

Appendix B

DSM Program Evaluation Scope of Work

Task 1: DSM Evaluation Plan: In this task, the DSM Evaluation Contractor will be responsible for developing a comprehensive DSM Evaluation Plan to cover all DSM Evaluation tasks. This will involve the following:

- A. Examination of all related program DSM Program documents available from NorthWestern. This information includes scope of work documents for each of the Implementation Contractors for the programs they are administering for NorthWestern and various other pertinent DSM documents.
- B. Working closely with NorthWestern and its DSM program Implementation Contractor(s) to identify existing data, records, and documents that have been accumulated in the course of providing DSM Program services to NorthWestern.
- C. Identification of other research needs for each of the DSM Programs and development of the data collection methodologies that will be used to complete the DSM Evaluation.
 - 1. The data collection plan will include a physical inspection and measurement plan, plus the sampling methodology and testing design.
 - 2. The DSM Evaluation Plan should also indicate the approach the DSM Evaluation Contractor will use to expand analysis results from the evaluation sample to the program population.
- D. In addition, the DSM Evaluation Plan should include a description of how program data will be collected, organized, compiled, and reported.
- E. Preparation of a DSM Evaluation Plan timeline.

Task 2: Project Management: The DSM Evaluation Contractor must designate a project manager to be NorthWestern's key contact and maintain sufficient staff resources to effectively and efficiently complete the work. The project manager must:

- A. Maintain direct communication with NorthWestern.
- B. Interface with other NorthWestern DSM Implementation Contractors
- C. Comply with DSM Evaluation schedule

- D. Provide Bi-weekly Project Status Report
- E. Provide quality control and assurance that work conforms to the scope of evaluation work

Task 3: DSM Program Process Evaluation: This task addresses ways to improve the NorthWestern DSM Programs over time. This task includes examining NorthWestern DSM Program processes for each individual DSM Program, and for each DSM Program Group, and comparing these processes to the best practices within the industry. Sub-tasks include but are not limited to evaluation of:

- A. Appropriateness of program design for achieving program goals.
- B. Program participation procedures.
- C. Application and payment processing (ease of use, cycle time, etc.).
- D. Accuracy, consistency, and completeness of each Implementation Contractor's program records, to be performed by checking a representative sample of completed program application forms and projects. Confidentiality of customer information and proprietary software shall be protected.
 - 1. Identify data anomalies and areas for data collection improvement.
 - 2. Identify areas where excess, unnecessary, or duplicative data collection is occurring.
- E. Effectiveness of program incentive and/or rebate levels in compelling customers to take action.
- F. Identify the barriers to customer participation in the DSM programs.
- G. Marketing and promotional efforts by NorthWestern and its Implementation Contractor(s).
- H. Communication effectiveness between NorthWestern and its Implementation Contractor(s).
- I. Participant satisfaction with DSM Programs.

- J. Results from interviewing participants and non-participants (NorthWestern customers, trade allies, NorthWestern personnel, Implementation Contractors) for the purpose of getting their ideas on process improvement.
- K. Documentation/description/examples, for each individual program, of comparing the program processes with best practices within the industry and areas where improvements could be considered.

Task 4: DSM Program Impact Evaluation: The Program Impact Evaluation will utilize appropriate engineering calculations, sampling of on-site verifications, customer interviews and surveys, appropriate statistical techniques, and other industry-accepted practices to determine energy savings achieved by NorthWestern DSM Programs. Where and as applicable, this evaluation will be performed for each individual DSM Program, and results will be aggregated for the entire DSM Portfolio. NorthWestern will make available historical energy consumption data for program participants, and provide access to its Implementation Contractor's DSM Program databases. Specific sub-tasks to be completed include, but are not limited to:

- A. Accurate and supportable quantification of the peak (kW) and energy (kWh, dKt) savings amounts for each program.
- B. Energy savings estimates in two time periods to enable correlation with calendar and tracker year business cycles, if and as necessary.
- C. Review of NorthWestern engineering calculations used to develop energy savings estimates for measures included in DSM program offerings.
- D. Review of the appropriateness and application of building simulation models used by NorthWestern and its Implementation Contractors and model results produced for commercial DSM projects. (Proprietary software shall be protected.)
- E. Physical verification of a representative sample of the DSM program installations to verify that energy conservation measures have been installed as documented by the Implementation Contractor.
- F. Physical on-site measurement of a representative sample of energy projects participating in the DSM Programs. The purpose of this task is to verify the assumptions and calculations of peak (kW) and energy (kWh and dKt) savings from the Implementation Contractors' databases. The measurements shall be performed by a South Dakota state licensed Professional Engineer. The projects and installations to be measured will be selected from a statistically representative sample of completed projects.

- G. Calculation of average annual energy savings for high volume measures/services and programs, for comparison to the values NorthWestern is currently using:
 - 1. Compact fluorescent lamps (for each watt rating used in the lighting program) delivered through distribution at events, direct installation, mail-in rebate, mail-out product, in-store coupon, and other events applicable.
 - 2. Each of the different home and business energy audit types. The DSM Evaluation Contractor shall provide average annual energy savings for audit direct measure savings and separately for audit in-direct savings.
- H. Rebate measures for all of the prescriptive rebate programs (residential & commercial) offered during the relevant program evaluation period.
- I. Assessment of the rate of free riders and free drivers within each of the programs.
- J. Assessment of the realization rate of DSM measures for which program incentives/rebates were paid by NorthWestern.
- K. Assessment of persistence of energy savings produced by DSM measures installed. This includes an assessment of whether building use, operation, size, or configuration has changed since DSM measures were installed.
- L. Assessment of “spillover” or “leakage” of NorthWestern funded DSM measures into non-NorthWestern service areas and non-rebates measures in NorthWestern service area customer homes/facilities.

Task 5: DSM Program Economic Analysis: The DSM Evaluation Contractor will evaluate the cost-effectiveness of the DSM Programs using an industry accepted benefit-cost analysis from the perspective of the Company (Utility Cost Test), from the perspective of society (Total Resource Cost Test), and from the individual ratepayer (Ratepayer Impact Measure).

This cost-effectiveness evaluation will be performed for each individual DSM Program, and results aggregated for the entire DSM Portfolio. The contractor will calculate the levelized cost of DSM acquisition for each DSM Program, and the entire DSM Portfolio.

Task 6: DSM Program Evaluation Final Report: The DSM Evaluation Contractor will prepare a high-quality, detailed and comprehensive report, including an executive summary,

that describes and documents the DSM Program evaluation project and each task therein, and presents findings and recommendations in a clear, understandable manner.