

FOR BOARD ACTION

Agenda Item # 7

Meeting Date:

1/26/10

SUBJECT: Smart Grid Roadmap Engineering Analysis

PREPARED BY: Jim Walters, Director of Customer Relations
Bob Ledebuhr, C.P.M., Materials Manager/Contract Administrator

ITEM DESCRIPTION:

The intent of this study is to provide a smart grid analysis that would serve as a tool for Rochester Public Utilities (RPU) to make smart grid infrastructure decisions. Areas of analysis include the current and future state of: meter capability, meter data management, demand response, asset management, outage detection, distribution automation, substation and feeder automation, optimization of our grid and behind the meter (customer side). We expect the project to be completed by late April or early May.

DELIVERABLES

1. Document RPU's current state of smart grid readiness by identifying specific components of the smart grid and RPU's state of maturity of the component.
2. Identify gaps in RPU's current state of smart grid readiness as compared to the industry's envisioned future state of the smart grid.
3. Provide an explanation of each components impact on the utility. For example, substation automation's impact on service calls, home area networks effect on load control, etc.
4. Provide an economic analysis such as ROI, payback, etc. for launching next step improvements in each area.
5. Provide a ranking of each component based on expected economic benefit.
6. Provide a ranking of each component based on expected energy conservation benefit stated in appropriate units such as kilowatts and kilowatt hours.
7. Provide a timeline and sequence for launching each component.
8. Provide RPU with a preliminary draft report for comments before finalizing the report.
9. Provide RPU with 15 copies of the final report.
10. Provide an in-person report of findings.

We sought proposals from six consulting firms who specialize in this type of work and received three proposals. We choose Burns and McDonnell's proposal for \$65,000 due to their national leadership in conducting smart grid analyses and their history of performing quality work for RPU.

FOR CAPITAL PURCHASES/BIDS/MAJOR PROJECTS:

The Smart Grid Roadmap Engineering Analysis is a professional service contract and funds are budgeted for it.

UTILITY BOARD ACTION REQUESTED:

Staff recommends that the Board approve a resolution to accept the proposal from Burns & McDonnell of Kansas City, Missouri, to perform the Smart Grid Roadmap Engineering Analysis for the amount of \$65,000.



General Manager



Date

ROCHESTER PUBLIC UTILITIES



RESOLUTION

BE IT RESOLVED by the Public Utility Board of the City of Rochester, Minnesota, to approve a purchase order agreement with Burns & McDonnell for

Smart Grid Roadmap Engineering Analysis

The amount of the purchase order agreement to be SIXTY-FIVE THOUSAND AND 00/100 DOLLARS (\$65,000.00).

Passed by the Public Utility Board of the City of Rochester, Minnesota, this 26TH day of January, 2010.

President

Secretary