Seattle City Light

# Memorandum

DATE: June 29, 2011

To: Stephanie Brown & Kittie Ford

From: Laurie Geissinger and Mary Junttila

Subject: SR 520 Final EIS - Seattle City Light Comments for City of Seattle Letter

Upon review of the FEIS, following are electric utility considerations that need to be noted in decision making regarding project alternatives/options, mitigation planning, and interagency agreements for the SR 520 Bridge Replacement and HOV Project. These comments reflect planning assumptions made by project engineers, SCL, and discussions between the parties.

- Power to the floating bridge will be provided by PSE.
- For the new bridge, SCL electrical service will only be required for the section of SR 520 from I-5 to the West Transition Bridge.
- Currently, SCL electrical service to the bridge is located near the Museum of History and Industry (MOHAI) parking lot. The service is fed from SCL's University Substation via Feeder No. 2625 at 26 kV. When electrical service is cut from MOHAI, SCL will "relocate" the end of the feeder to outside the project area.
- University Substation is the only SCL substation currently serving this area.
- With assistance from SCL, project engineers are determining and analyzing options for a second service from SCL, in addition to the existing single feeder. Additional service from the East Pine and University Substations has been discussed.
- SCL has noted concern to project engineers about the option of using a second feeder from University Substation to serve as backup service to the project. City Light believes this to be an inadequate means of backup service. In addition to the existing electrical feeder from University Substation that currently serves the area, the remaining feeders from University Substation in the project area (2663, 2665 and 2667) pass through neighborhoods with large trees. Construction and weather can impact trees leading to outages. Also, spanning the Montlake cut with a new feeder may not be feasible, especially given other options for service, from the East Pine Substation. Based on their experience, the Seattle Fire Department seems to concur that a second feeder from University Substation is not an acceptable backup service option.
- In lieu of the above, a second service from East Pine Substation could be built by intercepting and extending Feeder 2752 one half mile to the project area. SCL has provided reliability and other data on feeders from East Pine and University Substations to the project engineers for their analysis.
- The maximum 480 volt transformers SCL stocks are 2,500 KVA. The current estimate provided to SCL for operational electrical energy needs from SCL is 5,000 KVA. This will require supplying the project at a higher voltage to use transformers that are kept in stock.
- SCL intends to serve the project in a manner that will avoid the long lead time associated with ordering transformers that are not in stock.

- SCL will need the design to include sufficient access to electrical equipment as determined by SCL, to maintain service and address critical conditions that may arise including emergency access similar to that provided to Fire and Police, especially in areas with temporary traffic flow revisions.
- Page 5.3-5: The FEIS states, "There would be no operational effects on utilities or utility providers". While there may be no *significant adverse* impacts on SCL anticipated, there are new electrical service requirements for the project requiring additional service capacity and electrical energy, which do have operational effects. Additional electrical service requirements should be clearly noted in utility-related project documents and communications.
- It is anticipated that during construction, SCL will need to coordinate temporary electrical outages with its customers. Mitigation commitments need to include scheduling work in a manner that allows sufficient time for notification and that minimizes effects on customers from temporary service interruptions. Mitigation requirements need to be detailed in inter-agency agreements. In some instances, on-site backup generation may be needed to avoid service interruption for critical end-uses, and SCL is responsible for these determinations.
- There has not been discussion to date that we know of concerning electrical energy requirements for a tunnel boring machine for Option K during construction. SCL needs to plan for a possible decision to serve the construction needs of this Option in advance, starting with preliminary estimates of the electrical requirements and an anticipated need schedule.

Thank you for the opportunity to comment.

Cc: Best
Junttila
Russo
Cooper, Ian
Geissinger
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