



CITY OF VANCOUVER

CITY OF VANCOUVER

ADMINISTRATIVE REPORT

A9

Report Date: February 25, 2008
Author: Kieran McConnell
Phone No.: 604.871.6981
RTS No.: 07248
VanRIMS No.: 03-1200-30
Meeting Date: March 11, 2008

TO: Vancouver City Council

FROM: General Manager of Engineering Services

SUBJECT: Neighbourhood Energy Utility - Contract Change Order for Consultant Services

RECOMMENDATION

THAT a change order to the contract with FVB Energy Inc. ("FVB Energy") be authorized for the inclusion of engineering support and temporary boiler system professional services, at an estimated cost of \$188,750 plus GST; source of funding to be the NEU interim Budget approved by Council on March 2, 2006;

FURTHER THAT such change order be on terms and conditions satisfactory to and approved by the City Manager and Director of Legal Services;

FURTHER THAT the Director of Legal Services be authorized to execute and deliver such change order on behalf of the City; and

FURTHER THAT no legal rights or obligations will be created or arise by Council's authorization unless and until the change order is executed and delivered by the Director of Legal Services.

GENERAL MANAGER'S COMMENTS

The General Manager of Engineering Services recommends approval of the recommendations in this report.

COUNCIL POLICY

On March 2, 2006, Council approved in principle the creation of the Neighbourhood Energy Utility ("NEU") to provide space heating and domestic hot water services to Southeast False Creek ("SEFC") buildings, with interim development financing of a maximum of \$14.0 million provided by the Capital Financing Fund.

PURPOSE

This report seeks Council authority for a change order to the contract with FVB Energy, for consulting services related to the NEU. This change order is necessary to design a temporary boiler system for pre-Olympic commissioning of the NEU distribution system, as well as to ensure that the Community Energy Centre ("CEC") be designed to integrate well with the rest of the NEU system.

BACKGROUND

On March 2, 2006, Council approved in principle the creation of a False Creek Neighbourhood Energy Utility (NEU) to provide space heating and domestic hot water services to the SEFC Official Development Plan area. Development of the NEU was considered to be an economical and technically viable contribution toward the greenhouse gas ("GHG") reduction objectives identified in the SEFC Official Development Plan. Creation of the NEU will also contribute toward the achievement of the City's community GHG targets, and provide a financial return on the City's investment. Council also approved the NEU Interim Budget with financing approved from the Capital Financing Fund to be repaid from future NEU revenues.

On December 14, 2006, Council approved a consulting agreement with FVB Energy for preliminary design activities related to the Community Energy Centre (CEC). The CEC will supply hot water to the NEU distribution network using sewage heat recovery as the primary source of energy.

On July 16, 2007, Council approved a report recommending that the City enter into a contract with the team lead by Sandwell Engineering Inc. to provide detailed design and construction management services for the CEC. Conceptual design activities are now complete, and a "Development Services" design review is currently underway.

DISCUSSION

1. Temporary Boiler System

The buildings in SEFC Area 2A (the site for the Olympic Village) will be leased to the Vancouver Organizing Committee for the 2010 Olympic and Paralympic Winter Games ("VANOC") on November 1, 2009. At that time the heating and domestic hot water systems for these buildings, including the NEU supply system, will need to be fully commissioned and ready for use. In order for the commissioning to be completed on time, the NEU distribution system must be exercised, and operational issues addressed during the winter of 2008/09

Because the CEC will not be operational until July 2009 at the earliest, the NEU distribution system will need to be operated using a temporary natural gas boiler system for the interim period from November 2008 to July 2009. Design work for this temporary boiler system must be initiated immediately to meet the temporary heat schedule.

2. CEC Engineering Support Services

Sandwell Engineering Inc. is the City's consultant responsible for design and construction support services for the CEC. While Sandwell Engineering Inc. has extensive background in the design of municipal infrastructure and energy production facilities, they do not have direct experience designing low-temperature water based district energy systems like the NEU, which are relatively uncommon in North America.

Given its utilization of sewage heat recovery as the primary energy source, the design of the CEC is a technically demanding task. In addition, the CEC design must be coordinated with the NEU distribution system to which it will supply heat. As such, staff recommends that the City retain engineering support services from an engineering consultant with specialized district energy skills and direct knowledge of the NEU distribution system design. These engineering support services would include peer reviews of deliverables produced by the Sandwell Engineering Inc. design team, assistance with the procurement of a heat pump system for sewage heat recovery, and the provision of ongoing technical advice as needed through the CEC design and construction phases.

3. Selection of FVB Energy

Staff recommends that these design and engineering support services be awarded in the form of a change order to the existing contract with FVB Energy. FVB Energy's lead role in the design of the NEU distribution system, combined with their extensive background in district energy projects similar to the NEU, helps to ensure that they will be capable of meeting the requirements of both tasks. For these reasons, it is recommended that the aforementioned additional consulting services be procured via a change order to the existing contract with FVB Energy instead of employing a RFP procurement process for these services.

FINANCIAL IMPLICATIONS

This change order to the existing contract with FVB Energy is valued at \$188,750 plus GST, subject to any additional required changes in the scope for these services. Funding is to be provided from the NEU Interim Budget.

CONCLUSION

Staff recommends that Council approve a change order to the contract with FVB Energy for NEU temporary boiler design and engineering support services.

* * * * *