

ALASKA ENERGY AUTHORITY

EV INFRASTRUCTURE PLAN UPDATE

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Project Manager

Informational Session
June 22, 2022



Safe,
Reliable, and
Affordable
Energy
Solutions



AEA EV Mission Statement

AEA is leading the effort to minimize barriers that inhibit EV adoption in Alaska

EV Types and Range



- **Hybrid Electric Vehicles (HEV)**
 - Range: 550 – 700 miles
- **Plug-In Hybrid Electric Vehicles (PHEV)**
 - Range: 450 - 550 miles
- **Battery Electric Vehicles (BEV)**
 - Range: 150 - 300 miles

Level 2 and Level 3 Chargers

- **Level 2 Chargers**

- J1772

- **Level 3 Chargers**

- Combined Charging System (CCS)
- North America
- CHAdeMO
- Japanese automakers

Level 2 Chargers

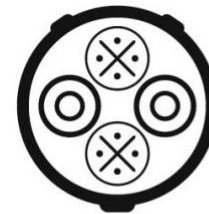


J1772



Tesla

Level 3 Chargers



CHAdeMO



CCS
Combo



Tesla
Supercharger

EV Charging Basics

- **Level 2**
 - 6-12 kW home, workplace
 - 4-6 hours
 - 20-30 miles per charging hour
- **Level 3**
 - 50 kW+
 - Distance travel
 - 30 minutes-1 hour

Railbelt Level 3 EV Charging Rates (\$/kWh)	
Golden Valley Electric Association	\$0.65
Homer Electric Association	\$0.16
Matanuska Electric Association	\$0.30
Chugach Electric Association	\$0.15

EV Program Overview



Capital Transit Battery-Electric Bus, Juneau, AK



Alaska's First Electric School Bus, Tok, AK



- Working Group
- Technical Sessions
- EV Infrastructure
 - School bus in Tok
 - Transit bus in Juneau
 - Municipality of Anchorage box truck
 - Installation of Level 2 and DCFC



Dimond Center EV Car Show and Ride & Drive, Anchorage, AK

Barriers to EV Adoption in Alaska

- Lack of charging infrastructure
- Range anxiety
- High demand charges
- Cold climate performance
- Market availability of electric AWD, SUVs, and trucks

- Two sites completed in Anchorage 2021:
 - Linny Pacillo Parking Garage
 - Snowden Administration Building
 - Funded by State and Federal SEP funds
- [PlugShare](#) – Home to the largest community of EV drivers in the world



EV Level 2 Charger, Snowden Building, Anchorage, AK

➤ Level 2 Chargers At State Facilities



EV Level 2 Charger, Linny Pacillo Parking Garage, Anchorage, AK

VW Trust Fund Projects: EV Fast-Charging Locations

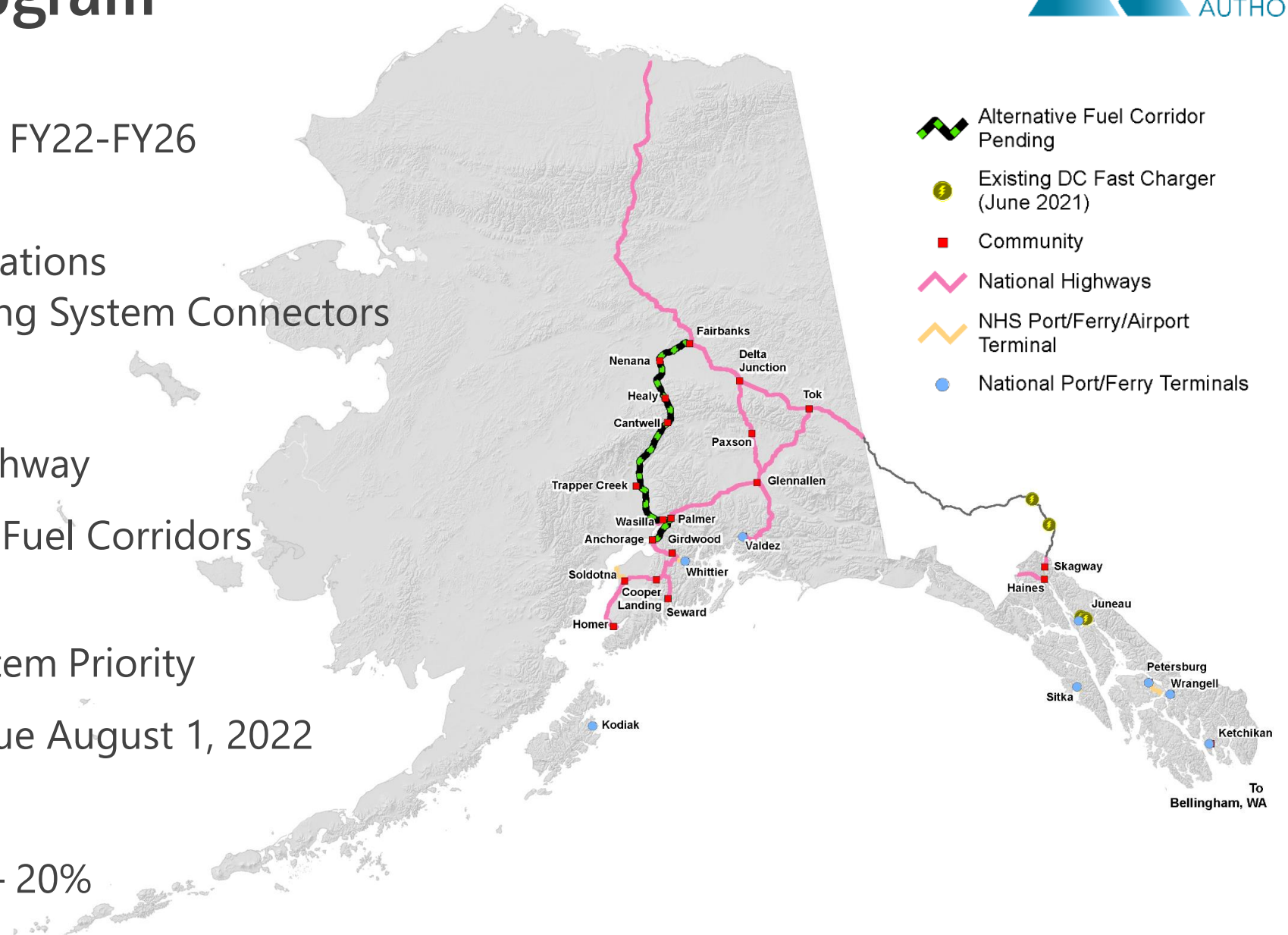
- **Glenn Highway**
 - Chugiak – 94 miles from Trapper Creek
- **Parks Highway**
 - Trapper Creek – 95 mi from Cantwell
 - Cantwell – 38 miles from Healy
 - Healy – 110 miles from Fairbanks
- **Seward Highway**
 - Seward – 46 miles from Cooper Landing
- **Sterling Highway**
 - Homer – 76 miles from Soldotna
 - Soldotna – 46 miles from Cooper Landing
 - Cooper Landing – 95 miles from Anchorage
- **Seward Highway**
 - Anchorage – 27 miles from Chugiak

(50-12 kW CSS and CHAdeMo)



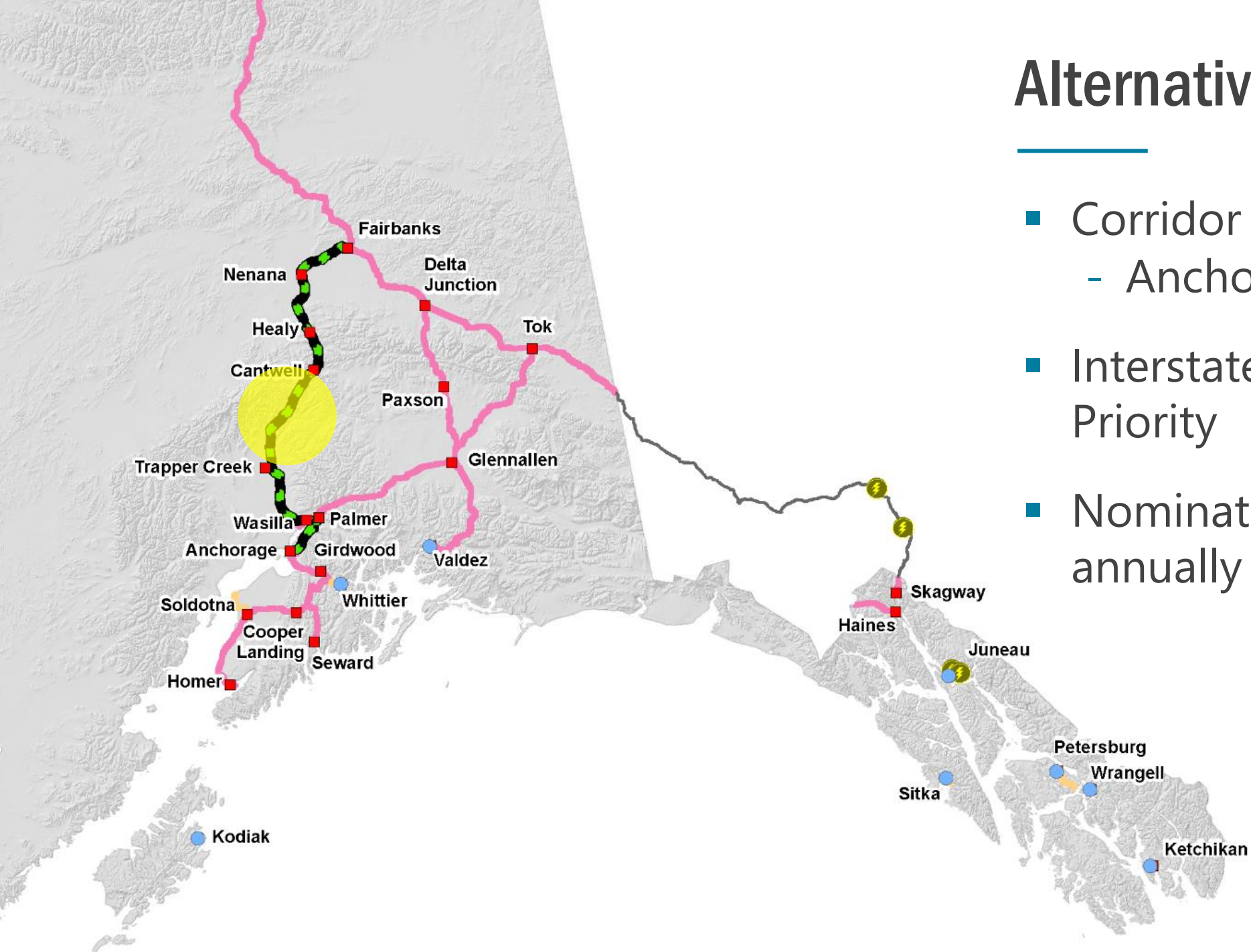
NEVI Formula Program

- >\$50 Million for Alaska FY22-FY26
 - \$7.8 million in FY23
- EV Fast-charging Installations
 - 4 Combined Charging System Connectors
 - > 150 kW each
 - < 50 miles apart
 - Within 1 mile of highway
- Designated Alternative Fuel Corridors
 - Until fully built out
- Interstate Highway System Priority
- Implementation Plan due August 1, 2022
- Federal Share – 80%
- Private entity or other – 20%



Alternative Fuel Corridor

- Corridor Pending
 - Anchorage to Fairbanks
- Interstate Highway System Priority
- Nominations considered annually



NEVI Formula Program Timeline

**June 27,
2022**

RFI for
Feedback and
Site Hosts

**AUG. 1,
2022**

NEVI
Implementation
Plan Due to
Joint Office

**SEPT. 30,
2022**

DOT/DOE
Joint Office
Approves Plan

Alaska EV Infrastructure Program Activities

- Professional Consultant on Contract for assistance
- Interagency coordination; AEA & DOT WG meeting biweekly
- Gather baseline data (registered EVs, existing and planned EVSE)
- Stakeholder outreach (utilities, municipalities, other interested parties)
- [Rural EV Toolkit](#)
- Release RFI for site locations (May 2022)
- Continue interagency coordination, stakeholder outreach, data compilation
- NEVI Implementation Plan in progress
 - July 15, 2022 – 95%
 - August 1, 2022 – Submit

AEA provides
energy solutions
to meet the
unique needs of
Alaska's rural
and urban
communities.

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