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March 6, 2018

MEMORANDUM

TO: Power Committee

FROM: Ben Kujala

SUBJECT: Amendment to Energy 2020 Support Contract

BACKGROUND:

Presenter: Massoud Jourabchi, Sandra Hirotsu

Summary: The Council contracted with Systematic Solutions, Inc. in September 2017 to

provide support and enhancement work on the Council's load forecasting model, Energy 2020. The contract price was just under \$23,000. Primarily because of the unanticipated work that was done to test the impact of aggressive electrification and a corresponding reduction in natural gas enduse on regional loads, the budget for this contract was spent as of the end of

last month February 2018.

There remains a need for general support as well as other enhancements that would help with the power planning process this fiscal year. This would include enhancements that would improve our capability to produce hourly load forecasts, enhance existing end-use natural gas forecasts in the model, and improve estimates of extreme temperature impacts on load.

Staff is recommending that we amend the contract to "not to exceed \$50,000" which would add approximately \$27,000 to the contract budget for this fiscal year. This fits within the current Power Division contracting budget.

Relevance: Load forecasting is a primary part of the power plan.

Maintain analytical capabilities and prepare for the 8^{th} plan for forecasting and economic analysis (B. 3. and C. 3.) Workplan:

Amendment to the Energy2020 Support Contract

Massoud Jourabchi March 2018



Background

- The Council typically budgets about \$20,000 for maintenance and marginal enhancements on the Energy 2020 model which is used for load forecasting
- This fiscal year's contract was set in September 2017 at not to exceed \$23,000
- A substantial part of the budget was used for testing fuel choice policy on natural gas, i.e. electrification, which resulted in all the funds for this contract being spent by February 2018

We are seeking Council approval to amend the contract price to "not to exceed \$50,000" to complete the remaining tasks in FY2018 and have flexibility for enhancements that may be needed for the 8th plan, e.g.

- Improvements to hourly load forecasting
- Enhancements to natural gas use forecast
- Improvements on estimating the impact of temperature extremes

Note, the current contract does not include budget for potential work that may be needed to enable the model to test economy-wide cap and trade policy. If such work is deemed necessary and is authorized by the Council at a later date, that work would be the subject of a separate contract. Authorization for that potential work is not being requested at this time.