Regional Portfolio Model Software Redevelopment Request for Proposals

Description of RFP Approach System Analysis Advisory Committee Webinar

> Charlie Black November 14, 2013



I. Contracting Organization

Northwest Power and Conservation Council

The Council and its Activities

- Interstate compact (ID, MT, OR, WA)
- Created by Congress in NW Power Act
- Three primary functions:
 - a. Regional power plan
 - b. Fish and wildlife program
 - c. Public involvement in a. and b.



II. Services Desired by the Council

- Software redevelopment of the Council's Regional Portfolio Model (RPM)
- Redeveloped version of RPM must be available for Council use by February 2015 for the Seventh Northwest Power Plan



III. Due Date for Proposals

For a respondent's proposal to be considered, it must be *delivered to the Council no later than 5:00 pm Pacific Standard Time on Thursday, February 6, 2014.*

By hardcopy, to:

Northwest Power and Conservation Council 851 SW Sixth Avenue, Suite 1100 Portland, Oregon 97204-1348 Attention: Sharon Ossmann

Or by e-mail, to: sossmann@nwcouncil.org



IV. Council Bears No Costs or Obligations

- Prospective or actual respondents bear any and all costs and risks of participation in this RFP process
- The Northwest Power and Conservation Council has no obligation to select any proposals or to contract with any respondent to this RFP



V. Description of RPM

- Integrated resource planning model used for Council's Fifth and Sixth NW Power Plans
 - 20-year regional plan
 - Seventh Power Plan to be adopted by end of 2015
- Sophisticated and unique risk analysis methodology
 - 'scenarios on steroids' (simulates numerous candidate resource plans across a broad range of possible futures)
 - addresses tradeoffs between expected cost and risk
 - helps identify adaptive resource strategies



V. Description of RPM (continued)

Summary of existing implementation of RPM

- Complex system built on multiple technology platforms (Excel version 2003 driven by Crystal Ball and OptQuest; supported by Access, Windows XP, PowerShell)
- Difficult to use involves numerous manual steps, model user must have advanced knowledge of subject matter <u>and</u> information technologies
- Data preparation and management is complex, cumbersome and time-consuming



V. Description of RPM (continued)

Documentation of existing implementation

- "RPM Implementation Review" Doug Logan Report (November 2013)
- "Assessment of the Regional Portfolio Model" RPM Review Panel Report (December 2012)
- "The Portfolio Model" Appendix L., Fifth Northwest Power Plan
- "The Regional Portfolio Model" Appendix J., Sixth Northwest Power Plan
- Etc.



VI. Role of RPM in Seventh Power Plan

- The Council intends to use other portfolio analysis models and methods in addition to RPM to develop the Seventh Northwest Power Plan. These may include:
 - Genesys Resource needs and adequacy analysis for regional energy and capacity
 - Flexibility metric and tools Power system balancing, including to integrate variable generation from intermittent resources

• Uses of RPM for the Seventh Power Plan may include:

- Strategic risk analysis, including cost and risk tradeoffs
- Testing of policy propositions (e.g., strategies and costs to achieve postulated goals for regional power system greenhouse gas emissions)



VII. Software Development Implementation Approach

Respondents may wish to submit proposals based on one or more alternative approaches to software development implementation, including but not limited to:

- Implementation of the RPM methodology in the form of a new, stand-alone software model
- Implementation of the RPM methodology as an addition or modification to existing integrated resource planning software



VIII. Software Development Funding Approach

Respondents may wish to submit proposals based on one or more approaches to software development funding, including but not limited to:

- Council pays a fee for software development and Council retains full rights to use and distribute the model to third parties
- Respondent bears some or all costs of software development in return for commercial rights to market the model to third parties; Council retains full rights to use the model



IX. Software Accessibility Approach

As noted above, the Council is obligated to involve the public in development of its regional power plans. Making the new RPM model accessible to participants in the Council's power plan process is a desired goal. Thus the Council encourages respondents to include opportunities to make such access available, and to describe the accessibility approach in their proposals.



X. Software Development Priorities

- Software redevelopment must be completed so that a new version of RPM is available for use by Council staff no later than February 2015
- The following functionalities must be delivered by February 2015:
 - Algorithms and logic for the core RPM strategic risk analysis methodology
 - Data input and output linkages that enable RPM to be integrated with a new power planning data management system
 - Functional, but not necessarily polished user interface
- The Council may elect to commission more complete and/or updated implementation of the RPM methodology, improve the user interface, etc. after February 2015



XI. Required Contents of Proposals

- Respondent name, corporate information
- Software development implementation approach
- Software development funding approach
- Software accessibility approach
- Extent and details of RPM methodology implementation
- Description of data management and integration
- Description of user interface functionality
- Pricing proposal
- Project schedule
- Respondent's capabilities and experience developing integrated resource planning software
- Identification of key personnel, their qualifications and roles under the proposal
- References from existing or recent customers



XII. Disclosure of Proposals

The Council uses a System Analysis Advisory Committee to discuss various power planning modeling topics with regional stakeholders. The Council wishes to make proposals submitted in response to this RFP available for review by SAAC members. Accordingly, respondents must identify any portions of their proposals that are proprietary and may not be disclosed to SAAC members. If respondents wish to make such review subject to a nondisclosure agreement, respondents shall request this in their proposal.



XIII. Evaluation of Proposals

- A panel of Council staff will evaluate proposals that meet minimum requirements
- Proposals will be evaluated and compared using a scoring system that may include the following types of criteria:
 - Project cost
 - Respondent capabilities and experience
 - Software development implementation approach
 - Software development funding approach
 - Extent and details of RPM methodology implementation
 - Assurance of project completion on-time



XIII. Evaluation of Proposals (continued)

- Council staff may select one or more proposals for further consideration, including in-person interviews
- Council staff may then identify one or more proposals for consideration by the Council's Power Committee
- The ultimate decision to select a winning proposal, if any, will be made by a vote of the Council



XIV. Draft Schedule for RFP Process

The following draft schedule is subject to change at the exclusive discretion of the Council and its staff

- Council Issues RFP
- Pre-Bid Conference
- Proposals Due
- Council Vote to Select Winning Proposal

December 20, 2013 January 5, 2014 February 6, 2014 March 12, 2015

