PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA **Item No.** 6c

Date of Meeting June 14, 2011

DATE: June 3, 2011

TO: Tay Yoshitani, Chief Executive Officer

FROM: Michael Ehl, Director, Airport Operations
Wayne Grotheer, Director, Aviation Project Management Group

SUBJECT: Gate Aircraft Utilities Improvements Projects (CIP # C800019)

Amount of This Request: $3,498,000 **Source of Funds:** Airport Development Fund

State and Local Taxes Paid: $736,000 **Jobs Created:** 21

Total Estimated Cost of Project: $13,211,000 (including expense)

ACTION REQUESTED:

Request Port Commission authorization of an additional $3,498,000, bringing the currently authorized capital amount to $12,883,000, and authorizations for the Chief Executive Officer to proceed with the final design and execute a contract to purchase equipment for the Seattle-Tacoma International Airport (Airport) Gate Aircraft Utilities Improvements Project (#C800019).

SYNOPSIS:

Currently there are 31 Airport-owned gates on Concourses B and C, and the North and South Satellites that do not have full utility capabilities. There are varying amenities at these gates, including 400 Hz ground power supply and potable water. Airlines are paying the same lease rate regardless of the amenities provided. This project would bring the thirty-one "utility deficient" Port-owned gates up to the same standard, including 400 Hz power and potable water. This project has been coordinated with the air carriers involved in the realignment program and includes future aircraft requirements. This project would replace three outdated airline-owned 400 Hz motor generator sets with Port-owned 400 Hz motor generator sets, simplifying operational and maintenance concerns.

BACKGROUND:

This project was authorized in June 2007 under a project wide authorization. Design was completed to a 90% level in December 2008, at which time the project was placed on hold due to

the economic environment and financing uncertainty in the bond market. In July 2010 the project was reactivated at the 90% level, requiring that a design review be completed to ensure site conditions had not changed and to coordinate with other ongoing projects. During review it became apparent that scope needed to be changed to accommodate additional gates, as well as to move some scope to other projects that were underway in an effort to minimize disruption to airline operations. Two gates were added to the scope, along with a third 400 Hz motor generator set for the South Satellite gates, and power centers had to be upgraded to provide additional electrical capacity. The current project to provide pre-conditioned air to aircraft has taken advantage of the available electrical capacity at these power centers. Due to the very long lead time for 400 Hz motor generator sets, prepurchase by the Port is required to reduce the construction duration.

The additional $3,498,000 is needed for the final design of the additional scope of work, additional staff resources, and the purchase of the additional motor generator set. The new project capital budget is $12,883,000.

PROJECT JUSTIFICATION:

Project Objectives:

- Enable the Airport to gain more flexibility to maximize the use of each gate
- Extend the service life of each gate through refurbishment of major components and systems to increase reliability
- Reduce the possibility of a carrier being assigned to a gate without the same amenities
- Advance the Port's goal of standardizing Port-provided amenities at all gates
- Provide sufficient power at International Gates to support the next generation of large aircraft

PROJECT SCOPE OF WORK AND SCHEDULE:

Scope of Work:

The scope of work for this project includes the replacement of 400 Hz and potable water utilities at 31 Airport owned gates. The Port will purchase and dispose of three airline owned 400 Hz motor generator sets and prepurchase five new 400 Hz motor generator sets to provide adequate power at all gates, including new generation wide body aircraft at the South Satellite. Design will be completed by amending the existing sole source service agreement. Staff will return to the Commission in September to request final authority to advertise for construction.

Schedule:

Design	June - August 2011
Advertise for Equipment Purchase	August 2011
Commission Authorization to Advertise	September 2011
Advertise Construction Project	October 2011
Award Equipment Contract	October 2011
Equipment Manufacturing	November 2011–April 2012
Notice to Proceed	December 2011
Construction Complete	December 2013

FINANCIAL IMPLICATIONS:

Budget/Authorization Summary:

Original Budget	$9,385,000
Budget increase - capital	$3,498,000
Revised Budget	$12,883,000
Budget increase – expense (RMM & training)	$328,000
Total project cost	$13,211,000
Previous Authorizations	$9,385,000
Current request for authorization	$3,498,000
Total Authorizations, including this request	$12,883,000
Remaining budget to be authorized	$ 0

Project Cost Breakdown:

Construction Costs	$ 6,144,000
Port prepurchased equipment	$3,332,000
Sales tax	$736,000
Outside professional services	$1,096,000
Port soft costs	$1,575,000
Total	$12,883,000

Budget Status and Source of Funds:

This project is included in the 2011-2015 capital budget and plan of finance within CIP #C800019 with a budget of $9,385,000. The funding source will be the existing 2010 revenue bonds. Upon Commission approval of this request, the capital budget increase will be transferred from the aeronautical allowance CIP so that there will be no change in the total Aviation capital budget as a result of this cost increase.

Financial Analysis and Summary:

CIP Category	Renewal/Enhancement
Project Type	Renewal & Replacement
Risk adjusted Discount rate	N/A
Key risk factors	N/A
Project cost for analysis	$12,883,000

Business Unit (BU)	Terminal – Airline Equipment
Effect on business performance	NOI after depreciation will increase
IRR/NPV	N/A
CPE Impact	CPE will increase by $.09 by 2013, but no change to the business plan forecast as this project was included. The additional operating costs associated with regulated materials will be incorporated into the 2012 budget, and will add approximately $.02 to CPE. The airlines will realize lower operating and maintenance costs.

Lifecycle Cost and Savings:

The additional annual operating and maintenance costs associated with this project has been calculated by Aviation Maintenance at approximately $10,000 per gate per year based on 2010 actual costs for a total of $310,000 for the first year plus an estimated 3% inflation escalation thereafter. Budgeted costs for 2011 and beyond will require additional full time equivalent (FTE) staff members to maintain the added gates utility systems.

ENVIRONMENT AND SUSTAINABILITY:

The project will facilitate greater utilization of gates throughout the Airport, thus reducing the potential need for, and the environmental impact of, major new and costly construction to increase the total number of gates and associated holdrooms. Running an aircraft's auxiliary power unit (APU) in lieu of utilizing a 400 Hz ground power system is expensive in fuel costs and is environmentally insensitive. There are significant air quality benefits to installing these centralized 400 Hz ground power electrical systems at all the gates since these systems will eliminate the need for the aircraft's APUs to run and eliminate the diesel powered 400 Hz ground power units. This project exhibits good environmental stewardship by reducing air emissions and reducing the airlines' consumption of fossil fuels. The design life of the systems in this request is 30 years and it is expected after that time they will need to be replaced.

STRATEGIC OBJECTIVES:

The Gate Aircraft Utilities Improvements Project supports two of the Port's Strategies and Objectives, notably:

This project promotes the Port's strategic goals to "Ensure Airport and Seaport Vitality" and "Be a Catalyst for Regional Transportation Solutions" by providing the airlines and the Airport with greater facility flexibility. Flexible gate operations will allow for greater and more efficient utilization of the Airport's existing facilities.

TRIPLE BOTTOM LINE SUMMARY:

This project supports the Airport's initiative to standardize equipment and provides the flexibility the Airport needs to assign gates and to operate more efficiently. The traveling community will also benefit from increased airline availability to modern, functional gate equipment.

ALTERNATIVES CONSIDERED AND THEIR IMPLICATIONS:

ALTERNATIVE 1: Replace the utilities at 31 gates as described in order to optimize gate flexibility, alleviate conflict between ownership and user, accommodate growth, and add further Port-owned Gates into the inventory by providing authorization to complete the design scope of utilities at the 31 Gates at Concourse B, Concourse C, and the North and South Satellites and to prepurchase long lead 400 Hz motor generator sets. **This is the recommended alternative.**

ALTERNATIVE 2: Do nothing: Advertise the construction contract at the current state of design and construct the improvements on the majority of gates. This would cause two gates to be incomplete and the South Satellite would have insufficient power for new generation aircraft. This alternative is not recommended.

OTHER DOCUMENTS ASSOCIATED WITH THIS REQUEST:

None.

PREVIOUS COMMISSION ACTION:

On June 4, 2007, the Commission approved a project wide authorization of $9,385,000 (CIP #C800018) to replace the 400Hz systems at the South Satellite and Concourse B and to upgrade the 29 deficient gates with 400 Hz equipment and Potable Water Cabinets.