

FOR BOARD ACTION

Agenda Item # 6

Meeting Date:

6/29/04

SUBJECT:

RPU Infrastructure Plan – Phase II & III
Engineering Services

PREPARED BY:

Wally Schlink, Director of Power Resources

ITEM DESCRIPTION:

RPU staff, working with Burns & McDonnell, has completed, presented the results, and officially submitted to the Utility Board the Phase I Report on the Electric Utility Baseline Strategy for 2005-2030 Electric Infrastructure. We are now prepared to proceed with Phase II and Phase III which will complete the long range core business plan for the utility.

Phase II incorporates Demand Side Management, conservation, renewable resources and Demand Response into the business plan. The proposal also includes assisting with an end use survey to identify maximum potential energy conservation opportunities and integration of public input into the process.

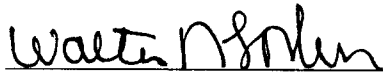
Phase III is the development of a long range financial model that will reflect revenue requirements for generation, transmission, distribution and other operating costs. This Phase will bring all three phases of the Infrastructure Plan into a combined report that will be used by the Board and RPU staff as a guidance document for infrastructure and financial decisions through 2030.

Staff feels this project will greatly enhance the utilities long range planning process and will help bring definition to the utilities future financial and infrastructural requirements. The RPU Infrastructure Plan is an extension of the 1999 Power Supply Plan and extends the planning timeline out to 2030.

Burns & McDonnell has been involved in assisting the utility with power supply issues including CROD, addition of generating facilities, energy marketing program and the financial aspects of the steam project. Staff feels that Burns & McDonnell is uniquely qualified to perform this service and brings an understanding of the operation and direction of the utility that cannot be duplicated. A copy of the proposal for services is attached.

UTILITY BOARD ACTION REQUESTED:

Staff recommends that the Board approve a purchase order agreement with Burns & McDonnell to provide professional services for development of Phase II and Phase III of the Infrastructure Plan in the amount of \$93,500 which includes a 10% contingency.


Act. General Manager

6-18-04
Date

ROCHESTER PUBLIC UTILITIES



June 15, 2004

Mr. Wally Schlink
Rochester Public Utilities
4000 E. River Rd. NE
Rochester, MN 55906-2813

Re: Proposal for work on Phase II of RPU Business Plan-Demand Side Management and Renewables Analysis and Phase III Integration into Overall Business Plan

Dear Mr. Schlink:

Burns & McDonnell was requested to provide Rochester Public Utilities (RPU) with a proposal for the continuation of the recent work performed to determine the Phase I of RPU's Baseline Infrastructure Plan as a part of its overall Business Plan. As part of the overall Business Plan (Plan), RPU was interested in Burns & McDonnell providing assistance in reviewing the benefits of renewable energy and demand side management in affecting the traditional resource expansion plan developed under the Phase I effort. As a follow-up to the DSM and renewable review, RPU requested assistance in integrating the expected expenditures from the integration of the DSM, renewable and traditional expansion studies into an overall financial plan for the utility over the time frame of 2005 to 2030. The following paragraphs describe our approach to this assistance.

Phase II DSM and Renewable Impacts to Resource Plan

It is Burns & McDonnell's understanding that RPU has ongoing assessments being performed by the Center for Energy Efficiency (CEE) of current and proposed DSM options. These include the various tests to determine if DSM programs being considered are beneficial. RPU is expecting a report from the CEE in the next few weeks. In addition, RPU has numerous DSM programs in effect. During discussions with RPU, it was determined that there is not an adequate amount of information about end use appliances and that additional information would be useful. RPU currently makes investment in this area through its conservation investment program.

In the renewables area, RPU is currently offering wind energy to its consumers. It also has initiated a research project on a residential photovoltaic resource where it has participated in funding and will be obtaining specific operating data for the RPU area. RPU will be meeting the proposed Minnesota renewable objectives. For the renewable energy, RPU will provide up to 10% of its energy above its power from SMMPA from renewable sources by 2015.



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The services requested of Burns & McDonnell include the following:

1. Assistance in development of an appliance survey for end user devices for the residential, commercial and industrial classes.
2. Review of assumptions used in the DSM tests for coordination with the Phase I costs for consistency in avoided costs.
3. Using the results of the end use survey, the programs that have passed the tests used by CEE and estimated saturation levels, determine what the expected affect would be on the demand and energy requirements used to develop the traditional resource plan.
4. Determine the impact that renewables could have on the RPU revised traditional resource plan from the above step using RPU site specific impacts where available.
5. Develop the RPU resource plan and resulting financial projections considering the effects of the DSM and renewables on the Phase I projections.
6. Develop the concepts of a Demand Response program and provide conceptual estimates about the impacts of a program for RPU.
7. Prepare a report on the Phase II analysis for incorporation into the draft Phase I report.
8. Assist/make presentations as requested.

We see the first two tasks as primarily consulting with the RPU staff in the development of the DSM survey and impacts on the resource expansion plan. Tasks 3 through 5 will entail spreadsheet analysis by Burns & McDonnell using the information provided by RPU and the end use survey. Task 6 will require review of current Demand Response programs and discussions with RPU on the type of programs which might be applicable to RPU.

We anticipate meeting with the RPU citizen advisory council and have allocated three trips to RPU during the course of this effort for those meetings and meetings with staff. We suggest that meetings be considered at the end of tasks 3, 4, and 6. Two presentation meetings are also included.

Phase II Business Plan

The development of the overall business plan for RPU will require the construction of an overall financial model to reflect the various revenue requirements over the generation, transmission, DSM and renewables, and other operating costs. It is Burns & McDonnell's understanding that the RPU accounting group is developing a financial model. Burns & McDonnell proposes to assist the accounting department in developing



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this model by providing the inputs from the generation expansion plan for the fixed, variable and investment costs necessary to meet the proposed plan developed above. In addition, RPU is developing a model for small power producer reporting of RPU avoided costs.

Burns & McDonnell proposes to provide the following services in support of the development of the business plan and the various financial models:

1. Discuss the input variables required for the RPU financial model being developed
2. Assist in developing the small power producer reporting model,
3. Coordinate the upgrade procedure from a resource expansion model for input into the financial model,
4. Assist in providing review of the model and the assumptions.
5. Prepare a report integrating the results of the Phase I, II and III efforts into a combined report.
6. Assist RPU in providing presentations as requested.

Burns & McDonnell views this task as primarily a consulting role with the development of the financial model performed by RPU staff. Our involvement will be to assure that the results of the Phase I and Phase II efforts have been properly represented in the financial model with the RPU staff adding the balance of the RPU financial requirements. The task 2 for Phase III includes completing the efforts requested by Doug Noga in discussions with Scott Renze. Further definition of the model reporting requirements will be necessary in order to fully define the deliverable associated with the financial model. The specific financial model discussed between Doug and Scott will cover a 5 to 10 year period. The overall business plan will cover the same 30 year period as the Phase I analysis. Task 3 will provide any modifications of the models to allow the linking between the model and the input cells in the financial model.

The development of the final report is assumed to make use of the Phase I and Phase II reports with the inclusion of the overall financial plan. Therefore, we have not included significant amounts of drafting time for this report. One presentation trip has been included for Phase III.



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Estimated Fee

Phase II

The estimated fee for Phase II is \$55,000. Approximately half of this estimate is allocated to the meetings, report and presentations. We are estimating 350 manhours for this Phase.

Phase III

The estimated fee for Phase III is \$30,000. The effort for the Small Power Producer report is estimated to take approximately 80 hours and can be removed from this estimate if desired and treated with a separate proposal. If this was removed, the remaining portion of the Phase III effort is estimated at \$20,000. The estimated manhours for this effort are 235, including the effort for the Small Power Producer report.

Schedule

The completion of the Phase II effort will be driven by the results of the end use survey being available. It is estimated that this Phase can be completed by the end of August. The Phase III effort will follow approximately one month later. It is planned that the Small Power Producer report would be finished earlier to meet the RPU schedule for that piece.

We appreciate the opportunity to continue to serve RPU in the development of its long range business plan. If you have any questions about the above, please do not hesitate to call Mr. Kiah Harris at (816) 822-3174.

Sincerely,
BURNS & McDONNELL

Jeffrey J. Greig
General Manager
Business & Technology Services

JJG/kh



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

Professional Engineering Services for Development of
Phase II & III Of the RPU Infrastructure Plan

The amount of the purchase order agreement to be NINETY-THREE THOUSAND FIVE HUNDRED AND 00/100 DOLLARS (\$93,500.00) which includes a 10% contingency.

Passed by the Public Utility Board of the City of Rochester, Minnesota, this 29th day of June, 2004.

President

Secretary