of Ohio

**Issued:
July 8, 2009**

**Electronic Proposals Due:
August 3, 2009
Print Proposals Due:
4:00 p.m. August 4, 2009**

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1 SUMMARY

Ohio electric utilities are required to implement energy efficiency programs. Such programs, at a minimum, shall achieve established statutory benchmarks for energy savings and demand reductions. Utilities may implement programs that support implementation of specific efficiency measures and mercantile customers may propose integration into utilities' programs or implement their own efficiency projects in support of the benchmarks. In addition, Ohio gas utilities are also implementing efficiency programs.

The purpose of this request for proposals (RFP) is to select a consulting firm or team of consultants, reporting to the Public Utilities Commission of Ohio (PUCO or the Commission), to develop an energy efficiency Ohio Technical Reference Manual (TRM) with an Interactive web-based interface that the Commission, utilities, mercantile customers, and an Independent Program Evaluator can use to access the information in the manual. The TRM is expected to include the following information:

- Predetermined energy savings and demand reductions values and calculation assumptions for specific gas and electricity efficiency deemed measures and deemed calculated measures,¹ when such values can be defined with sufficient certainty, including applicability conditions.
- Custom measure protocols consisting of standard engineering calculations and/or other methods that are used for determining energy savings and/or peak demand reductions for gas and electricity efficiency measures which do not have applicable predetermined savings values.
- Verification procedures that utilities will utilize to confirm both baseline conditions, when appropriate, and the proper installation of energy efficiency measures for which energy savings and/or peak demand reductions claims will be made.
- Protocols and assumptions for determining cost-effectiveness parameters, other than energy savings and demand reductions, used in the Total Resource Cost (TRC) Test for calculating the cost-effectiveness of energy efficiency programs undertaken by the gas and electric companies.

The work will be conducted in five phases:

1. Due diligence review of utility-provided, predetermined baseline and savings values for electric (possibly including transmission/distribution – T&D) deemed savings measures, calculation assumptions for deemed calculated measures, protocols for engineering calculations of non-predetermined savings measures, verification procedures, and protocols/assumptions for TRC calculations ("Framework RFP") – to be completed by November 11, 2009.

¹ Such measures may include facility (non-transportation) measures and transmission and distribution measures.

2. Define a process for preparing Ohio 2010 TRM for both electric and gas measures, including T&D measures – to be completed by November 30, 2009.
3. Prepare the gas and electric measures TRM for public review and eventual PUCO approval (“2010 TRM”) – to be completed by April 30, 2010.
4. Prepare the 2010 TRM interactive web-based interface tool – to be completed by June 2010.
5. Maintain and update the 2010 TRM – ongoing.

Respondents to this RFP are expected to address their capabilities to perform all five phases, provide multi-year labor billing rates, and provide a cost estimate for Phases 1, 2, and 3. The PUCO is looking for proposals demonstrating creativity, expertise and experience in how bidders approach the work scope.

The selected consultant will be authorized to conduct work for Phases 1, 2 and 3. The Commission will subsequently determine whether to extend the authorization to Phases 4 and 5.

2 BACKGROUND

Ohio Power Company, Columbus Southern Power Company, Duke Energy of Ohio, the Dayton Power and Light Company, Toledo Edison, Ohio Edison, and Cleveland Electric Illuminating Company (Electric Companies) are public utilities as defined in Section 4905.02, Revised Code. As such, these companies are subject to the jurisdiction and general supervision of the Commission in accordance with Sections 4905.04, 4905.05, and 4905.06, Revised Code.

Columbia Gas of Ohio, Dominion East Ohio Gas, Vectren Energy Delivery of Ohio and Duke Energy of Ohio (Gas Companies) are public utilities as defined in Section 4905.02, Revised Code. As such, these companies are subject to the jurisdiction and general supervision of the Commission pursuant to Sections 4905.04, 4905.05, and 4905.06, Revised Code.

On April 23, 2008, the Ohio legislature adopted Amended Substitute Senate Bill No. 221 (SB 221), which became effective on July 31, 2008. Among the provisions of SB 221 was the requirement in Section 4928.66, Revised Code, for the Commission to take certain actions related to the implementation of energy efficiency and peak-demand reduction programs by electric utilities. Section 4928.66(B), Revised Code, requires the Commission to verify the annual levels of energy efficiency and peak-demand reduction achieved by each electric utility. Further, Section 4928.66(A)(2)(c), Revised Code, specifically provides that mercantile customers of the electric utilities may be exempted from payment of a mechanism that recovers the cost of energy efficiency and peak-demand reduction programs, if the Commission determines that such an exemption reasonably encourages those customers to commit their demand response or other customer-sited capabilities for integration into an electric utility's demand response, energy efficiency, or peak-demand reduction programs.

The Commission must be in a position to be able to determine, with reasonable certainty, the energy savings and demand reductions attributable to the energy efficiency programs undertaken by gas and electric utilities, including mercantile customers, in order (a) to facilitate planning and portfolio reviews; (b) to verify each electric utility's achievement of energy and peak-demand reduction requirements, pursuant to Section 4928.66(B), Revised Code; (c) to consider exempting mercantile customers from cost recovery mechanisms pursuant to Section 4928.66(A)(2)(c), Revised Code; and (d) to review cost recovery mechanisms for energy efficiency and/or peak-demand reduction programs implemented by the electric or gas utilities. In order to provide guidance regarding how the Commission will determine energy savings and/or peak-demand reductions, the Commission intends to establish protocols for the measurement and verification of energy efficiency and peak-demand reduction measures, which will be incorporated into a Technical Reference Manual (TRM). The Commission's intent is that the TRM would provide predictability and consistency for the benefit of the electric and gas utilities, customers, and the Commission itself.

The Electric Companies will be responsible for certain measurement and verification activities associated with their energy efficiency programs. In addition, an Independent Program

Evaluator² working under the sole direction of the Commission staff will be responsible for the overall verification and impact evaluation, and cost-effectiveness determination, of the energy savings and/or electric utility peak-demand reductions resulting from each approved program.

Gas utilities, electric utilities, mercantile customers, and the Independent Program Evaluator are expected to utilize predetermined values, deemed calculated measure approaches, the custom measure standard engineering calculations, and/or other methods for determining energy savings and/or peak demand reductions, the verification procedures, and the cost-effectiveness assumptions that will be in the TRM. In addition, but independently from the TRM development, the Independent Program Evaluator is also expected to develop specific impact evaluation plans for each utility program as part of its scope of work. See *In the Matter of Protocols for the Measurement and Verification of Energy Efficiency and Peak Demand Reduction Measures*, Case No. 09-512-GE-UNC, Entry (June 24, 2009) ("TRM Entry"), attached as Appendix A hereto.

² The Independent Program Evaluator will be the subject of another RFP issued later this year by the PUCO. The PUCO anticipates that bidders may be interested in proposing on both the TRM RFP and the Independent Evaluator RFP. The PUCO sees no conflict and potential benefit in the same consultant serving in both of these roles.

3 WORK SCOPE

Section 3 of this RFP describes the work scope for the requested services and has the following subsections:

3.1 - Project objectives, budget and schedule

3.2 - TRM work scope tasks - roles and responsibilities of selected consultant

3.3 - Role and responsibility of PUCO

This information is being provided to assist bidders with preparation of their proposals. The work scope defined in this RFP is at a fairly high level of generalization. Bidders are requested to propose their own approach to reviewing utility supplied data and protocols and preparing the TRM, giving careful consideration of PUCO's goals and requirements and the status of energy efficiency programs in Ohio. Bidders should consider reviewing other states' and regions' TRMs and evaluation protocols as possible models and sources of data.³ Bidders should propose what they believe, given the available time frame, are (a) realistic and achievable approaches, (b) appropriate resource allocations, and (c) appropriate levels of rigor in reviewing utility supplied data and procedures/protocols and developing TRM predetermined savings values.

3.1 Project Objectives, Budgets and Schedule

3.1.1 Project Objectives

1. Validate utility-provided data, custom measure protocols, verification procedures, and cost-effectiveness calculation assumptions as reasonably accurate and sufficient for determining energy efficiency program annual and lifetime energy savings, demand reductions, and cost-effectiveness for electric efficiency activities completed during 2009 and 2010. This will result in a consultant-documented "Framework TRM."
2. Prepare a 2010 TRM for both gas and electric utility efficiency programs that is robust, reliable, updatable, and relatively easy to utilize by the PUCO, utilities, and mercantile customers, and which can be utilized for programs starting in 2011.
3. Develop an interactive web-based interface with the 2010 TRM for use by the PUCO, utilities, mercantile customers and the Independent Program Evaluator.
4. Maintain the TRM with updates, as needed.

³ Some examples include, but are not limited to, California, Connecticut, Massachusetts, Minnesota, New Jersey, New York, Vermont, Wisconsin, and the Pacific Northwest.

3.1.2 Budget

The initial budget for Phases 1 and 2 of this project is estimated at approximately \$150,000. No budget has been prepared for Phases 3, 4 and 5, as the scopes for these phases have not be fully developed. Several points for bidders' consideration on the budgets are:

- Phase 1 and 2 budgets will be finalized based on the bids received and, in the case of Phases 3, the results of Phase 2. The Phase 4 and 5 budgets will be finalized after the scopes are developed further in collaboration with the successful bidder.
- Bidders are required to submit a traditional time and materials budget estimate in their proposals for labor and non-labor costs, for Phases 1 and 2, with a fixed annual upper limit not to be exceeded without prior authorization.
- The budget for Phases 1 and 2 is based on an estimate of 1,200 person-hours of required effort.

3.1.3 Schedule

The schedule for this project is based on key dates for delivery of information from the electric and gas utilities associated with their efficiency programs. These dates are:

- By August 3, 2009, the Electric Companies and Gas Companies must file the list of measures for which they will provide predetermined savings values.
- By September 15, 2009, Electric Companies and Gas Companies must file consensus predetermined values and calculation assumptions (for deemed calculated measures) for energy efficiency measures that were submitted by August 3, energy savings and demand reduction calculation protocols for custom measures, verification procedures, and assumptions to be used for TRC calculations.
- By January 1, 2010, the Electric Companies must file their program portfolio plans for 2010 and beyond. These plans will rely on measure-specific savings and cost information submitted by the utilities in August 2009 and "validated" by the consultant selected as a result of this RFP.⁴

Thus, the consultant selected as a result of this RFP must:

- By November 11, 2009, prepare a Framework TRM with the results of the review and vetting of values, assumptions and protocols, which are associated with electric measures (including T&D) and programs, submitted by the utilities by September 15, 2009. By November 30, 2009 prepare a plan for developing the 2010 TRM.

⁴ Because the Electric Companies (and not the Gas Companies) must submit program plans by January 1, 2010, that are expected to rely on the Framework TRM values and protocols, the fall 2009 reviews by the selected consultant are to cover only the electric-specific measures and the protocols that would cover electric measures.

- By April 30, 2010 prepare a recommended 2010 TRM.

3.2 TRM Work Scope

Phase 1: Due diligence review of Electric Company and Gas Company provided information for initial TRM

Task 1A: Kick-Off Meeting. Hold kick-off meeting with PUCO project manager. This will be a conference call meeting. The PUCO project manager will apprise the consultant of any policy guidance promulgated by the Commission regarding underlying policy considerations which will, of necessity, shape the protocols, assumptions, and values included in the TRM as developed through comments submitted by interested parties on or before July 24, 2009, pursuant to the TRM Entry. Review project objectives, schedule and deliverables. Discuss criteria to be used to determine validity and adequacy of utility-provided information. Review status of utility-submitted information and confirm which information submitted by utilities, such as the electric measure savings values and the custom measure calculation procedures that apply to all measures, will be validated.

Deliverable: Minutes of meeting with scope updates, if any. Description of procedures and criteria to be used for validating utility-supplied information as well as which information will be validated.

Task 1B: Conduct Due Diligence Review of Utility-Supplied Information and Prepare Framework TRM. Using (a) expertise and experience of selected consultant, (b) available predetermined baseline and savings values, savings calculation protocols, etc., and (c) industry best practices, consultant will conduct a review of the utility-supplied information and protocols/procedures to determine whether the information provided is sufficient and reasonably accurate given established criteria. Although information applicable to both electric and gas utility programs will be reviewed during Phase 1, the resultant Framework TRM will be applicable only to electric utilities.

Specifically, the consultant will review, for energy efficiency measures, the following information that is to be provided by the Electric Companies and Gas Companies:⁵

- Predetermined energy savings (including interactive effects as applicable) and demand reductions values for specific efficiency deemed and deemed calculated measures (including T&D) identified by the Electric Companies and Gas Companies, including key input assumptions for deemed savings measures (e.g. hours of operation, baseline), applicability conditions for all measures and calculation assumptions for deemed calculated measures (note measures may include T&D measures).
- Custom measure protocols for standard engineering calculations and/or other methods for determining energy savings (including interactive effects as applicable) and/or peak demand reductions for efficiency measures which do

⁵ Gas utility provided information is reviewed if it can be applied to gas and electric measures and with respect to applicable interactive effects of electric measures

not have applicable predetermined savings values (note measures may also include T&D measures).

- Verification procedures that utilities will utilize to confirm both baseline conditions, when appropriate, and the proper installation of energy efficiency measures for which energy savings and/or peak demand reductions will be made.
- Protocols and assumptions for determining cost-effectiveness parameters, other than energy savings and demand reductions, used in the TRC Test for calculating the cost-effectiveness of energy efficiency programs undertaken by the Electric Companies and Gas Companies.

For items defined in the first bullet listed above, the consultant will most likely indicate one of the following:

- Which, if any, utility-supplied values, protocols, assumptions, etc., are validated?
- Which, if any, utility-supplied values, protocols, assumptions, etc., are not validated but for which an alternate value, protocol, assumption, etc., is provided and recommended by the consultant?
- Which, if any, utility-supplied predetermined savings values and applicability conditions are not validated and for which an alternate value/applicability condition cannot be established at this time (and thus the associated measure should be classified as a custom measure)?

Appendix A contains the TRM Entry requiring utilities to submit the information to be reviewed by the consultant. Attachment B to the TRM Entry indicates the type of information to be provided with respect to predetermined savings values (deemed measures and deemed calculated measures) and TRC calculation assumptions.⁶ For purposes of preparing a budget in response to this RFP, the consultant can assume that there will be values associated with a total of 200 deemed savings measures and deemed calculated measures for review.

Consultant will review the results of the initial review with the PUCO Project Manager. After consultation with the PUCO Project Manager, the consultant will prepare a Framework TRM for public filing. Consultant will also review the results of this Framework TRM with Electric Company and Gas Company representatives. At the discretion of the Commission, the utilities and other interested parties may be given an opportunity to respond to questions or recommended modifications to the information that they initially provided.

Deliverable: Report of initial review, documentation of meetings with PUCO and utilities and Framework TRM.

⁶ Note that responses by interested parties to the Entry may result in modifications to the timing, categories and format of information provided by the utilities.

Phase 2: Define Process for Preparing 2010 TRM

Task 2A: Define contents of a gas and electric 2010 TRM that will be developed in early 2010 and used for post-2010 programs and the procedures for developing the 2010 TRM. Working with PUCO staff, utilities, and interested stakeholders, consultant will prepare a draft document of recommendations. The document will be reviewed with the PUCO project manager and then at a workshop of utilities and other stakeholders. The document will have the following contents:

- What should be included in the 2010 TRM, for example:
 - Calculation procedures (for kWh, kW, therm savings – first year and life cycle) for deemed and custom measures
 - Predetermined savings values for energy and peak demand impacts, measure lifetime, approach to addressing persistence of savings, Net-to-Gross (NTG) values, incremental measure costs, etc.
 - T&D project savings values
 - Verification procedures
 - TRC calculation procedures and assumptions
- Identification of:
 - Specific measures (e.g., residential CFLs, commercial motors) that should be included in the TRM's predetermined savings values section
 - Which of these measures can use deemed savings values from other jurisdictions and which require new analyses or modification for Ohio
- Key assumptions required:
 - Baseline definition
 - Definition of Effective Useful Lifetime (EUL)
 - Definition of NTG
- Define process and schedule for:
 - Proposed approach to obtaining stakeholder/utility input at key junctions
 - Maintaining and updating TRM
 - Distributing and using TRM (TRM Tool)
 - Integrating TRM into utility EE program filing processes post 1/1/10 and in future EE program plan filings

- Define TRM interactive web-based interface – such as format, medium (e.g., database, spreadsheet, documents, website) for use of 2010 TRM by:
 - PUCO
 - Mercantile customers
 - Utilities
 - Independent Program Evaluator
 - Public users

Deliverable: Report of initial recommendations to be reviewed with PUCO, utilities and other stakeholders. Workshop attendance and presentation.

Task 2B: Prepare 2010 TRM Scope and Development Plan. Based on feedback from Task 2A, consultant, with consultation from PUCO project manager, will prepare a 2010 TRM scope description (annotated table of contents) and work plan with schedule and budget. This will be submitted to PUCO for approval prior to moving to Phase 3.

Deliverable: TRM Scope and Development Plan.

Phase 3: Prepare 2010 TRM

Task 3A. Prepare Draft 2010 TRM. Consultant will prepare a Draft 2010 TRM per the plan defined in Phase 2. The Draft 2010 TRM may be filed with the Commission. Interested parties are expected to have the opportunity to file objections and a hearing will be held on the draft 2010 TRM, if and to the extent necessary.

Task 3B. Provide testimonial support. Consultant will prepare and provide testimonial support for the draft 2010 in any Commission hearing process. The Commission will ultimately adopt a 2010 TRM.

Phase 4: Prepare 2010 TRM interactive web-based interface.

Task 4A. Prepare 2010 TRM interactive web-based interface. Consultant will prepare interactive web-based interface for access to TRM by stakeholders per the workplan as defined in Phase 2.

Phase 5: Update 2010 TRM

Task 5A. Update TRM. Consultant will prepare periodic updates of TRM as required.

Task 5B. Other Tasks. Consultant will provide ongoing services as requested by PUCO .

3.3 Role and Responsibility of PUCO and PUCO Staff

In summary, the anticipated roles and responsibilities for the PUCO and the PUCO staff are described below.

The anticipated roles and responsibilities for the PUCO are the following:

- Select the successful bidder;
- Approve the final scope of work with pricing;
- Direct the Electric Companies and Gas Companies to enter into letter agreements with the successful bidder, in substantial conformity with that attached as Appendix D hereto, committing to pay the successful bidder their proportionate share of the fees arising from the approved scope of work; and
- General oversight of the project.

The anticipated roles and responsibilities for PUCO staff are the following:

- Provide high-level guidance and direction to the consultant, including providing review and comments on deliverables;
- Engage with consultant on strategy and policy issues;
- Review and approve consultant invoices;
- Forward invoices to Electric Companies and Gas Companies with a directive to pay them in compliance with the PUCO order allocating the fees;
- Provide oversight with respect to project activities being within budget and on schedule; and
- Facilitate communication with utility staff and other stakeholders, including arranging for workshop logistics.

4 GENERAL SUBMITTAL INFORMATION

This section of the RFP provides information for bidders concerning the submittal process, general requirements, schedule, and qualifications. Specific requirements for the content and preparation of bids are contained in Section 5.

4.1 Contact and Communications

With the exception of any Commission-designated pre-bid or post-bid conferences, bidder presentations, and Commission-solicited information, a bidder, including but not limited to its employees, agents, assigns, and legal representatives, shall not communicate with any PUCO staff or Commissioner concerning this RFP from the date that it is released for bid until a bidder has been selected and the Commission has issued its order selecting the consultant. If a bidder attempts any unauthorized communication, the state shall reserve the right to reject that bidder's proposal.

4.2 Intent to Bid

Potential bidders are encouraged but not required to submit a notification of intent to submit a proposal in response to this RFP. This information helps plan and administer the RFP. Bidder's notice of intent to bid should be submitted to the PUCO Project Manager by 4:00 p.m. July 17, 2009.

4.3 Bidders' Conference Call

A non-mandatory, but recommended, bidders' conference call will be held as indicated in the following table:

Date: July 17, 2009

Time: 11:00 a.m. Eastern Time

Conference call number: (614) 644-1080

4.4 Questions

Bidder questions related to this RFP should be submitted by 4:00 p.m. July 24, 2009, to the PUCO Project Manager:

Paul Laurent
Public Utilities Commission of Ohio
Department of Energy and Environment
180 East Broad Street
Columbus, Ohio 43215
Paul.laurent@puc.state.oh.us

4.5 Proposal Submittal Format and Due Date

Bidders are required to submit an electronic version of their proposal documents. Bidders are required to submit two documents: their proposal (as an Adobe Acrobat .pdf file) and a Microsoft Excel file with their budget.

Bidders will also submit a paper copy of the proposal documents, with the original marked "ORIGINAL COPY". The transmittal letter contained in the original proposal package must have an original signature and must be signed by a person who is authorized to bind the proposing firm. All additional proposal sets may contain photocopies of the original package.

The PUCO reserves the right to reject as non-responsive any proposals that do not contain the information requested in this RFP. The PUCO is not liable for any costs incurred by any person or firm responding to this RFP or participating in any best and finals interviews.

4.5.1 Electronic proposal submittal instructions

Electronic copies of proposal documents must be submitted and received by the PUCO Project Manager according to the schedule in Section 4.5.3.

4.5.2 Hard copy proposal submittal instructions

All proposal documents and copies must be submitted under **sealed** cover and received by the PUCO Project Manager according to the schedule in Section 4.5.3.

4.5.3 Due Dates

RFP release	July 8, 2008
Intent to bid notice	July 17, 2009
Bidder's conference call	11:00 a.m. July 17, 2009
Close of RFP question period	4:00 p.m. July 24, 2009
Electronic proposals due	4:00 p.m. August 3, 2009
Print proposals due	August 4, 2009
Interviews, if required	August 17, 2009
Scope of work negotiations	August 18-28, 2009
Anticipated contract start	September 8, 2009

The above schedule is subject to change.

4.6 Minimum Qualifications

Any bidding team must have at least the following qualifications to be considered for selection:

- Key staff members must have demonstrated experience delivering consulting services related to the analysis of energy efficiency measure performance and characterization, including cost-effectiveness analysis and screening.
- Free of conflicts that would negatively impact their ability to provide independent and unbiased consulting services.

4.7 Instructions to Bidders

The following are general instructions to bidders. Specific requirements for the content and format of the proposals are presented in Section 5.

4.7.1 Modifications to the RFP

The PUCO Staff may modify the RFP prior to the date fixed for submission of proposals by the issuance of an addendum to all parties who registered.

4.7.2 Proposal Preparation Costs

Costs for developing proposals are entirely the responsibility of the bidder.

4.7.3 Post Proposal Negotiation and Awarding of Contracts

The PUCO and PUCO Staff reserve the right to negotiate both price and non-price factors during any post-proposal negotiations with a finalist. The PUCO and PUCO Staff have no obligation to enter into an agreement with any respondent to this RFP and may terminate or modify this RFP at any time without liability or obligation to any respondent. This RFP shall not be construed as preventing the PUCO from entering into any agreement that it deems appropriate at any time before, during or after this RFP process is complete.

4.7.4 No Obligation to Execute Agreement

Nothing contained in this RFP shall be construed to require or obligate the PUCO to select any proposals or limit the ability of the PUCO to reject all proposals in its sole and exclusive discretion. The PUCO further reserves the right to withdraw and terminate this RFP at any time prior to the adoption of a Scope of work.

4.7.5 Changes in Scope of Work

Provisions for payment for any additional work or changes in the scope of the work shall be mutually agreed upon at the time the consultant is requested to perform additional work or change the scope of the work.

4.7.6 Changes in Key Personnel

Changes in key personnel identified in the proposal may not be made by the successful bidder during the performance of the work without written approval of PUCO Staff.

4.7.7 Acceptance of Terms and Conditions

The submission of a proposal shall constitute a bidder's acknowledgement and acceptance of all the terms, conditions and requirements of this RFP.

4.7.8 All Submitted Proposals Become Exclusive Property of the PUCO

All proposals submitted pursuant to this RFP shall become the exclusive property of the PUCO and may be used for any reasonable purpose by the PUCO.

5 PROPOSAL SUBMITTAL REQUIREMENTS

5.1 Submission of Proposals

Proposals should provide straightforward and concise descriptions of the proposer's ability to satisfy the requirements of this RFP. The proposal must be complete and accurate. Omissions, inaccuracies or misstatements will be sufficient cause for rejection of a proposal. Proposals not submitted as indicated may be rejected.

The PUCO is looking for proposals demonstrating creativity, expertise and experience in how bidders approach the work scope.

All proposals must include the documents identified in Appendix B "Required Proposal Checklist" and Appendix C "Required Company Information Form". **Proposals not including the checklist may be deemed non-responsive.**

Bidders are required to submit two documents: their proposal (as an Adobe Acrobat .pdf file) and a Microsoft Excel file with their budget.

5.2 Proposal Format

5.2.1 Summary of Contents

Bidders are requested to provide a concise yet complete description of the bidder's approach and capabilities for satisfying the required services outlined in this RFP. **Excessive length is discouraged.** In addition, bidders are encouraged to proactively present additional information and responses, not specifically requested, that help demonstrate understanding of this project's objectives as well as bidder creativity, experience, and/or expertise.

Proposals must adhere to the following set format (the numbers indicated are suggested page limits):

- Proposal cover
- Signed cover/transmittal letter
- Table of Contents (include proposal date and page numbers on each page of proposal)
- Completed proposal checklist
- Company overview
- Executive summary (suggested maximum length 2 pages)
- Work scope and schedule (≤10-15 pages)
- Staffing and subcontracting plan (≤5 pages)
- Qualifications and Experience (≤10 pages)
- Budget (2 pages plus tables)

- Disclosures (as needed)
- Appendix - Resumes (≤2 pages per resume)

5.2.2 Proposal Cover and Transmittal letter

The proposal cover must indicate the RFP name, the proposal date, bidder's name and list of subcontractors. The cover must also state that the person signing the letter is authorized to commit the bidding organization to the proposed work scope, budget and rates; that the information in the proposal is accurate; and that the proposal is valid for 90 days from the RFP closing date. The transmittal letter must include a signature of an officer of the bidding company, empowered to bind the company to the terms and conditions of the proposal. The signature can be included on just the hard copies of the submitted proposals.

5.2.3 Sections 1 – 3: Checklist, Company Overview, Executive Summary,

Sections 1 – 3 of the proposal must contain a proposal checklist, general information about bidder's firm, and a high level summary of the proposal including the approach to the tasks and the bidding team's qualifications to perform the services sought through this RFP.

- Section 1: Completed checklist in Appendix B of this RFP
- Section 2: Company overview. Use the company information form included in Appendix C of this RFP
- Section 3: Executive Summary

5.2.4 Section 4: Work Scope and Schedule

Section 4 of the proposal should discuss bidder's approach to Tasks that are detailed in Section 3.2 of this RFP. Section 4 of the proposal should describe bidder's approaches to each of the work scope tasks with sufficient detail to distinguish the strengths and unique features that are suggested, but it should not be overly detailed and lengthy.

Section 4 must include a schedule for performing Tasks. The schedule should be presented graphically and supplemented with text explanations needed to provide a complete understanding of the proposed timeline.

5.2.5 Section 5: Staffing and subcontracting plan

In this section, bidders are requested to:

- Include a management and organizational chart that depicts the relationships and proposed agreements among team members (prime and subcontractors if any) to accomplish the Tasks in the Work Scope.
- Describe the roles of each of the positions listed in bidder's staffing plan.

- Identify the lead staff member assigned to manage the work, provide a short biography, and explain why he or she is qualified for this position. Describe this person's availability for the project, and the office where he or she will be based.
- Identify the key personnel to be assigned to this project, describe their responsibilities, and provide a paragraph biography for each person. Indicate availability and length of time commitment to project.
- Specify any anticipated subcontractors who will be used, roles, responsibilities, and proposed subcontractor mark-up percentage.

Include resumes for all individuals named in the staffing plan in a proposal appendix. Resumes and bios should describe relevant responsibilities from other projects that will help evaluate the qualifications and experience of key personnel. Please limit length of resumes to two pages.

5.2.6 Section 6: Qualifications and Experience

Use this section to address bidding team's qualifications and experience, drawing on lessons learned and personal best practices.

6.1 Summary

Summarize why the bidding team is best suited to conduct the requested services. Include any previous experience the bidding team has working directly in Ohio or the midwest as it relates to energy efficiency and demand response, especially evaluation activities. As evidenced by the adoption of SB 221 last year by the Ohio legislature and as signed by the Ohio governor and by the rules adopted by the PUCO implementing those energy efficiency and peak demand reduction mandates, Ohio is committed to significant energy savings and peak demand reductions. See *In the Matter of the Adoption of Rules for Alternative and Renewable Energy Technology, Resources, and Climate Regulations, and Review of Chapter 4901:5-1, 4901:5-3, 4901:5-5, and 4901:5-7 of the Ohio Administrative Code, Pursuant to amended Substitute Senate Bill No. 221*, Case No. 08-888, Entry on Rehearing (June 17, 2009).

Due to the need of both the TRM consultant and the Independent Program Evaluator to interact with utilities, mercantile customers, the PUCO and others, the PUCO prefers that the selected consultant staff and maintain a local office, although not necessarily at the start of the evaluation activities. In addition to facilitating communication among the various parties, the PUCO intends to foster a local, technically qualified work force that is able to support the operations of the state's efficiency programs, including the ability to conduct fieldwork, and engineering and statistical analysis associated with the evaluation of program impacts. Out-of-state bidders should consider opening and staffing an Ohio-based office and should describe any plans for accomplishing this in their proposal(s). Notwithstanding the intention of developing in-state capacity, the PUCO reserves the right to select out-of-state consultant(s) regardless of their existing or planned local presence if, in the PUCO's judgment, doing so better meets its overall objectives. For proposal contents: provide information regarding any new local offices bidder intends to establish (and when) for the purpose of serving as the PUCO's TRM consultant; and describe use of local subcontractors.

6. 2 TRM Development Experience and Regulatory/Stakeholder Experience

Summarize:

- Experience developing each of the components of the TRM identified in the scope of work.
- Experience working in a regulatory environment on energy efficiency activities, particularly coordinating with utilities, regulators and stakeholders.
- Making presentations in workshops and providing regulatory testimony

6. 3 References

Bidders should provide three references from current (preferred) or recent clients for whom they have performed projects that are relevant to the work scope. References should include a brief synopsis of specific services provided, company name and location, contact name, contact title, telephone number and, email address of the reference. In the event the bidder is forming a new organization to bid on this proposal, the bidder should provide the related references for the key staff members proposed for the project.

References should be included (two or three each) for the proposed prime consultant and any major subcontractors.

5.2.7 Section 7: Budgets

Proposals must contain completed Budget Table 1 and 2, which are provided in the following embedded file. Budgets are only required for Phases 1 and 2. Fully loaded billing rates are required for 2009, 2010 and 2011. Include a "hard copy" of the tables in the written proposal submittal and an electronic copy with the electronic submittal.



PUCO TRM RFP Budget
Forms.xls

Please note that material (direct) costs must be billed at their cost to the consultant. Subcontractor labor billing rates however, can include a minimal administrative charge.

5.2.8 Section 8: Disclosures

Bidders, including all subcontractors, must describe any potential conflict of interest that may be a factor that could potentially be grounds for rejection by the PUCO. Specifically, bidders should disclose if they have ever worked for any of the Electric Companies or Gas Companies or for the PUCO.

If bidders have any questions, they are encouraged to submit questions early in the RFP issuance process and seek clarification, but no later than 4:00 p.m. on July 24, 2009.

6 SELECTION PROCESS AND EVALUATION CRITERIA

6.1 Selection Process

All proposals will be evaluated using the following process:

Step 1: Threshold Review

The threshold review ensures that proposals contain all required elements and that the bidders demonstrate that there are no legal claims/judgments or conflicts of interest that would make it difficult for them to perform. The threshold review, and ongoing reviews, will also include consideration of omissions, inaccuracies or misstatements. Proposals that do not pass the threshold review may be removed from further consideration.

Step 2: Evaluation Criteria

Proposals passing the threshold review are evaluated using a formal review and ranking process. Evaluation criteria are described below.

Step 3: Interviews

If deemed necessary, top-ranked bidders may be invited to an interview. Presentations and answers to reviewer questions will be used in preparation of final bid rankings. Note that the PUCO reserves the right to forego this step should a single proposal be ranked in the technical review as clearly superior to others.

Step 4: Selection and Scope of Work Negotiation

PUCO Staff will initially notify only the selected bidder in writing. This notification will initiate the Scope of Work negotiation process. Should PUCO Staff and the selected bidder(s) not be able to quickly reach accord, PUCO Staff may terminate negotiations and initiate negotiations with the next ranked bidder(s). Upon successfully reaching accord on a Scope of Work, the selection(s) will be made public and all other bidders responding to the RFP will be notified of the selections.

6. 2 Evaluation Ranking Matrix

Table 5.1: RFP Evaluation Criteria/Ranking Matrix

	Approximate Weighted Percent
Part A: Technical Approach	40%
1. Proposal quality	
2. Thoroughness and practicality of approach	
3. Clarity regarding objectives and quality of proposed approach for meeting those objectives	
4. Best practice, innovation, and likelihood for success in proposed technical approach	
5. Creativity and balancing of complex issues for preparing TRM	
Part B: Organizational and Management Capability	35%
1. Demonstrated competence and experience	
2. Management structure	
3. References	
4. Assigned staffing for prime and subcontractors	
5. Commitment to developing local skill and capacity	
Part C: Cost	25%
1. Total labor and non-labor costs for phase 1 and 2	
2. Costs relative to approach	
3. Ability to achieve goals within budget	
4. Billing rates and direct costs/subcontractor mark-up rates (if any)	
Total	100%

APPENDIX A – TRM ENTRY WITH ATTACHMENTS

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.)

ENTRY

The Commission finds:

- (1) Ohio Power Company; Columbus Southern Power Company; Duke Energy of Ohio, Inc.; the Dayton Power and Light Company; the Toledo Edison Company; Ohio Edison Company; and the Cleveland Electric Illuminating Company (collectively, electric utilities) are public utilities, as defined in Section 4905.02, Revised Code, and, as such, are subject to the jurisdiction and general supervision of the Commission, in accordance with Sections 4905.04, 4905.05, and 4905.06, Revised Code.
- (2) Columbia Gas of Ohio, Inc.; the East Ohio Gas Company d/b/a Dominion East Ohio; Vectren Energy Delivery of Ohio, Inc.; and Duke Energy of Ohio, Inc., (collectively, gas utilities) are public utilities, as defined in Section 4905.02, Revised Code, and, as such, are subject to the jurisdiction and general supervision of the Commission, in accordance with Sections 4905.04, 4905.05, and 4905.06, Revised Code.
- (3) On April 23, 2008, the Ohio legislature adopted Amended Substitute Senate Bill No. 221 (SB 221), which became effective on July 31, 2008. Among the provisions of SB 221 was the requirement in Section 4928.66, Revised Code, for the Commission to take certain actions related to the implementation of energy efficiency and peak-demand reduction programs by the electric utilities. Section 4928.66(B), Revised Code, requires the Commission to verify the annual levels of energy efficiency and peak-demand reduction achieved by each electric utility. Further, Section

4928.66(A)(2)(c), Revised Code, specifically provides that mercantile customers of the electric utilities may be exempted from payment of a mechanism that recovers the cost of energy efficiency and peak-demand reduction programs, if the Commission determines that such an exemption reasonably encourages those customers to commit their demand response or other customer-sited capabilities for integration into the electric utility's demand response, energy efficiency, or peak-demand reduction programs.

- (4) The Commission has adopted or, in one case, is considering a cost recovery mechanism for demand-side management programs for each gas and electric utility, each of which mechanisms will require Commission supervision and regulation. *In the Matter of the Application of Columbia Gas of Ohio, Inc. for Authority to Amend Filed Tariffs to Increase the Rates and Charges for Gas Distribution Service*, Case No. 08-72 et al., Opinion and Order (December 3, 2008); *In the Matter of the Application of The East Ohio Gas Company d/b/a Dominion East Ohio for Authority to Increase Rates for its Gas Distribution Service*, Case No. 07-829-GA-AIR et al., Opinion and Order (October 15, 2008); *In the Matter of the Application of Duke Energy Ohio, Inc. for an Increase in Rates*, Case No. 07-589-GA-AIR et al., Opinion and Order (May 28, 2008); *In the Matter of the Application of Vectren Energy Delivery of Ohio, Inc. for Authority to Amend its Filed Tariffs to Increase the Rates and Charges for Gas Services and Related Matters*, Case No. 07-1080-GA-AIR et al., Opinion and Order (January 7, 2009); *In the Matter of the Application of Duke Energy Ohio, Inc., for Approval of an Electric Security Plan*, Case No. 08-920-EL-SSO et al., Opinion and Order (December 17, 2008); *In the Matter of the Application of Columbus Southern Power Company for Approval of an Electric Security Plan; an Amendment to its Corporate Separation Plan; and the Sale or Transfer of Certain Generating Assets*, Case No. 08-917-EL-SSO et al., Opinion and Order (March 18, 2009); *In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company for Authority to Establish a Standard Service Offer Pursuant to Section 4928.143, Revised Code in the Form of an Electric Security Plan*, Case No. 08-935-EL-SSO et al., Second Opinion and Order (March 25, 2009); *In the Matter of the Application of The Dayton Power and Light Company for*

Approval of Its Electric Security Plan, Case No. 08-1094-EL-SSO et al. (under consideration).

- (5) The Commission must be in a position to be able to determine, with reasonable certainty, the energy savings and demand reductions attributable to the energy efficiency programs undertaken by gas and electric utilities, including mercantile customers, in order (a) to verify each electric utility's achievement of energy and peak-demand reduction requirements, pursuant to Section 4928.66(B), Revised Code; (b) to consider exempting mercantile customers from cost recovery mechanisms pursuant to Section 4928.66(A)(2)(c), Revised Code; and (c) to review cost recovery mechanisms for energy efficiency and/or peak-demand reduction programs implemented by the electric or gas utilities. In order to provide guidance regarding how the Commission will determine energy savings and/or peak-demand reductions, the Commission intends to establish protocols for the measurement and verification of energy efficiency and peak-demand reduction measures, which will be incorporated into a Technical Reference Manual (TRM). The Commission's intent is that the TRM would provide predictability and consistency for the benefit of the electric and gas utilities, customers, and the Commission itself.
- (6) In many instances, the savings and/or reductions achieved by implementing a particular measure can be predicted, *ex ante*, with such certainty that the savings and/or reductions can be assumed, without any *ex post* evaluation other than to verify proper installation and operation of the measure. In other instances, energy savings and/or peak-demand reductions will be able to be determined through the application of specific engineering calculations that have been previously defined. In some instances, the set of measures installed at a customer's facility may be unique or complex, thus requiring the savings and/or reductions to be calculated on a case-by-case basis for each measure or representative sample of measures. Further, in some cases, *ex ante* estimates may need to be modified based on statistical analysis of billing data to reflect the impact on overall program results of additional factors, including variations in baseline energy use, free ridership, and spillover effects.

- (7) Therefore, the TRM will include the following information:
- (a) Predetermined energy savings and demand reduction values and calculation assumptions for specific electricity and gas efficiency deemed measures and deemed calculated measures, when such values can be defined with a reasonable level of certainty, including applicability conditions.
 - (b) Custom measure protocols consisting of standard engineering calculations and/or other methods that are used for determining energy savings and/or peak-demand reductions for electricity and gas efficiency measures that do not have applicable predetermined savings values.
 - (c) Verification procedures that electric and gas utilities will utilize to confirm both baseline conditions, when appropriate, and the proper installation of energy efficiency measures for which energy savings and/or peak-demand reductions claims will be made.
 - (d) Protocols and assumptions for determining cost effectiveness parameters, other than energy savings and demand reductions, used in the total resource cost (TRC) test for calculating the cost effectiveness of energy efficiency programs undertaken by the electric and gas utilities.
- (8) The Commission recognizes that the TRM will likely continue to evolve as measures and protocols are added, refined, and updated over time. As such, part of the development of the TRM will be the establishment of transparent and participatory procedures to populate the TRM with predetermined values for additional measures or updated values, as well as updated protocols and assumptions, on an ongoing basis.
- (9) The Commission believes that it is appropriate to allow interested parties to participate in the development of the TRM. The consideration of policies and protocols in a single

proceeding will allow interested parties to conserve their resources, will increase the likelihood that relevant and available information will be before the Commission in its decision-making process, and will ensure that energy savings and demand reduction values are determined in a complete, transparent, and consistent manner, with a proper balance between the certainty of the values and the cost required to achieve such certainty. Therefore, we will proceed along several lines. We will allow for comments to be filed with regard to the policy considerations that will ultimately be addressed by the Commission. We will request industry input on the identification of energy efficiency measures. We will allow for comments to be filed with regard to the format in which input will be provided on the values for the measures. Following the issuance of Commission guidance as to policy issues, we will receive industry input on the values to be assigned or protocols to be followed in setting values for the various measures. We intend to hire a consultant, the cost of which will be paid by the electric and gas utilities, to assist with the review of the various proposed values and protocols and the determination of initial values and protocols, for use in the preparation of program portfolio plans. After the consultant's filing of a draft of the 2010 TRM, we currently expect to allow for the filing of objections to the consultant's draft of the 2010 TRM, followed by a full hearing on the issues raised in the objections, if and to the extent necessary. Each of these steps will be detailed below.

- (10) Underlying policy considerations will, of necessity, shape the protocols, assumptions, and values included in the TRM. The Commission has identified and described several of these policy issues in Appendix A. A technical conference presenting an overview of these policy questions, as well as potential resolutions of those questions, will be held on July 8, 2009, at 9:00 A.M., in Hearing Room 11-D, 11th floor, at the Commission's offices at 180 East Broad Street, Columbus, Ohio 43215. Interested parties who wish to comment on these potential policy determinations or suggest other policy considerations may then file comments in this docket, no later than July 24, 2009. Such comments should indicate parties' perspectives on the issues identified in Appendix A and should identify and comment on other policy considerations that relate specifically to the development of

the TRM and/or generally to the overall process of evaluation, measurement, and verification of program impacts.

- (11) The Commission believes that the appropriate first step in creating a list of energy efficiency measures is for the electric and gas utilities, with the participation of mercantile customers, to advise the Commission of the following items:
 - (a) Measures that are in current use.
 - (b) Measures that are intended by the electric utilities to be proposed within their initial submissions of program portfolio plans.
 - (c) Measures that are used or intended to be used by any mercantile customer intending to seek an exemption from a cost recovery mechanism.
- (12) Therefore, the Commission directs the electric and gas utilities to collaborate and attempt to reach consensus, initially, on a detailed itemization of such measures. Such collaboration and consensus should be accomplished separately for the electric and gas industries. The electric and gas utilities shall also include any other interested parties, including mercantile customers, in the development of their consensus positions. The electric and gas utilities shall submit to the Commission a single composite list for each industry, listing all measures identified by the industry groups, no later than August 3, 2009. To the extent that the electric and gas industries were unable to reach consensus, the filing shall indicate any areas of disagreement.
- (13) In order to begin to assess, and subsequently to update, energy savings and demand reduction values for deemed measures and deemed calculated measures, the Commission has prepared a format, attached as Appendix B, for the submission of data that may be required for setting values and protocols for various measures. The data requirements for various energy efficiency measures are included in Tables 1 and 2. Appendix B also includes categories of information (e.g., measure cost) that will be required to determine TRC test results. Interested parties who wish to comment on the information in Appendix B should file comments in this docket no later than July 15, 2009.

- (14) Staff is directed to review any comments that are filed with regard to Appendix B and to modify Appendix B as staff deems appropriate. The information in Appendix B will be, after any necessary modification, posted on the Commission's website.
- (15) After developing the lists of measures identified by the groups, the electric and gas utilities shall continue their efforts, attempting to reach consensus with regard to the items described in finding 7, for inclusion in the TRM, on a measure-by-measure basis.
- (16) The electric and gas utilities are also encouraged to review and consider the TRMs and protocols developed by other states and regional entities for energy efficiency programs, such as the Pennsylvania TRM, as possible models and sources of data (corrected for Ohio climate and other factors, as appropriate).
- (17) The electric and gas utilities shall submit to the Commission, no later than September 15, 2009, actual proposed predetermined values and proposed protocols, as set forth in finding 7. All recommendations shall be submitted in the format provided by staff. Such format will be based on the proposal set forth in Appendix B, as modified and posted on the Commission's website. The electric and gas utilities shall submit to the Commission a single list of proposed predetermined values and protocols, for each industry. To the extent that the electric and gas industries were unable to reach consensus, the filing shall indicate any areas of disagreement.
- (18) To assist the Commission with the evaluation and initial determination of values and protocols, the Commission will issue a request for proposal (RFP) for engineering consulting services. The intention is for a selected consultant to begin providing technical assistance on the TRM by September 2009. The Commission expects to issue the RFP shortly. We anticipate that the consultant will file a framework TRM, no later than November 11, 2009. The Commission anticipates that the consultant will file a draft of the 2010 TRM by the end of the second quarter of 2010. After such filing, a schedule will be established for the review and adoption of the 2010 TRM.

- (19) Although the schedule will not allow for the Commission to review the framework TRM prior to the January 1, 2010, filing date for the electric utilities' program portfolio plans pursuant to adopted rule 4901:1-39-04, as set forth in Case No. 08-888-EL-ORD, the consultant's framework TRM should be used by the electric utilities in the preparation of their program portfolio plans that are to be filed by January 1, 2010.
- (20) Each electric and gas utility will be ordered to directly contract for and bear a share of the cost of the engineering consulting services of the contractor chosen by the Commission. The companies' contracts shall be filed in this docket. The Commission will determine, in a subsequent entry, the appropriate sharing methodology for such costs. Costs expended for these services may be recovered through each electric or gas utility's energy efficiency cost recovery mechanism, so long as any cost so expended has been approved by the Commission prior to payment.
- (21) The Commission shall select and solely direct the work of the consultant. Staff will review and approve for payment, as appropriate, invoices submitted by the consultant.
- (22) The following is a summary of the procedural schedule to be followed in this proceeding, as previously described in more detail:
- | | |
|--------------------|--|
| July 8, 2009 | Workshop concerning policy issues |
| July 15, 2009 | Deadline for filing of comments regarding Appendix B |
| July 24, 2009 | Deadline for filing of comments regarding Appendix A |
| August 3, 2009 | Deadline for filing of lists of proposed measures |
| September 15, 2009 | Deadline for filing of proposed values and protocols |
| November 11, 2009 | Expected deadline for filing of framework TRM |

It is therefore,

ORDERED, That the electric and gas utilities shall observe the requirements set forth in this entry. It is, further,

ORDERED, That a copy of this entry be served upon Ohio Power Company; Columbus Southern Power Company; Duke Energy of Ohio, Inc.; the Dayton Power and Light Company; the Toledo Edison Company; Ohio Edison Company; the Cleveland Electric Illuminating Company, Columbia Gas of Ohio, Inc.; the East Ohio Gas Company d/b/a Dominion East Ohio; Vectren Energy Delivery of Ohio, Inc.; Duke Energy of Ohio, Inc., and all other parties of record in Case No. 08-888-EL-ORD.

THE PUBLIC UTILITIES COMMISSION OF OHIO

Alan R. Schriber, Chairman

Paul A. Centolella

Ronda Hartman Fergus

Valerie A. Lemmie

Cheryl L. Roberto

JWK/geb

Appendix A

Policy Issues that May Affect the Approach and Scope of a Technical Reference Manual

This appendix identifies five major issues where policy guidance is needed in order to proceed with the development of an Ohio Technical Reference Manual and the determination of energy saving and demand reductions. For each issue, a brief description is provided followed by a "provisional" recommendation on that issue that the Commission is considering and solicits input from various parties.

1. Should the Commission evaluate performance of utility programs on the basis of achieved gross or net savings, or both?

This policy choice focuses primarily on the question of whether the efficiency measures installed through utility programs would have been installed without the programs, that is, are ratepayer funds being used prudently to achieve additional savings beyond normal market activity?

The gross energy impact is the change in energy consumption and/or demand that results directly from program-related actions taken by energy consumers that are exposed to the program, regardless of the extent or nature of program influence on these actions. This is the physical change in energy use after taking into account factors beyond the customer or sponsor's control (e.g. weather). Estimates of gross energy impacts always involve a comparison of changes in energy use over time among customers who installed measures and some baseline level of usage. Baselines may be developed from energy use measurements in comparable facilities, codes and standards, direct observation of conditions in buildings not addressed by the program, or facility conditions prior to program participation.

The net energy impact is that percentage of gross energy impact attributable to the program. Estimating net energy impacts typically involves assessing free ridership and spillover, although additional considerations may be included. Free ridership refers to the portion of energy (and demand) savings that participants would have achieved in the absence of the program through their own initiatives and expenditures. "Spillover" refers to the program-induced adoption of measures by non-participants and participants who did not claim financial or technical assistance for additional installations of measures supported by the program. For programs in which participation is not well defined, the concepts of free ridership and spillover are less useful. Estimating net energy impacts for these kinds of programs generally required

the analysis of sales or market share data in order to estimate net levels of measure adoption.⁷

Provisional Recommendation. Based on experience in other states, quantifying attribution of energy savings and demand reductions, and thus net savings and reductions, can be a complex and a non-exact process. Moreover, the Commission believes that because Ohio does not have a history of significant ratepayer-funded energy efficiency programs and because electricity prices have been relatively low in Ohio, there is a high probability that energy efficiency programs proposed by utilities in their first three-year plan will have a high net to gross savings ratio if these programs are well-designed. Therefore, we propose that gross savings/reductions should be used as the metric for tracking utility and customer progress toward state goals and for the calculation of total resource cost-effectiveness. Use of gross savings is consistent with the Commission's adoption of the Total Resource Cost (TRC) test. TRC considers all costs and all benefits, regardless of how they are distributed among participants, non-participants and the utility. As utilities gain greater experience with the delivery of efficiency programs, the Commission would transition to the use of net savings measurement to more completely track the impacts of efficiency programs.

The Commission also believes that it is important to ensure that program expenditures are focused on energy efficiency measures that are less likely to occur absent the program. Consequently, careful consideration should be given to the utility program designs, existing and forecast market penetration of efficiency measures, baselines, technologies and practices assumed in the calculation of gross energy savings in order to reduce the likelihood that programs are redundant with current or reasonably anticipated market conditions (see "Baseline" issue). Second, in designing their programs, utilities should not provide incentives for measures that have a payback period of one year or less to customers (which is one strategy to minimize "free riders").

Third, the Commission plans to revisit this issue of net and gross savings in the future and will consider revising net-to-gross ratios at the measure, program, or portfolio level in future years depending on the results of program evaluations and market assessments.

2. How should baseline efficiency and market penetration be defined for determining energy savings and demand reductions?

Energy savings and demand reductions are determined by comparing energy consumption and demand after measure adoption with what would have occurred

⁷ The description of gross and net savings, and other background materials, is from the National Action Plan for Energy Efficiency (2007). *Model Energy Efficiency Program Impact Evaluation Guide*, prepared by Steven R. Schiller, Schiller Consulting, Inc. <www.epa.gov/eeactionplan>

without the program activity (i.e. the baseline). The baseline defines the conditions, including energy consumption and related demand, which would have occurred without the subject program. Baseline definitions consist of site-specific issues and broader, policy-oriented considerations.

Site-specific issues include the characteristics of equipment in place before an efficiency measure is implemented and how and when the affected equipment/systems are operated. For example, for an energy-efficient lighting retrofit, the baseline decisions include the type of lighting equipment that was replaced, the power consumption (watts/fixture) of the replaced equipment, and how many hours the lights would have operated. The broader baseline policy issues involve ensuring that the energy and savings and demand reductions are "additional" to any that which would otherwise occur due, for example, to federal or state energy standards.

When defining the baseline, it is also important to consider where in the lifecycle of the existing equipment or systems that the new equipment is installed. The possible situations are (a) "early replacement" of equipment that had not reached the end of its useful life; (b) new, energy-efficient equipment installed for failed equipment or equipment that otherwise needs to be replaced; or (c) new construction. For each of these situations, the two generic approaches to defining baselines are the project-specific and the performance standard procedure.

Under the project-specific procedure, the baseline is defined by a specific technology or practice that would have been pursued, at the site of individual projects, if the program had not been implemented. There are three basic options for establishing the project-specific, baseline efficiency for individual products or equipment (e.g., air conditioner SEER, gas furnace AFUE, etc.) or annual energy use of systems (lighting, HVAC). The first option is to use the "as found" condition and the second option is to use applicable federal standard or state code, and the third option is to use standard practice for new purchases in the region. For example, under the first option, savings are calculated based on the difference between the efficiency of an existing motor and the efficiency of the proposed efficient motor. The second option essentially uses a baseline that reflects the efficiency a product or measure would have to achieve if it were replaced without the program. For example, savings are calculated based on the difference in efficiency between a motor meeting current federal standards (the only option available for new motor purchases) and the proposed high-efficiency motor. The third option uses a baseline that reflects the equipment which likely would have been used in the absence of the program. For example, where appliance sales data are available, this option might identify the baseline based on the efficiency of the most commonly purchased model.

The second approach to determining baselines is developing a performance standard, which provides an estimate of baseline energy and demand for all the projects in a program. By its nature the performance standard is a "net" savings determination including consideration of baseline market penetration of the measures. Under the performance standard procedure, baseline energy and demand are estimated by calculating an average (or better-than-average) consumption rate (or efficiency) for a blend of alternative technologies or practices. These standards are used in large-scale retrofit (early replacement) programs when the range of equipment being replaced and how it is operated cannot be individually determined. For example, this approach may be considered in a residential compact fluorescent incentive program where the types of lamps being replaced and their hours of operation cannot readily be determined for each home. Instead, studies are used to determine typical conditions. Again, as with the project-specific procedure, either existing practice or codes/standards can be used for defining the baseline.

In the case of new construction or new appliance or equipment purchases, the first policy option uses the minimum efficiency requirements of federal standards or state codes as the baseline. The second policy option uses the efficiency of standards or codes or the efficiency of "current market practice," which would result in a higher baseline. For example, under the first policy option, the baseline efficiency for new clothes washers would be set at a modified energy factor (MEF) of 1.26, which is the current federal standard. In contrast, under the second policy option, the baseline efficiency for new clothes washers would be set at a level that reflects current market practice. In this case, the MEF would be 1.65, which is the sales-weighted average efficiency of washers sold in 2007 (the most recent year for which data is available).

Provisional Recommendation. We propose that 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.⁸ If the appliance, equipment, product or energy using system is not covered by standards or codes, then the average efficiency or performance of current market practice should be used as the baseline. In those cases where modifications to an existing energy using system (e.g., lighting, HVAC) would be required to meet the state code or federal standards, those requirements should serve as the baseline, unless current market practice is higher.

⁸ An electric utility shall not count in meeting the statutory benchmark the adoption of measures that are required to comply with energy performance standards set by law or regulation, including but not limited to EISA Act of 2007 or an applicable building code. Rule 4901:1-39-05(D), Ohio Administrative Code (O.A.C.). Mercantile customers' energy savings shall be calculated by subtracting energy user and peak demand associated with the customer's project from the estimated energy use and peak demand that would have occurred if the customer had used industry standard new equipment or practices to perform the same functions in the industry which the mercantile customer operates. Rule 4901:1-39-08(B), O.A.C. Ohio rules that baselines for measures are codes/standards for utilities but can and should include "current market practices" for mercantile customers; hence our recommendation

For "early retirement" programs (e.g., refrigerator recycling) the difference between the energy use of the existing appliance or equipment and the high efficiency appliance or equipment may be used. However, once the remaining useful life of the existing equipment would have expired, the newly installed high-efficiency equipment is likely to have additional years of useful life. Thus, for this remaining useful life of the new high-efficiency equipment, the energy savings will be the difference in energy savings from new standard equipment and the new high-efficiency equipment. For example, if a utility replaces an existing refrigerator that has a remaining useful life of five-years, with a new high-efficiency refrigerator that has a measure life of fifteen-years, then the energy savings credited during the first five-years will be the difference between the usage of the existing refrigerator and the new high-efficiency refrigerator. For the remaining ten-years, the energy savings will be the difference between a new standard refrigerator and the new high-efficiency refrigerator, defined by code, standard or standard practice.⁹

3. Should reported energy savings and demand reduction use retroactive or prospective TRM values?

The estimated cost and savings from energy efficiency measures or programs are typically made both prior to measure installation or program implementation (i.e., *ex ante*) and post-measure installation or program implementation (i.e., *ex post*). *Ex post* cost and savings estimates have the advantage of being able to compare pre-measure installation use with post-measure use and estimated cost with actual cost. They also are better able to control for changes in program participant and comparison group behaviors over comparable periods. Therefore, *ex post* estimates of cost and savings are generally considered a more accurate representation of actual cost and savings.

The fact that *ex ante* savings estimates may differ from *ex post* savings estimates raises the issue of whether stipulated (i.e. deemed or deemed calculated) savings claims, based on values in an approved TRM, should be adjusted retroactively or only applied on a going forward basis. For example, if the use of TRM values developed in 2009 indicate that the savings from a utility program in 2010 indicate savings of 100 MWh, but an ex-post evaluation indicates that the values in the TRM were overly optimistic and the actual savings are 90 MWh, does the Commission credit the utility with 100 MWh of savings or only 90 MWh?

⁹ *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 (Pennsylvania Public Utility Commission, May 28, 2009).

Provisional Recommendation. Cost and savings estimates in the TRM should be based on the best available information at the time these estimates and/or calculations are made. Therefore, if *ex post* cost and savings estimates for efficiency measures and programs vary from *ex ante* estimates of cost and savings, *ex post* estimates should be the preferred values for adopted for use in future programs. However, as a rule, deemed or deemed calculated savings claimed for prior measures or programs should not be adjusted retroactively for investments made in the current year. The Commission notes that it has yet to determine whether *ex post* or *ex ante* should be used for the remaining useful life of the current year investment. Adjustments to deemed or deemed calculated savings should only apply to future savings claims for such measures. Savings from custom projects or programs, where savings are determined *ex post* using agreed to protocols, should use these *ex post* values as the credited savings.

4. Should the cost-effectiveness test be applied at the measure, project, program or portfolio level?

The choice of where to apply the TRC cost-effectiveness test has a significant impact on the ultimate set of measures offered to customers. In general, there are four places to evaluate the cost-effectiveness test: at the "measure," "project," "program," and "portfolio" level.¹⁰ The Commission has recently adopted language to be codified as Rule 4901:1-39-04(B), Ohio Administrative Code, which states that the calculation of cost-effectiveness is to be done at the portfolio level.¹¹ However, the Commission also noted that, in general, while not all measures in a program must be cost-effective, it anticipates that most programs will pass the TRC cost-effectiveness test. For those programs that are not cost-effective, utilities must demonstrate that these programs provide substantial non-energy benefits.

For those projects and programs that do not have substantial non-energy benefits, applying TRC cost-effectiveness tests at the program level potentially allows some non-cost-effective measures to be offered as long as their shortfall is more than offset by cost-effective measures. From an economic perspective, it is theoretically best that cost-effectiveness be determined at the measure level, since this maximizes the efficient use of capital. However, considering cost-effectiveness at the program level can be justified because of:

¹⁰ A *project* is an activity or course of action involving one or multiple energy efficiency measures, at a single facility or site. A *program* is a group of projects, with similar characteristics and installed in similar applications. Individual programs include those that involve encouraging and/or incenting the installation of equipment or practices associated with new-construction and retrofit energy efficiency projects. The *Portfolio* consists of all the programs in the residential and commercial/industrial sectors.

¹¹ *In the Matter of the Adoption of Rules for Alternative and Renewable Energy Technology, Resources, and Climate Regulations, and Review of Chapters 4901:5-1, 4901:5-5, and 4901:5-7 of Ohio Administrative Code, Pursuant to Chapter 4928.66, Revised Code, as Amended by Amended Substitute Senate Bill No. 221, Case No. 08-888-EL-ORD, Entry on Rehearing (June 17, 2009).*

- The desire to achieve other policy goals, such as broad program participation and minimizing lost opportunities by having comprehensive projects. For example, the addition of a currently "non-cost effective" measure to a program offering might significantly increase market participation;
- A policy goal to recognize the non-energy benefits of certain energy efficiency measures that may be difficult to quantify;
- The ability to improve program efficacy by reducing program marketing cost. For example adding another measure might reduce marketing cost per unit savings and result in lower overall levelized cost of savings. Programs might also include non-cost effective measures under the expectation that increasing the market share or contractor familiarity of these measures will reduce their cost sufficiently to make them cost-effective at the "measure level;" and
- The inability to isolate the savings from an individual measure.

Provisional Recommendation. The Commission will approve reasonable individual programs and overall portfolios for each utility that are cost-effective as defined by the TRC test. Applying the TRC test at the portfolio level will permit utilities the flexibility to experiment with different implementation strategies and to encourage the deployment of emerging technologies and market transformation programs as well as support low-income programs. Additionally, the Commission may approve programs that provide significant non-energy benefits and do not pass the TRC test.

When non-cost effective measures are proposed for inclusion in a program, utilities are required to provide the rationale for offering such measures. Justification may be based on one or more of the following:

- Broaden program participation/market penetration
- Increase persistence of savings
- Improve quality assurance
- Enhance system reliability
- Reduce per unit marketing and/or administrative cost
- Reduce measure cost (i.e., program has market transformation goal)
- Support for an emerging technology or practice
- Reduce greenhouse gas and regulated air emissions, water consumption, and use of natural resources to the extent not fully reflected in costs savings
- Advance any of the state policies enumerated in section 4928.02 of the Revised Code

5. What expectations should the Commission establish for energy savings and demand reduction determination certainty?

While establishing the level of rigor and setting acceptable confidence/precision levels for savings determination is to some degree a technical issue, it is fundamentally a policy choice: how much money and effort should be allocated to have an acceptable level of confidence that the claimed savings from energy efficiency programs are what we think they are?

Perhaps the greatest challenge in evaluating energy efficiency programs is the impossibility of direct measurement of the primary end results—energy savings and demand reductions. These are the reduction from a level of energy use and demand that did not happen. What can be measured is actual energy consumption and demand after, and sometimes before, the energy efficiency actions. Consequently, the difference between: (a) actual energy consumption/demand and (b) what energy consumption/demand would have been had the energy efficiency measures not been installed is an estimate of energy and demand savings. Since program evaluations seek to reliably determine energy and demand savings with reasonable accuracy, the value of the estimates as a basis for decision-making can be called into question if the sources and estimated level of uncertainty of reported values are not described. Therefore, guidelines and perhaps requirements for establishing the rigor of evaluation activities and the confidence and precision of reported results are needed.

Provisional Recommendation. The Commission requires the utilities and Independent Program Evaluator, in order to address systematic errors, to use "best practices", to establish quality assurance and quality control procedures that include field site inspections, and to provide full documentation of analyses. Furthermore the Commission sets a requirement, for addressing random errors, that any evaluation sampling provide results at a 90 percent confidence level with 10 percent precision.

Appendix B

Technical Reference Manual

Deemed Measure and Deemed Calculated Measure Data Matrix

This Appendix B provides categories of data that should be included in a technical reference manual (TRM) for deemed measures and deemed calculated measures for determining energy savings, demand reductions, and cost-effectiveness per the total resource cost (TRC) test.

Deemed Measures: For simple efficiency measures whose performance characteristics and use conditions are well known and consistent, a deemed savings approach may be appropriate. Since characteristics (values) are stipulated and, by agreement, fixed during the term of the evaluation, deemed savings can help alleviate some of the guesswork in program planning and design. However, deemed savings can result in over- or under-estimates of savings if the projects or products do not perform as expected (e.g., if high-efficiency lights fail earlier than expected compared to their useful measure life). Determining the savings from deemed measures may or may not involve site inspections.

Deemed Calculated Measures: A slightly more complex approach to estimating savings is to use simplified calculations which employ a combination of deemed or "default" input assumptions with some site-specific inputs. These calculations may require onsite verification of input assumptions such as lighting power density or the monitoring of one or two key parameters in an engineering calculation (e.g., in a high-efficiency motor program, actual operating hours are monitored over a full work cycle to arrive at a realistic estimate of savings).

The tables below list the major inputs required to assess the viability of using a deemed or deemed calculated approach as the basis for claiming savings for specific high-efficiency technologies, measures or practices. Table 1 shows data requirements for "deemed" measures. Work papers should be submitted to support and document each of these values proposed for use.

Table 2 sets forth the minimum data requirements and/or narrative requirements that must be submitted, along with work papers and/or proposed analytical tools that will be used to derive savings using standardized calculations based on site-specific inputs. A description of the rationale for determining which input assumptions will be assigned default values and which will be derived from data collected on site should also be provided.

Table 1 - Data Requirements for Deemed Savings Measures

Description of Efficiency Technology, Measure or Practice
Description of the Program Delivery Mechanism (e.g., direct install, retail rebate)
Applicability Conditions Required For Use of Values
Baseline Unit Efficiency/Use
Efficient Unit Efficiency/Use
Effective Measure Life
Annual Site Savings (kWh)
Annual Site Savings (therms)
Coincidence Factor (electric)
Electric Demand Savings (kW)
Gas Demand Savings (therms/day)
Incremental Capital Cost (\$/unit)
Incremental Annual O&M Cost (\$/unit)
Incremental Periodic Capital Replacement Cost & Schedule

Table 2 - Data Requirements for Deemed Calculated Measures

Description of Efficiency Technology, Measure or Practice
Description of the Program Delivery Mechanism (e.g., direct install, retail rebate)
Applicability Conditions Required For Use of Values and Calculations
Describe Method for Derivation of Baseline Unit Use
Describe Default Minimum Efficiency Requirements for Efficient Measure
Describe Method for Derivation of Efficient Unit Use
Default Effective Measure Life
List Site Specific Inputs Used to Compute Annual Site Savings (kWh/therms)
Default Coincidence Factor (electric)
Describe Method Deriving for Electric Demand Savings (kW)
Describe Method Deriving Gas Demand Savings (therms/day)
Describe Method for Derivation of Incremental Capital Cost (\$/unit)
Describe Method for Derivation of Incremental Annual O&M Cost (\$/unit)
Describe Method for Derivation of Incremental Periodic Capital Replacement Cost & Schedule

The Commission is also interested in soliciting input from parties on alternative approaches that should be used to characterize the electric demand savings from energy efficiency measures and included in the TRM. We raise this issue because utilities have both an obligation to report their aggregate peak demand benchmark (e.g. reduction in peak demand that an electric utility's system must achieve to comply with the Section 4928.66, Revised Code) which will be based on peak demand impacts achieved by participating customers in their programs and because utilities may have an interest in bidding in demand resources into the PJM capacity market, which requires them to

demonstrate and verify demand reductions during specified time periods consistent with PJM's EM&V protocol.

APPENDIX B – PROPOSAL CHECKLIST

Request for Proposals (Consultant's) Ohio TRM

REQUIRED PROPOSAL CHECKLIST

Bidder Information		
Name of Bidder:		
Contact Name:		
Contact Phone:		
Contact Email:		
Proposal Checklist & Locator	Included	Section/ Page
Proposal Cover		
1. Transmittal Letter – signed original		
2. General Company Information (Appendix C)		
3. Executive summary		
4. Work scope and schedule		
5. Staffing and subcontracting plan		
6. Qualifications and Experience		
6.1 Summary		
6.2 Experience		
6.3 References		
7. Budget		
Budget Tables		
8. Disclosures		
Appendix: Resumes		
Separate Microsoft Excel file with budget		N/A

APPENDIX C – COMPANY INFORMATION FORM

Prime Bidder Company Information

Company Information	
Company Name:	
Street Address:	
City:	
State:	
Telephone:	
Website:	
Prime bidder office location for this project:	
Contact Information	
Contact Name:	
Title/Position	
Telephone:	
Email:	
Address:	
Business Information	
Nature of Business:	
Ownership (LLC, corporation, etc) :	
Years in Business:	
2008 Annual Revenues:	
Parent Company (if any):	
Affiliates (if any):	
Subsidiaries (if any):	
For Profit / Non-Profit Status:	
Total Number of Permanent Employees:	
Pricing Information	
Subcontractor Name/Principal Role (list all proposed)	Subcontractor Location (City/State)
Add rows as needed	

APPENDIX D – LETTER AGREEMENT

Electric or Gas Company Letterhead

Date

Consultant

RE: *In the Matter of Protocols for the Measurement and Verification of Energy Efficiency and Peak Demand Reduction Measures*, Case No. 09-512-GE-UNC, [order adopting Scope of Work and Fee Allocation] (September 2, 2009)

Dear Consultant:

The Public Utilities Commission of Ohio ("Commission") by Entry dated September 2, 2009 in the above-styled proceeding appointed Consultant to develop the Ohio Technical Reference Manual in accordance with the Scope of Work adopted in that entry. In addition, the Commission ordered [Electric or Gas Company] to enter into a contract with Consultant for the work performed and to pay its proportionate share of the Consultant's fees as allocated by the Entry and as approved by PUCO staff. The purpose of this letter is to establish the required contractual arrangements between [Electric or Gas Company] and Consultant.

Consultant shall perform at the direction and to the satisfaction of the PUCO such services as described in the Scope of Work adopted by the Commission.

[Electric or Gas Company] shall timely pay its proportionate share of all approved invoices for such services.

If the foregoing satisfactorily states our agreement, please so indicate by signing and returning the enclosed copy of this letter.

Sincerely,

[Authorized Electric or Gas Company representative]

Accepted and Agreed:

[Authorized Consultant representative]

Date: