

**MOTION NO. M2011-58**
**Auxiliary Power Supply Systems for Tacoma Link Light Rail Fleet**

<b>MEETING:</b>	<b>DATE:</b>	<b>TYPE OF ACTION:</b>	<b>STAFF CONTACT:</b>
Operations and Administration Committee	7/21/11	Recommendation to Board	Bonnie Todd, Executive Director of Operations
Board	7/28/11	Final Action	<b>Steve Bethel, Rail Maintenance Manager</b>

**PROPOSED ACTION**

Authorizes the chief executive officer to execute a sole source contract with ABB Switzerland, Ltd. to provide auxiliary power supply equipment for the Tacoma Link fleet, for a total authorized contract amount not to exceed \$424,000.

**KEY FEATURES**

- This contract will provide seven auxiliary power supply (APS) units and includes engineering, training, spare parts, and installation support services.
- This action will replace the obsolete (APS) units on the Tacoma Link light rail vehicles with a new system that will modernize the fleet, ensure continued operation and reduce maintenance cost.
- Current APS units are being phased out due to their age and limited availability of replacement parts.
- ABB Switzerland Ltd. manufactures a proprietary APS unit that is compatible with the Tacoma Link vehicles.
- The ABB system has proven to be reliable and cost effective through direct experience with other local jurisdictions' streetcar systems which are similar to Tacoma Link vehicles.

**PROJECT DESCRIPTION**

The APS units convert direct current (DC) from the overhead catenary system to compatible voltages which are used to operate the vehicle's fan motors, passenger doors, interior and exterior lighting, and heating, ventilation and air conditioning systems (HVAC). In cases of emergency, the APS also provides power for vehicle operation for limited distances should the main power source fail.

**FISCAL INFORMATION**

Lifetime budget for the project includes Admin and Construction phases, \$24,000 and \$400,000 respectively. The requested amount for the proposed action is \$424,000, and will be funded by Construction phase, resulting into a shortfall of \$24,000 at the phase level. The shortfall will be covered by the budget reserved for Admin phase. The following table illustrates the budget impact of this action:

**Budget Table: Project 757- Tacoma Link Auxilliary Power Supply Replacement**

<b>Edmonds Station</b>	<b>2011 TIP</b>	<b>Board Approvals</b>	<b>This Action</b>	<b>Board Approved Plus Action</b>	<b>(Shortfall)</b>
Agency Administration	24	-	-	-	24
Preliminary Engineering	-	-	-	-	-
Final Design	-	-	-	-	-
3rd Party	-	-	-	-	-
Right of Way	-	-	-	-	-
Construction	400	-	424	424	(24)
Construction Management	-	-	-	-	-
Vehicles	-	-	-	-	-
Contingency	-	-	-	-	-
<b>Total Project Budget</b>	<b>\$ 424</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 424</b>	<b>\$ -</b>

**Phase Detail**

**Construction**

ABB Goup	400	-	424	424	(24)
Other Phase Activity	-	-	-	-	-
<b>Total Phase</b>	<b>\$ 400</b>	<b>\$ -</b>	<b>\$ 424</b>	<b>\$ 424</b>	<b>\$ (24)</b>

**Contract Detail**

	<b>Board Approvals to Date</b>	<b>Current Approved Contract Status</b>	<b>Proposed Action</b>	<b>Proposed Total for Board Approval</b>
<b>ABB Goup</b>				
Contract	-	-	424	424
Contingency	-	-	-	-
<b>Total Contract Amount</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 424</b>	<b>\$ 424</b>
Percent Contingency	0%	0%	0%	0%

**Budget Shortfall**

Admin Phase	24
<b>Total Funding</b>	<b>\$ 24</b>

Notes:

Amounts are expressed in Year of Expenditure \$000.

Committed includes pending Board Actions.

Project budget is located on page 150 of the 2011 Transit Improvement Plan.

## **SMALL BUSINESS PARTICIPATION**

Not applicable to this action.

## **BACKGROUND**

Tacoma Link operates a three car fleet. Each car has two identical APS units. One unit supplies power to the HVAC systems and the other supplies power to the remaining electrical components. This contract would provide Tacoma Link with a sufficient number of APS units to equip each vehicle and one spare APS for maintenance purposes.

The current APS units were originally manufactured by Semikron in the Czech Republic and installed in the Tacoma Link vehicles in 2002. Due to the age of the original equipment, Semikron has phased out the units. Parts and support are no longer available and the system has become obsolete.

### Sole Source Justification

ABB Switzerland Ltd. is the only manufacturer who makes an APS unit that will retrofit Tacoma Link vehicles.

The ABB system is specifically engineered and commissioned to operate in the Tacoma Link streetcars thereby avoiding additional cost and time associated with a competitive replacement unit that would need to be designed, manufactured and tested. There are no other current procurement options identified that support Tacoma Link's immediate needs.

## **ENVIRONMENTAL COMPLIANCE**

SSK 7-12-11

## **TIME CONSTRAINTS**

A one month delay would not create a significant impact to the project schedule.

## **PUBLIC INVOLVEMENT**

Not applicable to this action.

## **LEGAL REVIEW**

JW 7-15-11