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October 1, 2008

# MEMORANDUM

**TO:** Power Committee

**FROM:** Terry Morlan

**SUBJECT:** Proposed Contract with EcoSecurities' Global Consulting Services (GCS)

One of the key issues for the Sixth Power Plan is to address climate change policies and their effect on electricity choices and costs. In discussing this issue with the Power Committee, we concluded that the approach to this issue should be relatively broad. That is, we should explore alternative approaches to climate change policy and look at different greenhouse gas reductions targets and their possible costs.

To provide us with information on actions that could potentially be taken to reduce greenhouse gases and their costs, we had proposed a contract with EcoSecurities' Global Consulting Services (GCS). The draft statement of work is attached. Mark Trexler, the Managing Director of GCS, made a presentation to the Power Committee in February on carbon sequestration. Mark has a unique understanding of carbon reduction alternatives and their potential costs, as well as a good understanding of the Pacific Northwest.

The contract would provide the Council with the tools and information necessary to address the carbon issues broadly. It would provide an analysis of actions that could be taken to reduce carbon emissions and the cost of those actions. These could be arranged into a supply curve of actions available at increasing cost. The actions would range from improved efficiency of electricity use, to fuel switching, to sequestration of carbon. The scope would not be limited to electricity generation, nor to the region.

The supply curve would give the Council an idea of how carbon costs might change with different policy approaches. For example, cap and trade systems with different sectors included, different emissions caps, or different geographic scopes.

I believe that there is agreement among the Council members to pursue this contract, but there seemed to be concerns that would benefit from a brief discussion. The Power Committee should provide a recommendation to the full Council on whether or not to proceed with this contract.

### Attachment

## EXHIBIT A SCOPE OF WORK

EcoSecurities' Global Consulting Services (GCS) proposes to complete three separate Tasks to support the work of the NWPCC in considering the next Power Plan for the Pacific Northwest.

#### Task 1: Literature Review on U.S. Carbon Markets

GCS will carry out a literature-based review relating to the future value of carbon in the United States, and document the range of carbon prices over the next 20 years based on alternative policy scenarios as presented in the climate policy modeling literature. This Task will be documented in a report presented to NWPCC. Topics to be covered in the deliverable from this Task would include:

- Sources and results of modeled carbon market price projections;
- Key assumptions and variables underlying the range of results in macroeconomic modelling of carbon prices;
- Remaining uncertainties associated with macroeconomic modelling of carbon prices; and
- Key differences between carbon taxes and cap-and-trade programs to accomplish GHG emissions reductions.

#### Task 2: Supply and Demand Driven Market Forecasting

GCS will carry out a scenario-based assessment of supply and demand driven market clearing prices for carbon in the United States, based again on selected supply and demand scenarios. Supply data will be taken from GCS' extensive work into the mitigation options available domestically and internationally. The scenarios will include the inclusion and exclusion of significant but contentious mitigation sectors, potential geographic constraints on the procurement of emissions reductions, and the underlying definition of what constitutes a ton of emissions reduction (e.g. additionality). This Task will be documented in a report presented to NWPCC. Topics to be covered in the deliverable from this Task would include:

- History of GHG Mitigation Markets
- Current Structure of Carbon Markets
- Background to Carbon Market Price Forecasting
- The Functioning of GCS' CliMit Carbon Market Analyzer Model
- The "Quality" of GHG Reductions and Impacts on Supply Curves
- Selected Supply and Demand Scenarios and Associated Market Clearing Price Projections

#### Task 3: Carbon Market Forecasting Seminar

GCS will present a <sup>1</sup>/<sub>2</sub>-day seminar summarizing the results of Tasks 1 and 2, and providing a comprehensive overview of existing carbon markets and their relationship to future climate change policy at the national and international levels. The seminar will offer participants the following content:

- Introductions and Seminar Overview
- The Importance of Carbon Market Forecasting to Public Policy
- Overview of Current Credit Price Projections
- Understanding Future GHG Supply and Demand Variables
- Overview of Emissions Reduction Opportunities and Costs
- EcoSecurities' Supply and Demand-Based Market Forecasting
- Bounding the Uncertainty Around GHG Price Forecasts
- Conclusions and Discussion

#### Budget

EcoSecurities' fee for Tasks 1-3 is a fixed fee of \$45,000. The fees shall be billed in three equal installments:

- \$15,000 to be invoiced and due upon execution of the Consulting Agreement.
- \$15,000 to be invoiced and due at the end of September 2008.
- \$15,000 to be invoiced and due upon conclusion of Tasks 1-3.

No travel expenses are anticipated, but should there be any travel or other unexpected expenses, EcoSecurities will discuss with NPCC and such expenses shall be billed at cost.

#### Timeline

EcoSecurities GCS is prepared to begin implementing these tasks immediately upon execution of this Consulting Agreement and can complete them in 4-6 weeks. The carbon market seminar will then be scheduled at a mutually convenient time.