

PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA

Item No. 6h

Date of Meeting August 24, 2010

DATE: August 18, 2010

TO: Tay Yoshitani, Chief Executive Officer

FROM: David Soike, Director, Aviation Facilities and Capital Program
Wayne Grotheer, Director, Aviation Project Management Group

SUBJECT: Temporary Backup Power at Seattle-Tacoma International Airport (WP 104378).

This Request: \$3,542,000

Source of Funds: Expense

Total Project Budget: \$3,542,000

Jobs Created: 32

Sales Tax Paid: \$237,000

ACTION REQUESTED:

Request Commission authorization for the Chief Executive Officer (CEO) to approve the design, advertise, and award major construction and small works contracts; to amend previous purchase orders; execute contracts for equipment and material; execute a contract to Puget Sound Energy and authorize utilization of Port Crews for the Seattle-Tacoma International Airport (Airport) Temporary Backup Power Project, for a total project authorization of \$3,542,000. (WP 104378).

SYNOPSIS:

This request will allow the installation of 9 two-megawatt diesel generators to supply full Airport electrical power needs in the event of disruption of electrical power from Puget Sound Energy (PSE). Five generators will be installed at the South Main Substation (SMS) and four generators will be installed at the North Main Substation. Installation includes transformers, switchgear, cabling, fuel tanks, control equipment, remote metering, trailers to house controls equipment, fencing, initial fueling and fuel systems and demobilization by April 2011. The airlines have also expressed an interest in installing a permanent electrical generating system in the future.

BACKGROUND:

In 2009, the United States Army Corps of Engineers (USACE) discovered flaws in the Howard Hanson dam that required the lowering of the pool to insure dam integrity. At the time, the USACE noted that the risks associated with the dam would last up to five years. As a result, during the winter season storms, water may have to be released to the Green River and threaten breach of the dikes. Should this occur, PSE facilities would be at risk of damage/failure resulting in a loss of power to the Airport.

COMMISSION AGENDA

Tay Yoshitani, Chief Executive Officer

August 19, 2010

Page 2 of 5

On October 15, 2009, a Declaration of Emergency was declared by the CEO and a project was initiated to install temporary backup power in the event of a power loss. By early December, all nine generators and the attendant equipment were installed and ready to activate if needed. The system was never activated as PSE electrical power was maintained all winter. That system was demobilized in April 2010; however, the site work and cabling remains for use again this season.

On July 22, 2010, after reviewing the USACE assessment of the dam and the Green River dikes, reviewing additional mitigation work performed by PSE, and studying weather forecasts for this winter, the airlines understood the need to install the temporary backup power again this winter, as a precaution against power interruption due to flooding or other hazards. Staff is attempting to have the system operational by November 1, 2010, the approximate start of seasonal heavy rains and winter season storms. This request is for the expense funds needed in 2010 (\$2,259,000) and in 2011 (\$1,283,000) to install and lease the equipment, purchase enough fuel to test the system and run the system for approximately 8 hours. This request does not include the cost of fuel to run the system for an extended period should storm or dam situations warrant it. Those costs, if incurred, will be approximately \$ 92,000 per day of operation.

The Port intends to use an existing IDIQ contract to complete design requirements and provide construction support. The Port will amend its contract for the generators and equipment to provide the exact equipment again this year at a cost of approximately \$ 1,950,000. Last year, the Port issued a solicitation to three vendors requesting quotes for lease of the generators and equipment. That solicitation included a provision that the Port might lease the equipment in 2010.

PCS will be utilized again this year to self perform work in conjunction with a competitively procured major construction project specific unit price contract. A sole source contract for approximately \$400,000 will be issued to PSE to do the work necessary to interface their power grid with our system. Airport maintenance staffing will be used to provide all switching, monitor installation and testing, and operate the system when needed. The Port of Seattle is evaluating the best method to procure the fuel and may use a state contract or competitively procure the diesel fuel. Likewise, we are evaluating other contracts to determine if we have existing contract vehicles to meet our needs or will be competitively procuring new contracts for other related services and products. By this memorandum, we are seeking authority to enter into any contracts related to this project up to the stated authorization value.

The Airport's decision to install emergency backup power in 2009 also caused the airlines to evaluate the effect a serious power outage from Green River flooding or from any other major disruption would have on their operations. As a result, the Airport Airline Affairs Committee has also expressed an interest in installing a permanent electrical generating system at the SMS in the future. The scope and cost estimate for a future project has not been developed but would probably be in the range of \$25 million and take multiple years to permit, design and construct.

COMMISSION AGENDA

Tay Yoshitani, Chief Executive Officer

August 19, 2010

Page 3 of 5

PROJECT DESCRIPTION/SCOPE OF WORK:

Project Statement:

This project will provide enough temporary backup electrical power to keep the airport fully operational with minimized down time in the event of loss of electrical power from PSE.

Project Objectives:

- Provide 18 megawatts of continuous electrical power if needed
- Reduce impacts to airport operations during power interruption(s)
- Minimize down time if loss of electrical power occurs
- Complete project on schedule and within budget
- Re-utilize as much salvaged material as possible from last year's project (cables, supports, etc.)

Scope of Work:

This project will provide all necessary equipment, material, and construction to provide temporary backup power to operate the Airport for an extended period if the main source of electrical power (PSE) is lost.

STRATEGIC OBJECTIVES:

Ensure Airport and Seaport Vitality

The project provides enhanced reliability of electrical power at the Airport, which facilitates use of the Airport by the traveling public, airlines, and tenants.

FINANCIAL IMPLICATIONS:

Budget/Authorization Summary

Original Budget	\$ 3,542,000
Budget Transfers	\$0
Revised Budget	\$3,542,000
Previous Authorizations	\$0
Current request for authorization (2010 Expense Funds)	\$2,259,000
Total Authorizations, including this request	\$2,259,000
Remaining budget to be authorized (2011 Expense Funds)	\$1,283,000

COMMISSION AGENDA

Tay Yoshitani, Chief Executive Officer

August 19, 2010

Page 4 of 5

Project Cost Breakdown (This Authorization)

This Request Total Project

	<u>This Request</u>	<u>Total Project</u>
Construction costs	\$2,900,200	\$2,900,200
Sales tax	\$237,000	\$237,000
Outside professional services	\$211,000	\$211,000
Aviation PMG and other soft costs	\$193,800	\$193,800
Total	\$3,542,000	\$3,542,000

Source of Funds

2010 and 2011 Expense Funds.

Financial Analysis Summary

This project will result in \$2.259 million unbudgeted expenditures in 2010. The Aviation Division will attempt to absorb these costs within the 2010 budget through forecasted savings in utility costs and use of Aviation Division contingency budget. The 2011 costs of \$1.283 million will be included in the 2011 budget. All costs will be incorporated into the electrical utility rates that are either metered and billed to tenants, or allocated to Aviation cost centers.

Approximately 57% of electrical costs are included in airline rates and charges.

ECONOMIC IMPACTS:

While the project supports local construction employment, the project does not create any incremental economic impacts apart from supporting the existing operational economic benefits of the Airport.

ENVIRONMENTAL/COMMUNITY BENEFITS:

The project will ensure that the Airport continues to operate as a regional asset in the event of loss of electrical power from PSE.

TRIPLE BOTTOM LINE SUMMARY:

This project provides a cost effective means of accomplishing necessary backup electrical power for critical Airport infrastructure.

PROJECT SCHEDULE:

- Complete Design – September 2010
- Start Construction – September 2010
- Project Completion – November 2010

COMMISSION AGENDA

Tay Yoshitani, Chief Executive Officer

August 19, 2010

Page 5 of 5

ALTERNATIVES CONSIDERED/RECOMMENDED ACTION:

Alternative 1: Install diesel generator sets and attendant equipment to provide 18 megawatts of electrical power to keep the airport fully operational in the event of loss of electrical power from PSE. **This is the recommended alternative.**

Alternative 2: Do Nothing. In the event of loss of power from PSE, the Airport would stop operating. The shut down might or might not be orderly. Passengers would be stranded and airlines and tenants would lose revenue. This is not the recommended alternative.

PREVIOUS COMMISSION ACTION:

On October 20, 2009, there was a Commission briefing on Emergency Declaration to Provide Back-up Electrical Power at Seattle-Tacoma International Airport.