

AEA Electric Vehicle Infrastructure Update

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Working Group
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AEA Electric Vehicle Mission Statement

Lead the Effort to Minimize Barriers that Inhibit EV Adoption in Alaska



Barriers to EV Adoption in AK

- Lack of charging infrastructure
- Range anxiety
- High demand charges
- Ability for EV charging site hosts to resell power on per kWh basis
- Education - Cold climate performance, ROI
- Market availability of electric AWDs, SUVs, and trucks
- Initial cost
- Soft costs



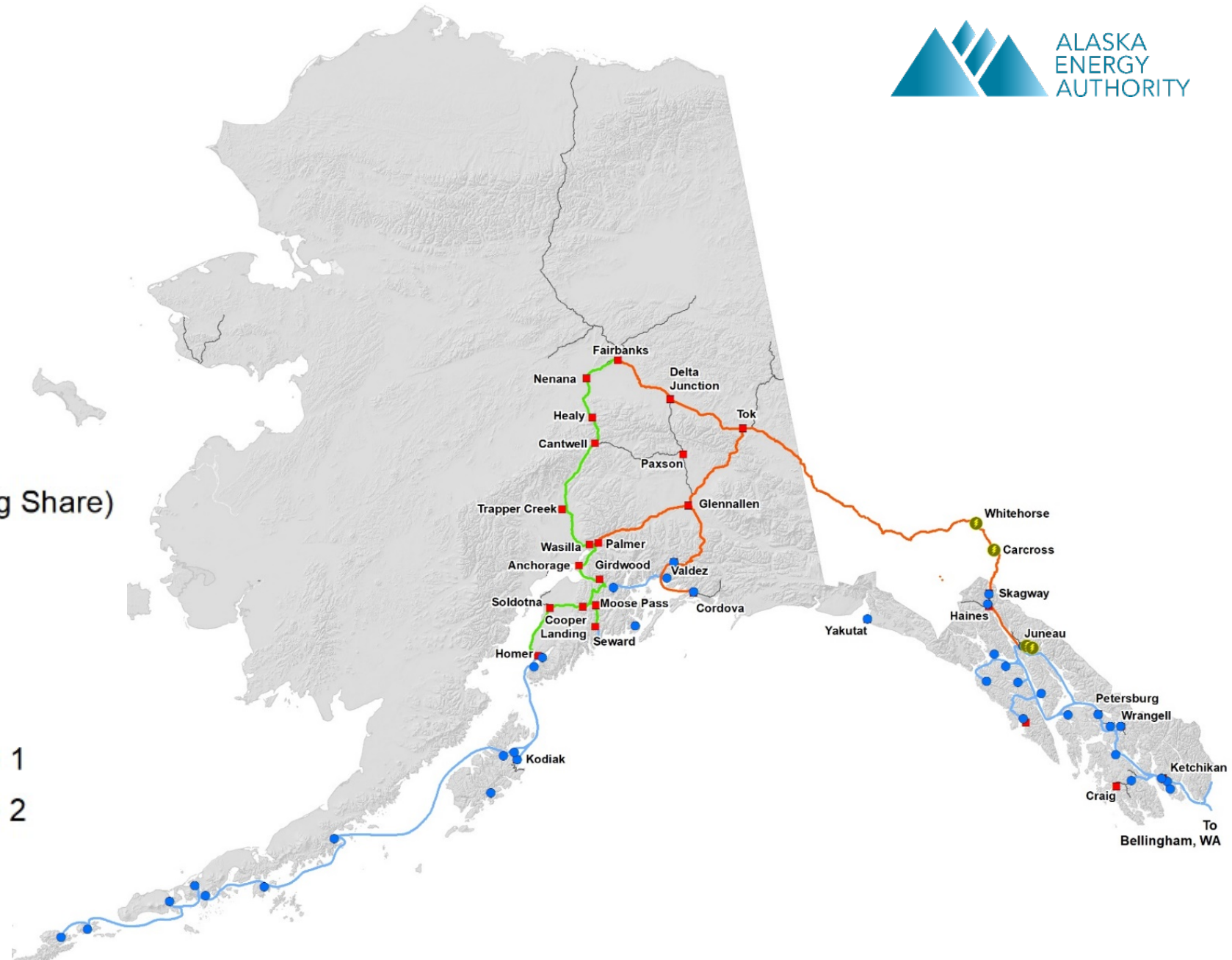
Develop EV Charging Infrastructure

- Statewide DC Fast-charging Network along Highway System
 - facilitate long-range driving and reduce range anxiety
- Community-based Level 2 Charging
 - provide charging at destinations within typical day-to-day driving range



Electric Vehicle Fast-Charging Corridor

-  Existing DC Fast Charger (via Plug Share)
-  Community
-  Ferry Terminal
-  Marine Highway
-  Highway
-  DC Fast Charging Corridor Phase 1
-  DC Fast Charging Corridor Phase 2



DC Fast-Charging Network Phase 1

- Connect Homer and Seward to Fairbanks
 - 9 sites selected
 - 15 DCFC and 8 Level 2 chargers
- Total investment of \$1.52 million
 - VW: \$875k
 - SEP: \$90k
 - Private: \$555k
- Anticipated completion: Summer 2022



Level 2 Chargers at State Facilities

- Two sites completed in Anchorage 2021
 - Linny Pacillo Parking Garage
 - Snowden Administration Building
- Two sites planned for 2022
 - AEA Office Parking Lot
 - TBD
- State and Federal SEP funds



Next Steps with VW Funds for EVSE

- \$375k VW Trust Funds Remaining for EVSE
 - Continue development of fast-charging network
 - Community-based Level 2 charging
- RFAs for VW grants: winter 2022
- Pursue other funding sources (e.g. IIJA)



Education and Outreach

- Development and facilitation of Alaska EV Working Group
 - Diverse group of stakeholders
 - Hold technical discussions
 - Identify barriers
 - Rate structures
 - Policies
 - Workforce development
 - Funding opportunities
- Sponsorship of EV Ride-and-Drive events and local EV car show
- Tracking trends of registered EVs and publically available EVSE

EV Readiness and Planning

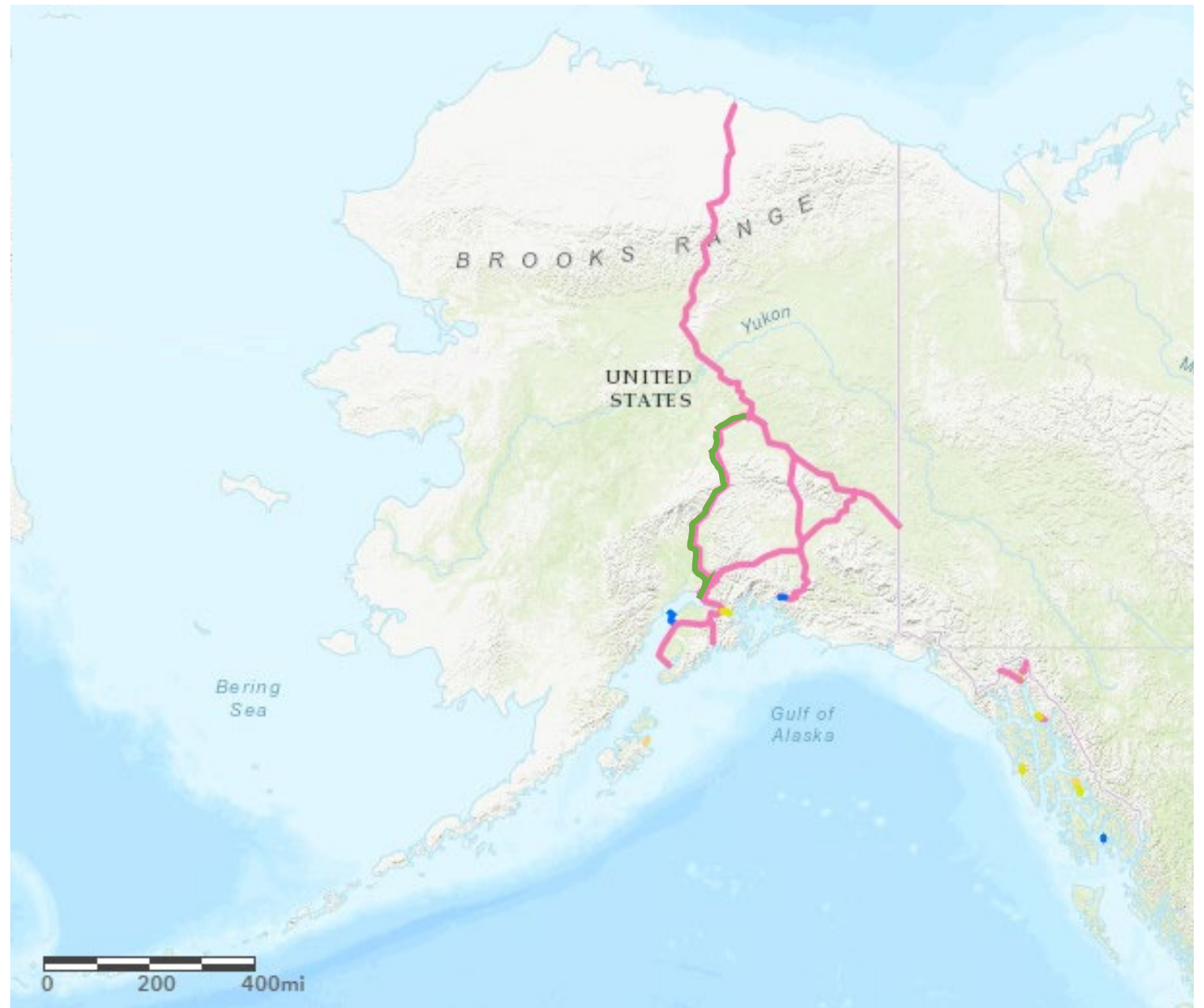
- Inter-agency coordination
 - DOTPF
 - DOA (DMV)
 - DNR (Parks)
 - DEC
- Consultation with others
 - NASEO, state energy offices and VW lead agencies
 - REV West
 - West Coast Highway (Western Governor's Association)
- Monitor and pursue funding sources

Infrastructure Investment and Jobs Act – Section 11401

- \$2.5 billion for EV charging stations
 - FY22: \$300 MM
 - FY23: \$400 MM
 - FY24: \$500 MM
 - FY25: \$600 MM
 - FY26: \$700 MM
- Fast-charging networks along designated corridors
- Community-based charging
 - Rural areas, underserved communities, limited access

National Highway System

- ALT FUEL CORRIDOR PENDING
- NOT INTERMODAL
- IM AIRPORT TERMINAL
- IM PORT TERMINAL
- IM FERRY TERMINAL



Infrastructure Investment and Jobs Act

- Sec. 11109. Surface transportation block grants
 - allows funds to be used on EVSE and V2G infrastructure
- Sec. 11116. Alaska Highway
 - Competitive grants for reconstruction Alaska Highway
 - AK border at Beaver Creek, YT to Haines Junction, CAN
 - Haines Cutoff Highway from Haines Junction to Haines, AK
- Sec. 40414. Data collection on electric vehicle integration with the electricity grids.

Infrastructure Investment and Jobs Act – Section 11403

- Carbon reduction program grants
 - electrification of truck stops
 - port electrification
 - installation of publically available EVSE
 - purchase or lease of EV construction equipment and EVs
- Develop carbon reduction strategy to reduce transportation emissions
 - consult with metropolitan planning organizations
 - submit within two years
 - update at least every four years

Infrastructure Investment and Jobs Act – Section 40431

- Amends Public Utility Regulatory Policies Act
 - requires consideration of rates or hearing dates
 - must begin within one year
 - must be completed within two years
- Applies to State regulatory authority and unregulated utilities
- Does not apply to utilities that have:
 - established rates
 - initiated proceedings prior to enactment

Infrastructure Investment and Jobs Act – Section 25006

- Requires establishment of electric vehicle working group
 - federal agencies, EV manufacturers, EV battery manufacturers, EV charging owners/operators, public utility, public utility regulator, fuel industry, energy provider, local and state transportation departments
- produce 3 iterative reports
 - barriers to adoption
 - opportunities for scaling up EV adoption
- develop a strategy
 - developing quantitative targets, overcoming barriers, identifying areas of opportunity, workforce development, etc.

Infrastructure Investment and Jobs Act – Buses and Ferries

- Sec. 71101. Clean school bus program grants
 - 100% of the replacement of existing school buses with clean or ZEV school buses
 - \$1 billion dollars annually for FY22-FY26
- Sec. 71102. Electric or low-emitting ferry pilot program grants
 - purchase of electric or low-emitting ferries
 - onboard electrification
 - \$50 MM dollars annually for FY22-FY26

Start Planning Now

- Utilities, municipalities, tribes, ports, national parks, forest service
- Public-private partnerships
- Identify potential charging sites and rationale for site selection
- Identify EV fleet/bus projects
- Identify local underserved communities
- Consideration of environmental justice





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

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Phase 1 Electric Vehicle Fast-Charging Locations

- **Homer** – AJ's Old Town Steakhouse & Tavern
- **Soldotna** – Custom Seafood
- **Cooper Landing** – Grizzly Ridge
- **Seward** – Seward Chamber of Commerce
- **Anchorage** – Dimond Center
- **Chugiak** – Three Bears Alaska
- **Trapper Creek** – Three Bears Alaska
- **Cantwell** – Jack River Inn
- **Healy** – Three Bears Alaska

