

**STATEMENT OF WORK**  
**PURSUANT TO**  
**MASTER SERVICE AGREEMENT**  
**BY AND BETWEEN**  
**GREAT PLAINS ENERGY SERVICES INCORPORATED**  
**AND**  
**NAVIGANT CONSULTING, INC.**

**THIS STATEMENT OF WORK NUMBER 2355**, dated August 8, 2011, by and between Great Plains Energy Services Incorporated (“GPES”) and Navigant Consulting, Inc. (“Supplier”) is subject to the terms and provisions of, and is made a part of, that certain MASTER SERVICE AGREEMENT Number M1100 (the “Agreement”), effective July 29, 2011, between GPES and Supplier.

The parties agree as follows:

**A. Scope of Services**

Supplier will perform a Demand Side Management market potential study per scope as outlined in Exhibits A and B.

**B. Compensation**

The GPES affiliate identified in any Purchase Order will pay Supplier (REMOVED) per study- one for KCP&L, one for GMOPS territories to total (REMOVED). Price breakdown noted in Exhibit A.

**C. Delivery or Work Schedule**

The schedule shall be as follows, assuming an 01/16/2012 project start date (to be adjusted depending on actual project start date):

<b>Definition</b>	<b>Completion Date</b>
Market Characterization, 1a-Sample Design	February 16, 2012
1a2- Conduct Optional Online Surveys	June 18, 2012
1a3- Conduct Onsite Surveys	September 16, 2012
1b- Conduct baseline energy and demand forecast	September 16, 2012
2-Identify potential demand side resources/measures	September 16, 2012
2a-Characterize conventional EE measures	September 16, 2012
2b-Characterize emerging EE measures	June 18, 2012
2c-Characterize DR measures	June 18, 2012
3-Estimate technical and economic potential	October 15, 2012
3a-Estimate conventional EE potential	October 15, 2012

3b-Estimate emerging measure EE potential	October 15, 2012
3c-Estimate DR potential using FERC model	September 16, 2012
3d-Estimate CHP potential	September 16, 2012
3e-Develop EE energy savings supply curves	October 15, 2012
3f-Develop EE & DR demand savings supply curves	October 15, 2012
4-Develop potential demand side programs	November 15, 2012
4a-Conduct DSM program review and benchmarking	April 17, 2012
4b-Conduct program benefit-cost analysis	November 15, 2012
4c-Develop detailed program plans	November 15, 2012
5-Estimate maximum and realistic achievable potential	December 17, 2012
6-Project Reporting	January 15, 2013
6a-Write draft project report	December 20, 2012
6b-Present draft results in Jeff City	January 2, 2013
6c-Finalize project report	January 15, 2013

**D. Work Location**

The Services will be performed in Supplier offices and onsite in GPES service territory as required by scope.

**E. Invoicing Instructions**

Supplier will invoice GPES affiliates separately, as indicated on any Purchase Order referencing this Statement of Work. Supplier will submit invoices monthly as work is completed in accordance with the Agreement, unless other terms are specifically set forth here:

Invoices will reference the applicable Purchase Order number and be distributed as indicated in such Purchase Order.

**F. Term of Statement of Work**

The term of this Statement of Work begins on January 11, 2012 and is effective through January 31, 2013.

**G. Project Managers**

The Project Managers for the Services and Goods related to this Statement of Work are as follows:

GPES: Joseph O'Donnell  
816-556-2750  
Mobile: 816-668-2112  
[joseph.odonnell@kcpl.com](mailto:joseph.odonnell@kcpl.com)

Supplier: Cory Welch  
303.728.2528  
Mobile: 720.984.5184  
[cory.welch@navigant.com](mailto:cory.welch@navigant.com)

**H. Legal Terms and Conditions**

The legal terms and conditions governing this Statement of Work are contained in the Agreement between the parties. In order to be effective, any modifications, additions or deletions to the legal terms and conditions applicable to this Statement of Work must be specifically set forth here:

None.

In the event of any conflict between the legal terms and conditions set forth here and the legal terms and conditions contained in the Agreement, the legal terms and conditions set forth here will control only for work performed under this Statement of Work.

**I. Entire Agreement**

This Statement of Work and the Agreement constitute the entire agreement between GPES and Supplier with respect to the subject matter of this Statement of Work, and this Statement of Work may not be amended or modified except by a written document signed by both parties and made in accordance with the Agreement.

**SIGNED:**

**Authorized Representative for  
GREAT PLAINS ENERGY SERVICES  
INCORPORATED**

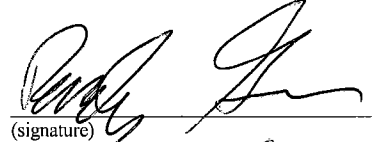
\_\_\_\_\_  
(signature)

\_\_\_\_\_  
(print name)

\_\_\_\_\_  
(title)

\_\_\_\_\_  
(date)

**Authorized Representative for  
NAVIGANT CONSULTING, INC.**

  
\_\_\_\_\_  
(signature)

Randy Guan  
\_\_\_\_\_  
(print name)

Managing Director  
\_\_\_\_\_  
(title)

1/13/12  
\_\_\_\_\_  
(date)

## **EXHIBIT A TO SOW# 2355**

Supplier will perform a Demand Side Management (“DSM”) Market Potential Study (“Study”). Supplier will provide expertise on data collection, analysis, and results communication, achieve Study goals within budget, and meet pre-determined milestones. The Study will assess the various categories of electrical energy efficiency and demand response potential in the residential, commercial, and industrial sectors for the GPES service area from 2012 to 2031. The Study will use updated baseline estimates based on the current information on federal, state, and local codes and standards for improving energy efficiency.

The Study will be used to satisfy some of the demand-side analysis requirements of the Missouri Public Service Commission Regulations for Electric Utility Resource Planning (“MO Planning Regulations”).<sup>1</sup> A copy of the MO regulations governing electric utility resource planning is available on the Missouri Secretary of State’s website.

Results of this Study will be used in GPES’ Integrated Resource Planning (“IRP”) process to analyze various levels of energy efficiency related savings and peak demand savings attributable to both energy efficiency initiatives and demand response initiatives at various levels of cost in support of GPES’ effort to design highly effective potential demand-side programs that broadly cover the full spectrum of cost-effective end use measures for all customer market segments with the ultimate goal of achieving all cost-effective demand-side savings.

**Supplier will be required to provide the Missouri Public Utility Commission and other Missouri stakeholders with an opportunity to review assumptions and methodology in advance of the performance of the Study.**

**Supplier will be required to conduct a meeting with GPES, the Missouri Public Utility Commission and other Missouri stakeholders, to review the assumptions and methodology in advance of performance each major sub-section of the Study.**

For purpose of this RFP, GPES adopts the following definitions:

**Bidder** means respondent to this RFP.

**Coincident demand** means the hourly demand of a component of system load at the hour of system peak demand within a specified interval of time.

**Supplier** means awarded Bidder.

---

<sup>1</sup> Rules of Department of Economic Development Division 240—Public Service Commission Chapter 22—Electric Utility Resource Planning (4 CSR 240-22.010) – <http://sos.mo.gov/adrules/csr/current/4csr/4c240-22.pdf>

**Customer** means the end user of GPES' utility service.

**Demand-side rate** means a rate structure for retail electric service designed to reduce the net consumption or modify the time of consumption of a customer rate class.

**Demand-side resource** is a demand-side program or a demand-side rate conducted by the utility to modify the net consumption of electricity on the retail customer's side of the meter. A load-building program or rate is not a demand-side resource.

**Economic potential** means energy savings and demand savings relative to a utility's baseline energy forecast and baseline demand forecast respectively resulting from Customer adoption of all cost-effective measures, regardless of Customer preferences.

**End-use energy service** or energy service means the specific need that is served by the final use of energy, such as lighting, cooking, space heating, air conditioning, refrigeration, water heating, or motive power.

**End-use measure** means an energy-efficiency measure or an energy-management measure.

**Energy** means the total amount of electric power that is generated or used over a specified interval of time measured in kilowatt- hours (kWh).

**Energy-efficiency measure** means any device, technology, or operating procedure that makes it possible to deliver an adequate level and quality of end-use energy service while using less energy than would otherwise be required.

**Energy-management measure** means any device, technology, or operating procedure that makes it possible to alter the time pattern of electricity usage so as to require less generating capacity or to allow the electric power to be supplied from more fuel-efficient generating units. Energy-management measures are sometimes referred to as demand-response measures.

**Major class** is a cost-of-service class of the utility.

**Maximum achievable potential** means energy savings and demand savings relative to a utility's baseline energy forecast and baseline demand forecast, respectively, resulting from expected program participation and ideal implementation conditions. Maximum achievable potential establishes a maximum target for demand-side savings that a utility can expect to achieve through its demand-side programs and involves incentives that represent a very high portion of total programs costs and very short customer payback periods. Maximum achievable potential is considered the hypothetical upper-boundary of achievable demand-side savings potential, because it presumes conditions that are ideal and not typically observed;

**Realistic achievable potential** means energy savings and demand savings relative to a utility's baseline energy forecast and baseline demand forecast, respectively, resulting from expected program participation and realistic implementation conditions. Realistic

achievable potential establishes a realistic target for demand-side savings that a utility can expect to achieve through its demand-side programs and involves incentives that represent a moderate portion of total program costs and longer customer payback periods when compared to those associated with maximum achievable potential;

**Technical potential** means energy savings and demand savings relative to a utility's baseline energy forecast and baseline demand forecast, respectively, resulting from a theoretical construct that assumes all feasible measures are adopted by customers of the utility regardless of cost or customer preference;

## **1. Market Characterization and Historical Load Analysis**

### **Analysis of End-Use Load Detail and baseline load forecast**

GPES will provide the Supplier with its energy and demand forecast used in GPES' most recent Missouri 4 CSR 240-22 IRP compliance filing.

Supplier develop and provide discussion of a twenty (20) year baseline energy and demand forecast that will include two sets (2) of forecasts and a discussion of the reasons for the differences, if any, from the energy and demand forecast provided by GPES. These twenty (20) year baseline energy and demand forecasts shall account for the following:

- Discussion of the treatment of all GPES' customers who have opted out of participation in GPES' demand-side management programs;
- Changes in the building codes and / or appliance efficiency standards;
- Changes in customer combined heat and power applications; and
- Third party and other naturally occurring demand-side savings.

Supplier will be required to describe, analyze and document the historical use of energy by each major class per unit by end-use pursuant to current Missouri electric utility resource planning rules 4 CSR 240-22.030 (4) (A).

This will require that for each major class, use per unit shall be disaggregated, where information permits, by end-uses that contribute significantly to energy use, or peak demand.

At a minimum, the Supplier will assist GPES in developing information on at least the following loads:

- For the residential sector: lighting, space cooling, space heating, ventilation, water heating, refrigerators, freezers, cooking, clothes washers, clothes dryers, television, personal computers, furnace fans, plug loads, and other uses;

- For the commercial sector: space heat, space cooling, ventilation, water heat, refrigeration, lighting, office equipment, cooking equipment, and other uses; and
- For the industrial sector: machine drives, space heat, space cooling, ventilation, lighting, process heating, and other uses

Supplier may remove or consolidate a specified end-use load if it determines that it not contributing, and is not likely to contribute in the future, significantly to energy use or peak demand in a major class.

Supplier shall add other potential end-use loads if it determines that and end-use load not currently specified is likely to contribute in the future, significantly to energy use or peak demand in a major class.

Supplier will present the list of end-use load recommendations to GPES before proceeding in developing information. GPES will be allowed two weeks to review the list of end-use load recommended and Supplier will be required accommodate suggested revisions or additions.

### **Data requirements**

For each major class and end-use load included in the historical analysis, Supplier will be required to develop a procedure to develop adequate data on the energy-related characteristics of the building, appliance, and equipment stock including saturation levels, estimates of base energy and demand usage, efficiency levels and sizes, where applicable. This information will be used to establish estimates of baseline energy and demand usage used in Demand-Side Resource Analysis.

The data and historical analysis for each end-use shall be developed from a GPES specific survey or other primary data pursuant to current Missouri electric utility resource planning rules 4 CSR 240-22.030 (4) (B).

Supplier may incorporate or substitute the results of secondary data provided that it verifies and documents the applicability to the GPES service territory.

Supplier will propose a methodology for data collection that assures statistical reliability and validity. GPES' preference is for a stratified random sample rather than a quota based or other non-probabilistic sampling method. In particular, sampling procedures must be designed with a statistically expected accuracy of  $\pm 10\%$  at the 90% confidence level.

- GPES plans to use the results to analyze electricity end use and demand side potential in both its Missouri and Kansas service territories.
- Supplier will discuss and propose a methodology to test for significant differences between the Missouri and Kansas service territories with respect to matters such as the composition of the residential, commercial and industrial customer classes and the saturation, penetration and adoption rates for efficient measures; and

- Supplier will discuss and propose a methodology to be applied if these tests indicate significant differences among the service territories included in the data collection.

## **2. Identify a set of potential demand-side resources**

The Supplier shall identify and select a set of potential demand-side resources pursuant to Missouri electric utility resource planning rules, 4 CSR 240-22.050 (1).

Supplier will provide a clear description of the process used to identify the broadest possible list of measures and groups of measures for consideration.

A potential demand-side resource consists of a demand-side program designed to deliver one (1) or more energy efficiency and energy management measures or a demand-side rate. The Supplier shall select the set of potential demand-side resources and describe and document its selection—

To provide broad coverage of—

- Appropriate market segments within each major class;
- All significant decision-makers, including at least those who choose building design features and thermal integrity levels, equipment and appliance efficiency levels, and utilization levels of the energy-using capital stock; and
- All major end uses, including at least the end uses identified and included pursuant to section 2

The selection of potential demand-side resources will be required to fulfill the goal of achieving all cost-effective demand-side savings and facilitate the design of highly effective potential demand-side programs.

To include the effects of improved technologies expected over the planning horizon to—

- Reduce or manage energy use; or
- Improve the delivery of demand-side programs or demand-side rates.
- Include demand response resources.
- Include on-site combined heat and power as a resource.

GPES currently maintains information on a select set of energy efficiency measures. In developing and selecting the set of potential demand side resources the Supplier shall include this set of energy efficiency measures.

- Supplier will also review and include all energy efficiency measures identified and included in the “Missouri Statewide DSM Potential Study – Final Report”,



Appendix J, sections J1, J2, & J3, published by KEMA consulting on March 04, 2011. (“MO DSM STUDY”)

In developing and selecting the set of potential demand side resources the Supplier shall review the set of demand response resources identified in:

- the “Missouri Statewide DSM Potential Study – Final Report”, section 7, published by KEMA consulting on March 04, 2011 (“MO DSM Study”);
- the AmerenUE Demand-side Management (DSM) market Potential Study Volume 3, prepared by Global Energy Partners, January 2010 (“AmerenUE DSM Study”); and;
- the “National Demand Response Potential Model Guide”, prepared for FERC, published June 2009; and;
- The “A National Assessment of Demand Response Potential”, FERC staff report, published June 2009.

The Supplier will combine the GPES provided end-use measures, the MO DSM STUDY sets of energy efficiency measures, and the AmerenUE SM Study sets of end-use measures and will use this information as a minimum starting point.

The Supplier will combine the demand side resources identified in the FERC and the MO DSM STUDY and will use this information as a minimum starting point.

Supplier will be required to analyze the cost effectiveness of all end use measures included in the final lists of measures. Supplier will provide a complete description of the baseline measure and the energy efficient measure. Supplier will provide an estimate of gross labor cost, gross equipment cost, annual O&M expense, annual kWh energy savings, annual peak kW demand savings, and the estimated useful life for all energy efficient in the measures list. Supplier will define the units of energy and demand saved. Examples are savings per unit installed, savings per sq. ft, etc.

Supplier will be required to estimate the net present value of the benefits provided by each end-use measure. Avoided generation capacity, avoided market energy cost, and avoided T&D cost are to be included in the benefit calculation. Supplier will review GPES’ estimates of avoided energy and capacity costs to use in the benefits calculation for validity and make recommendations for change, if needed.

Supplier will be required to estimate the net present value of all costs required to implement each end-use measure. Total utility costs and total participant costs will be evaluated separately.

### **3. Estimation of Technical and Economic Potential**

The Supplier shall conduct a market potential study for GPES' service territory pursuant to Missouri electric utility demand-side programs filing and submission requirements, 4 CSR 240-3.164 (2).

The Supplier will use primary market data where available and to the extent that primary data is unavailable or insufficient, the market potential study may also rely on or be supplemented by data from secondary sources and relevant data from other geographic regions. Supplier will be required to develop a schedule and timeline that provides for commission staff and stakeholder review in the planning stages including a review of the assumptions and methodology in advance of performance of the Study.

Supplier shall propose a methodology for data collection that assures statistical reliability and validity. In particular, the sample design should be sufficient to meet a 90% probability confidence and a 10% sample error confidence. GPES plans to use the results to analyze electricity end use and demand side potential in both its Missouri and Kansas service territories.

Supplier will discuss and propose a methodology to test for significant differences between the Missouri and Kansas service territories with respect to matters such as the composition of the residential, commercial and industrial customer classes and the saturation, penetration and adoption rates for efficient measures; and

Supplier will discuss and propose a methodology to be applied if these tests indicate significant differences among the service territories included in the data collection.

Supplier will explain how they would develop a valid estimate of potential for each individual territory.

The potential Study shall include at least the following:

- Complete documentation of all assumptions, definitions, methodologies, sampling techniques, and other aspects of the Study;

- Complete documentation of any economic models that were utilized and a clear description of the modeling process.

- A flow diagram illustrating the data, model sections and modeling process of any economic models utilized in the Study.

- Clear description of the process used to identify the broadest possible list of measures and groups of measures for consideration;

- Clear description of the process used to determine technical potential, economic potential, maximum achievable potential, and realistic achievable potential for a twenty (20)-year planning horizon for major end-use groups (e.g., lighting, space

heating, space cooling, refrigeration, motor drives, etc.) for each customer class; and

The Study will report the technical and economic potential for energy, in kWh and peak demand, in kW, as an annual amount over the planning horizon 2012 – 2031 and by cumulative total in the year 2031. The Study will also report the technical and economic potential for energy, in kWh and peak demand, in kW, as an annual percent of GPES load in kWh and kW.

The technical and economic potential should be classified at least by:

Sector type; Residential, Commercial and Industrial

Residential Building Type; Single Family, Multifamily, Single family Low Income, Multifamily low income.

Commercial Building type: Large office, small office, restaurant, retail, grocery, warehouse, school, college, healthcare, lodging, other.

Industrial by business type: Food, Textiles-Apparel, Lumber-Furniture, Paper, Printing, Chemicals, Petroleum, Rubber-Plastics, Stone-Clay-Glass, Prim Metals, Fab Metals, Ind Mach, Electronics, Transp Equip, Miscellaneous Industry, Water / Water Works.

By end-use load including;

For the residential sector: lighting, space cooling, space heating, ventilation, water heating, refrigerators, freezers, cooking, clothes washers, clothes dryers, television, personal computers, furnace fans, plug loads, and other uses;

For the commercial sector: space heat, space cooling, ventilation, water heat, refrigeration, lighting, office equipment, cooking equipment, and other uses; and

For the industrial sector: machine drives, space heat, space cooling, ventilation, lighting, process heating, and other uses;

Supplier will develop an energy efficiency supply curve that shows the cost per unit of saved energy, as a levelized \$/kWh saved over the life of the savings achieved in current dollars, versus the savings potential as a percent of total energy sales.

Supplier will develop a peak-demand supply curve that shows the cost per unit of demand reduction, as a levelized \$/kW saved over the life of the savings achieved in current dollars, versus the savings potential as a percent of total Peak Demand.

Measures for both curves should be sorted on a least cost basis. The cost of the measures should be levelized of the life of the savings achieved. The data will also be listed in a tabular format.

Supplier will estimate the demand response potential and will use the FERC NADR model with specific inputs for GPES. Supplier will use the four customer segments, residential, small nonresidential, medium nonresidential and large nonresidential identified in the FERC NADR model. Supplier will use the five demand response program categories identified in the model which are direct load control, interruptible rates, dynamic pricing with enabling technologies, dynamic pricing with enabling technologies, and other type of market based demand response programs such as demand bidding.

GPES will provide the Supplier with the energy and demand forecasts that were submitted in GPES' most recent 4 CSR 240-22 triennial compliance filing.

#### **4. Development of potential demand-side programs**

The Supplier shall identify and develop potential demand-side programs pursuant to Missouri electric utility resource planning rules, 4 CSR 240-22.050 (3). These demand-side programs shall be designed to deliver an appropriate selection of end-use measures to each market segment.

Supplier will consider and assess multiple designs for demand-side programs and recommend an optimal design for implementation.

Supplier will evaluate the cost-effectiveness of the programs identified pursuant to Missouri electric utility resource planning rules, 4 CSR 240-22.050 (5) and Missouri Electric Utility Demand-Side Programs Filing and Submission Requirements 4 CSR240-3.164 (2) (B)

For each demand-side resource option or portfolio, the Supplier shall describe and document the monthly load impact estimates in kWh and kW over the planning horizon, 2012-2031. Supplier will provide summary tables of annual load impact that includes estimated annual changes in energy usage and demand.

Supplier will provide detailed description of each proposed demand-side program to include at least:

Customers targeted;

Measures included;

Customer incentives;

Proposed promotional techniques;

Specification of whether the program will be administered by the utility or a Supplier;

Projected gross and net annual energy savings;

Proposed annual energy savings targets and cumulative energy savings targets;  
 Projected gross and net annual demand savings;  
 Proposed annual demand savings targets and cumulative demand savings targets;  
 Net-to-gross factors;  
 Size of the potential market and projected penetration rates;  
 Any market transformation elements included in the program.

Budget information in the following categories:

Administrative costs listed separately for the utility and/or program administrator;

Program incentive costs;

Estimated equipment costs;

Estimated installation costs;

EM&V costs; and

Miscellaneous itemized costs, some of which may be an allocation of total costs for overhead items such as the market potential study or the statewide technical reference manual;

Description of any strategies used to minimize free riders;

Description of any strategies used to maximize spillover; and

For demand-side program plans, the proposed implementation schedule of individual

demand-side programs.

The Supplier will be required to document their design process which shall include at least the following activities and elements:

- Review demand-side programs that have been implemented by other utilities with similar characteristics and identify programs that would be applicable for the GPES;
- Identify, describe, and document market segments that are numerous and diverse enough to provide relatively complete coverage of the major classes and decision-makers identified in subsections 1 and 2 and that are specifically defined to reflect

the primary market imperfections that are common to the members of the market segment;

- Identify a comprehensive list of end-use measures and demand-side programs considered and develop menus of end-use measures for each demand side program. The demand-side programs shall be appropriate to the shared characteristics of each market segment. The end-use measures shall reflect technological changes in end-uses that may be reasonably anticipated to occur during the planning horizon;
- Assess how advancements in metering and distribution technologies that may be reasonably anticipated to occur during the planning horizon affect the ability to implement or deliver potential demand-side programs;
- Estimate the characteristics needed for the twenty (20)-year planning horizon to assess the cost effectiveness of each potential demand-side program, including:

An assessment of the demand and energy reduction impacts of each standalone end-use measure contained in each potential demand-side program;

An assessment of how the interactions between end-use measures, when bundled with other end-use measures in the potential demand-side program, would affect the stand-alone end-use measure impact estimates;

An estimate of the incremental and cumulative number of program participants and end-use measure installations due to the potential demand-side program;

For each year of the planning horizon, an estimate of the incremental and cumulative demand reduction and energy savings due to the potential demand-side program; and

For each year of the planning horizon, an estimate of the costs, including:

The incremental cost of each stand-alone end-use measure;

An estimate of the cost of incentives to be paid by the GPES to customers to encourage participation in the potential demand-side program. The Supplier shall consider multiple levels of incentives paid by GPES for each end-use measure within a potential demand-side program, with corresponding adjustments to the maximum achievable potential and the realistic achievable potential of that potential demand-side program;

The cost of incentives to customers to participate in the potential demand-side program paid by the entities other than the GPES;

An estimate of the cost to the customer and to the GPES of technology to implement a potential demand-side program;

An estimate of GPES' cost to administer the potential demand-side program; and

Other costs identified by the Supplier that GPES would incur;

A tabulation of the incremental and cumulative number of participants, load impacts, GPES costs, and program participant costs in each year of the planning horizon for each potential demand-side program; and

The Supplier shall describe and document how it performed the assessments and developed the estimates and shall provide documentation of its sources and quality of information.

The Supplier will be required to evaluate the cost-effectiveness of the set of potential demand-side programs developed pursuant to Missouri 4 CSR 240.22.050 (5) and Missouri 4 CSR 240-3.164 (B) which require:

The total resource cost test and a detailed description of GPES' avoided cost calculations and all assumptions used in the calculation. To the extent that the portfolio of programs fails to meet the TRC test, the utility shall examine whether the failure persists if it considers a reasonable range of uncertainty in the assumptions used to calculate avoided costs;

The Supplier shall also include calculations for the utility cost test, the participant test, the nonparticipant test, and the societal cost test.

## **5. Estimation of Maximum and Realistic Achievable Potential**

Supplier will be required to estimate both a maximum achievable potential and a realistic achievable potential for both energy savings in kWh and demand reduction in kW by the recommended demand side programs developed in section 5. Supplier will propose the segments to be used before starting the analysis and may propose alternative segmentation methods for reporting maximum and achievable potential.

Supplier will develop two alternative scenarios of adoption rates related to estimated simple payback to the participant.

The Study will report maximum achievable potential and the realistic achievable potential, in kWh and peak demand, in kW, as an annual amount over the planning horizon 2012 – 2031 and by cumulative total in the year 2031 and be classified at least by demand side programs identified and developed in section 5.

## 6. Reporting Requirements

Supplier will conduct one meeting in Jefferson City, MO to review the draft report and preliminary findings with IRP stakeholders. Supplier will accommodate, review and answer questions that may arise regarding the research methodology or Study results. Supplier will review and accommodate changes to the report format or content suggested by the IRP stakeholders, as necessary.

Supplier will provide GPES with copies of all work papers, survey forms, and electronic spreadsheets that were used to conduct the Study in an electronic format with formulas and calculations intact.

The Supplier will provide a final report that contains, at a minimum, the following information:

An executive summary that describes the scope and approach of this Study.

Summarizes the results of sections 2 through 6

An introduction that includes:

A detailed review of the Study approach, underlying assumptions and layout of the report.

A clear description of the process used to determine technical potential, economic potential, maximum achievable potential, and realistic achievable potential for a twenty (20)-year planning horizon for major end-use groups (e.g., lighting, space heating, space cooling, refrigeration, motor drives, etc.) for each customer class.

Complete documentation of all assumptions, definitions, methodologies, sampling techniques, and other aspects of the current market potential study;

Clear description of the process used to identify the broadest possible list of measures and

groups of measures for consideration;

Individual sections describing, and detailing sub-sections 2 through 6

### **For the Market Characterization and Historical Load Analysis:**

Detailed description of the market characterization.

Detailed discussion of the method and results of the historical load analysis.

Detailed information describing each major class load in tabular and graphic format.



**For the Identification of the set of potential demand-side resources:**

Detailed discussion of how the requirements listed in Section 3 have been met.

Detailed descriptions of the potential demand side-resources to include energy savings potential in kWh, demand reduction potential, and cost estimates.

**For Estimation of Technical and Economic Potential:**

Summary of overall technical and economic potential

Details of the technical and economic potential

Description of technical assumptions and economic assumptions

Energy efficiency and demand response supply curves

**For the Estimation of Maximum and Realistic Achievable Potential:**

Details of assumptions and description of the markets

Overall results

Summary of the alternative payback scenarios

**For the development potential demand-side programs:**

Summary of the methodology, assumptions, model used.

Summary of the results with annual impacts by program over the planning horizon 2012-2031.

Data shall be presented in tabular format.

Detailed description of each proposed demand-side program to include at least:

Customers targeted;

Measures included;

Customer incentives;

Projected gross and net annual energy savings;

Proposed annual energy savings targets and cumulative energy savings targets;

Projected gross and net annual demand savings;

Proposed annual demand savings targets and cumulative demand savings targets;

Net-to-gross factors;

Size of the potential market and projected penetration rates;

Budget information in the following categories:

Administrative costs listed separately for the GPES and/or program administrator;

Program incentive costs;

Estimated equipment costs;

Estimated installation costs;

Miscellaneous itemized costs, some of which may be an allocation of total costs for overhead items such as the market potential study or the statewide technical reference manual;

Description of any strategies used to minimize free riders;

Description of any strategies used to maximize spillover; and

For demand-side program plans, the proposed implementation schedule of individual demand-side programs.

Conduct a formal presentation of the final Study results for GPES management, Missouri regulatory agencies, and GPES IRP stakeholders.

## **7. Supplier Methodology and Project Plan**

Work will be conducted as per Supplier Proposals dated June 10, 2011 attached hereto as Exhibit B.

The following modifications to Proposal are agreed upon by both parties:

Online surveys will be part of the primary data collection plan. Seventy (70) onsite surveys will be complete per sector ([across both KCP&L and GMO – i.e., 35 per utility](#)), where the onsite surveys are nested within the 1200 online surveys to permit calibrating/adjusting the online survey results. Targeted confidence and precision would be 90/10 at the utility level, although online surveys may permit improved precision (particularly at the sector level relative to using onsites only), depending on the degree to which online survey results correlate with the onsite survey results.

In the event of conflict between Statement of Work or Master Service Agreement and Supplier Proposal, the terms of the Statement of Work shall supersede any terms of Supplier Proposal.