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COMMISSION

AGENDA MEMORANDUM Item No. 8d

ACTION ITEM Date of Meeting November 8, 2022

DATE : September 9, 2022

TO: Stephen P. Metruck, Executive Director

FROM: Brendalynn Taulelei, Senior Maintenance Manager, Asset Management and Logistics

Rob Lane, Maintenance Manager, Logistics

SUBJECT: Purchase of Liquid and Solid Pavement Deicers for the Airport and Seaport

Amount of this request: \$5,000,000

Total estimated project cost: \$5,000,000

ACTION REQUESTED

Request Commission authorization for the Executive Director to execute contracts or amend existing contracts, for the purchase of liquid and solid pavement deicing agents, for use at Seattle-Tacoma International Airport and waterfront locations. The estimated value of all contracts is \$5,000,000.

EXECUTIVE SUMMARY

Aviation Maintenance uses a combination of snow removal equipment and deicing agents during snow and ice conditions, to maintain surfaces for arriving and departing aircraft and vehicle traffic that uses the airport roadways. The de-icing chemicals used have a low impact on the environment and the Port has a competition waiver in place for these products, which are the only product approved by Department of Ecology. In a typical snow season at the airport, it is necessary to execute multiple short-notice, high dollar-value purchases of liquid or solid deicer to prevent impacts to Airport operations on the runways and roadways. Executing procurement for liquid and solid deicer will allow the Aviation Division to be well prepared for winter weather operations. Additionally, any contracts created can be utilized by the Maritime Division for use on waterfront properties.

JUSTIFICATION

This contract authorization will allow us to keep Sea-Tac Airport open for public travel and regional commerce by providing the chemicals needed for deicing operations during a winter weather event. The Federal Aviation Administration Advisory Circular 150/5200-30D requires as follows: "If the runway pavement temperature is warm enough for snow to compact and bond,

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or if freezing rain is forecasted, approved anti-icing chemicals and/or heated sand should be applied prior to the start of precipitation or as soon as precipitation starts." Heated sand is not utilized at Sea-Tac Airport since it is less effective than deicer products, the sediment runoff impacts the performance of stormwater best management practices and requires a storage and warming facility. Deicer availability is critical during a winter weather event; therefore, the ability of contracted suppliers to provide timely delivery of deicer products when requested either before or during an active snow event prevents significant negative impacts to airport operations. If deicer is not available, snow and ice accumulation will lead to unsafe runway and roadway conditions due to accumulation, and an airport closure is likely .

Diversity in Contracting

Since only products manufactured by Cryotech are authorized for use on the airfield according to the environmental permit issued by the Washington State Department of Ecology there is no opportunity for sourcing this product from small and woman and minority business enterprise (WMBE) businesses.

Cryotech understands our commitment to supporting WMBE businesses and is committed to utilizing small and WMBE businesses for shipping when practicable.

DETAILS

For almost 30 years, the Port of Seattle at Seattle-Tacoma International Airport has used liquid and solid runway and roadway deicing products manufactured by Cryotech Deicing Technologies when snow and ice control efforts are required. We currently have an approved contract (S-00319560) that has been in effect for four years and has one year remaining on an optional 5th year that has been executed. The original authorization was granted by the Commission on

September 11, 2018 for \$2.2 million and additional funds were added on November 12th, 2019 for \$1,020,000 because of the contracting capacity used during 2018-2019 snow season. About \$700,000 contracting capacity remains on that authorization, which would not be enough to cover costs of deicer if this season sees 2 or more snow responses.

To provide safe operating surfaces, control chemicals must be applied to prevent snow and ice from bonding to our pavement surfaces, or to melt and break the bond of ice that has adhered to the surfaces. To accomplish these requirements, Aviation Maintenance stocks both liquid potassium acetate and solid sodium acetate snow and ice control chemicals at the airport. Deicing chemicals have the potential to impact water quality as they degrade and wash off with stormwater runoff. To address this concern, the Port uses acetate-based deicing products which have a lower biochemical oxygen demand as it degrades in the environment than glycol-based fluids. In addition, over the past twenty years, Port Environmental has completed many studies demonstrating that Cryotech potassium acetate and sodium acetate products do not impact water quality. The study results have been reviewed and approved by the Department of Ecology.

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The provider of the deicing chemicals must have a proven track record and is expected to remain or be in business for the foreseeable future. In addition, the provider must have the required infrastructure, have demonstrated their local production and storage capabilities, and have the capacities to meet delivery requirements of these mission-critical chemicals even during significant regional snow and ice events.

For the above environmental and operational reasons, we received a competition waiver for the procurement of the Cryotech deicer products E-36® liquid potassium acetate and NAAC® solid sodium acetate.

Scope of Work

This contract is for the purchase of liquid potassium acetate and granular deicer sodium acetate to support runway and roadway deicing operations located at Seattle-Tacoma International Airport. Liquid product shall be Potassium Acetate and must meet requirements of the Society for Automotive and Aerospace Engineers (SAE) Aerospace Material Specifications (AMS) 1435. Solid product shall be Sodium Acetate and must meet requirements of SAE AMS 1431.

Schedule

The current contract expires in November 2023, however since there is not enough contracting capacity to cover more than one snow response, we intend to add capacity to the current contract to cover the 2022-2023 snow season. Then, we intend to execute a new contract in November 2023.

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1 – Do not execute a new long-term contract for deicer but purchase deicer as needed from multiple suppliers during a snow event.

Cost Implications: Pricing consistent with Alternative 2 below. Estimated contract amount \$5 million over six years.

Pros:

(1) Flexibility to go with any company who has product available and best current price.

Cons:

(2) Product quantity needed for a single event would exceed direct-buy purchase limits of \$50,000. A purchase of between \$50,000 and \$150,000 would require three quotes before issuing a purchase order. A purchase of over \$150,000 would require a formal bid, which would take longer. These processes take too long for such a critical operation.

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(3) Liquid deicing products outside of those already tested and approved from different companies may have different environmental impacts that are unknown to port staff. If we went with another product, we would have to update our NPDES (National Pollutant Discharge Elimination System) Permit and get approval from the Washington Department of Ecology. This process could take a year and a half, cost over \$300,000

for testing, and may result in other corrective actions having to be implemented, or possibly, our request may be denied outright.

(4) Product quantity needed for a single snow event may exceed purchasing limits as outlined in the General Delegation of Authority. The Executive Director purchasing limit is not to exceed \$300,000.

(5) Liquid deicing products from different companies may react unpredictably when mixed in the same storage tanks. It is possible to create a transition plan to switch from one product to another, but it would be dangerous to frequently add different products to the same tanks.

(6) Vendors may not store sufficient quantities of product locally unless obligated by contract requirements. Needed quantity may not be available during an event, which is a great risk to airport operations.

(7) Vendors would fill orders for customers who they have contracted obligations for before filling requisitions from the port.

(8) The port would likely have to pay a premium for delivery charges.

(9) Procuring deicer without a contract leads to variable and unpredictable cost per gallon.

Alternative 2 – Authorization to execute contracts or amend existing contracts, for the purchase of liquid and solid pavement deicing agents, for use at Seattle-Tacoma International Airport and waterfront locations.

Cost Implications: The contract to purchase liquid and solid deicer products for the airport is estimated to cost \$5 million in total over a six-year period. Over the past four seasons we have spent \$2.5M for deicer, but each year is highly variable, ranging from \$300,000 to over \$1M in a single season. Additionally, contract escalations based on commodities indices have resulted in a price increase of product of 25%, and it is likely when we negotiate a new contract in 2023 the price will go up again since the vendor may look to recoup their costs for shipping and other factors which were not allowable based on the escalation language in our current contract.

Pros:

(1) This approach will allow us to take advantage of the favorable terms of our current contract and then negotiate a new contract in 2023 once the current extension expires. The 2023 contract would have language to allow us to execute extensions or negotiate new contracts every year, whichever is more favorable to the Port at the time.

(2) The contract may be able to specify the vendor's use of small businesses in their supply chain.

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Cons:

(1) Executing annual contracts would limit our ability to re-negotiate mid-year and take advantage of price drops due to market conditions.

(2) Locking into a price at the beginning of each season could subject us to disadvantageous timing related to price volatility.

This is the recommended alternative.

FINANCIAL IMPLICATIONS

Annual Budget Status and Source of Funds

Annual expenditures under this contract for the airport will be charged to the Aviation Maintenance operating budget.

ATTACHMENTS TO THIS REQUEST

None

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

September 11, 2018 Commission authorization for the Executive Director to execute a contract for the purchase of liquid and solid pavement deicing agents for use at Seattle - Tacoma International Airport. Estimated value \$2,200,000.

November 12, 2019 Commission authorization for the Executive Director to execute a contract revision for the purchase of liquid and solid pavement deicing agents for use at Seattle-Tacoma International Airport. Revision added \$1,020,000.

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