



**COMMISSION
AGENDA MEMORANDUM**

Item No. 4h

ACTION ITEM

Date of Meeting December 12, 2017

DATE: November 29, 2017

TO: Dave Soike, Interim Executive Director

FROM: Wayne Grotheer, Director Aviation Project Management
Jeffrey Brown, Director Aviation Facilities and Capital Programs

SUBJECT: Alternate Utility Facility – Utility Services (CIP #C800538)

Amount of this request: \$0

Total estimated project cost: \$37,200,000

ACTION REQUESTED

Request Commission authorization for the Executive Director to amend and increase the Not-to-Exceed amount of the Puget Sound Energy (PSE) Engineering Services and Construction Agreement (ESCA) required for the Alternative Utility Facility (AUF) from \$250,000 to \$850,000.

EXECUTIVE SUMMARY

The funding associated with this agreement is within the current authorized project budget. There is no new funding associated with this request.

To support the AUF project PSE must relocate the existing power delivery point of service along with associated metering and protective relaying. In addition, PSE must perform modeling and engineering analysis to incorporate any potential impact the new AUF will have on the PSE transmission system. The initial ESCA with PSE was for \$250,000 and was utilized to perform initial engineering analysis and develop the associated design. This amendment to the ESCA will permit PSE to perform the installation and construction work.

The project will provide an enclosed, dual fuel, standby power facility that is functionally complete, fully integrated, and capable of supplying 30 megawatts (MW) of power to the airport and supporting facilities. This wattage will meet 100 percent of the Airport's peak electrical demand over the existing power distribution system. Upon the unexpected loss of normal utility power, the standby power facility will provide stable emergency power to the Airport. The standby power facility will have sufficient fuel storage capacity to operate the Airport continuously for up to 24 hours with ability to use aviation fuel as a backup source should diesel fuel become unavailable.

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JUSTIFICATION

During a utility power outage, the Airport is unable to operate. An extended loss of utility power at the Airport halts the Port’s, airlines’ and tenants’ ability to utilize the Airport. Loss of electrical power shuts down airline and concession electronic communications, jet bridge operations, flight information displays, ticket printers, security checkpoints, electric ground support equipment (eGSE) chargers, baggage conveyors, lighting for legal occupancy within the terminal, heating/cooling systems, and other functions. The continued reliable operation of Sea-Tac Airport is vital to meeting the needs of the region and the airlines.

The Alternate Utility Facility (AUF) is providing a separate power source to the airport’s south connection point to the utility transmission grid. The design and construction of the AUF has required PSE to modify their interconnection equipment and to study the effects on their transmission network. This work is cost reimbursable to PSE and is governed by a project specific utility agreement. After initial work PSE has estimated that their efforts will cost more than is allowed in the current Not-To-Exceed agreement.

DETAILS

Scope of Work for the Amendment

- (1) Relocate PSE Point of Service #1 and #2 and associated ancillary equipment.
- (2) Study impact of AUF on PSE transmission system.

Schedule

<i>Activity</i>	
Construction start	2017 Quarter 1
In-use date	2018 Quarter 2

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1 – Do not increase the Not-To-Exceed amount of the ESCA

Cost Implications: \$30,000,000 Expensed (Asset will be delivered, but will be unusable)

Pros:

- (1) None.

Cons:

- (1) PSE crews will be unable to complete their work installing, testing, and commissioning necessary PSE facilities and assets.
- (2) AUF project will not be able to interface with PSE facilities rendering the AUF facility unusable.

This is not the recommended alternative.

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Alternative 2 – Increase the Not-To-Exceed amount of the ESCA

Cost Implications: No Additional Costs

Pros:

- (1) AUF Project will complete and come online in Q2 2018.

Cons:

- (1) None

This is the recommended alternative.

FINANCIAL IMPLICATIONS

<i>Cost Estimate/Authorization Summary</i>	Capital	Expense	Total
COST ESTIMATE			
Original estimate	\$36,400,000	\$800,000	\$37,200,000
Revised estimate	\$36,235,000	\$965,000	\$37,200,000
AUTHORIZATION			
Previous authorizations	\$36,235,000	\$965,000	\$37,200,000
Current request for authorization	0	0	0
Total authorizations, including this request	\$36,235,000	\$965,000	\$37,200,000
Remaining amount to be authorized	\$0	\$0	\$0

Budget Status and Source of Funds

This project, C800538, was included in the 2018-2022 capital budget and plan of finance. The funding sources will include the Airport Development Fund, 2015 and 2017 revenue bonds. This project will be incorporated into the Airport’s electrical utility, so both capital and operating costs will be recovered through an internal utility charge allocated to the terminal. The costs therefore show up as operating costs.

Financial Analysis and Summary

CIP Category	Renewal/Replacement
Project Type	Infrastructure Upgrade
Risk adjusted discount rate	N/A
Key risk factors	N/A
Project cost for analysis	\$37,200,000
Business Unit (BU)	Electric Utility (allocate to Terminal Building)
Effect on business performance	NOI after depreciation will increase
IRR/NPV	N/A
CPE Impact	0.08 in 2018

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Lifecycle Cost and Savings

The design life of the project is 30 years or more. Operations and Maintenance (O&M) costs of the recommended alternative will be approximately \$125,000/year to include: periodic maintenance, testing, air permitting requirements, fuel, and training. It is anticipated that the system will need to be run once a week or 50 hours a year for maintenance and testing purposes.

ATTACHMENTS TO THIS REQUEST

None

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

- August 4, 2015 – The Commission authorized procurement and construction for \$37,200,000 (item 6b).
- December 9, 2014 – The Commission was briefed (item 7c).