



**DRAFT ACTION AGENDA AND MINUTES**  
**AIRPORT ADVISORY COMMISSION**  
Wednesday, July 21, 2021 - 6:00 p.m.  
Virtual Meeting  
[YouTube](#)



[www.cityofsalem.net/AAC](http://www.cityofsalem.net/AAC)

This Action Agenda/Minutes is supplemented by an electronic recording of the meeting, which may be reviewed at [www.cityofsalem.net/AAC](http://www.cityofsalem.net/AAC)

**1. CALL TO ORDER, ROLL CALL, AND APPROVAL OF AGENDA**

**Call to order:** 6:03 p.m.

**Roll Call:** John Foley – Chair, Doug Brenizer -Vice-Chair, Ken Gettys, Kat Pence, Neal White

**Absent:** LTC Nathan Edgecomb, Brendan O'Mara

**Guests:** Brent DeHart

**Staff:** John Paskell, Anita Sandoval

**2. APPROVAL OF AGENDA**

**Motion:** Move to approve the July 21, 2021, Meeting Agenda adding discussion item 6a. Electric Generation.

**Motion by:** Gettys **Seconded by:** White

**Action:** Approved the Meeting Agenda for July 21, 2021, as amended.

**Vote:** Unanimous

**Motion approved**

**3. APPROVAL OF MINUTES**

**Motion:** Move to approve the April 21, 2021, Minutes as presented.

**Motion by:** Brenizer **Seconded by:** Gettys

**Action:** Approved the Minutes of April 21, 2021, Minutes as presented.

**Vote:** Unanimous

**Motion approved**

**4. REPORTS:**

a. Tower Report – John Paskell

**Comments/Questions:** n/a

b. Airport Manager Report – John Paskell

See attached presentation

**Comments/Questions:** Foley, Getty, Brenizer

c. Air Service Development Presentation – Brent DeHart

**Comments/Questions:** Foley, Paskell

**5. ACTION ITEMS – n/a**

**6. ITEMS FOR COMMISSION DISCUSSION:**

a. Electric Generation presentation – Ken Gettys

See attached presentation

**Comments/Questions:** Foley, Brenizer, Paskell

b. Emissions Study – Neal White

See attachment study

**Comments/Questions:** Foley

**7. CHAIR'S REPORT – none**

**8. ADJOURNMENT:**

Meeting adjourned at 7:23 p.m. Next meeting October 20, 2021



# ALIA 250C eVTOL Aircraft

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# UPS Rapid Delivery

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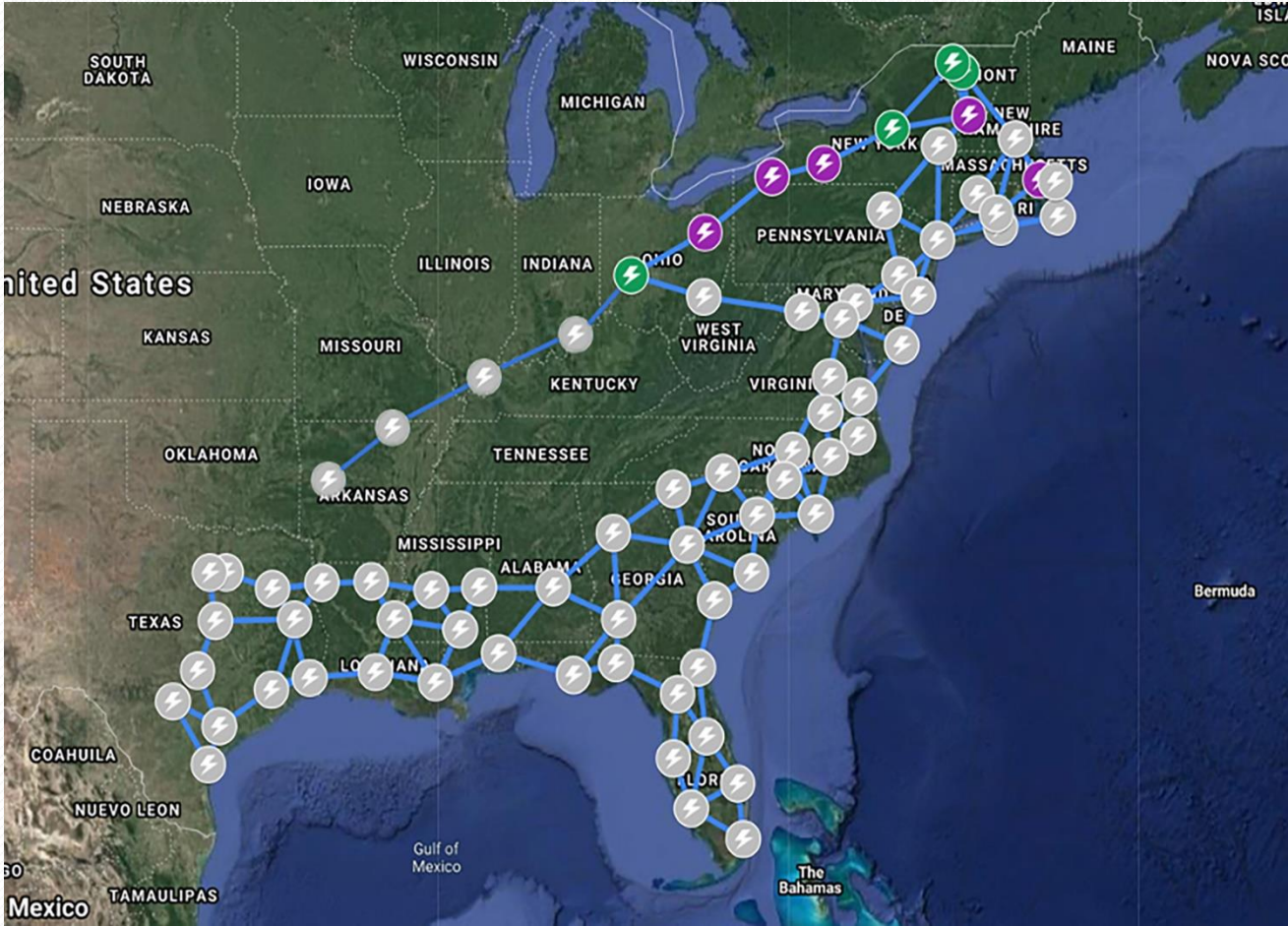


# Blade Urban Air Mobility Aircraft

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## Nationwide Charging Network



# Standa-alone Charging Station

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# Elevated Pad with Interior Amenities

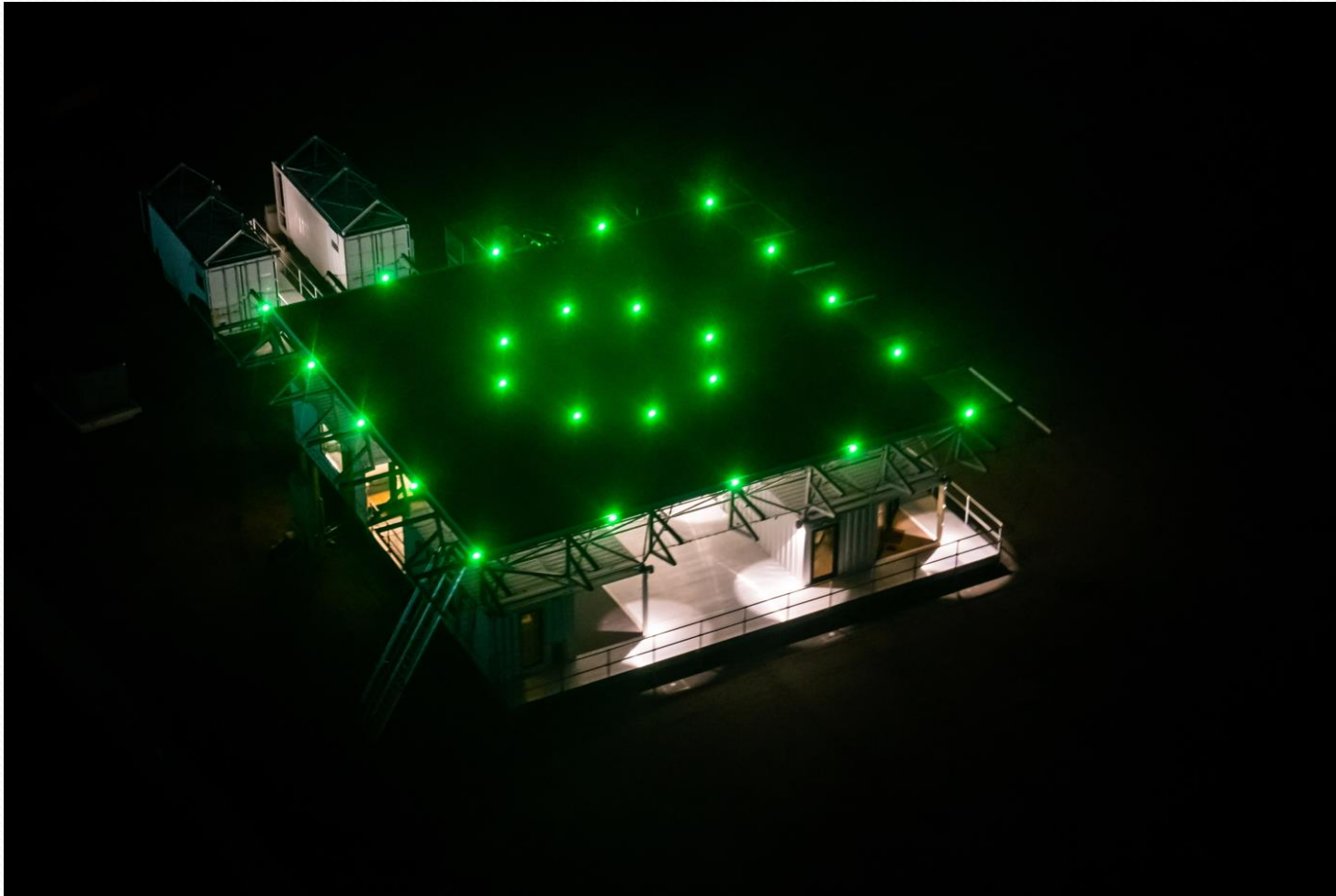
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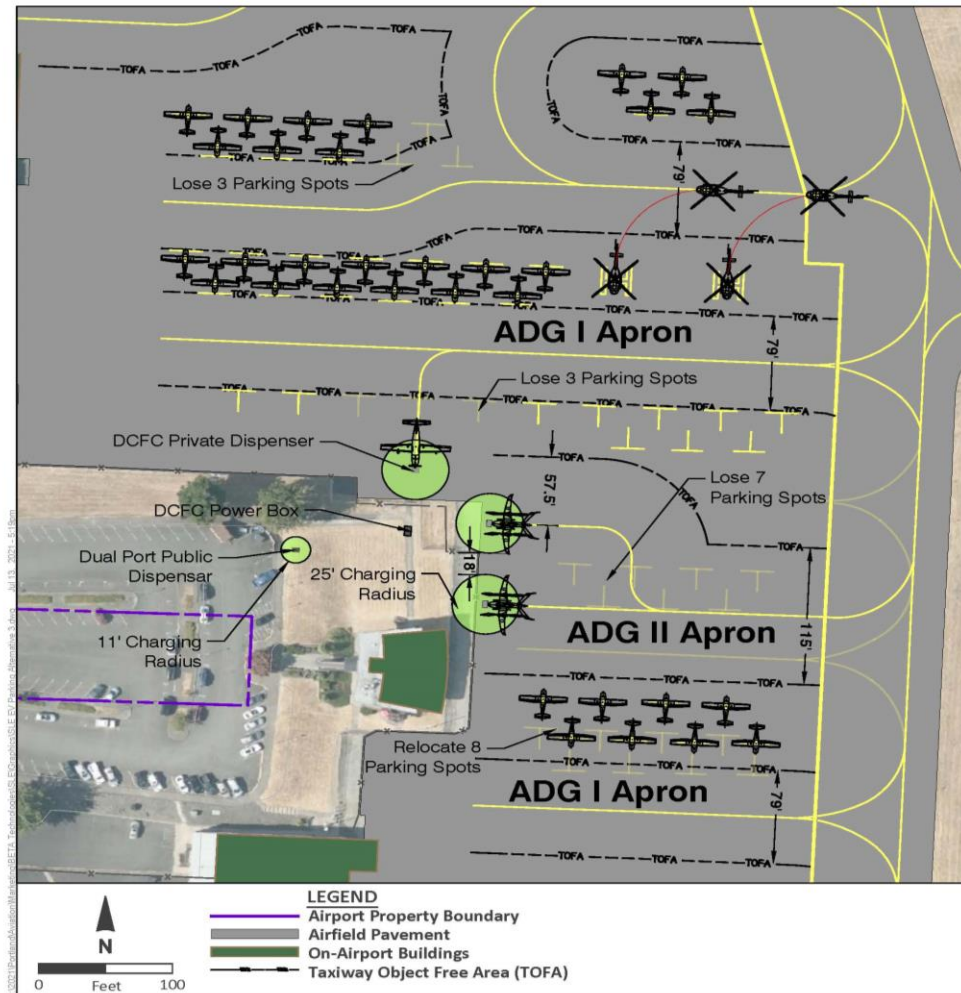


# Elevated Pad at Night

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## Ramp Modification – Alternative 3



## Salem Municipal Airport Taxiway Alternative 3

## Lead Emissions from Piston Aircraft at Hillsboro Airport and Ambient Air Quality

### Regional Air Quality

#### *Regulation*

- Lead is one of six Criteria Pollutants for which the EPA sets enforceable standards to limit the concentration in ambient air. These standards are designed to be protective of human health and the environment. EPA's current National Ambient Air Quality Standard (NAAQS) for lead is 0.15 micrograms per cubic meter.
- In 2014 EPA maintained the standard after reviewing the most recent available scientific evidence and consulting with EPA's science and health advisors (EPA, 2014).
- As part of the Portland Air Toxics Solutions (PATs) program, Oregon Department of Environmental Quality established acceptable concentration values for 52 pollutants present in the air. The ambient benchmark concentrations (ABCs) were set at levels that provide public health protection. For lead, DEQ adopted 0.15 micrograms per cubic meter, the same as the NAAQS.

#### *Air Quality Monitoring*

- DEQ is responsible for monitoring air quality and developing programs to bring areas that don't meet the NAAQS back into attainment.
- Regional air quality monitoring by DEQ shows that lead concentrations in the Portland region have been trending down for some time and are currently far below the NAAQS and ABC (DEQ, 2014).
- The most recent monitoring data published by DEQ for Hillsboro Hare Field, located ¼ mile from HIO, shows the 2013 annual average lead concentration was 0.0030 ug/m<sup>3</sup>, 50 times below the NAAQS and ABC (DEQ, 2014).
- As part of its ambient air quality standards, EPA requires lead monitoring around airports emitting at least one ton of lead a year (tpy). Based on the most recent HIO emissions inventory, between 0.5 and 0.6 tons of lead is emitted at HIO annually and therefore lead monitoring is not required at the airport.
- EPA is conducting a study of 17 airports that emit between 0.5 to 1.0 tpy of lead that have characterizes (e.g. predominant use of one runway) that may cause or contribute to ambient lead concentrations that approach or exceed the federal standard (EPA, 2013). The preliminary results of this ongoing study showed 2 of the 17 airports exceeded the NAAQS. At the conclusion of this work, EPA may revise the monitoring threshold for airports and/or determine if additional regulation is necessary.

### *Air Quality Modeling*

- As part of the Portland Air Toxics Solutions project, Oregon DEQ modeled lead concentrations within the Portland-Vancouver air shed using 2005 HIO emissions data (or estimates).
- DEQ's initial screening level model run showed an area around HIO that had the potential to have ambient lead concentrations greater than the ABC / NAAQS. This initial screening level model run, however, incorporated all lead emissions at ground-level and did not account for dispersion effects from aircraft in flight (DEQ, 2012).
- The model was subsequently refined by DEQ by adjusting the emission release parameters to more accurately simulate emissions from actual flight operations. The refined model showed a maximum predicted concentration of 0.00331 µg/m<sup>3</sup>, well below the ABC and NAAQS.
- The Port separately retained CDMSmith, a respected and well qualified engineering firm with expertise in aviation and dispersion modeling, to model lead emissions using the FAA's required model, the Emission & Dispersion Modeling System (EDMS)(CDM, 2010). The maximum modeled concentration for lead around the HIO airport was, 0.00405 µg/m<sup>3</sup>, closely approximating the results of DEQ's refined model.

### **References**

CDM, 2010, Port of Portland, Hillsboro Airport Lead Study, September 1, 2010.

EPA, 2013, Airport Lead Monitoring, EPA Office of Transportation and Air Quality, EPA-420-F-13-032, Web  
site: <https://www3.epa.gov/otaq/regs/nonroad/aviation/420f13032.pdf>

EPA, 2014, Reviewing National Ambient Air Quality Standards – Scientific and Technical Information, Lead (Pb) Standards, Web  
site: <http://www.deq.state.or.us/eq/forms/2013AirQualityAnnualReport.pdf>

Oregon DEQ, 2012, Portland Air Toxics Solutions Project Modeled Lead Data and the Hillsboro Airport, Web  
site: <http://oregonaviationwatch.org/docs/LeadCloudGraphics/DEQ-11-AQ-051.pdf>

Oregon DEQ, 2014, 2013 Oregon Air Quality Data Summaries, July 2014, Web  
site: <http://www.deq.state.or.us/eq/forms/2013AirQualityAnnualReport.pdf>



# OFF GRID ELECTRIC GENERATION



Tulip Flower Wind Turbines

# Oregon lawmakers approve ambitious carbon-reduction goals for state energy grid

- HB 2021 sets a timetable by which Oregon's two major power companies, Portland General Electric and Pacific Power, must eliminate emissions associated with the electricity they provide.
- Oregon's timeline of getting power suppliers to zero emissions by 2040
- includes \$50 million in grants for community renewable energy projects\* in cities other than Portland

**6-29 (H)**

Speaker signed.

**6-30 (S)**

President signed.

**7-19 (H)**

Governor signed.

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\* Note: Possible Public/Private Partnership with (Willamette) University Environmental Engineering Department

# Wind Turbine Sizes

- **6-meter Model (6 meter/ 19.68 feet)**
- **Mini Model (1 meter/ 3.28 feet)**
- **3-meter Model (3 meter/ 9.84 feet)**
- Measuring almost 3 meters in height, this wind turbine is compact and ideal for roof tops and ground installation. Contributing visibly to the energy transition goals for companies and private persons, it bears our patented design that ensures unrivalled efficiency. If you are interested in a silent, efficient wind turbine near people and on buildings, then this is the model for you!

# SPECIFICATIONS (V1, 2021)

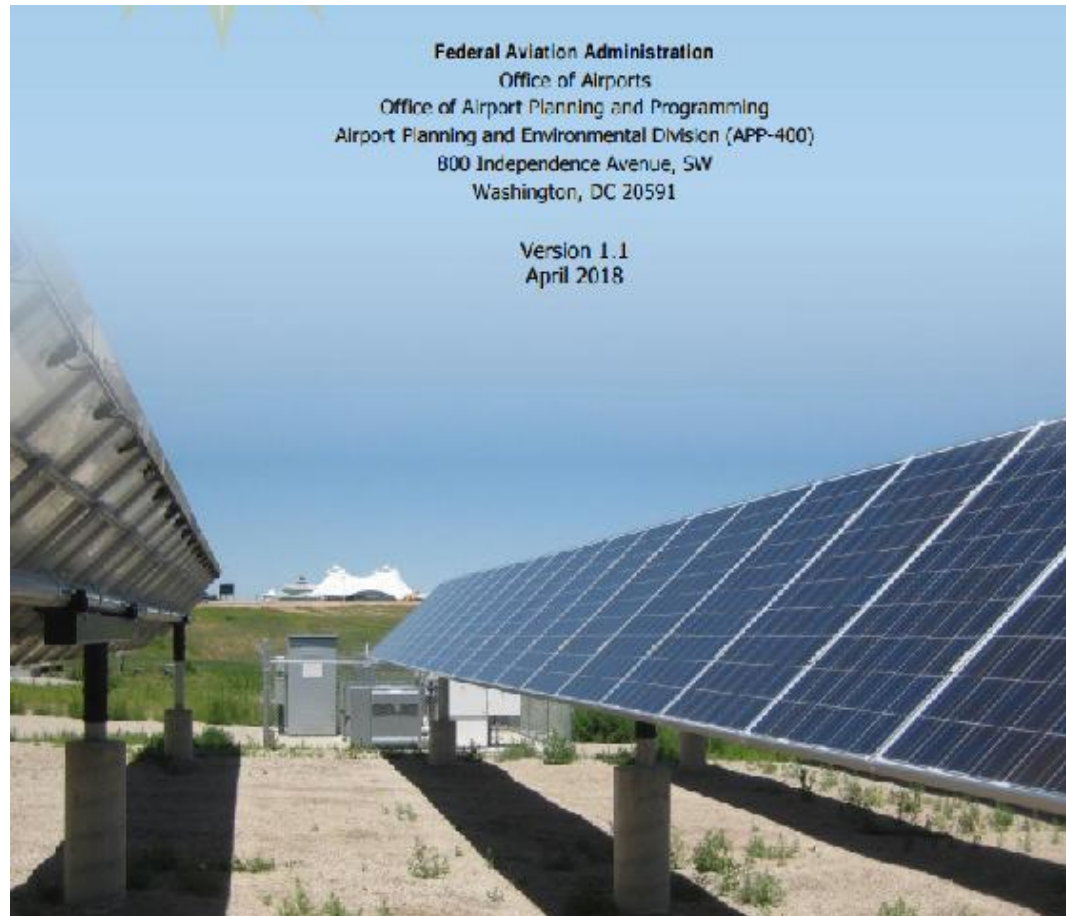


## SPECIFICATIONS (V1, 2021)

Blade height and diameter	H: 2 meters; D: 1 meter
Total height	2.92 meters
Nominal power (generator)	500 watts
Yearly output of 3 turbines (6 m/s):	1,500-3,000 kWh/year (can vary with average wind and gust speeds)
Extra cluster effect output	20% - 40%
Max. RPM	120 RPM (without belt: 350 RPM)
Weight	178 kilograms (excl. foundation)
Starting speed	3 m/s
Installation	Roof, ground
Sound	< 25 dB (5 meters)
Colors	Standard white RAL9010, other RAL colors and specific signs possible
Warranty	1 year
Optional	On- and off-grid electronics; extended warranty possible
Flower Turbines reserves the right to modify the indicated data and specs.	



# Airport Environmental Programs Airports



[FAA Technical Guidance for Evaluating Selected Solar Technologies on Airports, November 2010 \(updated April 2018\)](#)

# Salem Municipal Airport Master Plan

## 7.7 Natural Resources and Energy Supply

- Executive Order 13123, Greening the Government through Efficient Energy Management, encourages the expansion of the use of renewable energy, and requires federal agencies to reduce petroleum use, energy use, air emissions, and water consumption.
- Energy supply considerations include aircraft fueling facilities and utility connections. Most fueling, except small tank self fueling, is conducted by the FBO. SLE receives power from the Portland General Electric utility company

Note: Off Grid annual goal to 2040 should be added to master plan

# Digital Billboards, Locations

2. As one usage of off grid electric generation, I suggest that digital billboards be located at:
  - the NE corner of the airport, facing the westbound Mission Blvd. and the Southbound Airport Blvd. SE traffic.
  - The NW corner of the airport, facing the eastbound Mission Blvd. and the Southbound 25th Ave SE. traffic.
  - The East Side of the airport, visible to the eastbound McGilcrest Ave, the Northbound 25th Ave SE. traffic, and the Southbound 25th Ave SE. traffic.
  - The East Side of the airport, facing the eastbound Madrona Ave and the Northbound Airport Ave SE. traffic.

# Digital Billboards, Usage

- 1. Display the name of the airport.
- 2. Upcoming Airshows, events, tours, and Special Flights.
- 3. A rotating list of advertisement\$ by the permanent services at the airport:
  - a. Shuttle services
  - b. Aircraft and automotive repair
  - c. Flight training
  - d. Auto, truck, and Aircraft rentals
  - e. Restaurants and cafés
  - f. Airplane and automotive recharging stations
  - g. etc.
- 4. A rotating list of community service announcements.





# Airplane and Automotive Recharging Stations

- American Airlines ([AAL](#)) has agreed to pre-order up to 250 [electric taxis](#) aircraft, with an option for an additional 100. Dublin-based aircraft leasing company Avolon has pre-orders and options for 500 aircraft, while Virgin Atlantic has a pre-order option for up to 150.
- [American Airlines and Virgin Atlantic order electric taxis from Vertical Aerospace – CNN](#)



Vehicle Charging Stations (Target on Center Street)

- General Aviation Terminal (North and South Side)
- Flight Deck (South Side)



FBO TRUCK MOUNTED AIRCRAFT BATTERY CHARGER