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TO: Katie Koester, Director, Engineering & Public Works

FROM: Patty Wahto, Airport Manager

DATE: March 30, 2023

RE: PWFC - Juneau International Airport Electric Vehicle (EV) Charging Stations Update

History:

During the North Terminal Reconstruction project, it became clear that LEED certification would be impractical despite many energy efficiency elements being incorporated into the project.¹ In addition to those improvements, the Airport committed to reducing dependence on fossil fuels for transportation, including the installation of public EV charging stations. The purpose of this memo is to update the committee on the progress that is being made on EV charging at the Airport through the Parking Lot Rehabilitation project.

Parking Lot Project/EV Stations:

In April 2020, the Airport received CARES funding which allowed operational expenses, as well as certain projects, as allowed by the FAA, through a CARES grant amendment. The parking lot rehabilitation project is one of those projects. The project was to include the long term and short-term lots, and staff included the employee lot and rental car lots in their design due to needed repairs. The rental car lot rehab is scheduled as a bid alternate; the lot itself is in good condition with the entrance needing the repairs.

The Airport has received several suggestions for EV locations, as well as numbers and levels of chargers and has consulted with Juneau Electric Vehicle Association (JEVA) to help determine the ideal location and number of chargers. The recommendations are detailed below.

Long term/Short term (LT/ST) Lots:

LT use averages of 4.8 days per stay. Vehicles parking in one of these spots would mean that the EV space is not available by others for long periods. A slower (Level 2) charge would be sufficient with one charger serving two spots. The ST has very few spaces and is a very fluid lot. EV spots in the ST would have a higher turnover and would benefit from a faster (Level 3) charging station with one charger serving two spots. AKEVA recommended Level 3 chargers to both lots. Since power for Level 3 would be installed for the ST lot, the LT lot could be either Level 2 or 3. ***Suggest installing the conduit/wiring for Level 3 for both LT/ST Lots for two***

spaces in each lot during the parking lot rehab. AKEVA stated that grants could be available for the faster Level 3 chargers as early as mid-2024.

Rental Car Lot:

The rental car lot would be considered up to the individual companies to install in their own leased rows, however due to costs, this lot may not get repaved since it is not in bad condition. Other airports allow rental companies to install the EV stations but Airports are not fronting the infrastructure for this as it is leased area. ***Suggest not installing in the ready-lot but encourage rental car companies to install themselves if they desire either in the ready lot or in their other leased storage areas where cars stage for longer periods of time.***

Employee Lot:

The employee would benefit from installation of a Level 2 charger, at a minimum. The Airport has added this into the design to place conduit/wiring for one charger servicing two spaces during parking lot rehab. ***Suggest installing the conduit/wiring for Level 2 EV Stations during parking lot rehab and apply for a grant for the charging unit as early as mid-2024.***

Other:

The Airport discussed installing a 'public' EV parking in the Airport's cell phone waiting lot. Faster charge (Level 3) EV could be a future endeavor. Drivers must remain with the vehicle in this lot, so people cannot park and walk into the terminal. The cell phone lot is highly visible and can be monitored easily by staff and JPD; as well as being far enough from the terminal to not encourage drivers to leave the vehicle. People are generally here for 15-20 minutes at a time. ***Possible future Level 3 EV Station in the Airport Cell Phone Waiting Lot which could be added at a future date. This lot is not in the parking lot rehab project.***

The Airport assessed airfield use of EVs in its fleet, but this is not feasible for this type of equipment at this time. Charge times during a snow event would not meet our snow removal requirements for the FAA and emergencies.

The Airport has formulated a plan for EV charging stations. The plan will include laying the infrastructure (conduit/wiring) for EV stations in the employee lot and LT/ST lots with the potential to receive grants for the EV units in the near future. At this time, the Airport is not planning to add the extra infrastructure to charge a fee for the EV charging stations, but may in the future.

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- 1) ⁱⁱ A terminal that runs completely off fossil fuels; using geothermal heat pumps
 - 2) An energy efficient layout
 - 3) State of the art and efficient elevators and escalators
 - 4) Escalators that slow down, use less energy when not in use
 - 5) Efficient LED lighting throughout with photo sensors that reduce wattage on brighter days
 - 6) High efficiency building envelope include R58.81 Carlisle EPDM roofing
 - 7) Solarban 60, solar control, low e windows
 - 8) Motion sensor faucets and toilets for savings on water usage