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Northwest Power and Conservation Council

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Oregon

January 8, 2019

MEMORANDUM

TO: Council Members

FROM: John Fazio, Senior Systems Analyst

SUBJECT: Amendment to Contract C2019-29, GENESYS Redevelopment Testing

BACKGROUND:

Presenter: John Fazio, Senior Systems Analyst

Summary: Staff recommends that the Council amend its current contract with Gwendolyn Shearer for testing the redeveloped GENESYS model. The current contract was limited to a 3-month period from October through December of 2018, with a maximum budget of \$24,750. It was anticipated that this would be sufficient time for the contractor to successfully perform the tasks outlined in the statement of work. However, due to the complexity of the redeveloped GENESYS model and because of added refinements requested by Council staff, the testing process has expanded and become more complicated. The amended contract extends the period of work through September 2019 and adds 335 hours (@\$150/hour) for an additional \$50,250, resulting in an amended total contract budget not to exceed \$75,000.

Relevance: The GENESYS model is a key tool that will be used to develop the Council's next power plan. It provides data required by other Council computer models used to forecast electricity prices (AURORA) and to develop resource acquisition strategies (Regional Portfolio Model). GENESYS is also the tool used by the Council and the Resource Adequacy Advisory Committee to assess the adequacy of the region's power supply. The model has also been used to assess regional energy

and capacity needs. And, in conjunction with other models, it can also provide important information relating to the region's flexibility needs.

Work Plan: Action Item ANLYS-21 (review analytical methods), ANLYS-22 (GENESYS model redevelopment) and ANLYS-23 (enhance the GENESYS model to improve the simulation of hourly hydroelectric system operations).

Background:

The GENESYS model is one of the major quantitative tools used to develop the Council's regional power plan. GENESYS is primarily used to assess the adequacy of the power supply but it also provides hydroelectric system output to both the AURORA model and the Council's Regional Portfolio Model. In addition, GENESYS is used to validate that the power plan's resource strategy will produce adequate supplies. GENESYS has also become one of Bonneville Power Administration's major tools for assessing federal system adequacy and is being used by other regional entities. Because of the critical role that GENESYS plays in developing the Council's power plan, the model was evaluated and enhanced to improve forecasting reliability as well as to improve its data management capabilities and to make it less cumbersome to use.

More Info: N/A

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January 3, 2019

Ms. Gwendolyn Shearer
PO Box 6
Estacada, Oregon 97023

RE: Amendment to Contract No. C2019-29, GENESYS Redevelopment Testing

Dear Ms. Shearer:

In consideration of the Contractor's services, the Council amends Contract C2019-29 as follows:

- Exhibit A-Statement of Work, Task 3-Functionality Testing, is amended to include the following benchmark: "d. Incorporate Actual River Constraints: Similar to the multi-year test above, help Council staff and PSR calibrate the model to run using actual river constraints rather than just matching target elevations. Ensure that the hourly operation of hydro and thermal resources is acceptable. Compare results to the hourly test above. Results are again not expected to match but differences should be explainable."
- Paragraph 2-Contract Price and Exhibit B-Budget are amended to add 335 hours at \$150/hour for a total of \$50,250, and an amended total contract amount not to exceed \$75,000.
- Paragraph 14-Contract Duration and Exhibit A-Statement of Work are amended to extend the contract term and deliverable deadline to September 30, 2019.

The amendments detailed above are necessary due to the complexity of the GENESYS redevelopment testing process and the added refinements requested by Council staff.

All other provisions of Contract C2019-29 remain unchanged.

The Council has determined that the Contractor is not on the list of entities debarred or suspended by the federal government from contract awards, as required by 2 CFR Part 200 Appendix II (H) (Contract Provisions for Non-Federal Entity Contracts Under Federal Awards).

If the terms of this Amendment are agreeable to you, please sign this letter and return the original to me, keeping a copy for your record.

Northwest Power and Conservation Council

Stephen L. Crow
Executive Director

Date _____

Gwendolyn Shearer

Date _____