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**Scope of Work** 

Missouri Public Service Commission

# Evaluation of Residential and Commercial Natural Gas Energy Efficiency Programs

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# 1 INTRODUCTION

Ameren Missouri, based in St. Louis and serving 126,000 natural gas customers in Missouri, intends to select a consultant to provide impact and process evaluations of its Residential and Commercial Natural Gas Energy Efficiency Programs. The programs have an initial funding of approximately \$437,000 per year, including evaluation. Please see Appendix A for tariffs describing the Ameren Missouri programs.

Ameren Missouri management is committed to a thorough and independent evaluation of its natural gas energy efficiency programs in order to document and measure the load impacts from each program as well as to understand why those effects occurred and to identify ways to improve current programs and select future programs. Ameren Missouri is also committed to developing a best practices evaluation infrastructure.

The evaluation objectives are:

- 1. Develop energy savings and incremental costs for program measures
- 2. Calculate Net-to-Gross Ratio for measures and programs
- 3. Conduct an impact evaluation to determine measure, program and portfolio savings
- 4. Provide inputs for and calculate cost-effectiveness tests including TRC, UCT, and PCT for measures, programs, and portfolio
- 5. Conduct a process evaluation to suggest program improvements

Ameren Missouri intends to award one contract for evaluation consulting services. Electronic proposals are due October 24.

Ameren Missouri's business principles include selecting consultants using fair, transparent, well defined, clear and un-biased processes based on explicit selection criteria. Using these principles, a quick and straightforward selection and contracting process is planned with work scheduled to begin at the beginning of December 2011.

# 1.1 Summary of Ameren Missouri Natural Gas Energy Efficiency Programs

The following measures are currently included in Ameren Missouri's natural gas energy efficiency programs:

#### Residential

- 1) Programmable Thermostat
- 2) Furnace 92% to 95.9%
- 3) Furnace 96% or higher

- 4) Boiler
- 5) Tank Storage Water Heater Tier 1
- 6) Tank Storage Water Heater Tier 2
- 7) Tank or Tankless Water Heater .82 or higher
- 8) Building Shell Measures
- 9) Direct Hot Water Measures

#### **General Service**

- 1) Programmable Thermostat
- 2) Furnace 92% to 95.9% less than 150,000 MMBTU
- 3) Furnace 96% or higher less than 150,000 MMBTU
- 4) Furnace 90% or higher 150,000 MMBTU or higher
- 5) Steam Trap Replacement
- 6) Continuous Modulating Burner
- 7) Boiler Tune-up
- 8) Primary Air Damper
- 9) Food Service Measures
- 10) Tank Storage Water Heater Tier 1
- 11) Tank Storage Water Heater Tier 2
- 12) Tank or Tankless Water Heater .82 or higher
- 13) Boiler
- 17) Building Shell Measures
- 19) Direct Hot Water Measures

More detailed portfolio information is provided in Appendix A. Additional measures may be added during the program period. If additional measures are added, they should be included in the impact and process evaluations.

Ameren Missouri implements the programs and subcontracts to EFI for rebate processing and customer contact through a call center that issues reservations for rebates for some incentives. Customers are free to use the contractor of their choice to purchase and install measures; however building shell measures require an audit prior to installation. The program began February 20, 2011.

# 1.2 Summary of Ameren Missouri Evaluation Objectives

Ameren Missouri seeks one evaluation consultant (Evaluator) to design and then implement an evaluation strategy that will quantify the savings impacts for its natural gas energy efficiency programs, and where needed, identify improvements that can increase program effectiveness. The findings, reports and data developed by the Evaluator will support multiple activities including: quality assurance/quality control of EFI reports, cost-recovery, regulatory filings, cost-effectiveness calculations (including the Total Resource Cost test, Utility Cost test, and Participant Cost test), and responding to requests for objective third party assessments. The cost benefit ration calculations should be performed using 3 levels of gas commodity prices (base, high, and low) that will be provided by Ameren Missouri.

As part of the process evaluation, Ameren Missouri solicits recommendations for additional residential or commercial measures, adjustments to incentive levels, and other program suggestions that may result from this review.

# 2 Work Scope

Section 2 of this Scope of Work describes the work scope for the requested services and has the following subsections:

- 2-1. Evaluation goals, priorities, budget and schedule
- 2-2. Evaluation tasks roles and responsibilities of Evaluator

This information is being provided to assist respondents with preparation of their bids. The work scope defined in this Scope of Work is at a fairly high level of generalization. Bidders are requested to propose their own approach to evaluation, giving careful consideration of Ameren Missouri's evaluation goals and requirements, preliminary plans, program budget, and timeline. Bidders should propose what they believe, given available budgets and time, are (a) realistic and achievable evaluation approaches, (b) appropriate resource allocations, and (c) appropriate levels of uncertainty in reported savings.

This Scope of Work is for both the Residential and Commercial Natural Gas Energy Efficiency evaluation. However, based on previous experience with very similar programs, it is expected that the vast majority of the measures installed will be for residential customers. Information on current program participation is included in Appendix B.

## 2.1 Evaluation Objectives, Budgets and Schedule

## 2.1.1 Objectives

The overall evaluation objectives are:

- Consider and analyze energy efficiency measures and document the gross energy savings associated
  with programs. Ameren Missouri will make available billing usage for the participants, both pre- and
  post-installation, if available, and weather data, for use in calculating weather normalized energy
  savings for measures, when appropriate.
- 2. Calculate the net-to-gross ratio
- 3. Provide inputs for and perform cost-effectiveness tests:
  - Measure, program, and portfolio level therm savings
  - Incremental measure cost
  - Effective Useful Life for each measure
  - Incentives paid per measure
  - Ameren Missouri will make available avoided cost information including a base, low, and high avoided cost scenario so a sensitivity analysis can be performed on the cost effectiveness tests, projected far enough out to correspond with the effective useful life of the measures.
- 4. Improve the design and implementation of existing and future demand-side management programs through process evaluations

#### 2.1.2 Budget

The program budget for both the residential and commercial natural gas energy efficiency programs is \$437,000 per year, including evaluation. A specific evaluation, measurement and verification (EM&V) budget for both of the programs over the program period February 20, 2011 – April 30, 2012 has not been set, however Ameren Missouri understands that the standard budget allocation of 3-5% of program budget is not sufficient for smaller programs. Instead of allocating a specific EM&V budget, Ameren Missouri requests that bidders include a budget projection in their bid with a specific not to exceed price.

Three points for bidders' consideration on the budgets are:

- Based on historical programs, the majority of participants in the programs are expected to be residential customers.
- Ameren Missouri is not providing a desired budget breakdown, for example between impact and
  process evaluation tasks or between different programs. However, the majority of the evaluation
  effort should be focused on impact evaluation, though process assessment tasks are also important.
- Bidders are required to submit a traditional time and materials budget estimate in their proposals for labor and non-labor costs, with an upper limit not to be exceeded.

#### 2.1.3 Schedule

Requested services are expected to commence by December 1, 2011. The evaluation will cover the period February 20, 2011 through April 2012. The program year evaluation report is due by July 31, 2012.

# 2.2 Evaluation Tasks - Roles and Responsibilities of Evaluator(s)

# 2.2.1 Task 1: Develop Program Evaluation Plan

Task 1 is the development of a program evaluation plan. The program evaluation plan is a detailed work plan that identifies the evaluation studies that will be undertaken, the specific evaluation approaches that will be used, step by step descriptions of the study process, and the reporting formats. The plans include schedules, budgets and staffing plans. Task 1 will begin immediately after contract execution and the Evaluator will develop and submit to Ameren Missouri a detailed evaluation plan for the natural gas energy efficiency program. The Evaluator will meet with the Ameren Missouri project manager as needed throughout the development of the draft documents to discuss the document details and make decisions. The Evaluator must be responsive to input from the Ameren Missouri project manager. The documents will not be considered final until approved by the Ameren Missouri project manager in writing.

The Evaluation Plan is expected to be a "living document," and will be revised as needed throughout the project term. In consultation with the Ameren Missouri project manager, the Evaluator will update the Evaluation Plan as needed to adjust to changes in program activities.

The expectation is that the Evaluation Plan will include, but not be limited to, the following elements:

- Description of the programs to be evaluated.
- A description of evaluation objectives and evaluation rigor level for the program.

- Discuss of whether IPMVP best practices will be followed, and if not, why they cannot be followed
- Discussion on where primary data, including Ameren Missouri billing data, will be obtained and where secondary data will be used.
- Description of how savings values will be estimated or otherwise determined.
- Description of how realization rates and net-to-gross ratios will be determined.
- A description of how cost effectiveness tests will be calculated including listing any software that will be used
- A description of how the process evaluation will be performed for the programs and measures
- Timeline and dates of deliverables from the evaluation effort.

Ameren Missouri will submit the Evaluation Plan to its Energy Efficiency Advisory Group for review prior to finalization. This group consists of members from the Missouri Public Service Commission Staff, Department of Natural Resources, and Office of Public Counsel.

#### 2.2.2 Task 2: Review Implementer's Tracking System

The Evaluator will review the program tracking system to assess their ability to meet the needs of the evaluation effort. The Evaluator will work with Ameren Missouri to assure that the systems provide the necessary information and that the data fields are adequately and accurately populated and available to the Evaluator.

## 2.2.3 Task 3: Implement the Evaluation and Verification Efforts in Accordance with the Approved Evaluation Plan

This task involves the actual implementation of the evaluation, measurement and verification activities. Activities will include, but not be limited to:

- Determining weather normalized savings values (ccf/therms)
- Developing survey instruments
- Collecting and analyzing data
- Calculating Gross Program energy savings using estimated savings values, billing analysis, and/or engineering analysis
- Calculating Net Energy Savings
- Providing inputs needed to calculate the cost-effectiveness of the program
- Calculating cost effectiveness tests
- Conducting process evaluations using interview techniques and document review procedures
- Measuring customer satisfaction as part of the process evaluation

## 2.2.4 Task 4: Evaluation Management

Under this task, the selected Evaluator will be responsible for:

- Ensuring that all the evaluation work activities are implemented as documented in the Evaluation Plan and that project reporting is completed according to the specifications and schedule documented or referenced in the evaluation plan
- Ensuring that the Evaluator's contract management obligations are carried out in a professional manner
- Managing sub-contractors, if any, so that the evaluation team speaks with one voice through the prime contractor

- Maintaining regular and direct communication with the Ameren Missouri project manager
- Project reporting

Project reporting is expected to include, but will not necessarily be limited to, the following items:

- 1. **Monthly Reports** Project status reports highlighting issues with each evaluation activity and problems (difficulties in getting the job done, with recommended or agreed solutions).
- 2. Initial Draft Evaluation Report An initial draft of the final report will be due July 1, 2012.
- Revised Draft Evaluation Report Ameren Missouri comments will be considered by the independent third party evaluator for inclusion in a revised draft evaluation report due July 15, 2012.
- 4. **Final Evaluation Report** This report will provide final estimates of the net energy impacts achieved and cost effectiveness test results by measure, program, and portfolio, as well as any other evaluation findings, observations, and recommendations regarding the programs. The Final Evaluation Report will be due July 31, 2012. Ameren Missouri will provide a copy of the final report to its Energy Efficiency Advisory Group.

Evaluators will also provide monthly invoices in a timely manner. Invoices should be submitted with the monthly progress reports.

# 3 GENERAL SUBMITTAL INFORMATION

This Section of the Scope of Work 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 4.

## 3.1 Submittal Format and Due Date

Bidders are required to submit an electronic version of their proposal to mlawrence2@ameren.com.

#### 3.2 Schedule

Release date	October 3, 2011	
Bidders questions due	October 17, 2011	
Electronic proposals due	October 24, 2011	
Interviews	Week of October 31, 2011	
Contract negotiations	After November 7, 2011	
Anticipated contract start date	Week of December 1, 2011	

The above schedule is subject to change by Ameren Missouri.

## 3.3 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 high-quality EM&V services for utility sponsored or other system benefit charge funded DSM programs.
- Demonstrated ability to provide independent, objective evaluation reviews of Ameren Missouri's natural gas programs with the reviews free of any conflict of interest with other services and products offered by the bidder's team.

#### 3.4 Instructions to Bidders

The following are general instructions to bidders. Specific requirements for the content and format of the proposals are presented in Section 4.

#### 3.4.1 Modifications to the Scope of Work

Ameren Missouri may modify the Scope of Work prior to the date fixed for submission of proposals by the issuance of an addendum to all parties.

#### 3.4.2 Proposal Preparation Costs

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

## 3.4.3 Post Proposal Negotiation and Awarding of Contracts

Ameren Missouri reserves the right to negotiate both price and non-price factors during any post-proposal negotiations with a finalist. Ameren Missouri has no obligation to enter into an Agreement with any respondent to this Scope of Work and may terminate or modify this Scope of Work at any time without liability or obligation to any respondent. This Scope of Work shall not be construed as preventing Ameren Missouri from entering into any Agreement that it deems appropriate at any time before, during or after this Scope of Work process is complete.

## 3.4.4 Ameren Missouri is under No Obligation to Execute Agreement

Nothing contained in this Scope of Work shall be construed to require or obligate Ameren Missouri to select any proposals or limit the ability of Ameren Missouri to reject all proposals in its sole and exclusive discretion. Ameren Missouri further reserves the right to withdraw and terminate this Scope of Work at any time prior to the execution of an Agreement.

## 3.4.5 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 Evaluator is requested to perform additional work or change the scope of the work.

Ameren Missouri reserves the option to price the work on lump sum, time and material or competitive bid or other basis.

### 3.4.6 Changes in Key Personnel

Changes in Evaluator key personnel may not be made without written approval of Ameren Missouri.

#### 3.4.7 Acceptance of Terms and Conditions

The submission of a proposal to Ameren Missouri shall constitute a Bidder's acknowledgement and acceptance of all the terms, conditions and requirements of this Scope of Work.

Ameren Missouri will utilize its standard Services Agreement to contract for the EM&V services outlined in this Scope of Work. A list of exceptions to this document should be returned with bidder's response, see Section 4 of this Scope of Work.

#### 3.4.8 All Submitted Proposals Become Exclusive Property of Ameren Missouri

All proposals submitted to Ameren Missouri pursuant to this Scope of Work shall become the exclusive property of Ameren Missouri and may be used for any reasonable purpose by Ameren Missouri.

# 3.4.9 Ameren Missouri Retains the Right to Bid Out Evaluation Activities Individually

In the event that one or more subcontractors offered in a teaming arrangement as part of a bidder's proposal are determined to be non-preferred by Ameren Missouri, Ameren Missouri reserves the right to negotiate with the prime contractor to replace the subcontractor.

#### 3.4.10 Confidentiality Terms

Ameren Missouri shall consider materials provided by bidders in response to this Scope of Work to be confidential. However, bidders also agree that Ameren Missouri may provide copies of the bidder's proposal to its Energy Efficiency Advisory Group; all of whom are bound by confidentiality agreements. Bidders should be aware that their proposal, even if marked "Confidential," may be subject to discovery and disclosure in regulatory or judicial proceedings that may or may not be initiated by Ameren Missouri. Bidders may be required to justify the requested confidential treatment under the provisions of a protective order issued in such proceedings. If required by an order of an agency or court of competent jurisdiction, Ameren Missouri may produce the material in response to such order without prior consultation with the bidder.

# 4 Proposal Submittal Requirements

Proposals should provide straightforward and concise descriptions of the proposer's ability to satisfy the requirements of this Scope of Work. Proposals should include:

- Cover page
- Company overview
- Work scope and schedule

- Staffing plan including key personnel, their responsibilities and a brief biography for each
- List of any subcontractors and their responsibilities
- Time and materials budget including any subcontractor mark-up rates
- Bidder's qualifications and experience
- References
- Disclosure of any potential conflict of interest and previous work for any Ameren affiliate
- A list of any requested exceptions to the Services Agreement included as Appendix C.

Bidders will be able to submit questions about this Scope of Work or the bidding process to mlawrence2@ameren.com. All questions must be submitted by October 17. Answers to questions will be sent to all potential bidders.

Electronic versions of proposals must be emailed to mlawrence2@ameren.com. Submittals must be received no later than 5 pm CST October 24 according to the schedule shown in Scope of Work Section 3.2.

# 5 Selection Process and Evaluation Criteria

Ameren Missouri's business principles include selecting consultants using a fair, transparent, well defined, clear and un-biased process based on explicit selection criteria. Using these principles, a quick and straightforward selection and contracting process is planned with work scheduled to begin at the beginning of December 2011. This Section describes the selection process and evaluation criteria. All proposals shall be firm for a minimum of ninety (90) days after submittal.

Proposals will be evaluated using a formal review and scoring process as shown below:

Table 5.1: Evaluation Criteria/Scoring Matrix

	Approximate Weighted Percent
Part A: Technical Approach	35%
1. Proposal quality	
2. Thoroughness and practicality of approach	
<ol> <li>Clarity regarding Ameren Missouri's EM&amp;V objectives and quality of proposed approach for meeting those objectives</li> </ol>	
Part B: Organizational and Management Capability	30%
Demonstrated competence and experience	
2. Management structure	
3. References	
4. Assigned staffing for prime and subcontractors	

Part C: Cost	35%
Total labor and non-labor costs	-{
2. Costs relative to evaluation approach	
Ability to achieve goals within budget	-
4. Billing rates and direct costs/subcontractor mark-up rates (if any)	-
Total	100%

Top-ranked bidders may be invited to an interview. Presentations and answers to reviewer questions will be scored. Criteria will include:

- o Quality of presentation
- o Interaction and cohesiveness of the team
- o Responses to questions

Ameren Missouri will initially notify only the selected bidder for the evaluation of the natural gas energy efficiency program. This notification will initiate the Agreement negotiation process. Should Ameren Missouri and the selected bidder be not able to quickly enter into an Agreement, Ameren Missouri may terminate negotiations and initiate negotiations with the next ranked bidder. Upon successful Agreement negotiations, the selection will be made public and all other bidders responding to the Scope of Work will be notified of the selections.