



April 13, 2010

Mr. Phil West
Energy Delivery and Operations Officer
Seattle City Light
700 Fifth Avenue, SMT/2834
PO Box 34023
Seattle, WA 98124-4023

Dear Mr. West,

This letter is a request for Seattle City Light to develop a cost estimate and implementation schedule for a transmission project which has been developed by the ColumbiaGrid Puget Sound Area Study Team. The project is a key part of an overall transmission expansion plan to improve system reliability and reduce the potential for curtailments of transfers between the Northwest and British Columbia. The project includes the addition of two 115 kV series reactors. One reactor would be in series with the Broad Street-East Pine 115 kV underground cable and the other would be in series with the Broad Street-Union Tap-Massachusetts 115 kV underground cable. Additional information on the project is provided below:

1. The series reactors would be sized at 26 ohms with a current handling capability at least as high as the maximum capability of the cables.
2. The series reactors could be located anywhere along the cables (i.e., both at Broad Street, one at Broad Street and one at East Pine, one at East Pine and one at Massachusetts, or one at Broad Street and one at Massachusetts).
3. It is desirable to be able to remove the reactors from the cables although it is expected that this would rarely be necessary. It would be acceptable to take the cable out of service prior to inserting or removing the series reactors so it will not be necessary to switch the reactors in and out of service under load. If providing switching for the reactors is not feasible due to space limitations it may be possible to connect the reactors permanently to the cables; however, additional study would be required to determine the acceptability of this option.
4. To compensate for the reactive losses on the reactors, between 50 MVAR and 100 MVAR of shunt capacitors will need to be added to the system at either Broad Street Substation or on the distribution system served from Broad Street Substation.

With the addition of these series reactors to the underground cables, the cables will appear to the rest of the transmission system to have the impedance of a 40 mile overhead line rather than the much lower impedance of a short underground cable. Without the reactors, overloading on the cables could occur for a number of outages both within the Seattle City Light system and on the neighboring transmission systems.

The Puget Sound Area Study Team is nearing the finalization of their plan and would appreciate it if Seattle City Light would supply the cost estimate and schedule for this project by June 17, 2010. If you have any questions or would like to meet and discuss this further, please let me know (miller@columbiagrid.org; 503-943-4951). Other sources for background information include Seattle City Light employees Kurt Conger and Gary Colburn, both of whom have participated on the Puget Sound Area Study Team.

Sincerely,



Jeffrey C. Miller
Vice President, Planning
ColumbiaGrid

Cc: Kurt Conger – via e-mail
Gary Colburn – via e-mail