



State of Alaska

Electric Vehicle Infrastructure Implementation Plan FY24





Plan Development

This plan was developed by the Alaska Energy Authority, Alaska Department of Transportation and Public Facilities, electric vehicle stakeholders, utilities, communities, and residents, with the assistance of Michael Baker International.

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Cover photo of an electric vehicle charging at the Dimond Center in Anchorage, courtesy of AEA



Acronyms

AATCA	Alaska Apprenticeship Training Coordinators Association
ABC	Associated Builders and Contractors
AEA	Alaska Energy Authority
AFC	Alternative fuel corridor
AFN	Alaska Federation of Natives
AGC	Alaska General Contractors
AJEATT	Alaska Joint Electrical Apprenticeship and Training Trust
AKEVA	Alaska Electric Vehicle Association
AKEVWG	Alaska EV Working Group
AMHS	Alaska Marine Highway System
API	Application programming interface
ATV	All-terrain vehicles
AUCP	Alaska Unified Certification Program
AWP	Alaska Works Partnership
BIL	Bipartisan Infrastructure Law
CCS	Combined Charging System
CFR	Code of Federal Regulations
CHAdemo	CHARGE de MOVE Protocol
CISA	Cybersecurity and Infrastructure Security Agency
DAC	Disadvantaged community
DBE	Disadvantaged business enterprise
DCFC	Direct current fast charging
DEC	Department of Environmental Conservation
DNR	Department of Natural Resources
DOT&PF	Department of Transportation & Public Facilities
EEO	Equal employment opportunity
EV	Electric vehicle
EVSE	Electric vehicle supply equipment
EVITP	Electric Vehicle Infrastructure Training Program
FHWA	Federal Highway Administration
GIS	Geographic information systems
GPS	Global Positioning System
IBEW	International Brotherhood of Electrical Workers
ICE	Internal combustion engine
kW	Kilowatt
kWh	Kilowatt-hour



L RTP	Long Range Transportation Plan
MOA	Memorandum of Agreement
MP	Mile post
MOU	Memorandum of Understanding
MPO	Metropolitan Planning Organization
MW	Megawatt
NACS	North American Charging Standard
NEMA	National Electrical Manufacturers Association
NEPA	National Environmental Policy Act of 1969
NEVI	National Electric Vehicle Infrastructure
NHS	National Highway System
NPRM	Notice of Proposed Rulemaking
OEM	Original Equipment Manufacturer
PCI-DSS	Payment Card Industry Data Security Standard
PKI	Public Key Infrastructure
PII	Personally identifiable information
RCA	Regulatory Commission of Alaska
RFA	Request for Applications
RFI	Request for Information
RPS	Renewable Portfolio Standard
SAE	Society of Automotive Engineers
SEP	State Energy Program
SESP	State Energy Security Plan
STIP	Statewide Transportation Improvement Program
SUV	Sport utility vehicle
TIP	Transportation Improvement Program
USC	United States Code
USDOT	United States Department of Transportation
VW	Volkswagen



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Introduction

The Bipartisan Infrastructure Law (BIL) offers a unique funding opportunity to advance a statewide electric vehicle (EV) fast charging network and community-based charging installations in urban and rural areas throughout the state. The National Electric Vehicle Infrastructure (NEVI) formula program will provide \$5 billion over five years for states to build electric vehicle service equipment (EVSE) charging stations along highway corridors. NEVI goals for the EVSE network include being reliable, affordable, equitable, and seamless between states and networks while reducing emissions and increasing clean air.

Through the BIL NEVI Formula Program, Alaska will receive more than \$50 million over five years. The Federal Highway Administration (FHWA) requires states to submit an implementation plan to be eligible for these funds. The Alaska Energy Authority (AEA or The Authority) and the Alaska Department of Transportation and Public Facilities (DOT&PF) have worked with partners and stakeholders to develop the state's Electric Vehicle Infrastructure Implementation Plan (The Plan) and will continue to gather feedback and update The Plan over the coming years. NEVI program funds will be received by DOT&PF and administered by AEA for the duration of the program.

The NEVI formula program will provide \$5 billion over five years for states to build charging stations along highway corridors. Alaska will receive more than \$50 million of those funds.

The Plan outlines a strategy for using the NEVI formula funds to deliver EV charging infrastructure that will enable light-duty EV travel and provide confidence when commuting throughout the state for work, recreation, and tourism. The Plan was developed in coordination with DOT&PF, other State agencies, local governments, utilities, and other stakeholder groups in Alaska. This Plan supports the goals and objectives of the State's long-range transportation plan. Programs and projects funded through the NEVI program will follow United States Department of Transportation (USDOT) and



FHWA regulatory requirements and will be included in DOT&PF's Statewide Transportation Improvement Plan.

The Authority will strategically manage the NEVI funds to deploy publicly accessible EVSE. The guidance requires designated alternative fuel corridors of the National Highway System to be fully "built out" and approved by FHWA with guidance coming from the USDOT/Department of Energy Joint Office of Energy and Transportation (Joint Office). Alaska currently has one pending Alternative Fuel Corridor (AFC), located between Anchorage and Fairbanks. Alaska will revisit nominating additional AFCs in subsequent years.



*An EV enthusiast stands next to his EV while it charges
Photo courtesy of Mark Kelliher*

After the AFC is built and accepted by FHWA, the Authority plans to install Direct Current Fast Charging (DCFC) and Level 2 charging stations throughout the rest of the state as funding allows. AEA and DOT&PF will also advocate for rural charging locations through the federal discretionary grant process to meet the needs in this plan.

- Phase 1: Build Out Alaska's Alternative Fuel Corridor
- Phase 2: Build Out Alaska's Highway and Marine Highway Systems
- Phase 3: Install Charging Stations in rural Hub Communities, as funding allows
- Phase 4: Develop charging sites in Urban and "Destination" Locations, as funding allows

The expected dates of the phases identified above are as follows:

- Phase 1: 2022-2024
- Phase 2: 2024-2026
- Phase 3: 2025-2026
- Phase 4: 2026

Dates of State Plan for Electric Vehicle Infrastructure Deployment Development and Adoption

AEA has partnered with Michael Baker International, an engineering firm with expertise in EV Infrastructure Planning, to assist in developing The Plan. Following is a summary of activities conducted prior to and while developing The Plan:

- 2020: AEA formalized the Alaska EV Working Group (AKEVWG) to conduct public education and outreach. The AKEVWG meets quarterly.
- April 2022: AEA entered into a Memorandum of Understanding (MOU) with the Alaska Department of Motor Vehicles to receive EV registration data.



- April 2022: AEA created the AEA/DOT&PF interagency advisory group.
- May 2022: Request for Information (RFI) released by AEA to gather public feedback on the NEVI program and to solicit information from potential site hosts.
- May 2022: RFI and outreach events advertised at the Sustainable Energy Conference.
- May-July 2022: RFI and outreach events advertised on the Online Public Notices (OPN) platform.
- June 2022: Hosted four virtual informational sessions.
- June 2022: In-person presentations: Southeast Conference, Fairbanks FAST Planning (x3), Bradley Lake Project Management Committee.
- July 2022: The Plan released for public comment.
- July 12, 2022: Coordination meeting with utilities.
- July 13, 2022: Two hybrid (in-person with virtual component) presentations/listening sessions to solicit feedback on The Plan.
- July 14, 2022: Presentation to Alaska Municipal League.
- July 29, 2022: The Plan submitted to the Joint Office.
- September 27, 2022: Year 1 FHWA approval.
- October 2022: In-person presentations: Mat-Su Borough, Seward Chamber, Fairbanks City Council, Fairbanks Alliance, NASEO, Mat-Su Transportation Fair, Wasilla City Council, Alaska Federation of Natives Annual Convention.
- November 2022: In-person presentations: Southeast Conference and Alaska Electric Light & Power, Juneau Working Session, Alaska Municipal Climate Network Meeting, National Women in Construction.
- December 2022: In-person presentations: All Hazards Planning Committee, Alaska Municipal League Annual Local Government Conference.
- January 2023: In-person presentations: Anchorage Transportation Fair, AKEVWG Quarterly Meeting.
- February 2023: In-person presentations: Kenai NEVI Workshop, Alaska Forum on the Environment.
- March 1, 2023: AEA released Request for Applications (RFA) for Site Hosts along the AFC (Phase 1)
- March 2023: In-person presentations: DBE Conference for the Civil Rights Office, AEA EV RFA Pre-Application Meeting, Electric Vehicle Infrastructure Training Program (EVITP) Training (IBEW), Alaska EV Working Group (AKEVWG) Quarterly Meeting, Electrifying Alaska.
- April 2023: In-person presentations: AKEVWG technical session, Mat-Su NEVI Workshop.
- May 2023: In-person presentations: AKEVWG quarterly meeting, Alaska Sustainable Energy Conference.
- May 15, 2023: RFA for Site Hosts along the AFC (Phase 1) closed.
- June 12–15, 2023: NEVI Plan and Program Update Workshops in Anchorage, Mat-Su, Juneau, and Fairbanks.
- June 16–July 16, 2023: Public comment period on draft plan.
- June 22, 2023: Selection Committee meeting for Phase 1 AFC Projects.
- July 31, 2023: Year 2 Plan submission to Joint Office.
- September 30, 2023: Expected Year 2 Approval.



This plan is intended to be a living document as AEA collaborates with communities, laws or policies change, adoption projects alter, and additional guidance from the federal government is published. This plan is not intended to impede other DOT&PF infrastructure improvements. The document will be updated annually, and prior year progress and changes will be documented.

Updates from Prior Plan (2022 Initial Plan Approval)

Key items updated in this Plan from the prior year's Plan are:

- AEA developed an RFA based on the preferred contracting method described in the FY23 Plan and closed the application period for Phase 1 funding on May 15, 2023. The applications are in the final review and approval stages as of the writing of this document. The expectation is that construction will begin in the spring of 2024 on the selected sites, due to the seasonality of Alaska's construction season. The initial document included a draft method and criteria to solicit sites, but this Plan has been updated to detail the process, the requirements, and the refined selection criteria that were used for the RFA. The FY25 Plan will be updated with the selected sites and the status of those sites (planning/design, in construction, or commissioned).
- The FHWA published the NEVI Standards and Requirements Final Rule on February 28, 2023. The final rule took effect on March 30, 2023. The draft rule was posted on June 22, 2022, during the initial plan development and AEA submitted comments for consideration in the drafting of the final rule. AEA waited until the final rule was published to finalize the RFA to solicit sites to complete the AFC. While there were no major impacts to the Plan based on the final rule, some requirements changed and were updated in the RFA and subsequently this Plan.
- AEA did not stop engaging the public and stakeholders with the submission of the original Plan. Workshops, technical sessions, and working group meetings continued throughout the year and served as means to further educate, engage and solicit input, and provide updates on the status of implementing the NEVI funding. This document has been extensively updated to record the engagement that occurred and the communities that were reached as part of the efforts.
- This Plan was updated to further consider the North American Charging Standard (NACS) as a potential long-term standard. The process started on November 11, 2022, when Tesla announced that it was opening its previously proprietary connector for general use and renaming it the NACS. On May 25, 2023, Ford announced it would fully adopt the NACS in 2025 models and on June 8, 2023, GM announced that it would do the same. On June 20, 2023 and June 27, 2023, Rivian And Volvo made similar announcements, respectively, and Polestar is expected to be tied to the Volvo transition. All manufacturers' vehicles would gain access to the Tesla Supercharger Network in 2024 through the means of a provided adaptor before the NACS port becomes standard in new vehicles. This creates uncertainty for the long-term viability of the Society of Automotive Engineers (SAE) Combined Charging System (CCS) ports that are required by the NEVI Final Rule, and also on June 27 2023, SAE announced that it would expedite the standardization process of NACS to provide certainty to manufacturers and suppliers. Many charging network providers have also announced their intentions to provide NACS as an option for customers.

Section Updates:

- State Agency Coordination – no major updates were made to this section
- Public Engagement – this section was updated with all engagements completed since the submission of the last plan and includes the new Community Engagement Outcomes report
- Plan Vision and Goals – no major updates were made to this section
- Contracting – significant edits were made to this section to refine selection criteria and document the Request for Applications process and status
- Civil Rights – no major changes were made to this section



- Existing and Future Conditions Analysis – this section was updated to reflect newly constructed infrastructure
- EV Charging Infrastructure Deployment – this section was updated to identify other funding sources sought and the plan to achieve build-out
- Implementation – no major changes were made to this section
- Equity Considerations – this section was updated to outline how benefits for Justice40 communities would be identified and measured
- Labor and Workforce Considerations – this section was updated to include plans on enhancing the EVITP program and number of personnel in the state
- Physical Security & Cybersecurity – this section was updated to outline physical security measures as well as expand upon cybersecurity measures recommended for the program
- Program Evaluation – no changes were made to this section
- Discretionary Exceptions – two additional discretionary exceptions are requested, for a total of three, based on the results of the solicitation



*Dedication of an AEA-funded EV Ultrafast Fast-Charger in Homer, Alaska
Photo courtesy of AEA*



State Agency Coordination

AEA is the State Energy Office and the lead agency for statewide energy policy and program development. In 2018, Alaska became a beneficiary of the Volkswagen (VW) Environmental Mitigation Trust (Trust), and the Authority was designated by the Governor's Office as the State's lead agency for EV planning and implementation. At that time, AEA adopted a secondary mission to reduce barriers to EV adoption. AEA has taken the leading role in developing and implementing the NEVI program.

DOT&PF is the responsible recipient of FHWA Title 23 funds and plays a vital role in the implementation of FHWA's AFC designations and the NEVI program. DOT&PF oversees the funding and management of state highways, bridges, airports, ferries, and state-owned buildings throughout the state.

Since the designation of AEA as the State's lead agency for EVs by the Governor's Office, AEA has conducted public outreach and education and has worked towards reducing range anxiety by strategically installing EV chargers. In 2020, AEA facilitated the development of the AKEVWG, comprised of representatives of utilities, state and local government, researchers, EV owners, and stakeholder industries. AEA's experience administering the VW settlement grants for DCFC in Alaska provides the agency with the background and experience needed to implement the NEVI program.

AEA's experience administering the VW Settlement grants in Alaska provides the agency the background and experience needed to implement the NEVI program.

A Memorandum of Agreement (MOA) was developed between Alaska DOT&PF and AEA to assign responsibilities for each agency and to define the financial and contracting processes required to implement the Plan. The purpose of the MOA is to provide a framework of collaboration between the two agencies to ensure EV charging infrastructure investments by the State are strategic, coordinated, efficient, and equitable.



The MOA was signed into effect by AEA and DOT&PF on October 20, 2022. This MOA describes the roles and responsibilities for the planning and development phase of work for the NEVI program, which includes work primarily related to the development of this Plan.

Of note, the MOA places AEA as responsible for:

- planning and designating AFCs
- creating, managing, and maintaining a public, fair, equitable, and competitive process for project selection
- developing and administering a public involvement plan that includes consultation and collaboration with Metropolitan Planning Organizations (MPOs) and other critical planning entities
- holding public project evaluation and selection processes
- awarding NEVI funds
- identifying and verifying match requirements are met
- ensuring alignment with the DOT&PF Transportation 'Family of Plans' by identifying that the goals, objectives, strategies, and actions from the Long Range Transportation Plan (LRTP) are incorporated as well as evaluation of regional, area, modal and system plans to incorporate regional needs
- providing oversight of all AEA-handled NEVI funds and being responsible for compliance with Title 23, Title 49, and 2 Code of Federal Regulations (CFR) 200 requirements

AEA and DOT&PF staff will meet regularly to coordinate efforts related to NEVI programs and funding. The Executive Director of AEA and the Commissioner of DOT&PF will meet at least twice a year to coordinate and plan for ongoing and new EV program initiatives.

The MOA acknowledges DOT&PF as the responsible recipient of FHWA Title 23 funds. DOT&PF will oversee Title 23 funds and requirements under 23 CFR 200. DOT&PF will also provide geographic information systems (GIS) assistance as needed and coordinate with the MPOs to ensure NEVI projects are included in their transportation implementation plans.

Of note, the MOA places DOT&PF as responsible for:

- providing NEVI plan input and alignment with governor and State priorities
- ensuring alignment with the DOT&PF Transportation 'Family of Plans' and working to incorporate NEVI as a system with overarching strategy into other transportation plans
- sharing information on laws,



*AEA-funded EV charging stations in Seward
Photo courtesy of AEA*



- regulations, rules, and guidelines that may come to bear on the process and connecting AEA with appropriate resources managing federal contractual agreements with FHWA
- creating a DOT&PF NEVI planning support program that includes funding in the Statewide Transportation Improvement Program (STIP)
- provide funding notices to AEA annually based on federal formula and MOA agreements
- implementing NEVI as appropriate on state infrastructure in coordination with the Plan
- ensuring NEVI aligns with the overall strategy of DOT&PF's Sustainable Transportation Program
- managing federal contractual agreement with FHWA

Future roles and responsibilities for DOT&PF and AEA related to the design, construction, and operation and maintenance of the charging sites will be defined in individual project agreements after sites are selected. The site-specific project agreements are currently under development, and will receive input from AEA, DOT&PF, and the grantees. These project agreements are expected to go into effect in the fall of 2023. The current MOA for planning and development governs the planning work and will not govern the project-specific work.

The Plan is a product of close coordination between DOT&PF and AEA. An internal advisory group composed of subject matter experts within DOT&PF, AEA, and FHWA was formed in April 2022 to coordinate implementation planning and development efforts. The purpose of the advisory group is to develop the state strategy for implementing the NEVI program and ensure the Plan adheres to FHWA requirements. The advisory group meets and provides updates to agency directors and commissioners every two weeks.

AEA, DOT&PF, and FHWA have continued to meet on a biweekly, virtual basis throughout calendar years 2022 and 2023 to discuss NEVI program development, outreach and engagement, and other topics relevant to the delivery of the NEVI program objectives. In addition, AEA and DOT&PF meet in-person quarterly to develop process strategies for carrying out the NEVI program. AEA and DOT&PF have worked collaboratively to develop the state's approach to the incorporation of NEVI projects into the Statewide Transportation Improvement Program (STIP) through development of AEA's NEVI Transportation Improvement Program (TIP), environmental review and National Environmental Policy Act (NEPA) compliance, federal project agreement negotiation and process, and project agreements with the State and selected project site hosts.

AEA and DOT&PF will comply with the Buy America requirements issued for the NEVI program, and utilize US-produced parts, materials, and EVSE. The agencies recognize that the FHWA interprets and applies Buy America requirements on a 100% domestic content and assembly threshold for iron, steel, and protective coatings. AEA and DOT&PF are prepared to comply with FHWA Buy America requirements; however, the agencies ask for consideration of more flexible definitions of compliance, and a reasonable policy for the acceptance of waivers. The current interpretation of the FHWA Buy America requirements may cause significant project delays due to domestic supply chain constraints. If the equipment or materials are not available or do not meet quality standards, Alaska will seek a waiver from the Buy America requirements.



Public Engagement

AEA and DOT&PF will partner to deliver timely and continuous public involvement opportunities consistent with 23 CFR 450.210. As part of developing Alaska's NEVI Plan, AEA and DOT&PF began conducting public outreach, which utilized various platforms and outreach tools. The public involvement objective is to *increase Alaskans' awareness of the NEVI formula funding and gather public input on the plan development and EVSE siting*.

Public involvement will provide transparency in implementation of the NEVI formula program and increase understanding of and enthusiasm for EVs, as well as break down barriers to EV adoption.

AEA hosts the AKEVWG, which meets quarterly and is composed of EV owners, researchers, utilities, municipalities, site hosts, EV vendors, charging station site hosts and many other stakeholders. This group helps inform AEA of Alaska-specific EV considerations, including EVSE needs and trends, and provides input on how to best identify sites for charging stations. The working group has



AEA conducts public outreach at the Governor's Sustainable Energy Conference in 2023. Photo courtesy of AEA



several hundred email subscribers that are regularly engaged and provides an opportunity for Alaskans to stay up-to-date on the changing EV landscape and opportunities in the state.

AEA maintains an EV subpage on the AEA domain that includes information about upcoming public outreach events, AKEVWG meeting minutes, and information regarding cost of EV ownership compared to internal combustion engine (ICE) vehicles, as well as costs and potential benefits to owning a DCFC site.¹ The website also links news articles and television clips in which AEA is featured. AEA's outreach team is continuing to improve and direct traffic to the website. The vision of the website is to be the go-to source for Alaska's EV enthusiasts. The website will include the latest iterations and updates of the Plan and provide opportunities for public comment. As the Plan is implemented, the website will include a map with site locations and construction progress.

AEA published an RFI to collect feedback from stakeholders on the development of the Plan. AEA specifically requested input on potential charging station locations and considerations in developing the EV Plan. The effort received 99 responses which helped to inform Plan development. The comments received from the RFI and on the 65% draft Plan are summarized in Appendix C.

Stakeholders Involved in Plan Development

The list of organizations that have been engaged and future stakeholders are identified in Table 1 and 2, respectively. An asterisk identifies a stakeholder or community that is found within a Justice40 area identified by the USDOT².

Current Stakeholders

Table 1: Current Plan Development Stakeholders

Communities & Local Governments		
Akutan*	City of Houston*	Old Harbor*
Municipality of Anchorage	Hydaburg*	Ouzinkie*
City of Anderson	City and Borough of Juneau	City of Palmer*
City of Angoon*	Kachemak*	Pelican
Coffman Cove	Kake*	Petersburg Borough
Cold Bay	Kasaan*	Port Lions*
Cordova	Kenai*	Saxman*
Craig*	Kenai Peninsula Borough*	Seldovia*
Delta Junction	City of Ketchikan*	Seward
Denali Borough	Ketchikan Gateway Borough	City and Borough of Sitka*
Eagle	King Cove*	Municipality of Skagway Borough*
City of Fairbanks	Klawok*	Soldotna*
Fairbanks North Star Borough	City of Kodiak	Tenakee Springs
False Pass*	Kodiak Island Borough*	Unalaska*
Gustavus	Matanuska-Susitna Borough*	City of Valdez
Haines Borough	City of Nenana*	Wasilla*
Homer*	North Pole	Whittier
City of Hoonah*	North Slope Borough	Yakutat

*Indicates stakeholder or community that is found within a Justice40 area identified by the USDOT

¹ <https://www.akenergyauthority.org/What-We-Do/Alternative-Energy-and-Energy-Efficiency-Programs/Electric-Vehicles>
² <https://www.transportation.gov/equity-Justice40>



Native Organizations		
Ahtna, Inc.*	Cook Inlet Regional Corp*	Metlakatla Indian Community*
Chickaloon Native Village*	Doyon*	
Chugach Corp*	Kodiak Area Native Association*	
Utilities		
Alaska Electric Light & Power Co.	Cordova Electric	Kotzebue Electric Association
Alaska Power & Telephone	Enstar Natural Gas	Matanuska Electric Association
Alaska Power Association	Golden Valley Electric Association	Southeast Alaska Power Agency, Ketchikan
Chugach Electric	Homer Electric Association	
Copper Valley Electric	Kodiak Electric Association	
Agencies		
Alaska DOT&PF	Bureau of Land Management	US Department of Energy
Alaska Energy Authority	Federal Highway Administration	
Alaska Housing Finance Corporation	Regulatory Commission of Alaska	
Businesses		
Adventure Denali	Loopy Lupine	Denali Chamber of Commerce
ChargePoint	Sheep Creek Lodge	Willow Chamber of Commerce
Dimond Center	Chugiak Eagle River Chamber	Three Bears Alaska
Local Organizations		
Alaska Municipal League	Easy Park	Pacific Northwest Economic Region
Alaska Center	Fairbanks Economic Development Corporation	Prince William Sound Economic Development District
Alaska Electric Vehicle Association (AKEVA)	FAST Planning MPO	Prince William Sound Science Center
Alaska Public Interest Research Group	Haines Economic Development Corporation	ReCharge Alaska
Alaska Trails	Juneau EVA	Renewable Energy Alaska Project
Anchorage Economic Development Corporation	Kenai Peninsula Economic Development District	Sitka Conservation Society
Anchorage Metropolitan Area Transportation Solutions (AMATS)	Launch Alaska	Southeast Conference*
Bering Strait Development Council	Norton Sound Health Corporation	Southwest Alaska Municipal Conference*
Copper Valley Development Association		
Education		
University of Alaska Anchorage	University of Alaska Fairbanks	

*Indicates stakeholder or community that is found within a Justice40 area identified by the USDOT

Potential Future Stakeholders

Table 2: Current Plan Development Potential Future Stakeholders

Alaska Dept. of Environmental Conservation, Air Quality Division	Calista Corporation*	Laborers' Local 341
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Alaska Federation of Natives*	CCI Electrical Services, LLC	Laborers' Local 942
Alaska Inter-Tribal Council*	Chugach Native Association*	Maniilaq*
Alaska Native Tribal Health Consortium*	Cook Inlet Tribal Council*	McKinley Private Investment
Alcan Electrical & Engineering, Inc.	Copper River Native Association*	NANA Regional Corporation*
Aleut Corporation*	Fairbanks Native Association*	National Park Service
Aleutian Pribilof Island Association*	Fullford Electric, Inc.	Northern Alaska Environmental Center
Alyeska Resort	Greater Fairbanks Chamber of Commerce	Sealaska Corporation*
Arctic Slope Regional Corporation	Kawerak	Tanana Chiefs Conference*
Association of Village Council Presidents	Knik Tribe*	Telecommunications/Internet Entities
Bering Straights Native Corporation*	Kodiak Area Native Association*	Tok Transportation
Bristol Bay Native Corporation*	Koniag, Incorporated*	University of Alaska Fairbanks

*Indicates stakeholder or community that is found within a Justice40 area identified by the USDOT

Tribal Engagement

AEA hosted a booth at the Alaska Federation of Natives (AFN) annual conference in Anchorage in October 2022. AFN is the largest statewide Native organization in Alaska and represents more than 140,000 Native peoples—about one out of every five Alaskans. Formed in 1966 to settle land claims, AFN continues to be the principal forum and voice of Alaska Natives in addressing critical issues of public policy and government. The booth at the AFN conference provided numerous resources related to the NEVI program and the state's EV strategy. Project managers were available at the booth to discuss the program in greater detail with interested stakeholders.

In addition to AEA's involvement at the AFN event, staff attended and presented at the Alaska Municipal League (AML) annual conference in Anchorage. AML is a nonprofit statewide organization of 165 cities, boroughs, and unified municipalities. Attendees at the conference included organizations from across the state, specifically from rural Alaska. AEA presented on the NEVI program to five groups from the Arctic, Southeast, Interior, Southwestern, and Southcentral regions.

The primary focus of the Alaska NEVI program has been on the buildout of the AFC, which is largely urbanized when compared with the rest of the state. The focus of the NEVI program will shift to rural and tribal infrastructure deployment after the buildout of the AFC is complete. However, engagement with tribal entities is a core tenant of AEA's mission. As such, AEA's primary focus for competitive funding opportunities has been on tribal and rural community EVSE deployment. AEA applied for a grant through DOE's Vehicle Technologies Office titled "Alaska EVSE Deployment and Best Practices in Rural and Underserved Communities" and was recommended for funding. This project will provide technical assistance and training resources; demonstrate EVSE in rural areas by installing up to 36 charging stations; and fund data collection and analysis in rural communities. This project includes a number of project partners, including AML and Ahtna. Ahtna is an Alaska Native Corporation established pursuant to the Alaska Native Claims Settlement Act of 1971. Ahtna is based in Glennallen, Alaska, and is owned by more than 2,000 shareholders, the majority of whom are of Ahtna Athabascan descent.

The City of Nenana is the home of the Nenana Native Association in the westernmost portion of the Tanana Athabascan territory and is designated as priority site #11 along the AFC. The Nenana Native Village Council's



mission is to maintain, improve, and protect the tribe; preserve its cultural heritage; create opportunities for its members to thrive and become economically and socially self-sufficient; and promote traditional values and beliefs to ensure a positive course of action for generations to come. Five applications were submitted to the NEVI program to host charging infrastructure in Nenana. One of the applications was submitted by Tanana Chiefs Conference, which is an Alaska Native nonprofit corporation, charged with advancing tribal self-determination and enhancing regional Native unity.

Utility Engagement

The Railbelt Utilities, those that serve the AFC territory, regularly attend the AKEVWG meetings, both quarterly and technical sessions. During these meetings, the utilities identify upcoming initiatives they have as well as any concerns with provisioning electricity for EVs. AEA also engaged the utilities to develop a form for the solicitation of the EV charging stations along the AFC so that utilities were aware of potential installations and so applicants could determine if their site was feasible and how much it would cost to provide new or upgraded service. The involvement of the utilities has been crucial to the program moving forward expeditiously to reduce review times following site selection and avoid miscalculations in project cost estimates.

Public Outreach

AEA's EV team hosted four virtual informational sessions to inform stakeholders on the plan and solicit feedback. AEA staff traveled to several communities to present in-person on the program. AEA utilized regularly recurring meetings in order to increase attendance and sent emails, flyers, and calendar events informing stakeholders on the presentations to the working group members, 166 municipal league members, and 242 people on our active NEVI stakeholder registry.

AEA attended the Matanuska Electric Association's Annual Meeting, Chugach Electric Association's Member Appreciation Day (largest utility in Alaska), and the Alaska Sustainable Energy Conference where an EV Infrastructure Deployment Plan Flyer was distributed, and staff answered questions about the Plan.

The DOT&PF Civil Rights Office staff posted flyers for public information sessions throughout the Anchorage, Wasilla, and Palmer public libraries, shopping centers, post offices, community centers, and bus stations. The DOT&PF Civil Rights Office also coordinated outreach with the Alaska Federation of Community Councils to solicit additional public involvement.

AEA posted on Facebook and LinkedIn advertising for the RFI, virtual presentations, and Plan feedback. Alaska Governor Mike Dunleavy shared a post about virtual presentation events. AEA also shared information on the NEVI Plan with the Alaska State Legislature and answered questions from legislative staff.

AEA published Public Notices on the State of Alaska website regarding all outreach events. AEA has been monitoring the open and click-through rates for the digital mailings; the open rate is trending about 77% higher than industry average.

AEA will continue to facilitate quarterly working group meetings, publish newsletters at least quarterly and as often as monthly, attend conferences to provide information on the program, and offer virtual presentations on program updates and progress on a bimonthly basis. Each annual update will receive a public comment period of 30 days as well as a virtual and several "listening post" sessions for public comment and input.

AEA, in coordination Michael Baker, has also created an outreach and education plan outlining outreach goals, activities, and resources for the Plan. This outreach plan can be found in Appendix A.



Community Engagement Outcomes Report

Plan Outreach

Prior to submission of the initial Plan, the Authority held several EV informational sessions in June 2022 via Microsoft Teams and two public meetings in July 2022. All outreach events were advertised through the Authority’s Listserv distribution, which contains 242 contacts. Event-specific graphics were created (see Figure 1) and advertised via AEA social media accounts on Facebook and LinkedIn. A NEVI Plan specific page was created on the Authority’s website to host the Plan, AKEVWG meeting information, information on the NEVI formula program, AFC map gallery, and FAQs as relating to the Plan. AEA continues to hold quarterly working group meetings and a technical session session every six weeks. Additionally, AEA hosts booths at community events as they arise. These include, but not limited to, the Alaska State Fair, the Infrastructure Symposium, and transportation fairs.

Targeted Workshops

NEVI Plan workshops were held throughout the state by request or on an as-needed basis. AEA hosted in-person meetings with local stakeholders to discuss The Plan and continuously solicit feedback. NEVI Plan workshops were useful tools to implement in areas where the Plan had been met with doubt, hesitation, or concern, as AEA was able to meet directly with the affected parties and work to understand the local concerns as well as educate on the Plan. NEVI Plan workshops were also beneficial to hold in areas with strong EV support given that local stakeholders were already engaged and looking for more resources and guidance moving forward.

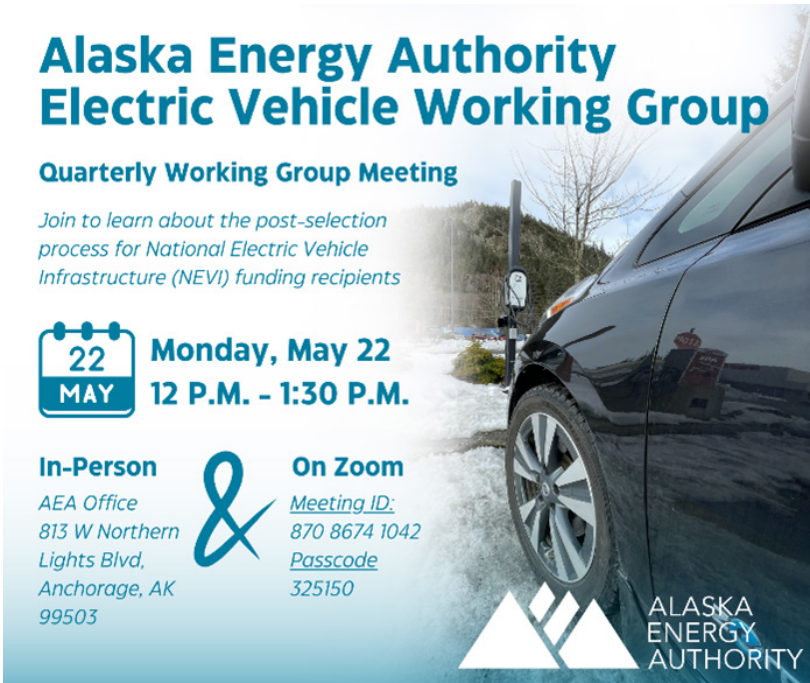


Figure 1. Example AKEVWG Advertising Materials

Table 3: Targeted Workshops

Location	Date	Topic	Agencies Represented
Fairbanks, Alaska	September 20, 2022	NEVI Overview Alaska EV Infrastructure Implementation Plan Overview	FAST Planning, DOT&PF
Juneau, Alaska	November 03, 2022	NEVI Overview Alaska EV Infrastructure Implementation Plan Overview	City of Sitka, City of Ketchikan, City of Petersburg, City of Kodiak, UAF
Kenai, Alaska	February 09, 2023	NEVI Overview Alaska EV Infrastructure Implementation Plan Overview	HEA, MTA, GVEA, City of Soldotna, City of Kenai
Matanuska Susitna Valley, Alaska	April 17, 2023	NEVI Overview Alaska EV Infrastructure Implementation Plan Overview	City of Palmer, MEA



Alaska EV Working Group

AKEVWG met quarterly to discuss EVs and charging infrastructure in Alaska. The mission of the Working Group is to minimize barriers to the adoption of electric transportation in Alaska and to create a vibrant and enduring ecosystem for EVs and other modes of electric transport through strong local and regional partnerships. The Working Group has members from across the state,

including the Alaska Electric Vehicle Association (AKEVA), Alaska DOT&PF, electric utilities, EV owners, EVSE vendors, municipalities, prospective charging sites, site hosts, universities, other stakeholders, and interested members of the public. Working Group meetings provided an opportunity for the group to gather and hear any high-level updates from AEA as well as serving as a venue for group members to share updates about ongoing work throughout the state. All Working Group meetings were hybrid-style meetings to help facilitate attendance from people across the state, even if they were located outside of one of the urban hubs in which the in-person meetings were held. Meeting agendas, presentations, recordings, and transcribed Q&A were posted to the AEA website after the meetings.

Table 4: Working Group Meetings

Location	Date	Topic	Agencies Represented
Virtual & in person: Anchorage, Alaska	July 13, 2022 Morning Session	NEVI Overview Alaska EV Infrastructure Implementation Plan Overview	MEA, City of Soldotna, Chugach Electric, City of Petersburg, MOA, UAA
Virtual & in person: Anchorage, Alaska	July 13, 2022 Afternoon Session	NEVI Overview Alaska EV Infrastructure Implementation Plan Overview	MOA, CIRI, Alaska Power Assoc., AGC
Virtual & in person: Anchorage, Alaska	October 13, 2022	Alaska Electric Vehicle Infrastructure Implementation Plan Update Electrification Coalition Group Updates	MEA, CEA, FAST Planning, GVEA, UAF, HEA, FNSB, DOT&PF
Virtual & in person: Anchorage, Alaska	January 19, 2023	NEVI Program Site Host Request for Applications (RFA) Update on Existing EV Charging Stations in AK	Chugach Electric, MEA, ReCharge AK, MOA, AHFC, MTA, City of Juneau, FAST Planning, UAA, GVEA, City of Valdez, UAF
Virtual & in person: Anchorage, Alaska	May 22, 2023	Post-selection process for NEVI funding recipients	USDOT, GVEA, Chugach Electric

Alaska EV Working Group Technical Sessions

Technical sessions were held as a subset of the AKEVWG and the topics were more targeted and focused as compared to the quarterly Working Group meetings. AEA invited experts to join panel discussions on various topics related to EVs and the deployment of EV chargers throughout the state. A meeting facilitator researched the session topic before each meeting and drafted questions to help guide the discussion. Invites were sent out to targeted groups that AEA believed would have special interest in the topic; however, the sessions were always open to anyone who wished to join. Meeting participants were encouraged to ask the panel members questions as well as interact with each other. Panel members and participants discussed challenges and brainstormed ideas on best practices to consider while moving forward. Technical sessions were held as hybrid-style meetings to ensure that participants and panel members could join from wherever they were located, even if they were close to the in-person meeting location. Meeting recordings and notes were posted to the AEA website after the Technical Session.

Information showing the locations of the technical sessions and AKEVWG quarterly meetings as well as participant locations can be found in figure 2.



Table 5: AKEVWG Technical Sessions

Location	Date	Topic	Agencies Represented
Virtual via ZOOM	September 27, 2022	Workforce panel discussion on construction and maintenance workforce, EVITP certification process and training	UAA, AKEVA, Kotzebue Electric Association
Virtual via ZOOM	November 03, 2022	Electric utility panel discussion on challenges faced during EVSE deployment	AVEC, REAP, MTA, City of Ketchikan, GVEA, MEA, City of Petersburg, HEA, Chugach Electric Association, City of Sitka, MOA
Virtual & in person: Anchorage, Alaska	January 19, 2023	NEVI Program Site Host Request for Applications (RFA) Update on Existing EV Charging Stations in AK	Chugach Electric, MEA, ReCharge Ak, MOA, AHFC, MTA, City of Juneau, FAST Planning, UAA, GVEA, City of Valdez, UAF, Launch Alaska
Virtual & in person: Anchorage, Alaska	March 10, 2023	NEVI Uptime Requirements	City of Juneau, UAA, City of Wasilla, MEA, Chugach Electric Association, USDOT
Virtual & in person: Anchorage, Alaska	April 03, 2023	The Charging and Fueling Infrastructure Discretionary Grant Program	MEA, Chugach Electric Assoc., USDOT, UAF, GVEA

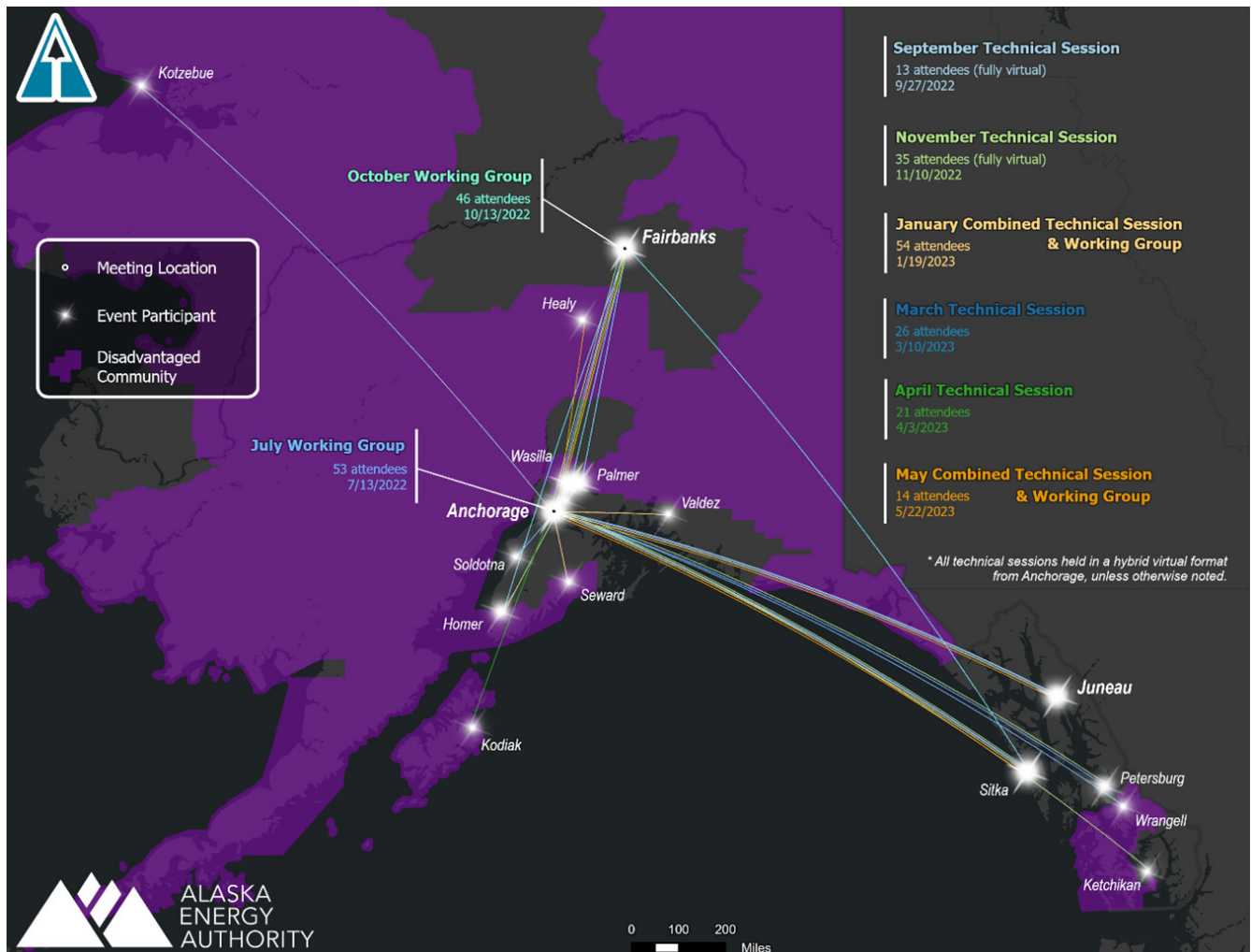


Figure 2. AKEVWG technical session and quarterly meeting locations and participant locations.



Monthly Newsletter

AEA wrote a monthly newsletter that was distributed to the listserv and posted to the website. Newsletters typically contained an educational section, for example an explanation of EV tax credits, as well as updates on EV current events, like news on road rallies, either in Alaska or throughout the rest of the United States. The newsletters also served as an opportunity to advertise upcoming events, such as Technical Sessions, Working Group Meetings, or Workshops, and were a method to share links that readers could use to do further research on the topic at hand.

Table 6: AEA Newsletters

Date	Topic
August 04, 2022	AEA Submits The Plan to Joint Office
August 11, 2022	Plan Spotlight: What is an AFC and why is the first round of funding going there?
September 08, 2022	Arctic Road Rally Recap
October 13, 2022	The Plan is approved! DE-FOA-0002611 Grant Concept Paper Accepted. Building Alaska's EV Workforce
November 09, 2022	Charging EVs with electricity harnessed from fossil fuels: Worth It?
December 09, 2022	Updates on the electrification of fleets, buses, and airplanes in Alaska NEVI Site Host Application Update
January 12, 2023	NEVI RFA Update and Timeline
February 9, 2023	Clean Vehicle Tax Credit. Electric Buses in Metlakatla and Ketchikan
March 9, 2023	NEVI Minimum Standards and Requirements. Build America, Buy America Act Waiver
April 13, 2023	The Charging and Fueling Infrastructure Discretionary Grant Program
May 12, 2023	Updated EPA Vehicle Pollutant Standards. Updates on the Clean Vehicle Tax Credit. VW 1D.4 Alaska Tour. GVEA kWh Rate Change for DC Fast Chargers
June 8, 2023	AEA Intent to Negotiate for DE-FOA-0002611. Ford Adopts NACS

Alaska Electric Vehicle Working Group 2022/23 Email Newsletter Stats

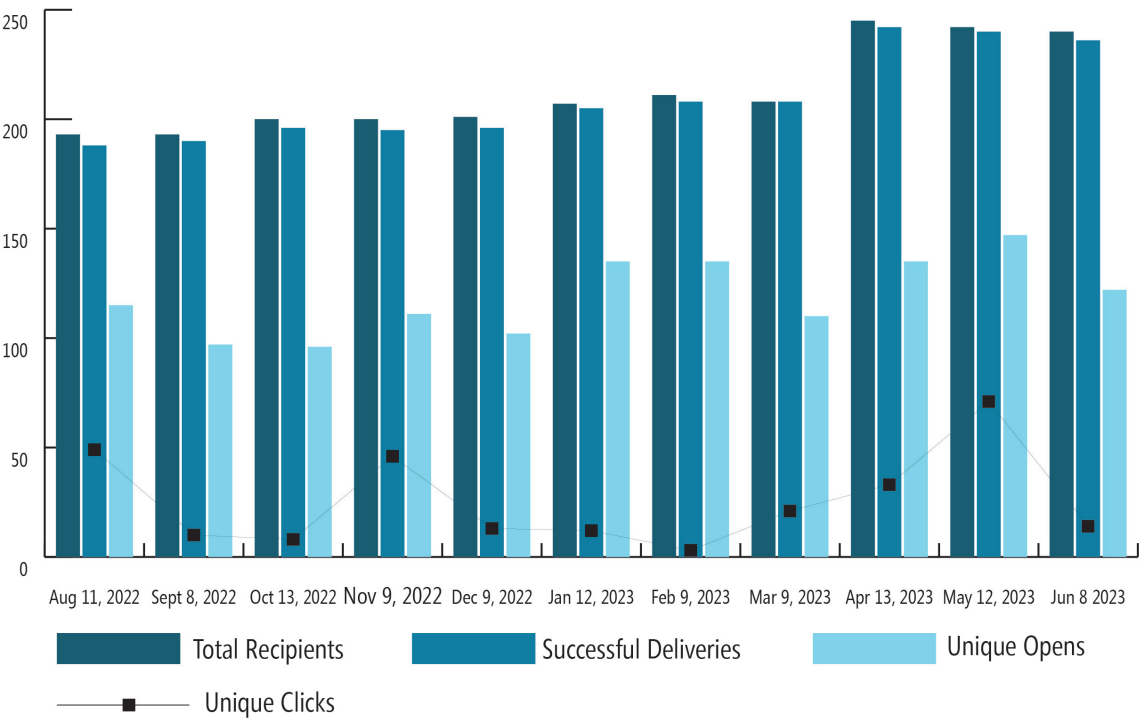


Figure 3. Alaska Electric Vehicle Working Group 2023 Email Newsletter Stats



Community Surveys

Community surveys were used to extend stakeholder outreach into rural areas of Alaska to ensure that disadvantaged communities were given opportunities to comment on the NEVI Plan. Paper and electronic surveys were distributed at the following events where AEA either held an informational booth or presented on the NEVI Plan.

The survey locations of the survey respondents combined with the Alaska Municipal League outreach can be found in figure 4 overlaid with Justice40 boundaries.

Table 7: Community Surveys

Date	Event	Website
December 2022	Alaska Municipal League Annual Local Government Conference	https://amlannual.org/
January 2023	Anchorage Transportation Fair	www.anchorage-transportation-fair.com
February 2023	Alaska Forum on the Environment	https://akforum.org/

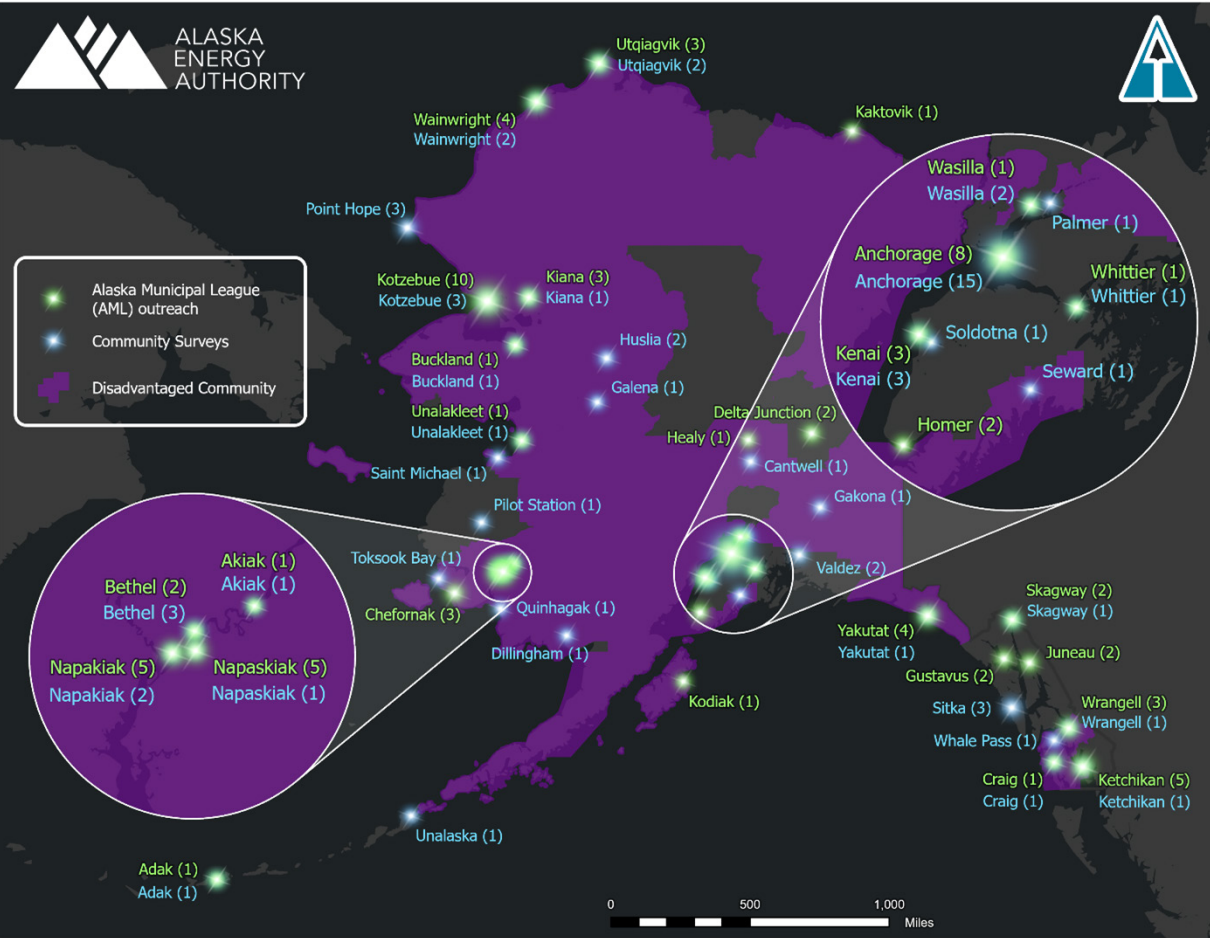


Figure 4. Locations of community survey respondents combined with AML outreach.

Site Specific Public Engagement

At this time, no site-specific public engagement activities have been scheduled. However, AEA did recommend that selected sites engage with the public and responders in the communities where the EV charging stations will be installed, so this section will be updated in the future as those activities occur.



Plan Vision & Goals

Plan Vision

Alaska's NEVI Vision:

Adapting Alaska's unique infrastructure system to support reliable, equitable, and sustainable electric transportation while meeting community and economic needs.

The primary mission of AEA is to lower the cost of energy in Alaska. AEA has a goal to reduce the barriers to EV adoption. Alaska's Electric Vehicle Infrastructure Implementation Plan is a framework for utilizing NEVI formula funds to deliver EV charging infrastructure and enable passenger EV travel throughout the state. The charging network will provide EV drivers with confidence when traveling for work, recreation, and tourism.

The primary mission of the DOT&PF is to 'Keep Alaska Moving through Service and Infrastructure'. The AEA mission and the Alaska NEVI Plan are a component to the DOT&PF 'Family of Plans' and will both inform other transportation plans, as well as be informed by the State's LRTP. In this spirit of partnership, Alaska and the public at large will be able to realize the promise of the BIL in general, and the NEVI program in particular. Key strategic themes of the LRTP include safety, state of good repair, economic vitality, resiliency, sustainability, and mobility. Of particular relevance is DOT&PF's Sustainable Transportation program, the goal of which is to help communities thrive through transportation investments that promote independence, efficiency, a healthy environment, and low-cost transportation. Implementation is supported through the formation of interdisciplinary and multiagency partnerships for cohesive and integrated deployment. NEVI is a core component of the Sustainable Transportation program's portfolio.



As required in the NEVI Standards and Requirements related to the use of the NEVI formula funds, charging stations will be available 24 hours a day, 7 days a week, and 365 days a year, with a minimum of 97% uptime. In addition, each site will be required to deliver ongoing operations and maintenance activities during and after the period of the award. This will necessitate contractual requirements for each charging location to facilitate measurable data collection and evaluation. Project partners will support this program goal with data collection to inform stakeholders of the performance of EVs and efficacy of vehicle electrification in Alaska.

This program will increase access to EV charging stations for all Alaskans, including those historically underrepresented, specifically indigenous and disadvantaged populations. The Plan aims to ensure that community members are included and consulted in program decision-making and Plan development. Alaska will administer the NEVI funds in a way that supports the Justice40 initiative, where at least 40% of the benefits of the program investments will be distributed to disadvantaged communities. In addition to providing an EV fast-charging network along the state's road and marine highway systems (AMHS), this program will serve locations comprising Alaska Natives, residents of multiunit housing, and low-income, rural, and disadvantaged communities to ensure equitable access to EV charging infrastructure.

Alaska suffers from some of the highest fuel costs in the nation, especially in rural Alaska. Making EV charging infrastructure more accessible and equitable will ensure that Alaskans can transition to EVs, which typically have a lower total cost of ownership.

The implementation of transportation electrification will help to lower the cost of transportation energy for all Alaskans. Alaska suffers from some of the highest fuel costs in the nation, especially in rural Alaska. High energy burdens threaten some households' abilities to pay for energy and transportation expenses. Consequently, this forces difficult choices between paying for electricity, transportation, heating oil, food, medicine, and other essential items. High energy burdens paired with the high cost of goods in communities create challenging living conditions and, in some cases, food justice issues. Making EV charging infrastructure more accessible and equitable will ensure that Alaskans can more comfortably transition to EVs, which typically have a lower total cost of ownership.

Renewable energy generation in Alaska has been on the rise for several years, with support from state and local governments. In 2010, the Alaska Legislature enacted a goal for 50% of the state's electricity to be generated from renewable energy sources by 2025. More recently, Governor Dunleavy introduced a Renewable Portfolio Standard (RPS) bill for the Railbelt. A key element of the governor's RPS was a firm commitment to transitioning to 30% sustainable power by 2030 and 80% by 2040. The RPS package was ultimately unsuccessful in the Legislature; however, the development and introduction of this package illustrates Alaskans' desire to transition to green energy. In 2020, Alaska generated about 28% of its electricity from renewable energy sources. Alaska's Railbelt grid is currently composed of 15% renewable generation, and most of Kodiak and Southeast Alaska's energy is generated by hydropower (95%–98%).

NEVI charging stations will ensure renewable energy can power vehicles and reduce energy costs for families. Increasing access to charging stations and EVs will accelerate EV adoption throughout the state and improve air quality by reducing emissions associated with ICE vehicles. This is especially important in communities with poor air quality, like the portion of the Fairbanks North Star Borough that has been designated as a nonattainment area by the US Environmental Protection Agency due to particulate pollution during strong temperature inversions in the winter.

AEA will work closely with partners to maximize the public benefit by providing resources for EVSE site selection and development to partners. AEA will continue to work closely with DOT&PF to ensure site selection does not conflict with DOT&PF infrastructure improvement projects and long-term goals.



High-Level Program Goals

- 1. Deploy EV charging stations that are reliable and accessible for work, recreation, and tourism to inspire driver confidence.** Providing infrastructure that is visible on traveled routes can greatly reduce range anxiety. DCFC stations will be located approximately 50 miles apart along the AFC and along the road system and marine highways. The plan intends to provide EV drivers with multiple options for EV charging along their travel route. Each location will be situated conveniently, no more than one mile from the AFC. The sites will provide at least four units and give consideration to pull-through spaces for vehicles pulling trailers and recreational or passenger vehicles. Locations will be easily identifiable through third-party charging station locator applications. All charging stations shall be available 24 hours a day, 7 days a week, and 365 days a year. Program partners will be required to enter into a five-year operations and maintenance contract to ensure the station complies with the federal NEVI requirements. The Authority will monitor station uptime and other key metrics through vendor-reported usage data on a quarterly basis at minimum, with a goal of 97% uptime provided to drivers.
- 2. Ensure the benefits are distributed and applied equitably for all Alaskans.** Alaska is planning for equitable EV charging capabilities throughout the state. At least 40% of the benefits of the program investments will be distributed to Justice40 communities. Justice40 communities are shown in Figure 24, as defined by the FHWA. Phases 2 and 3 of the Implementation Plan will develop charging infrastructure in communities along the AMHS and in hub communities as funding allows.
- 3. Support the existing and future demand for electrified transportation.** AEA aims to support the existing EVs on the road today and prepare the state for future scenarios with increased EV adoption as well as the potential for medium- and heavy-duty freight and transit electrification.
- 4. Implement an outreach and education program to train, retain, and diversify the workforce in support of the electric transportation system.** AEA aims to increase knowledge and education about EVs, infrastructure, and the benefits to adoption. This program can help address frequently asked

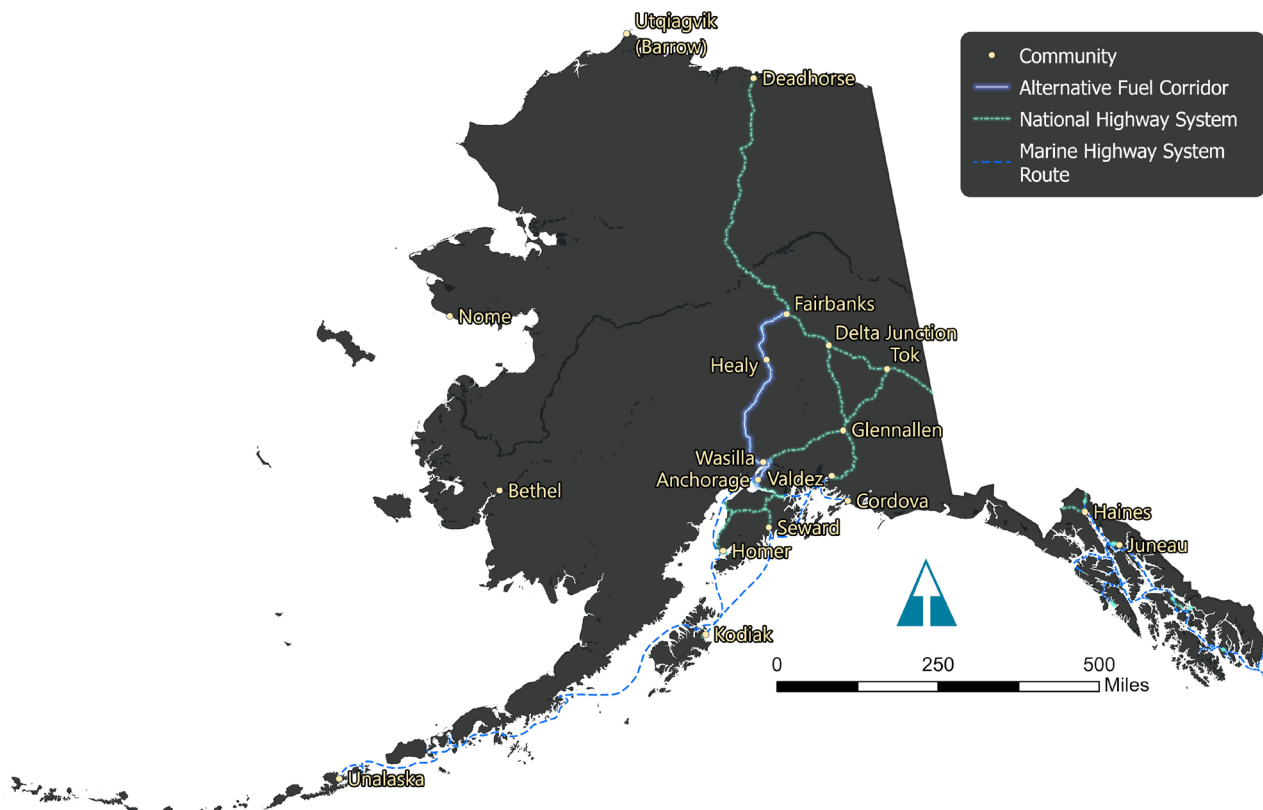


Figure 5. Alaska's Highway System



questions and common misconceptions, and act as a resource. The program will evolve to support workforce development to enhance the skills of Alaskan workers for the mobility of tomorrow.

5. Collect data to measure program performance and make informed deployment decisions. Project partners will support this program goal with data collection and analysis to inform participants of the performance and usage of EVs and EVSE and changes in adoption, and publish charging usage and efficacy of vehicle electrification in Alaska. The data will be analyzed for the out-year deployments to aid in selecting optimal locations for EV charging deployment.

6. Invest strategically to make Alaska's infrastructure more resilient and independent. The deployment of charging stations that are supported by renewable energy sources, where available, will be encouraged to reduce dependence on foreign oil and gas. Collaboration with the utility companies will occur in support of this effort.

7. Work with international partners to connect to the continental network. Recognizing that Alaska is removed from the lower 48 states, the movement of goods and people along the highway network crosses international borders. AEA will coordinate deployments with international partners to support logistics and mobility.



*EV performance in cold weather is currently a barrier to EV adoption for many Alaskans.
Photo courtesy of Mark Kelliher*

Outlook for 5-year Program

The Plan will deliver a reliable, grid-connected DCFC infrastructure network from the south end of the Alaska AFC in Anchorage and 355 miles north to Fairbanks within the first two years. During this same time frame, AEA will be conducting extensive EVSE and EV infrastructure public outreach, continuously gathering stakeholder feedback and lessons learned. Future iterations of the plan will incorporate these findings.

Phase One, Build Out Alaska's Alternative Fuel Corridor

- Phase one will focus on building out Alaska's AFC to meet FHWA guidance, where practically feasible, along the AFC from Anchorage to Fairbanks.
- Plan activities will include site selection, public outreach, and meetings with Alaska boroughs, Alaska Native corporations and tribes, and other private landholders, city planners, small Alaskan communities, and all other key stakeholders identified in Section 3 – Public Engagement & Outreach.



- Outreach and coordination will continue with DOT&PF, Alaska Department of Natural Resources, Department of Environmental Conservation, the Regulatory Commission of Alaska (RCA), and electrical utilities that provide power to the communities to be served by the NEVI-funded stations.
- Due to the seasonality of Alaska's climate, public and private contracting for initial design and construction projects is expected to extend over two construction seasons.
- Several 50 kW DCFC locations have been recently commissioned or are under construction along the AFC. These stations were funded with VW settlement grants in the summer of 2021. These stations do not meet the NEVI requirements as currently designed.

Phase Two, Build Out Alaska's Highway and Marine Highway System

- AEA and DOT&PF will coordinate to develop DCFC infrastructure along Alaska's non-AFC highways and the AMHS to enable passenger EV travel throughout the state. This phase of the program will focus on connecting small urban areas, rural communities on the road system, Alaska's road system to Canada, and coastal communities located on the AMHS.
- A review of communities and travel patterns along the Seward Highway, Glenn Highway, Sterling Highway, and Richardson Highway will be completed prior to completion of Phase 1 to determine potential locations for DCFC in support of long-distance mobility within the state in Phase 2.
- The communities along the AMHS will be key stakeholders to identify where charging locations would suit mobility that is paired with the ferry system. Early coordination with communities such as Juneau, Cordova, Ketchikan, Sitka, Seward, and Valdez will indicate opportunities for community partnerships to deploy infrastructure.
- This phase of the program will endeavor to meet NEVI requirements for DCFC where practically feasible. Engagement with stakeholders and communities along the AMHS will further refine the locations and phased deployment.
- Some isolated communities may not require or have the generation infrastructure to support 150 kW charging or four charging ports. These circumstances will be evaluated on a case-by-case basis and AEA is requesting input into reducing the requirements of DCFC sites located away from the AFC.

Phase Three, Install Charging Stations in Hub Communities, as funding allows

- Install community-based charging stations in EV-ready communities throughout regional hubs in rural Alaska.
- Rural communities are generally not connected by road or transmission. Each community self-generates its power through a small local utility. Average loads in rural communities range from 100 kW to 1 MW. In many communities, NEVI-compliant DCFC equipment may not be feasible; therefore, Level 2 charging stations are preferred. This will be evaluated against community needs.
- Early engagement has occurred with Nome and Kotzebue and site options for this phase of engagement have been compiled.
- Beyond the NEVI formula funding, AEA intends to coordinate with DOT&PF to apply for competitive and discretionary grants for rural Alaska.

Phase Four, Urban and "Destination" Locations, as funding allows

- AEA and DOT&PF will identify and develop strategic charging sites in urban and "destination" locations. These charging sites will utilize a combination of DCFC and Level 2 charging infrastructure and will provide a reliable charging safety net for unexpected charging needs and provide "destination charging" for overnight trips.



Contracting

Status of Contracting Process

Alaska's Request for Applications

AEA solicited competitive grant applications for the purpose of installing EVSE at up to 14 sites along Alaska's AFC. The scope of the projects include design, construction, installation of software and hardware, operations, maintenance, and data reporting. The RFA set out the purpose, instructions, requirements, evaluative criteria, and other information for submitting an application to AEA for grant funding. AEA and DOT&PF will jointly enter into a separate project grant agreement for each site chosen to satisfy a priority area.

AEA's goal for this RFA was to build out Phase One, which includes the AFC from Anchorage to Fairbanks. This section of roadway includes the state roads with the highest traffic volumes, connects Alaska's two largest cities, and provides access to many communities, parks, and other attractions. After the AFC is completely built out, AEA will move on to Phase Two, and conduct solicitations that include the remaining highway systems and AMHS.

All funds associated with the NEVI formula program and the Alaska NEVI RFA shall be administered as if apportioned under Chapter 1 of Title 23, United States Code (USC), which encompasses requirements for states to receive federal-aid funding. The procurement and contractual requirements must comply with federal and Alaska state laws and additional program requirements.

Applicants will be required to construct and maintain EVSE at the site, pursuant to federal program requirements defined in the NEVI Standards and Requirements. The equipment must also meet Buy America requirements as identified in the current and future Waiver of Buy America Requirements for Electric Vehicle Chargers.



Thirty-four grant applications for the first round of applications for 14 locations along Alaska's AFC were received and are being reviewed at the time of this document's publishing. Awards are expected in the fall of 2023. The following solicitation steps are currently underway for Alaska's NEVI program:

- 1. Advertise RFA:** AEA advertises the grant opportunity throughout the state. EV charging companies or site host property owners who will self-manage or partner with other entities will prepare the grant application to apply for NEVI funding to install, own, and operate compliant EV chargers.
- 2. Prepare Applications:** Applicants identify sites for EVSE installation within priority areas identified by AEA. Applicants prepare their application and coordinate with local utilities to understand site readiness for EVSE installation. Utilities provide infrastructure upgrade plans to the applicant, including cost estimates to be included in the final pricing application.
- 3. Review Applications:** AEA and DOT&PF evaluate the administrative, technical, and pricing applications based on the evaluation criteria and process as defined in the RFA package. The ranking and prioritization of projects will be determined for each priority site. Individuals on the evaluation committee will receive a copy of each application along with the criteria that will be used to score and rank the applications. Each committee member will independently review the applications and provide written comments related to each application. The committee members will award competitive points to each application against the application criteria and weight outlined in the RFA. The committee will meet to review the applications as a group, discuss the merits of each application, and finalize their own scores based upon insights gained through the group discussion. The applicant with the highest overall score within each priority site group will be selected for award. AEA will develop a final prioritized list of projects, taking into consideration the amount of funding that is available and the distribution of projects along the AFC.
- 4. Develop AEA Transportation Improvement Program (TIP) for incorporation into the Statewide Transportation Improvement Program (STIP):** After the selection committee has confirmed recommended projects, AEA will develop a TIP with the selected NEVI corridor projects. The TIP will include budget, scope, and schedule values for all incorporated projects. AEA's TIP will be incorporated into the STIP by amendment.
- 5. Federal Project Agreements and Authorization to Proceed:** AEA and DOT&PF will provide project information to the FHWA for Authorization to Proceed.
- 6. State Project Agreements:** AEA and DOT&PF will enter into project agreements with each site host. These project agreements will include information related to reimbursement and billing methods between parties, and program regulations and requirements related to the NEVI program. These include but are not limited to NEPA, Title 23, Chapter 1 of the CFR, Build America and Buy America Requirements, property interest agreements, Uniform Act, and the Clean Air Act. The project agreement will be executed upon agreement of the signing parties.
- 7. Design and Construction of EVSE:** DOT&PF will conduct NEPA compliance work during the preliminary design phase. The grantee will perform the final design and permitting, site work, equipment installation, and connection to power service, and commission the EVSE. AEA and DOT&PF will oversee the project activities and review for compliance with Title 23 and other program requirements. Payments will be made to the grantee on a monthly or quarterly reimbursement schedule as associated with specific project milestones and deliverables.
- 8. Operation and Maintenance of EVSE:** The project agreement will include operations and maintenance service for up to five years. The grantee will provide specific data from the RFA attachments for program monitoring and compliance.



We are here!



Figure 6. Number of Applications Received by Priority Site Location.

The applications received were primarily from EVSE vendors who partnered with site hosts. Most site categories received were from hotels and convenience stores. Figure 7 summarizes the site applications by applicant and site category.

Site Applications by Applicant & Site Category

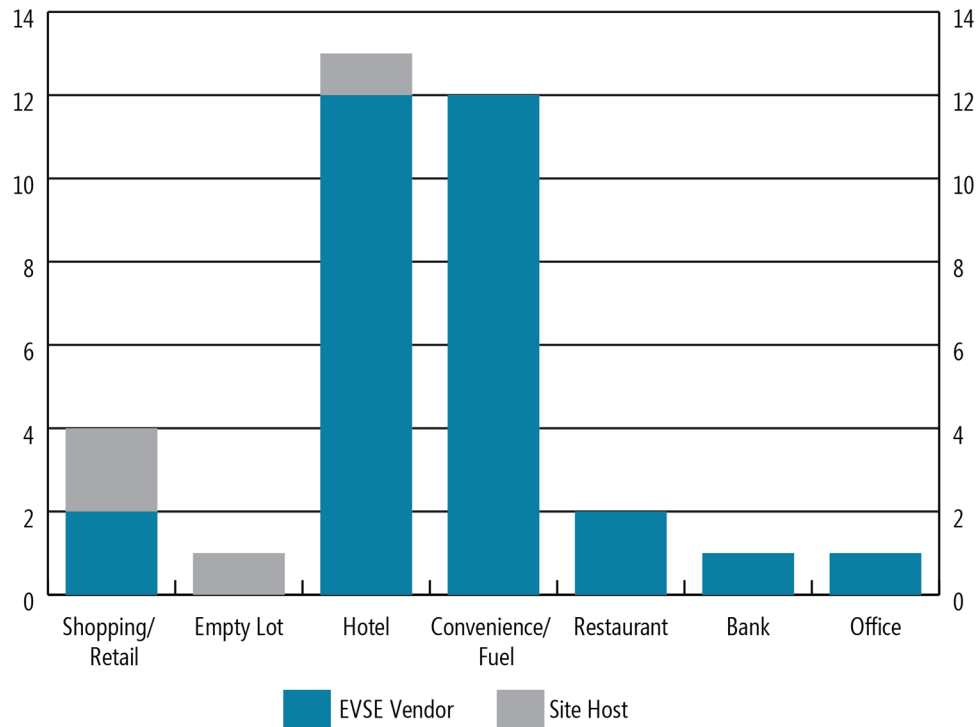


Figure 7. Site Applications by Applicant and Site Category.



Awarded Contracts

AEA is requesting acknowledgment of Corridor Ready status following commissioning of the selected Priority Sites for the state’s sole AFC. Two additional Discretionary Exceptions are included in this plan submission in addition to the first year’s plan Discretionary Exception. Three gaps along the corridor exceed the 50-mile maximum, but none of them exceed 80 miles, the distance granted an exception in the initial plan. It is AEA’s belief that the market response to the RFA was adequate and there will be no suitable responses to another RFA that seeks to solicit charging locations in Willow and Clear. The lack of development and potential sites in these two locations is limited, especially as identified in Clear with no applications submitted for the first round. The initially approved Discretionary Exception is requested again – albeit at 77 miles instead of 80 miles due to sites recommended for award – due to the lack of power grid within this gap on the AFC.

Based on the market response to the RFA, the remaining gaps, and the desire to maximize station viability of the recommended awarded sites, AEA will be requesting two additional exceptions in FY24 to achieve Corridor Ready status.

Priority Sites Recommended for Award

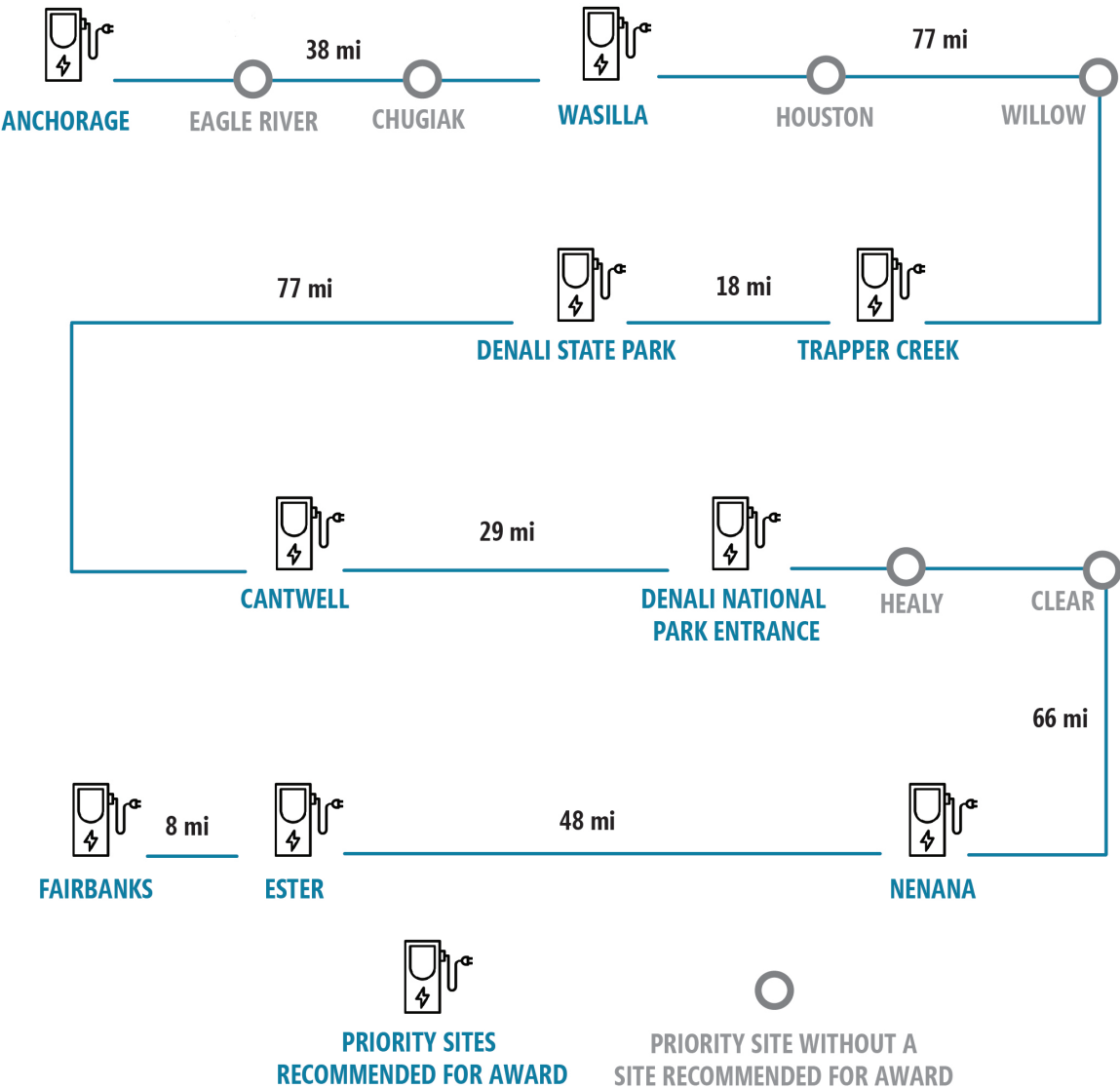


Figure 8. Priority Sites Recommended for Award.



Scoring Methodologies Utilized

Applications were reviewed in four stages by the application evaluation committee, which included AEA staff, DOT&PF staff, and the PM consultant from Michael Baker International.

- Stage 1: Completeness and Eligibility (Pass/Fail)
- Stage 2: Evaluation of Technical Application
- Stage 3: Evaluation of Pricing Application
- Stage 4: Ranking of Projects

All applications were reviewed to determine if they were responsive. Applications determined to be responsive were evaluated using the criteria that is described below. If an application was rejected, the applicant was notified in writing or via email that their application had been rejected and the basis for rejection. Appeals for rejected applications will be handled following the procedures outlined in 3 Alaska Administrative Code 107.650.

At any stage in the review process, AEA could request additional information and the applicant would have a specified amount of time to respond to the request for information. Failure to timely respond or timely provide adequate information would result in the application being rejected.

An evaluation may not be based on discrimination due to the race, religion, color, national origin, sex, age, marital status, pregnancy, parenthood, disability, or political affiliation of the applicant.

Stage 1: Completeness and Eligibility (Pass/Fail)

All applications received by the deadline were initially reviewed by AEA staff to assess application completeness. Stage 1 review included the following:

Administrative Application Review

- Applicant Information
- Signature Page/Authorized Signers

Overall Completeness of Entire Package

- Application is complete and information is sufficiently responsive to the RFA to allow AEA to consider the application in the next stage of evaluation.

Project and Applicant Eligibility

- Application is submitted by an eligible applicant that demonstrates that they will take ownership of the project; own, lease, or otherwise control the site upon which the project is located; and upon completion of the project operate and maintain it for its economic life for the benefit of the public.
- Included as documentation is a resolution or other formal authorization of the applicant that demonstrates the applicant's commitment to the project and that any proposed matching funds are available and in the applicant's control.

Stage 2: Evaluation of Technical Application

Each technical application was evaluated and scored as described in Table 8 (Technical Application Scoring Rubric).



Table 8: Technical Application Scoring Rubric

Technical Scoring Element	Max Points	Percent of Total
Understanding of Program and Project Methodology	100	10%
Management Plan, Schedule, Development and Operation	200	20%
Experience and Qualifications	200	20%
Site Proposal	300	30%
Maximum Technical Application Score	800	80%

Understanding of Program and Project Methodology (10%)

Applicants will be evaluated against the following questions:

- How well has the applicant demonstrated a thorough understanding of the purpose and scope of the project?
- How well has the applicant identified pertinent issues and potential problems related to the project?
- How well has the applicant proposed to manage and mitigate identified project risks?
- Has the applicant demonstrated an approach that depicts a logical approach to fulfilling the requirements of the NEVI formula program?
- Does the methodology interface with the schedule in the RFA?

Management Plan, Schedule, Development and Operation (20%)

Applicants will be evaluated against the following questions:

- How well does the management plan support the project requirements and logically lead to successful project completion as required in the RFA?
- How well is accountability defined?
- Is the organization of the applicant team clear?
- How well does the management plan illustrate the lines of authority and communication?
- Does the application cover all required staffing to deliver the project through all phases of the program?
- To what extent does the applicant already have the hardware, software, equipment, and licenses necessary to carry out the project?
- Has the applicant provided a reasonable schedule for the project work?
- Has the applicant provided a thorough plan for EVSE operations and maintenance that is consistent with the NEVI program requirements?
- Does the applicant sufficiently address their approach to meeting Buy America requirements under current waiver rules?
- Does the applicant present a sufficient approach to meeting the uptime requirements as described in the NEVI Standards and Requirements?

Experience and Qualifications (20%)

Applicants will be evaluated against the following questions:

- Has the applicant team demonstrated experience in the deployment and operation of EVSE?
- Are resumes complete and do they demonstrate capability of implementing EVSE?
- How extensive is the applicable education and experience of the personnel designated to work on the project?
- Does the proposed staff have applicable experience with Title 23 Federal-Aid projects? (Preferred)
- How well has the applicant team demonstrated experience in completing similar projects on time and within budget?



- Has the proposal demonstrated the ability of subcontractors to implement EVSE at selected sites?
- How successful is the general history of the applicant team regarding timely and successful completion of projects?

Site Proposal (30%)

Applicants will be evaluated against the following questions and criteria:

- Has the applicant demonstrated a clear understanding regarding the infrastructure needs and utility improvement costs for the site? (Attachment 4, Utility Service Site Information Form)
- Does the project schedule align with the demonstrated utility infrastructure and utility needs?

Table 9: Site Proposal Evaluation Criteria

Criterion	Max Points
Utility Service Site Information Form Evaluation	80
Has the applicant demonstrated a clear understanding regarding the infrastructure needs and utility improvement costs for the site? Does the project schedule align with the demonstrated infrastructure and utility needs?	
Site is located within 1 mile of the highway	60
Within 1 mile: 60 points	
1-3 miles: 30 points	
3-5 miles: 15 points	
Over 5 miles: 0 points	
Site provides adequate lighting for security around the EVSE.	20
Site has amenities for users to access while charging their vehicle.	40
Site is located within a Justice40 boundary.	40
Site match contribution:	60
20%: 20 points	
25%: 40 points	
30%: 60 points	
Total available base points	300
Bonus Considerations	Max Points
Site offers pull through charging access.	20
Site offers make-ready work for additional ports and increased speed (e.g. 350 kW in the future).	20
Site offers additional plug standards to be inclusive of other drivers (e.g. NACS and CHAdeMO)	10

Stage 3: Evaluation of Pricing Application

The applicants completed Attachment 5 (Pricing Application Form) and included a one-page pricing narrative for each proposed site. The site pricing applications had two components as shown in Table 10 – Pricing Application Scoring Rubric. Overall, a minimum of 20% of the total evaluation points were assigned to these components.

Table 10: Pricing Applications Scoring Rubric.

Pricing Scoring Element	Max Points	Percent of Total
Site Pricing Application Cost	100	10%
Site Pricing Application Narrative	100	10%
Maximum Site Pricing Application Score	200	20%



Site Pricing Application Cost (10%)

The applicant with the lowest site cost for each priority site was allocated the maximum points (100 points) for their pricing application. The remaining applicants for each site received a percentage of the points based upon the following formula:

$$\text{Site Pricing Application Score} = (\text{Lowest Cost Application} / \text{Candidate's Cost Amount}) \times 100$$

Site Pricing Application Narrative (10%)

Applicants will be evaluated against the following questions:

- Has the pricing narrative demonstrated alignment with the technical application?
- Does the applicant demonstrate a clear understanding of costs related to the project?
- Does the applicant account for Alaska-specific cost considerations?
- Has the applicant sufficiently defined the assumptions used in the development of their estimate?
- Has the applicant provided an approach that supports successful EVSE implementation at the site?

Stage 4: Ranking and Prioritization of Projects

The ranking and prioritization of projects was determined for each priority site (1-14). The applicant with the highest overall score within the priority site group will be selected for award. For each site application, the applicant's overall score will be calculated as follows:

$$\text{Applicant's Overall Score} = \text{Technical Application Score} + \text{Pricing Application Score}$$

Individuals on the evaluation committee will receive a copy of each application along with the criteria that will be used to score and rank the applications. Each member of the committee will independently review the applications and provide written comments related to each application. The committee members will award competitive points to each application against the application criteria and weight outlined above.

The evaluation committee will meet to review the applications as a group, discuss the merits of each application, and finalize their own scores based upon insights gained through the group discussion. The evaluation committee will outline justifications for each of their conclusions. AEA will develop a final prioritized list of all recommended projects, taking into consideration the amount of funding that is available and the distribution of projects along the AFC.

If, after entering the award process, the first-ranked applicant is unable to move forward with the project as proposed in their application, AEA reserves the right to cancel the agreement and move on to the second-ranked applicant.

Plan for Compliance with Federal Requirements

AEA is working closely with partners at DOT&PF to ensure program and project compliance with Title 23 requirements. AEA and DOT&PF are currently drafting project agreements, which will be signed by AEA, DOT&PF, and selected site hosts. The project agreements will include specific requirements including but not limited to NEPA, Title 23, Chapter 1, Part 680 of the CFR, Build America and Buy America Requirements, property interest agreements, Uniform Act, and the Clean Air Act. The project agreement will be executed upon agreement of the signing parties.

AEA is monitoring the rapid adoption of the NACS and requests the Joint Office to provide further guidance. If NACS is to become the ultimate standard, investments in infrastructure should consider the future viability of CCS. While there are numerous cars and trucks today equipped with CCS that can utilize the deployed infrastructure, consideration should be given to requiring NACS being included as well.



Operations and Maintenance

There are no restrictions to include operations and maintenance plans with the above allowable procurement methodologies. Guaranteed operations and maintenance through the life of the NEVI deployment period can be included in the upfront construction cost so it is accounted for in the deployment.

How Alaska Will Ensure Contractors Engage Communities

Every contract for the installation and hosting of charging station infrastructure will include a requirement to prominently display at least one sign on site that is visible to drivers from the roadway. The sign will clearly state that the site is an EV charging station. This is to supplement areas where cell phone coverage may not exist, so using navigation and other apps may be affected. Charging company vendors may be asked to provide materials, such as flyers and social media graphics, to site hosts and government agencies to increase community awareness about the charging station. Each contractor and site host will also be supported by the public engagement plan included in this document, which includes earning media coverage across the state, social media outreach, and participating in community events.

AEA and DOT&PF have a broad network of strong ties to the Alaska construction contracting community. DOT&PF's work with industry organizations, like the Associated General Contractors of Alaska (AGC) and Alaska Builders and Contractors (ABC) Inc., will ensure that contractors building Alaska's EV infrastructure engage in meaningful public involvement. Many of the large general contractors throughout the state have long working histories in Alaska and are already active participants in their respective regions and communities. AEA and DOT&PF will work with contractors and the trades unions to drive workforce participation and public investment in the development, construction, maintenance, and public use of the Alaska EV infrastructure.

Opportunities for Small Businesses

In accordance with Title 23 of USC 304, the Alaska Electric Vehicle Infrastructure Implementation Plan will provide contracting opportunities for small businesses in the implementation and deployment of EV infrastructure. In compliance with this code, Alaska NEVI planning efforts will consult with entities on small business contracting, including community-based organizations, environmental justice and environmental protection organizations, small business associations, chambers of commerce, labor organizations, and private entities.

Throughout Alaska, and especially in rural and disadvantaged areas of the state, small businesses are a nexus for opportunity. DOT&PF and AEA will work with business partners and community leadership to ensure that these vital small business entities participate in the Alaska NEVI process. Additional specific initiatives for small businesses are included in the Civil Rights and Equity Considerations chapters.

Many of the applications received were from local and small businesses. Further, applicants identified ways to engage Alaskan businesses and companies to be able to install and/or maintain the deployed equipment along the corridor. It is apparent that applicants understood AEA's goals with this effort to support small businesses and reacted accordingly.



Civil Rights

The Alaska DOT&PF is a recipient of federal financial assistance. As a federal-aid recipient, DOT&PF will ensure full compliance with Title VI of the Civil Rights Act of 1964 and related federal statutes and re regulations in all DOT&PF programs and activities, including:

- 49 CFR Part 21 (Department of Transportation Regulations for the Implementation of Title VI of the Civil Rights Act of 1964 and the Civil Rights Restoration Act of 1987 [PL. 100.259])
- 23 CFR Part 200 (Title VI Program and Related Statutes – Implementation and Review Procedures)
- 23 CFR Part 680 (National Electric Vehicle Infrastructure Standards and Requirements)
- Federal-Aid Highway Act of 1973
- Section 504 of the Rehabilitation Act of 1973
- Age Discrimination Act of 1975
- Americans with Disabilities Act of 1990
- Executive Orders 12898 and 13166

Title VI

DOT&PF Title VI Non-Discrimination Policy Statement:

It is the policy of the Alaska Department of Transportation and Public Facilities (DOT&PF) that no one shall be subject to discrimination on the basis of race, color, national origin, sex, age, or disability.

The Title VI Non-Discrimination policy is implemented by the Civil Rights Office Title VI program manager. Programs within Title VI are Environmental Justice, Limited English Proficiency, and Title VI (Non-Discrimination). To ensure DOT&PF is in compliance with these programs, the Title VI program manager conducts Title VI program reviews of each division within DOT&PF. If an area is found to be noncompliant, the program manager works with staff to bring the identified noncompliant area into compliance.

The policy also applies to subrecipients, so by AEA entering into an MOA with DOT&PF and leading the procurement, AEA accepts responsibility to include the Non-Discrimination language in all procurement documentation and contract agreements.



Americans with Disabilities Act (ADA)

DOT&PF ADA Policy Statement:

"It is the policy of the Alaska Department of Transportation & Public Facilities (ADOT&PF) that no qualified individual with a disability shall, solely on the basis of his or her disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any of its programs, services, or activities as provided by Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 (ADA). ADOT&PF further assures that every effort will be made to provide nondiscrimination in all of its programs and activities regardless of the funding source, including FTA, FAA, FHWA, and state funds."

When addressing accessibility needs and requirements, DOT&PF is committed to making reasonable modifications to policies, practices, procedures, and programs that would otherwise deny equal access to individuals with disabilities unless a fundamental alteration in the program would result. Under chapter 5 of the U.S. Access Boards "Guide to the ADA Accessibility Standards" Electric Vehicle Charging Stations,¹ it is recommended: "Provide access to a reasonable number of spaces serving EV charging stations" or use the scoping table in §208.² to determine an appropriate number.² (The number of accessible spaces serving EV charging stations must be determined separately from the required number of car and van parking spaces.)"

AEA included Title VI language and required compliance with applicable civil rights regulations and accessibility standards in procurement documents and contracts with other entities such as consultants, contractors, and vendors. While the NEVI Standards and Requirements³ suggested adherence to the U.S. Access Board's guide, AEA mandated adherence in the RFA requirements to ensure accessible design. AEA will also monitor for compliance and perform required reporting in accordance with USDOT regulations.

Diverse Business Participation

DOT&PF has strong civil rights programs that implement Title 49 Part 26 through the Alaska Unified Certification Program (AUCP). These programs ensure participation of Minority/Women/Disadvantaged Business Enterprise (M/W/DBE) small businesses. DOT&PF has a Disadvantaged Business Enterprise Program Plan approved by the FHWA (2019). The DOT&PF Civil Rights Office administers all DOT&PF DBE and On-the-Job Training Supportive Services Programs.⁴ Firms certified as DBEs by the AUCP are also eligible for the DBE Business Development Program,⁵ which gives DBE firms the opportunity to further assist in small business growth within and outside of the market for traditional DBE areas of work.

These programs have strong stakeholders and partners, including intergovernmental agencies, business, labor, and community groups. The Civil Rights Office has longstanding partnerships with the Small Business Administration, the Alaska Procurement Technical Assistance Center, Alaska Small Business Development Center, AGC, ABC, the Federation of Community Councils, the University of Alaska, Alaska Works Partnership (AWP), the Alaska Apprenticeship Training Coordinators Association (AATCA), various trades unions, and chambers of commerce throughout the state.

¹ <https://www.access-board.gov/ada/guides/chapter-5-parking/#electric-vehicle-charging-stations>

² <https://www.access-board.gov/ada/guides/chapter-5-parking/#minimum-number-of-accessible-parking-spaces>

³ 23 CFR Part 680

⁴ 23 USC 140(c) 23 CFR 230 Subpart B; 23 CFR § 230, Appendix A to Subpart A, 23 CFR § 230, Appendix B to Subpart B, 23 CFR § 230.111, 23 CFR § 230.113, and 23 USC 140(b)

⁵ 23 CFR § 230, Appendix A to Subpart A, 23 CFR § 230, Appendix B to Subpart B, 23 CFR § 230.111, 23 CFR § 230.113, and 23 USC 140(b)



Existing & Future Conditions Analysis

To evaluate the statewide network and set a baseline for future evaluation, an inventory of traffic, EV registrations and adoption, existing infrastructure, and planned near-term installations must be inventoried.

State Geography, Terrain, Climate and Land Use Patterns

Spanning over 665,400 square miles, Alaska is the largest state in the country and represents about one-fifth the total size of the contiguous United States. In terms of size, Alaska stretches 2,000 miles from east to west and 1,100 miles north to south. This includes hundreds of islands that make up the Aleutian Island chain and over 1,000 islands that make up the Archipelago of Southeast Alaska. The sheer size of the state results in a wide range of temperatures and terrains. While Alaska is geographically large, the relatively small population of the state results in a low population density with clusters around the major urban areas of Anchorage, Fairbanks, and Juneau. Alaska is bordered by 6,640 miles of coastline, including coasts of the Pacific and Arctic Oceans, and 1,538 miles of international border with Canada.

With the least-dense population in the country, many Alaskans reside along the state's road system and the remaining population resides in small, rural villages and towns accessible by water or air. The largest city, Anchorage, contains two-thirds of the state's population at just under 300,000 residents, followed by Juneau and Fairbanks, each with a population of about 30,000 residents.

Of the state's 17,690 centerline miles of road, 82% are considered rural and 65% are unpaved. The vast majority of the state's land is publicly held.

Alaska's transportation network is relatively undeveloped compared to its national peers. Of the state's 17,690 centerline miles of road, 82% is considered rural and 65% is unpaved. The vast majority of the state's land is publicly held. Of the public lands, 65% is owned by the federal government and 25% by the state.



Despite its size, Alaska does not have any signed interstates. Alaska shares a border to the east with Canada and some travel routes across Alaska traverse Canada, adding complexity to supporting statewide EV movements that will require international coordination.

Alaska's terrain and ecosystem varies tremendously and includes the flat and treeless tundra of the North Slope, subarctic boreal forests, permafrost and marshlands, numerous mountain ranges including the highest peak in North America, and temperate coastal rainforest. Its climate is as diverse as its terrain with long, cold winters and cool summers in the far north and northwestern coast, extreme cold in winter and extreme heat in summer across the Interior, a warmer and snowier climate in Southcentral, and an even warmer and rainier climate in Southeast Alaska.

The state is renowned for its cold winters where temperatures frequently drop to -50°F without a wind chill and will regularly climb into the 90s during the summer. Based on the temperature and precipitation averages, Alaska is divided into five climate regions.

Alaska Climate Regions

The Arctic region consists of the area north of the Brooks Range to the Arctic Ocean and is entirely north of the Arctic Circle. Average temperatures here are well below freezing with long, cold, and dark winters. Precipitation in this area is light, falling mostly in the summertime. This region is situated above the tree line and consists of predominantly tundra, and high winds are typical in this area for most of the year.

The Interior region consists of the area between the Brooks Range to the north and the Alaska Range to the south. It comprises the largest area of the state and has high temperature variability. Summers are typically warm and sunny with an average temperature in the 60s, and winters are cold with average temperatures below zero. The north end of the AFC, Fairbanks, is located in the Interior region.

The Western region spans a wide area including the Aleutian Islands. The climate in this area is heavily impacted by the Pacific Ocean and experiences frequent storms during the winter and fall. This area extends hundreds of miles into the Bering Sea and has a maritime climate that is typically above freezing with less variability.

The Bristol Bay and Cook Inlet areas consist of Southcentral Alaska and are home to most of the state's population. This area is buffeted by multiple mountain ranges, and the climate is not as extreme as the Aleutian chain. Southcentral has a more temperate climate with mild summers and winters relative to the climate zones to the north and west. Anchorage, the south end of the AFC, is located in this region.

The Southeast Alaska area borders the Gulf of Alaska and has a strong maritime influence. While the temperatures can be moderate, there is high annual precipitation in the form of snow and rain. The impact of the mountain terrain in the area contributes to weather conditions that can vary substantially. The AMHS is located in Southeast Alaska.



An EV sits under the Northern Lights. Photo courtesy of Mark Kelliher



State Travel Patterns, Public Transportation Needs, Freight and Other Supply Chain Needs

The vast and diverse natural geography of Alaska makes it a challenging setting for transportation—natural barriers throughout the region create a unique environment for aviation and marine transportation. While most interstate travel can be achieved on the road network, Alaska has a unique set of challenges as many communities cannot be accessed by the road network. These communities are located off the road system and are only accessible by plane or through the AMHS. The AMHS extends across 3,500 miles of coastline and provides service to 35 communities. The DOT&PF maintains and operates 235 airports throughout Alaska to support 82% of communities that depend on aviation for year-round access.

According to the Transportation Assessment for the Alaska Moves 2050 L RTP, 251 communities in Alaska are served exclusively by air, with distances between some airports comparable to the distance between Minneapolis and Orlando. Ferries also support an important section of transportation in the state, with the AMHS serving over 3,500 miles of coastline and 35 communities, many of which rely on ferry for travel and goods.

Remoteness is the theme when discussing the travel patterns in Alaska. Not only is that reflected in the importance of the marine and aviation system, but on the connected road network as well. The two major cities on the road system are separated by over 300 miles of road. Smaller towns are dispersed along the road system, but many have reduced services. With few full-service locations spread out over a wide geographic area, the structure of Alaskan highways presents a challenge to widespread EV usage as it relates to the ability to charge vehicles. This would increase the need for fast-charging stations throughout the state to enable users the ability to reach their destination.

The State of Alaska has 17,690 total centerline miles. A vast section of the Alaska road network is unpaved; the breakdown of total miles by road surface type is 11,520 unpaved and 6,169 paved. All 1,080 miles of the functionally classified Interstate roads and 920 of the 939 miles of the Principal Arterial-Other roads are paved.

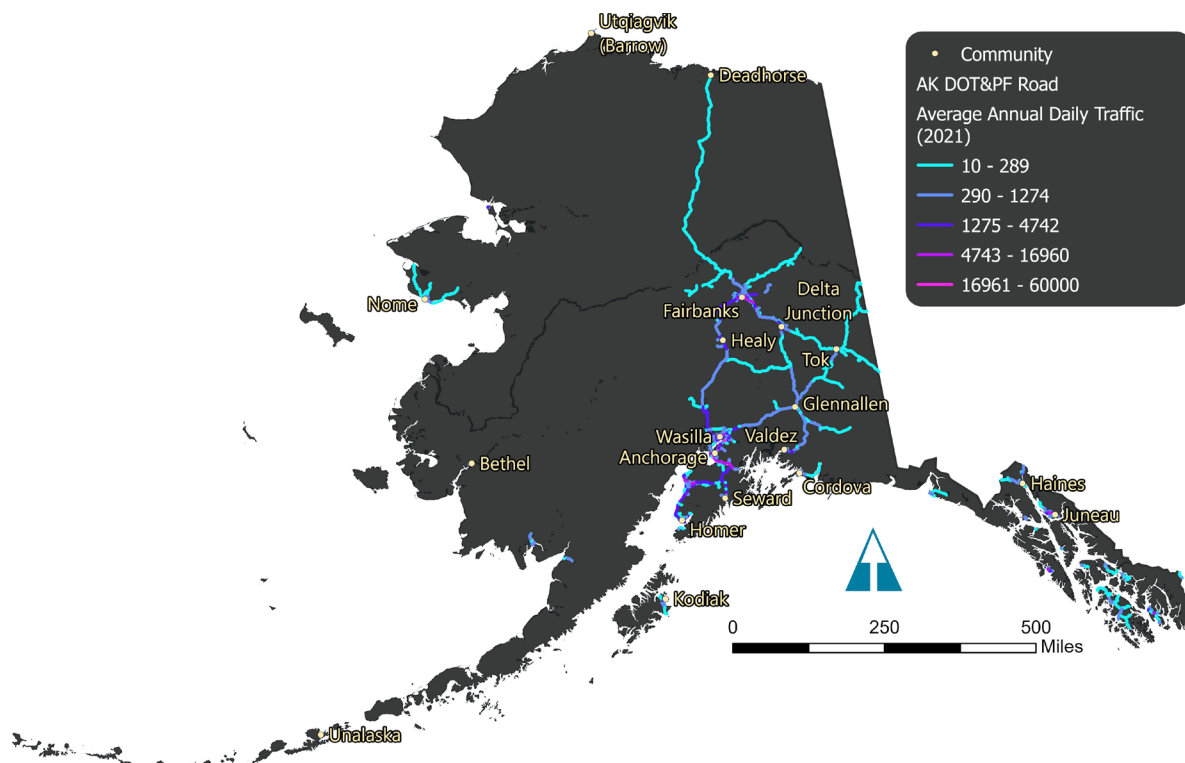


Figure 9. Alaska's Average Annual Daily Traffic

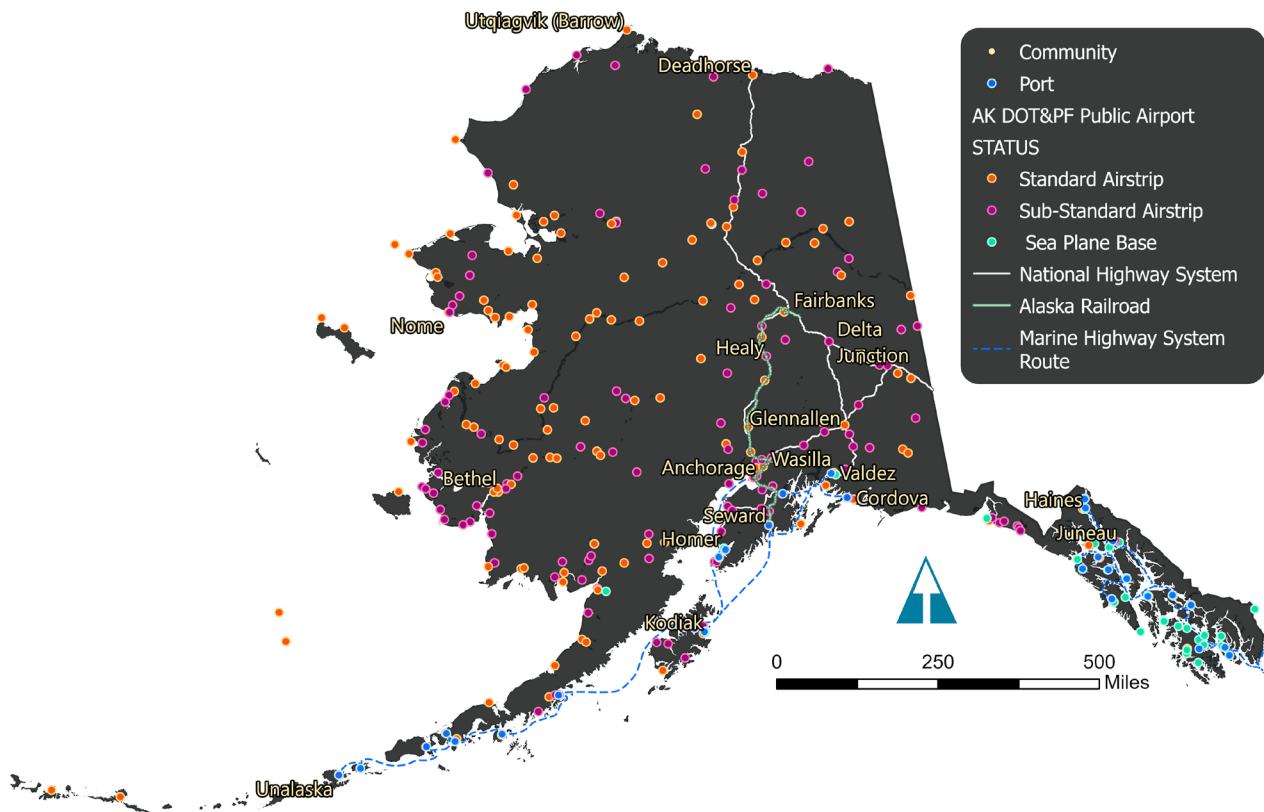


Figure 10. Alaska's Transportation Systems

Most vehicular travel occurs in the southcentral population centers along Interstates A-1 from Anchorage to the Canadian border, A-2 from Tok to Fairbanks, A-3 from Soldotna to Anchorage, and A-4 from Gateway to Fairbanks. The Alaska National Highway System is unlike most in the continental United States. It includes six-lane urban freeway segments with volumes of up to 68,000 a day (2019), and the Dalton Highway, which is 400 miles of mostly unpaved road with segments seeing as little traffic as 105 vehicles a day (2019).

Based on travel pattern data, key locations for automotive transportation occur in more populated areas including Anchorage, Fairbanks, Knik-Fairview, and Wasilla in the central region, and Juneau, Ketchikan, and Sitka in southeast Alaska.

Vehicular transportation is also limited in the State of Alaska by seasonal weather, with certain roads closed for a portion of the year due to snow cover and ice. In addition to more concentrated traffic and car ownership in these population corridors, transit plays a big role in connecting Alaskan businesses with their workforce across a range of industries. According to the American Community Survey Public Use Microdata Sample, approximately 5,600 workers in Alaska use transit to get to work, collectively earning \$203 million in wages annually.¹ Key cities with federally funded public transportation programs include:

- Anchorage – People Mover and AnchorRIDES
- Bethel Transit Bus System
- Central Kenai Peninsula – Central Area Rural Transit (CARTS)
- Fairbanks – Metropolitan Area Commuter System (MACS) and Van Tran
- Girdwood – Glacier Valley Transit (GVT)
- Gulkana – Soaring Eagle Transit (SET)
- Hollis – The Inter-Island Ferry Authority (IFA)

¹ https://dot.alaska.gov/stwdplng/transit/pub/AKEconomicStudy_EBP_05262022_2.pdf



- Juneau – Capital Transit
- Ketchikan – Ketchikan Gateway Borough Transit (The Bus)
- Kodiak – Kodiak Area Transit System (KATS)
- Wasilla – Valley Transit
- Sitka – The Ride
- Talkeetna – Sunshine Transit
- Tok – Interior Alaska Bus Line (IABL)

Access to more remote areas of the state occurs most frequently by aviation and ferries (along the southern coast). Approximately \$1 billion of funding from the Infrastructure Investment and Jobs Act is dedicated to the AMHS to establish an essential ferry service supporting rural communities.

Aviation is also a vital component of the regional transportation system, connecting all communities to the rest of the state and beyond. The aviation system in Alaska not only serves the transportation needs of residents, but also supports the movement of material goods and critical medical services as well as the regional economy. According to the Alaska DOT&PF, nearly 82% of Alaska communities are inaccessible by road, making airstrips and airports essential to Alaskan communities.

Alaska EV Registration by Manufacturer

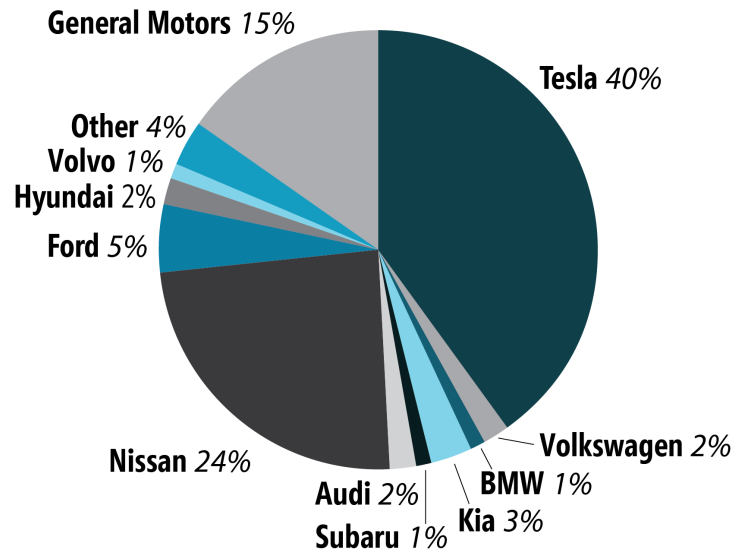


Figure 11. EV Registrations in Alaska by Manufacturer

Alaska EV Registration by Region

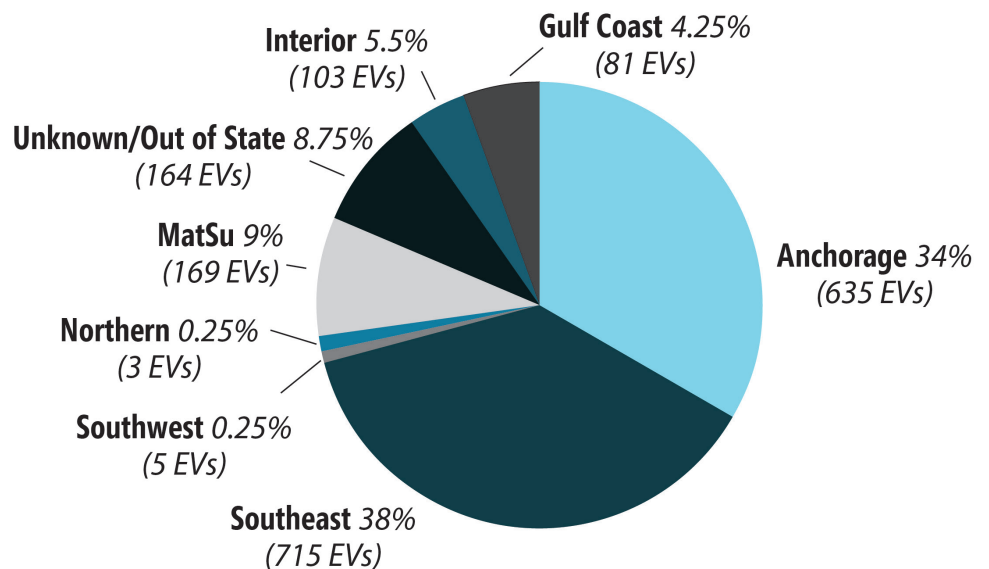


Figure 12. EV Registrations in Alaska by Region

Future State of EV Adoption in Alaska

As of May 2023, there were 1,875 EVs registered in Alaska. The EV adoption in Alaska is trending upward as indicated by a 50% increase in registrations from the December 2021 number of 1,250. The EV penetration rate is 0.36%, which still lags behind the national average, but is also increasing. Sport Utility Vehicles (SUVs) and pickup trucks account for 80% of new vehicles purchased in Alaska.² Due to this vehicle preference trend, it is expected that EV market share in Alaska will increase once battery electric pickups trucks are readily available to Alaska consumers. Electric SUVs make up approximately 11% of the EVs in the state and the

² White Paper - Electric Vehicles and Infrastructure in Alaska: <https://www.akenergyauthority.org/Portals/0/2020.12.09%20AEA%20Board%20Meeting%20Documents/9B.%202020.12.09%20EV%20EV%20infrastructure%20WhitePaper.pdf?ver=2020-12-03-164813-090&ver=2020-12-03-164813-090>



pickup trucks are slightly under 2%, both increasing rapidly. While Tesla still has the majority of the market, its share slipped from 53% to 40% since 2022, with Chevrolet making the most gains in market share.

The future state of EVs in Alaska was evaluated to determine if the deployed capacity along the AFC related to the NEVI requirements would be satisfactory to the expected number of EVs on the road at the end of the program. To assist in the development of future EV registrations, two growth scenarios were developed. It is important to recognize that a variety of factors can affect EV adoption, including access to charging infrastructure, availability of models, price points and comparability to ICE models, and willingness to make the transition.

Continued Growth Scenario

The continued growth scenario projects that EV adoptions continue the 2020 to 2021 growth of 42.05% throughout the five-year period. The results are that the state would realize about 1,200 EV sales per year on average, adding about 6,000 new EV registrations in the five-year period. The penetration rate of EVs in Alaska in 2026 would be 1.01% of all registered vehicles in the state, up from the existing 0.20% in 2021 for light-duty vehicles.

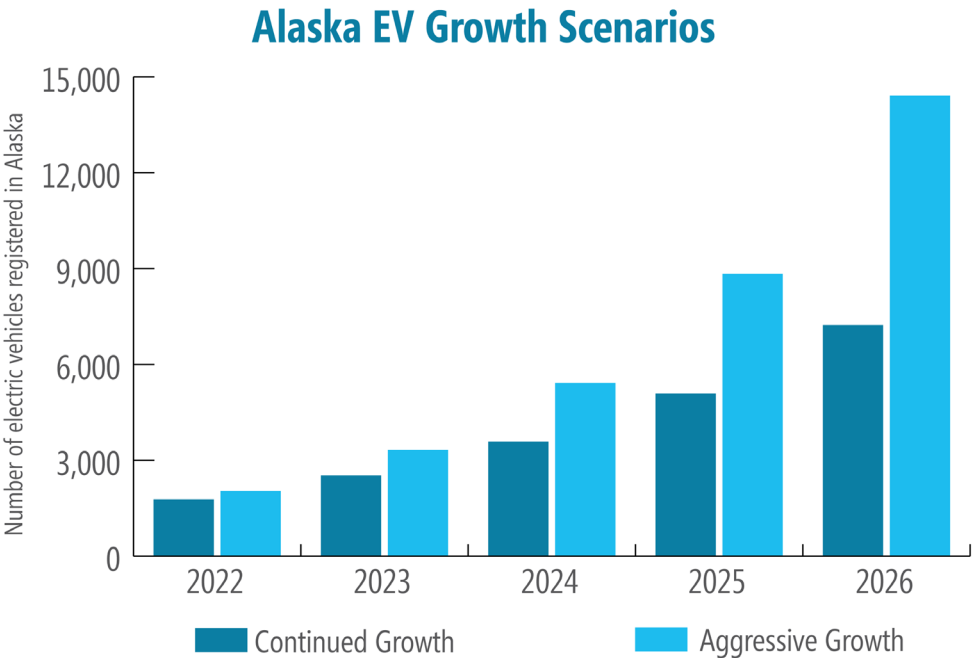


Figure 13. Alaska EV Growth Scenarios

Aggressive Growth Scenario

The aggressive growth scenario increases the 2020 to 2021 growth by a factor of 1.5, resulting in a 63% growth rate. This scenario addresses the expected increase in registration due to the new battery electric pickup truck models coming to market and expanded offerings for SUVs. The results are that the state would realize about 2,600 EV sales per year on average, adding 13,160 new EV registrations over the five-year period. The penetration rate for EVs in Alaska under this scenario would be 2.02%, up from the existing 0.20% in 2021 for light-duty vehicles.

Growth Monitoring

It is important to monitor the growth of EVs in the state to see how closely growth matches projections. The continued growth scenario projects that there should be 2,087 registered EVs through May 2023 and the actual number is 212 registrations shy. The overall projections appear to be high at this time, but reforecasting appears to be premature. There have been some supply chain disruptions and other challenges leading to shortages in vehicle availability, thus impacting registration data. This information will be continued to be monitored and if a reforecast becomes necessary, it will be completed. While not meeting the continued growth scenario, a 35% growth rate in EV adoption is certainly a significant trend. However, Chugach Electric Association has contracted with S&P Global Mobility to supply these data for the past six years and has observed notable changes in EV adoption trends across Alaska. The most recent data show annual EV growth for the Railbelt at over 70%, which is significantly higher than the statewide average. Based on these data, the aggressive growth scenario is a more realistic representation of the Railbelt region.



Corridor Pending Corridors

The route from Anchorage to Fairbanks is the only approved AFC through seven rounds of application.

Corridor Ready Corridors

Alaska currently does not have any ready corridors. This plan intends to upgrade the corridor from Anchorage to Fairbanks to ready by 2025.

Existing Locations of Charging Infrastructure Along AFCs

As of June 2023, there are five existing DCFC locations with 14 ports located within a mile of Alaska's proposed AFC along the Parks and Glenn Highways. Of the existing DCFC locations, none have connectors and speed output (minimum 150 kW) that meet the NEVI standards. The average output is 50kw for the six existing DCFC stations that are not Tesla Superchargers. The Supercharger in Chugiak, which was commissioned following last year's plan approval, is rated at 250 kW. Should the Joint Office and FHWA decide to modify the NEVI Standards and Requirements to consider a location with at least four NACS ports and no CCS ports as NEVI Creditable, this location would count towards completion of the corridor as there are eight ports at this location.

Figure 15 displays the gaps in coverage for DCFC locations and highlights the longest gap, which spans 170 miles from Wasilla to Cantwell. Within that span there are three Level 2 stations, but only one is open year-round.

Two locations are RV campgrounds and provide access to charging only during summer months. The second longest gap in charging access is from Healy to Fairbanks, a span of over 110 miles. This span also lacks Level 2 charging locations. Once into Fairbanks, the nearest DCFC location is approximately 4.5 miles from the AFC. Neither DCFC nor Level 2 stations have yet been installed along the Glenn Highway.

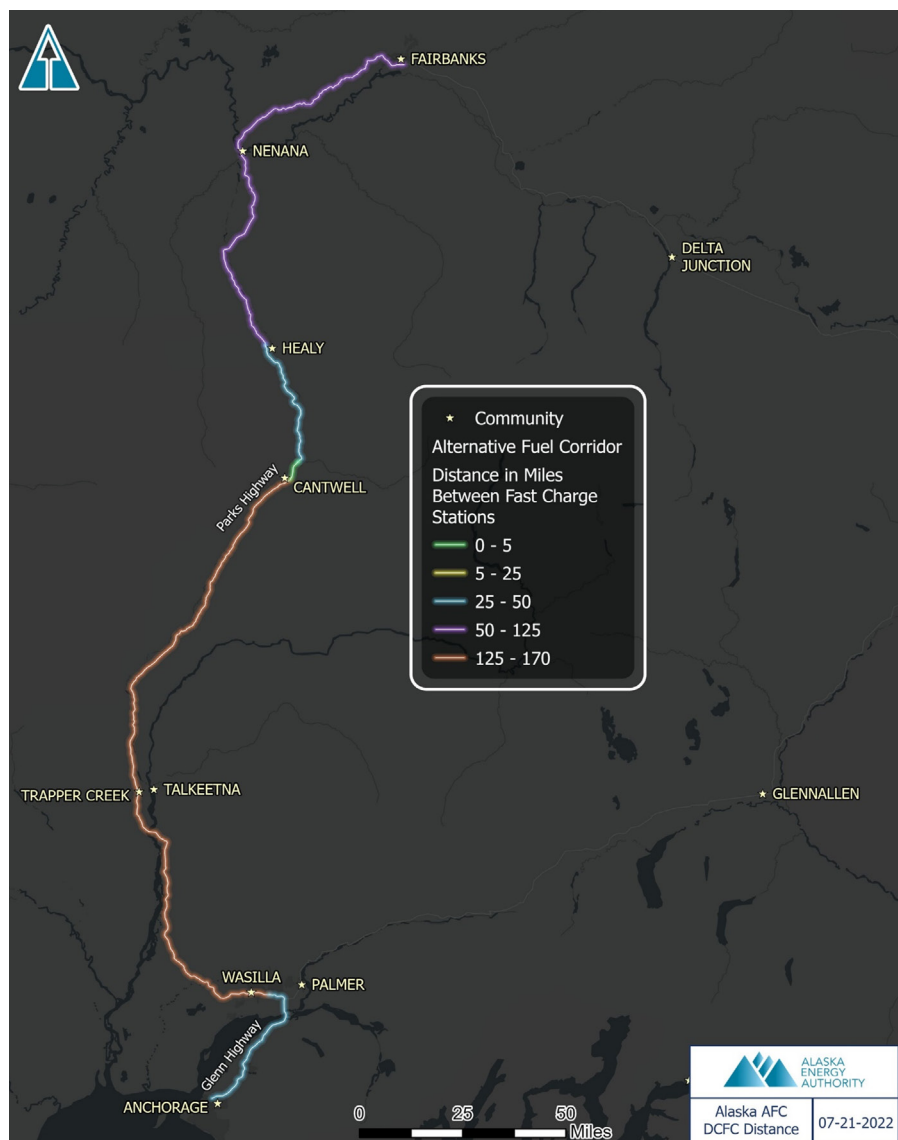


Figure 15. Alaska AFC Distance Between Fast Chargers



Table 12: Existing Locations of EVSE Within One Mile and Along Alternative Fuel Corridor

State EV Charging Location Unique ID	Charger Level (DCFC, L2)	Charger Type	Location	# of Charging Ports	EV Network (if known)	Meets all relevant requirements in 23 CFR 680?	Intent to count towards Fully Built Out determination?
*TBD	DCFC, L2	NACS, CHAdeMO, CCS, J1172	22211 Birchwood Loop Rd	12	Tesla, Siemens	No	No
AK3_0.67	Level 2	NEMA 14-50	1790 S Woodworth Loop, Palmer, AK 99645	4	Non-networked	No	No
AK3_4.03	DCFC, Level 2	2 J1772, (240v 50 amp Wall), CCS/SAE	3700 E Parks Hwy, Wasilla, AK 99654	4	Non-networked	No	No
AK3_4.89	Level 2	J1772	2701 Mountain Village Dr, Wasilla, AK 99654	1	Non-networked	No	No
AK3_12.61	Level 2	NACS	281 S Conquest Cir, Wasilla, AK 99654	2	Non-networked	No	No
*TBD	Level 2	J1772	1032 E Steam Cmns Ave, Wasilla, AK 99654	2	ChargePoint	No	No
AK3_60.94	Level 2	NEMA 14-50	49941 Parks Hwy, Willow, AK 99688	2	Non-networked	No	No
AK3_99.46	Level 2	NEMA 14-50	Mile 135.4 Parks Hwy, Trapper Creek, AK 99683	2	Non-networked	No	No
AK3_174.2	DCFC, Level 2	J1772, CHAdeMO, CCS/SAE	Mile 209.9 Parks Hwy, Cantwell, AK 99729	3	FLO	No	No
AK3_179	DCFC, Level 2	2 NACS Wall, 1 DCFC, NEMA 14-50	Mile 214.5 Parks Hwy, Cantwell, AK 99729	4	ReCharge Alaska	No	No
AK3_203.06	Level 2	NEMA 14-50	Mile 238.6 Parks Hwy, Denali Nat'l Park & Preserve, AK 99755	2	Non-networked	No	No



State EV Charging Location Unique ID	Charger Level (DCFC, L2)	Charger Type	Location	# of Charging Ports	EV Network (if known)	Meets all relevant requirements in 23 CFR 680?	Intent to count towards Fully Built Out determination?
AK3_202.91	Level 2	NACS	Mile 238.6 Parks Hwy, Denali Park, AK 99755	2	Non-networked	No	No
AK3_212.99	DCFC	CHAdEMO, CCS/SAE	Mile 248.7 Parks Hwy, Healy, AK	2	Non-networked	No	No
AK3_319.22	Level 2	NEMA 14-50	4140 Boat St, Fairbanks, AK 99709	1	Non-networked	No	No

*Charging station installed since the publication of last year's plan.

Known Risks and Challenges

There are several risks and challenges worth noting, given the diverse and challenging terrain of Alaska paired with its size and low population density.

Lack of Development

Long distances with no development, including a 100-mile stretch along the AFC between Trapper Creek and Cantwell, pose logistical challenges for installing EV charging infrastructure and seeking hosts for sites. In these remote transportation corridors, there may be only electric transmission lines with no existing tie-in capability (along the Parks and Richardson Highways, for example) or, in some areas, no electricity infrastructure at all (along the Dalton Highway, for example). Until these logistical challenges are solved, it will be difficult to combat range anxiety among potential EV adopters.

The lack of reliable internet or cell service in underdeveloped

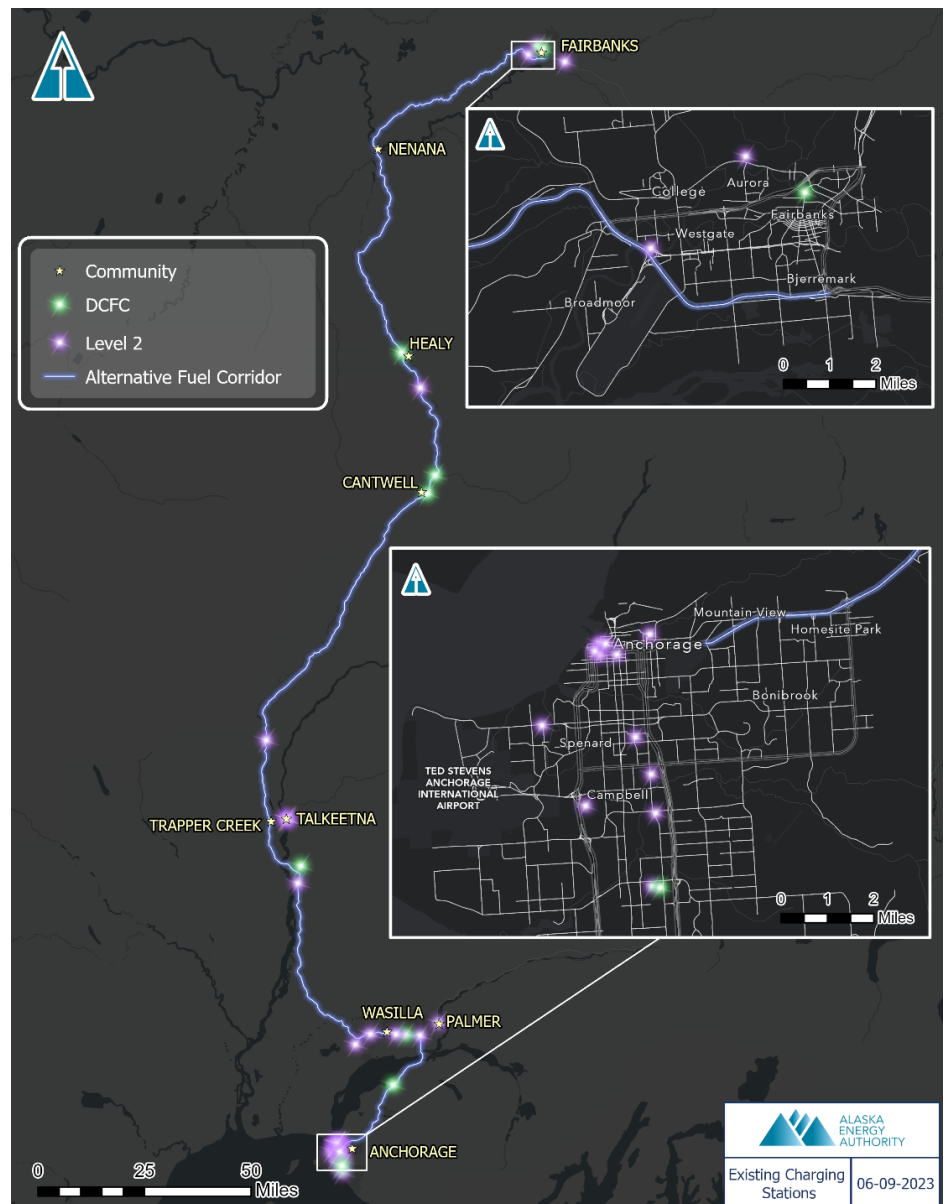


Figure 16. Existing EV Chargers Within One Mile and Along Alaska's AFC



and undeveloped areas poses a challenge to keep remote stations connected to a network to provide accurate real-time reporting on energy pricing and downtime. The EV charging infrastructure may need to rely on hard-wired communication if the site has access.

Additionally, an RFI was issued by AEA in April 2022 for public comment, and to elicit feedback regarding EVs and charging infrastructure needs in Alaska. Ninety-nine responses were received with new ideas for charging locations, risks that may affect the program, and other supporting information regarding the seasonal use of EVs that will continue to inform AEA's NEVI program.

Climate

Along the Railbelt corridor, average low temperatures in the winter range between -20°F and 5°F, with much colder temperatures occurring frequently throughout the season. These cold temperatures can cause a range decrease of up to 50% for EVs, which will contribute to range anxiety. Colder temperatures can also increase the time required to charge the battery.

The challenges with frequent snow and ice removal at charging stations could increase station downtime. Likewise, winter driving conditions and winter storms could make travel between charging stations hazardous or impossible for brief periods. Most major highways are maintained year-round by State of Alaska maintenance crews, but conditions along some corridors (the Richardson Highway, for example) require complete road closures due to high winds or avalanches more often than others. Several corridors like the Denali Highway and Taylor Highway are not maintained in the winter, effectively closing them to car and truck traffic.

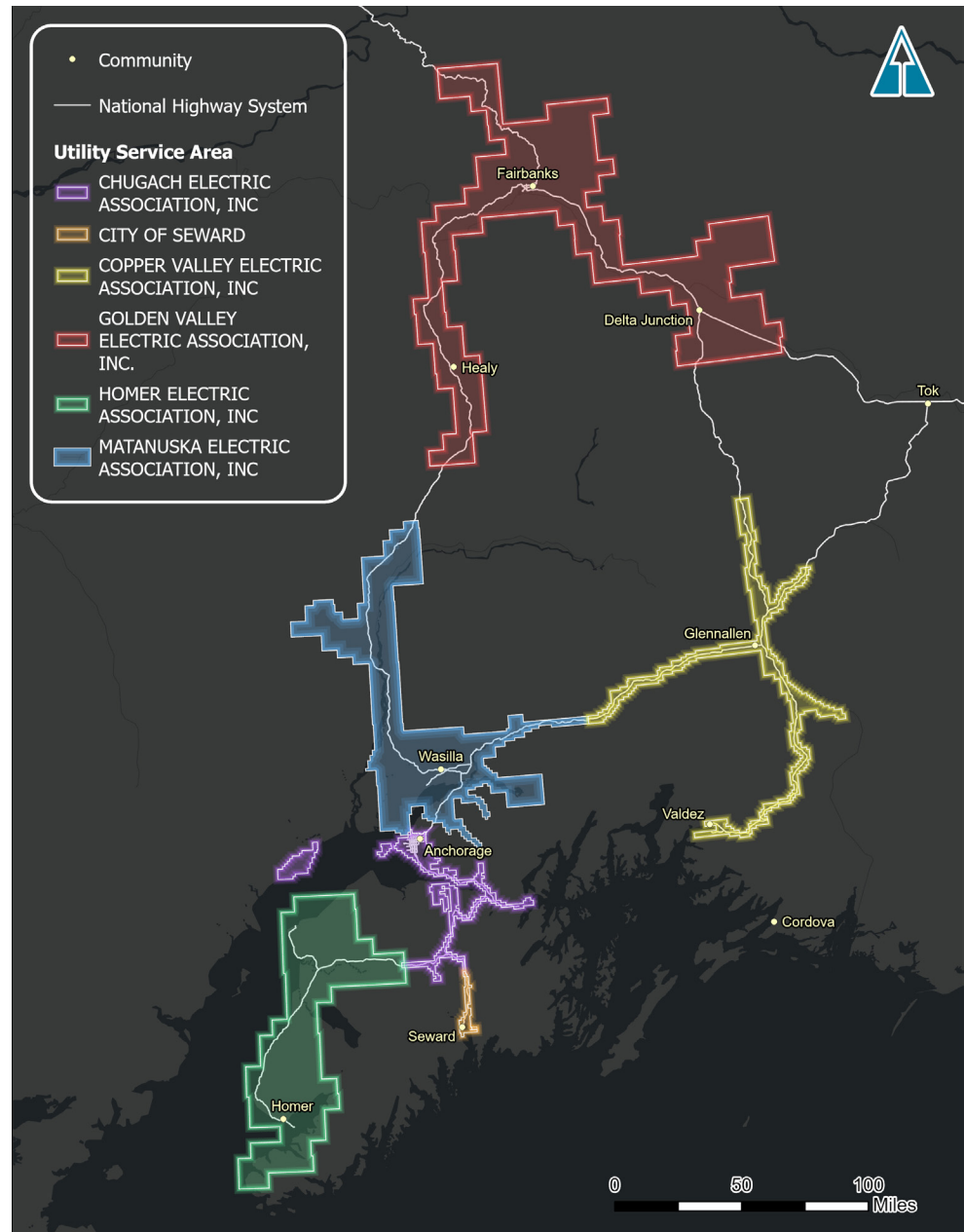


Figure 17. Utility Service Areas



Some roadways may not be open year-round due to the lack of winter maintenance. According to the Alaska DOT&PF/511AK, the following highways are not maintained during the winter months (October – May):

- Copper River Highway (MP 18 to Million Dollar Bridge, MP 49)
- Denali Highway (Paxson, MP 0 to Cantwell, MP 130)
- Denali Park Highway
- Eureka-Rampart Road (MP 0 to MP 3)
- Taylor Highway (Tetlin, MP 0 to Eagle, MP 160)
- Top-of-the World Highway
- McCarthy Road (Copper River Bridge, MP 0 to Kenicott River by McCarthy, MP 58)
- Nome area:
 - Council Road (E. of Nome, MP 5 to Council, MP 73)
 - Kourgarok Road/Nome-Taylor Highway (N. of Nome, MP 13 to Kougarkok River, MP 86)
 - Nome-Teller Highway (Snake River Bridge, MP 7 to S. of Teller, MP 68)
 - St. Mary's/Mountain Village Road (St. Mary's Airport, MP 5 to Mtn. Village Airport, MP 68)

Some of the DCFC stations in rural areas, such as the one in Healy, have been retrofitted with an enclosure that increases the temperature of the air around the station by about 30 degrees to ensure that it works in the harsh, cold climate. This could be a consideration for the charging stations installed based on the operating parameters of the available stations.

Barriers to Consumer Adoption

It will be difficult to overcome skepticism about whether EVs are appropriate for Alaska's geography and climate. Many Alaskans live in small communities located a great distance from developed commercial infrastructure, many of which are off the road system and accessible only by water or air. The cost, logistics, and sustainability of low-usage sites will be a challenge in reaching these users. Further, the low existing EV penetration may impact the economic viability for the return on investment of the match funding provided by site hosts or charging vendors. There have also been supply chain constraints that have limited EV availability in all parts of the world, including Alaska, and particularly limiting preferred vehicle types that Alaskans typically purchase such as larger SUVs and trucks.

Petroleum and coal sources account for 70% of Alaska's electricity production, which could negate some of the positive environmental benefits of EV use in Alaska and be a barrier to adoption for environmentally focused consumers.

Energy Sources and Costs

Alaska's electricity grid is isolated from the rest of North America—it is not connected to power grids in Canada or the contiguous United States. This could leave Alaska more vulnerable to reliability issues in its electric grid. There are two distinct grid categories in the State of Alaska: Railbelt and remote. The majority of the population (70%) resides in urban areas in the Southcentral region of the state and are serviced by the Railbelt Electric System. The remaining 30% of the population reside in isolated rural communities served by independent utilities. Petroleum and coal sources account for 70% of Alaska's electricity production, which could negate some of the positive environmental benefits of electrical vehicle use in Alaska and be a barrier to adoption for environmentally focused consumers.

Alaska's Railbelt Electric System is serviced by five electric utilities (four cooperatives and one municipal utility): Chugach Electric Association, Golden Valley Electric Association, Homer Electric Association, Matanuska



Electric Association, and Seward Electric. The “Railbelt” refers to the interconnected grid that loosely follows the route of the Alaska Railroad. The system stretches approximately 700 miles and services 70% of Alaska’s population. The State of Alaska, through the AEA, owns significant transmission and generation infrastructure on the Railbelt system. The residents and businesses along the Railbelt consume approximately 80% of the state’s electricity across a service area similar to the distance from West Virginia to Maine. On an annual basis, the Railbelt Electric System generates approximately 4800 GWh. Interconnection between regions is by single transmission lines. This relatively small interconnected electrical system is home to significant Department of Defense assets, tribal governments, highly diverse populations, and a remarkable variety of carbon and non-carbon energy resources.

The Railbelt is subject to several different climate zones and seasonally harsh conditions, including a sub-Arctic climate with significant seismic activity. Disruptive natural events occur often; earthquakes, wildfires, extreme cold and winter storms are experienced annually. The reliability of the Railbelt is susceptible to the effects of these natural events. Depending on their scale, they can affect service to member-consumers and service communities.

In the spring of 2022, the Regulatory Commission of Alaska approved electricity rates proposed by the regulated electric utilities that will be charged to the operators of high-speed commercial EV charging stations. The previous electric rate structures imposed a demand charge based on the peak amount of electricity drawn during any 15-minute period over a billing period, and an EV using a DCFC could impact the demand charge assessed to the site. The new rates have gone into effect over a 10-year inception period and the RCA will monitor the effect of EVSE usage on utilities and the progress of the deployment of EVSE in the state. The utilities recognize that high-speed EV charging stations with imposed demand charges would likely render the charging stations uneconomic. Under an agreement with the RCA, the utilities are using a formula which a per kWh rate will be charged for EV charging. The approved charging station rates are:

- Golden Valley Electric Association: \$0.14951/kWh
- Homer Electric Association: \$0.16441/kWh
- Matanuska Electric Association: \$0.30243/kWh
- Chugach Electric Association (North District): \$0.15274
- Chugach Electric Association (South District): \$0.13508
- Juneau Utility, Alaska Electric Light and Power Company: \$0.1383 to \$0.2489/kWh depending on class of customer and time of year

The EV Tariff for the Chugach Electric Association South District secondary service establishes an energy charge of \$0.13508 per kWh, for billing periods where the load factor is below 34.478%. Chugach has filed a rate case with the RCA proposing to consolidate North and South District tariffs. This will result in the tariff for the South District as the best representation of Chugach’s EV rate.



*EV charging station at the IBEW office in Anchorage.
Photo courtesy of AEA*



The state's AFC is located within the Railbelt service territories of Chugach Electric Association, Matanuska Electric Association, and Golden Valley Electric Association. The RCA's action does not address EV rates for unregulated utilities. Golden Valley Electric Association initially received approval for a DCFC tariff of \$0.654801 but revised its load factor and submitted an alternative rate to the RCA of \$0.14951/kWh to be more in line with the other utilities along the Railbelt and promote deployment of charging stations within its service area.

The remaining 30% of the state's population resides in remote and rural communities. Alaska's 183 remote villages are primarily powered by small diesel engine generator sets. Alaska has very few roads despite being 665,000 square miles and more than twice the size of Texas—it is vastly more remote than even the most rural parts of the contiguous United States. There are no natural gas pipelines, electric transmission lines, or central generation plants serving multiple villages. Engines, generators, switchgear and supporting equipment vary significantly among the 183 powerhouses dispersed across Alaska's remote communities. Each village is a stand-alone microgrid and many do not have the expected professionally trained utility and maintenance personnel.

The cost of energy varies drastically depending on the cost of fuel. The non-subsidized cost of energy in rural Alaska ranges between \$0.30/kWh and \$1.20/kWh. The Southeast region consumes the least amount of fossil fuel for electric generation. Both Kodiak and Southeast have large, mature hydroelectric projects that provide the majority of power in their more populated communities, resulting in stable, low energy costs. Northwest Arctic regions. Some communities in The Aleutians, Bering Straits, Bristol Bay, Lower Yukon-Kuskokwim, and Yukon-Koyukuk/ Upper Tanana regions are almost entirely reliant on diesel for power generation. An increasing amount of wind power is generated in the Bering Straits, Lower Yukon-Kuskokwim, and the Bristol Bay and Aleutians regions have developed hydropower resources. The amount of hydroelectric and wind generation has been continually increasing in the last 15 years.

Private Investment

Given the current low penetration and expected usage of the DCFC stations, some small businesses that could be site hosts may find the 20% match to be a challenging proposition. AEA is investigating solutions to reduce the burden and identifying potential site hosts to determine if match funding can be fully supported. AEA estimates that each NEVI-compliant site will cost \$1.0M - \$1.2M to construct, requiring \$200,000–\$240,000 of private cost share. While AEA received many responses to the RFA, it is unclear at this time if any businesses chose not to respond due to the amount of match required to participate in the program.



EV Charging Infrastructure Deployment

The Alaska EV Infrastructure Implementation Plan identifies where and when EV charging infrastructure should be deployed with the NEVI formula funding. Considerations of consumer adoption, cost to install, return on investment, utility availability, roadway traffic, weather, and site host availability were taken into account to develop a proposed strategy to deploy infrastructure. Throughout the five-year NEVI program, the deployment plan is expected to evolve through lessons learned, data collection and analysis, and continued stakeholder engagement.

This section has been updated for FY24 to reflect the previous edition's planned EV charging stations that have been commissioned, additional grassroots efforts in the state to showcase EV capabilities, and a refined list of funding sources to support infrastructure deployment.

Funding Sources

No State funding or highway gas taxes have been allocated for the construction of the infrastructure. Match funding sources will come from one or a mix of the below options. Therefore, AEA is evaluating the matching funding sources available.

- **Site hosts:** While the 20% match could be significant, some sites may be able to support the entire match. Regardless of other match funding sources, it is expected that the site may provide match funding or support the operations and maintenance throughout the five-year period.
- **State EV Program Funds:** AEA received \$1.5 million of state funding to leverage as matching funds for discretionary grant funding opportunities. However, these funds are not expected to be used for the



NEVI formula program.

- **Utilities:** Utilities are permitted to support line extensions that can count as part of the overall project costs and therefore count towards match requirements. Utility contributions may include a portion of service upgrade and line extension costs as well as direct financial support through incentive programs.

Infrastructure Deployment Upgrades

An inventory of EV charging stations currently being installed through other initiatives outside of NEVI was compiled for review to identify locations and determine if any of the sites would be NEVI compliant. Coordination with the other deployments could help maximize the formula funding and present opportunities to engage with potential site hosts that already support EV charging.

Table 13: Proposed EV Charger Installations by Other Initiatives

State EV Charging Location Unique ID	Charger Level (DCFC, L2)	Charger Type	Location	Number of EV Connectors	EV Network (if known)	Corridor
Sterling_11.58	DCFC	CHAdEMO, CCS	18280 Sterling Hwy, Cooper Landing, AK 99572	1	EV Connect	Outside

Volkswagen Settlement: Homer to Healy Corridor

In 2021, AEA spent \$1 million from the VW settlement to fund a charging corridor from Homer and Seward on the Kenai Peninsula to Healy, south of Fairbanks. The corridor consists of nine charging stations separated by less than 100 miles, allowing drivers the ability to travel from the Kenai Peninsula to Fairbanks without fear of losing power. Sites in Anchorage, Homer, Seward, Soldotna, Cantwell, Chugiak, Healy and Trapper Creek are currently operational. The site in Cooper Landing is still under construction. Figure 18 identifies the corridor deployment. The proposed stations will not meet NEVI requirements as all the DCFC stations will be 50 kW and at most there will be two stations per site installed.

AFC Corridor Pending Designation to Corridor Ready Designation

AFC pending designation in Alaska as of Round 6 goes from Anchorage to Fairbanks. In order to receive the corridor-ready designation and comply with NEVI requirements, the corridor will require an entire buildout of new infrastructure, as none of the existing stations meet the requirements of the NEVI program.

Some locations along the corridor are not within a utility service area. Because of the power utility gaps, some EV charging locations will not be within the 50-mile radius required by NEVI. The EV charging locations are optimized to be within the shortest distance of each other. This year’s plan proposed that the AFC be upgraded to Corridor Ready once the selected Priority Sites are commissioned.

Charging and Fueling Infrastructure Discretionary Grant Program

In addition to the NEVI Formula Funding, the BIL provides for \$2.5B in discretionary funding which has taken the form of the Charging and Fueling Infrastructure (CFI) grant program. AEA and DOT&PF submitted a joint application to install EV charging infrastructure in coastal communities at AMHS facilities. The CFI grant submission intends to jumpstart the state’s activities in Phase 2 of the plan rather than wait until the AFC is certified complete. This will help give marine hub communities earlier access to charging infrastructure to support electrification.

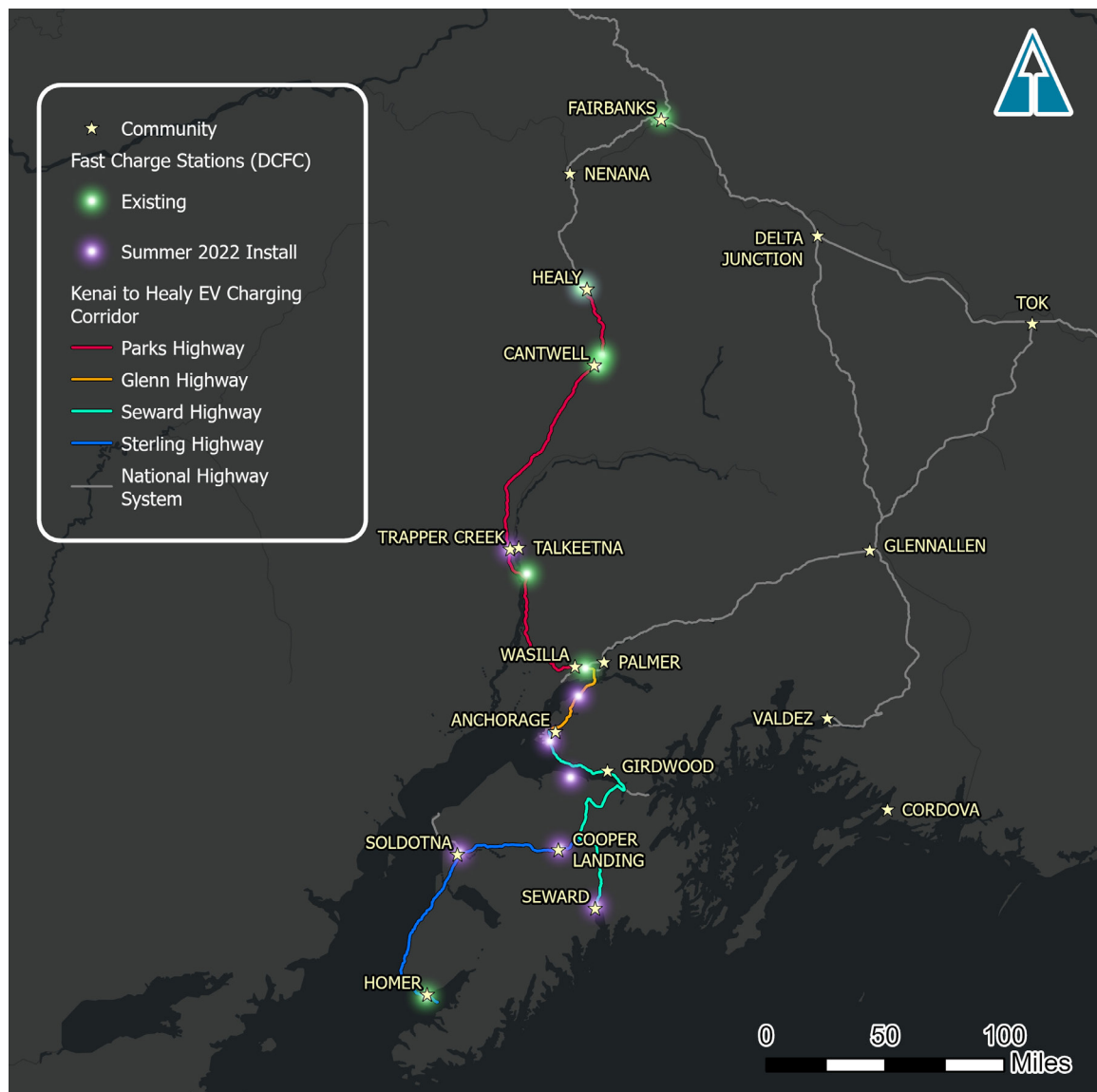


Figure 18. Alaska's Current and Future EV Charging Locations

Vehicle Technologies Office Funding Opportunity Announcement

AEA submitted an application for the Fiscal Year 2022 Vehicle Technologies Office (VT) Program Wide Funding Opportunity Announcement (FOA) and has received selection of application for negotiation status. The project title is Alaska Rural EVSE Deployment (ARED). AEA is currently working through the negotiation process and the funding is not guaranteed at this time. This application was submitted to support rural communities in alignment with Phase 3 of the plan.

Increases of Capacity/Redundancy along Existing AFC

AEA intends to build out the AFC to its maximum capability. It is not expected that any location will exceed the minimum number of charging stations prescribed in the NEVI guidance.



Electric Vehicle Freight Considerations

Nearly half of Alaska’s freight by weight is transported by truck, another quarter by rail, and just under 15% by boat. The majority of trucked goods and materials are transported to the state by ship or barge, then trucked within the state to their destination. The highest volume of this truck traffic occurs between the urban centers of Anchorage and Fairbanks.

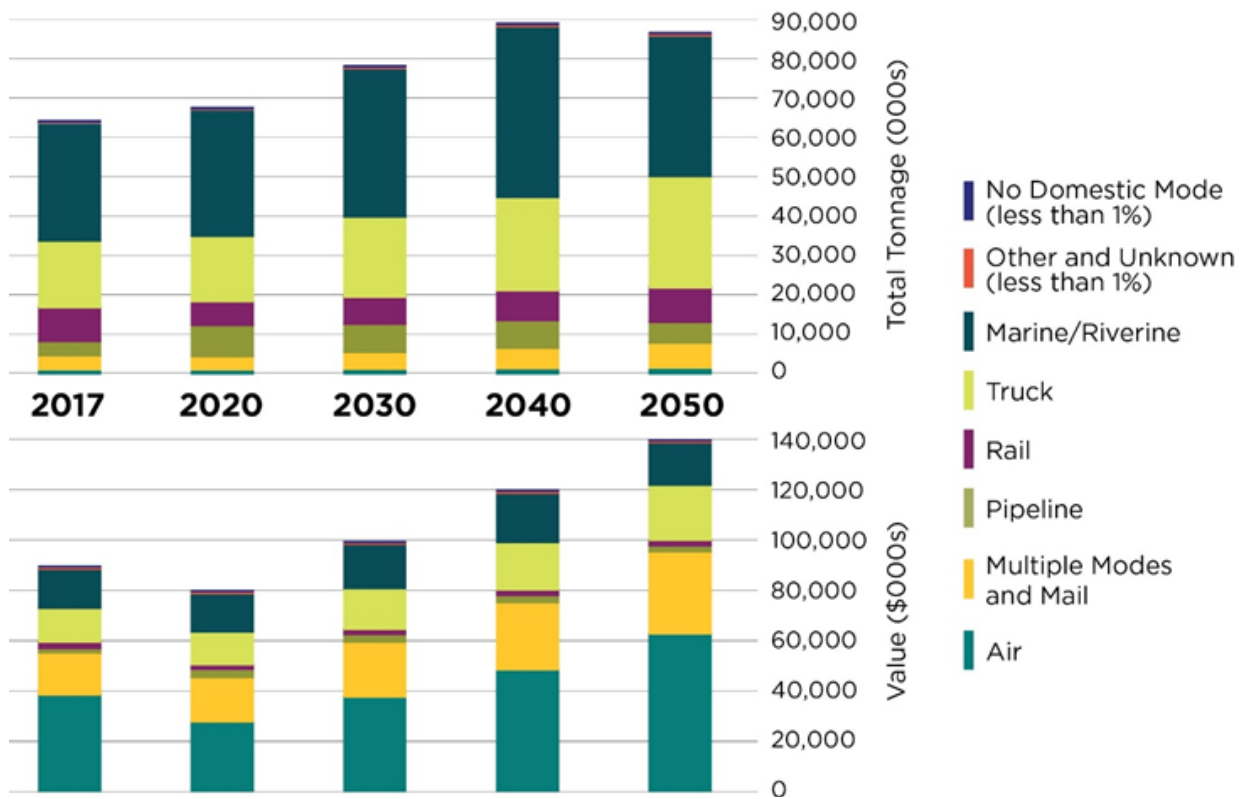


Figure 19. Freight Moved by Mode (Within, Into, and Out of Alaska)
Source: Alaska Moves 2050 DRAFT Statewide Freight Plan

According to the Alaska Trucking Association, the trucking industry in Alaska does not anticipate the electrification of fleets in the foreseeable future and is not aware of any sales of electric freight vehicles in the state.

When fleet electrification does begin in the state, range and infrastructure will be two major considerations. Alaska’s freight routes are more defined than freight routes in the contiguous United States because there are fewer destinations and fewer alternative routes. For example, a driver traveling between Anchorage and Fairbanks will need to travel the entire distance (approximately 360 miles) and charge at the destination. A lengthy break for charging in the middle of the route would make the trip economically infeasible. AEA will continue to monitor fleet manufacturing roadmaps to determine if battery-electric trucks become the industry preference or if another alternative fuel or hybrid powertrain becomes prominent.

A lack of electric infrastructure along some freight routes will also be a barrier to fleet electrification. For example, the oil and gas industry based on the North Slope depends on freight trucked year-round up the Elliott and Dalton Highways to Prudhoe Bay, a nearly 500-mile one-way trip, and there is no power grid available along the route.



Electrification of the state's marine fleet may be more feasible in the near term. A research project is currently underway, funded by Alaska DOT&PF, that is studying the feasibility of low emission and electric ferries as an option as the state replaces its aging AMHS fleet.¹

Public Transportation Considerations

Two electric buses are currently in use in Alaska—one city transit bus in Juneau and one school bus in Tok.

Tok Transportation operates the state's only electric school bus, which is half-powered by solar panels and half by the local electric utility. The community of Tok is located in Interior Alaska, which experiences some of the coldest winter temperatures in the state. In the milder shoulder seasons, the bus runs between 1.4 and 1.7 kilowatts per mile. At -38°F, the bus's efficiency decreased to 3.46 kilowatts per mile. The extra energy costs are spent heating the inside of the bus to a minimum of 45 degrees. To increase efficiency, the battery is insulated, and the engine is covered.

Juneau's bus, operated by Capital Transit, has faced mechanical, electrical, and range issues since its purchase in spring 2021. Capital Transit is working with the manufacturer to get the bus performing reliably. Despite the difficulties with its first bus, Capital Transit continues to follow the development of electric bus technology. After talking with other transit operators in cold environments with electric buses and reviewing FTA reliability testing, Capital Transit placed an order for seven Gillig electric buses. They are expected to arrive in summer 2024. Capital Transit's current fleet consists of Gillig diesel buses, which share many of the same components and operator controls. This will aid in training when the new buses arrive.



*The City and Borough of Juneau purchased an electric bus in 2021
Photo courtesy of AEA*

In 2018, the Municipality of Anchorage leased an electric bus to test its viability, but no electric buses were purchased after that initial test. In its 2019 Climate Action Plan, the municipality included a goal to “monitor the economic viability” of transitioning its public transit fleet to EVs, although progress on that goal was not discussed in the 2019/2020 follow-up report. According to a report on the Anchorage School District website,² although the school district recognizes the future potential of electric buses, cost and performance of the buses on long routes, especially in the winter, make them not viable.

Several smaller transit services provide transportation within rural communities (like Sunshine Transit serving communities in the upper Susitna Valley) and between rural communities and urban areas (like Soaring Eagle

1. <https://dot.alaska.gov/comm/pressbox/arch2022/PR22-0021.shtml>

2. <https://www.asdk12.org/Page/13936>



Transit, operated by the Gulkana Village Council, which runs between communities in the Copper River Basin and Anchorage). None of these services use EVs but could benefit from the buildout of EV infrastructure.

The greatest barriers to adoption of EVs in public transit appear to be initial investment costs and cold weather performance. The Anchorage School District claims electric buses can cost three to four times as much up-front and requires a capital investment of \$8 million to \$10 million to convert the current diesel fueling infrastructure to electric charging stations. Performance in cold weather is also a concern, with much of the battery power being used to heat the interior of the bus. Currently Juneau’s electric bus cannot complete a full day’s worth of routes in the winter without having to be switched out to charge.

AEA will continue to monitor electric bus technology improvements and agencies as they plan to purchase electric buses to determine if there are opportunities to collaborate on future infrastructure deployments outside of the designated AFC.

FY23-26 Infrastructure Deployments

During Phase 1, the AFC buildout, the focus will be on the priority charging sites located within the ‘Priority EV Charging Sites’ in figure 20. Applications were solicited to host the NEVI sites in each zone to maximize coverage of the corridor. With the deployment, there is an expected gap of 77 miles, greater than required 50-mile coverage in the NEVI program. This is due to the lack of utility service and host sites between Trapper Creek and Cantwell.

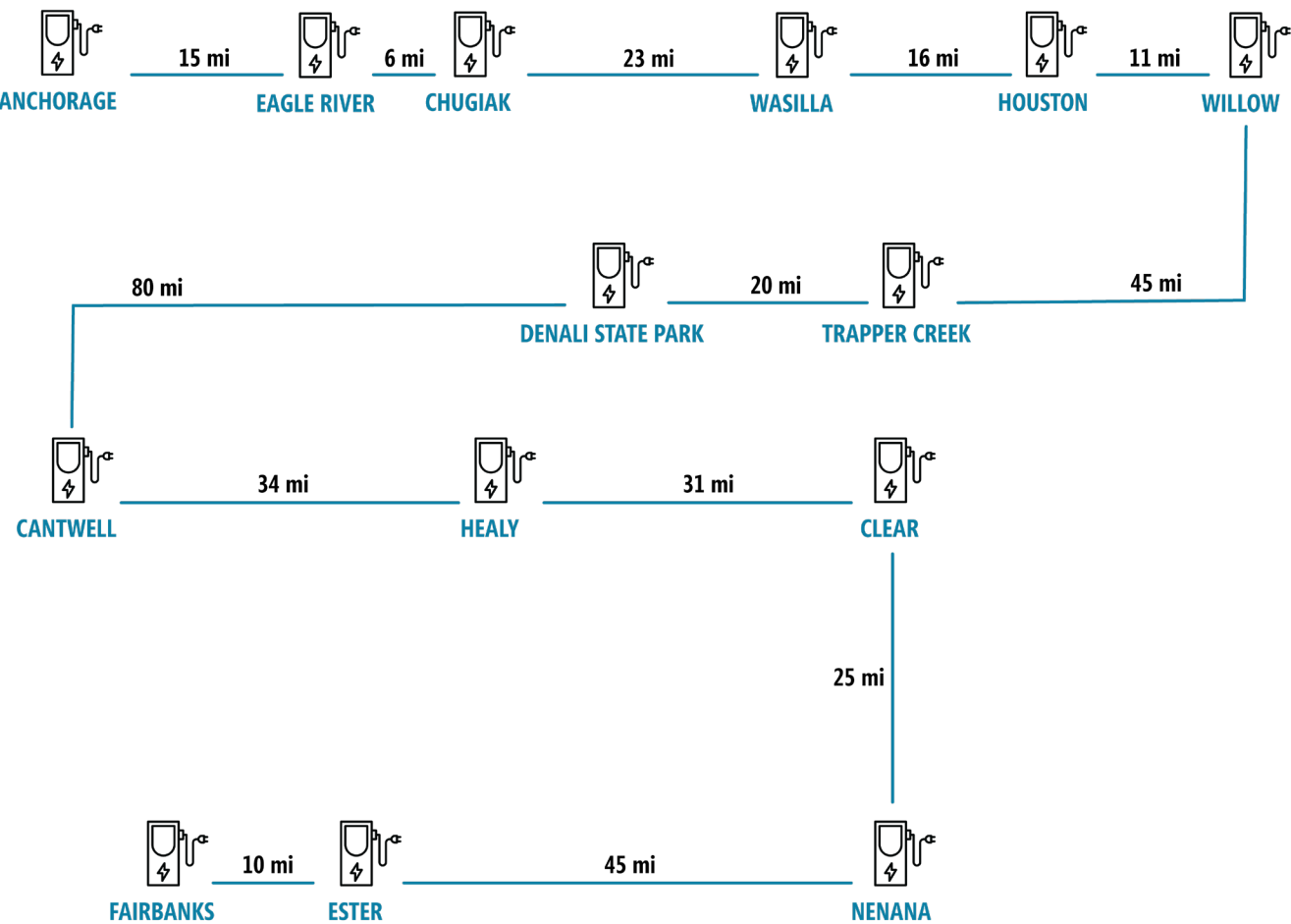


Figure 20. Priority Sites for Phase 1 as Solicited in RFA and Presented in Last Year's Plan.



AEA initially estimated that it would require approximately \$14 million to \$20 million to fully build out the AFC to corridor-ready designation. This would leave approximately \$30 million to \$36 million to be used for the other phases of deployment.

Following receipt and recommend awards under the RFA, AEA is proposing to construct nine EV charging sites that meet NEVI requirements. This selection of sites is expected to cost between \$10 million to \$12 million, leaving \$40 million to \$42 million remaining for other phases of the program. AEA is requesting that FHWA consider the Corridor Ready status for the state’s only AFC, thus leading to Corridor Complete status under the NEVI program. With Corridor Complete status, AEA can move to Phase 2 and identify priorities along the AHS and AMHS to support other Alaskan communities. Figure 21 depicts what a Corridor Ready AFC would look like following commissioning of all recommended sites.

Priority Sites Recommended for Award

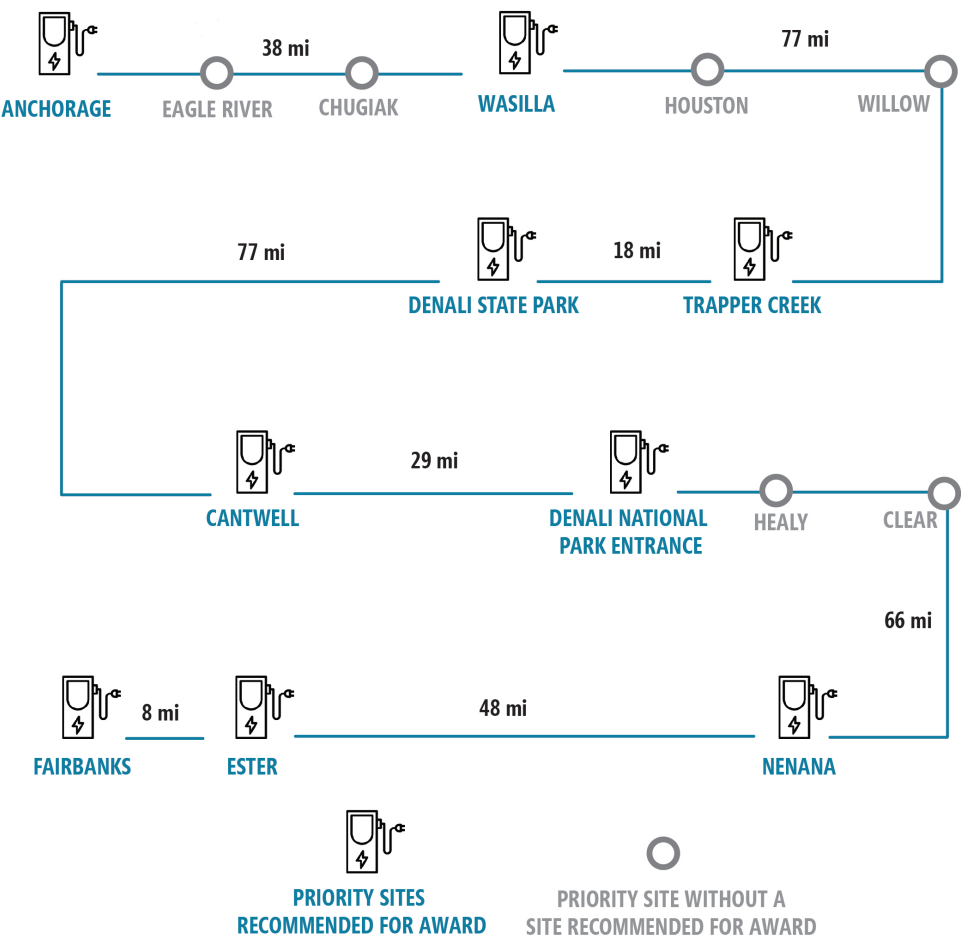


Figure 21. Priority Sites for Phase 1 as Recommended For Award



Planned Infrastructure Deployments

Table 14: Stations Under Construction

State EV Charging Location Unique ID	Route (note if AFC)	Number of Ports	Estimated Year Operational	Estimated Cost	NEVI Funding Sources (Choose one: No NEVI, FY22/23, FY24, FY25, FY26, FY27+)	New Location or Upgrade?
*						

*There are no sites currently under construction as of July 2023 since the solicitation process is ongoing.

Table 15: Planned Stations

State EV Charging Location Unique ID	Route (note if AFC)	Number of Ports	Estimated Year Operational	Estimated Cost	NEVI Funding Sources (Choose one: No NEVI, FY22/23, FY24, FY25, FY26, FY27+)	New Location or Upgrade?
*						

*There are no sites currently planned as of July 2023 since the solicitation process is ongoing and the projects have not been programmed into the STIP.

With the solicitation process ongoing, sites have not progressed into the planned or construction phases at this time. The selection committee has completed its recommendations and the process has begun to move into the next phase of notifying applications and beginning the TIP update.

Planning Toward a Fully Built-Out Determination

As noted in the Awarded Contracts section of the Contracting chapter, AEA is requesting acknowledgment of Corridor Ready status following commissioning of the selected Priority Sites for the state’s only AFC. Two additional Discretionary Exceptions are included in this plan submission in addition to the first year’s plan Discretionary Exception. Three gaps along the corridor exceed the 50-mile maximum, but none of them exceed 80 miles, the distance granted an exception in the initial plan. It is AEA’s belief that the market response to the RFA was adequate and there will be no suitable responses to another RFA that seeks to solicit charging locations in Willow and Clear. The lack of development and potential sites in these two locations is limited, especially as identified in Clear with no applications submitted for the first round. The initially approved Discretionary Exception is requested again – albeit at 77 miles instead of 80 miles due to sites recommended for award – due to the lack of power grid within this gap on the AFC.

If Corridor Ready status is granted, this will complete the only AFC in the state and Alaska then requests Corridor Complete status for fully built-out determination.

State, Regional, and Local Policy

Policies at the state, regional, and local level affect how the infrastructure can be deployed, funds collected, adoption rates and willingness to adopt EVs from the public, and how the infrastructure may be used by the public and fleet vehicles.



Public Utility Definition

The RCA approved U-21-022 on October 25, 2021, which clarified that EV charging stations are not public utilities or subject to restrictions on the resale of electric service, so vendors and owners of charging stations could assess a fee for the provision of electricity. Previously, site hosts had to charge customers based on the amount of time spent using the EV charger since only public utilities were allowed to charge multiple different customers for electricity.¹

State Energy Policy

The State Energy Policy (Alaska Statutes 44.99.115) recognizes the importance of promoting energy efficiency in the transportation sector.²

State Motor Fuel Tax – Registration Fees

There was a proposed bill that implemented a biennial registration fee to supplement the highway fuel tax that is used for highway construction, maintenance, and operations. Electric and alternative fuel vehicles would have paid \$100 and hybrid vehicles would pay \$50 under the proposal.³ The bill passed the Alaska House of Representatives and was referred to the Finance Committee in the Senate, but the 2021-2022 session ended before the Senate passed the bill. It has not been reintroduced at the time of this publication.

Alternative Fuel Vehicle Acquisition Requirement

Per Alaska Statute 44.42.020, every five years the Alaska DOT&PF must evaluate alternative fuel cost, efficiency, and commercial availability for automotive purposes. When practical, vehicles using alternative fuels should be purchased or vehicles should be converted to alternative fuels. To ensure the availability of alternative fuels for consumers, the DOT&PF may work jointly with public or private partners.⁴

Regional Zoning

Zoning ordinances are useful tools for state and local governments to indicate where EVSE is allowed or prohibited. Planners and other officials can utilize zoning to incentivize or require EVSE like chargers throughout a municipality's zoning districts or in specific areas.

Alaska can look to what other states and local municipalities



*EV charging station in Anchorage
Photo courtesy of AEA*

¹ Poux, 2021

² Alaska State Government, 2020

³ Josephson, 2021

⁴ U.S. Department of Energy, n.d



have done to promote EV adoption. For example, in the case of Methuen, Massachusetts, an addendum to the existing zoning ordinance permitted the use of EVSE in single- and multi-family dwellings along with commercial and industrial zones. Even more radical measures include incentivizing EV supply equipment installation through parking requirement measures. In Georgia, a municipal ordinance includes an incentive program in which each designated EV space in a parking facility counts as three spaces toward meeting off-street parking requirements. The effects of this ordinance are twofold: EV use is incentivized, and traditional ICE vehicle use is constrained and disincentivized.

Any changes in zoning ordinances must include clear definitions and provisions to avoid unintended limitations on EVSE deployment. New York City's Department of City Planning demonstrated this best practice when it amended zoning language to define EVSE in conjunction with parking facilities as an accessory use. This action allowed EVSE to be located in any drive-in property in a commercial district, rather than only at existing fueling station locations.¹

Further, state or local ordinances could restrict the parking of non-EVs or EVs not charging in parking spaces with fines and/or towing implications.

Grassroots

AKEVA plans to set up a temporary EV charging corridor from Fairbanks to Oliktok Point to bring attention to the challenges of electrifying all communities across Alaska. Demonstration, education, advocacy, and fundraising are pivotal as AKEVA builds its platform for EV drivers, activists, and stakeholders across the state to engage. These measures accelerate the adoption of EVs and improve EV infrastructure in Alaska. Education can also be utilized to dispel public misconceptions about range anxiety, EV performance in cold climates, and costs that prevent consumers from confidently making an EV their next vehicle purchase.²

ReCharge Alaska is a private project led by EV enthusiasts in Alaska. The group's goal is to "open up Alaska and advance the EV transformation through the deployment of DC Fast Chargers." ReCharge Alaska has deployed its own DCFC stations to support EV drivers in the state, written white papers on the subject, and researched and developed solutions to deploying infrastructure in the extreme cold temperatures of Alaska. The group has voiced satisfaction with AKEVA's 2020 R-20-005 tariff. The RCA evaluated the current electrical tariffs for emerging EV market and concluded that the R-20-005 incentive for electric users



A crowd gathers in the Golden Valley Electric Association parking lot in Fairbanks to send off the 10-vehicle Arctic Road Rally caravan on August 12, 2022. Photo courtesy AEA

¹ U.S. Department of Energy, 2015

² AKEVA, 2022



to reduce their power loads from short bursts of loads to a levelized load would be easier for the electrical utilities to manage. Such cooperation between private entities and state organizations is a promising step towards popularizing EV use. In this framework, passionate citizens take the initiative further than individual EV purchase, towards bolstering the public good.¹

After departing from the Golden Valley Electric Association parking lot on August 12, 2022 the [Arctic Road Rally](#) caravan of 10 EVs successfully traversed a 1,096-mile round trip from Fairbanks to the Arctic Ocean and back, testing the limits of where EVs can go and negotiating the lack of infrastructure along the way.

The biggest challenge on the Dalton Highway wasn't the performance of the vehicles themselves, but the lack of infrastructure, underscoring the need for more charging stations across the state. With no power lines to provide a charge, the group used a combination of diesel and natural gas generators to electrify their trip. Renewable energy credits provided by Chugach Electric Association helped them achieve net-zero emissions.

The event was meant to demonstrate and test the capabilities of EVs in some of the harshest environments—and the vehicles delivered. The group is planning another rally where they plan to bring in vehicles from more manufacturers and run some larger vehicles.



Ten EVs assemble at the edge of the Arctic Ocean after driving north up the Dalton Highway during the 2022 Arctic Road Rally Demonstration event. Photo courtesy Tim Leach, Launch Alaska

¹ Hall, 2022



Implementation

AEA has experience in supporting the deployment of EV charging stations, so past lessons learned and understandings can be applied to the NEVI program as AEA supports its deployment. The strategies in this section will support a successful deployment and lower risk to drivers, site hosts, network companies, the federal government, and AEA.

Strategies for EVSE Operations & Maintenance

Following the EV infrastructure installation process, there will be several operational considerations to be aware of, including electricity and maintenance costs and associated networking fees.

Maintenance & Warranty Costs

Charging infrastructure general maintenance includes storing charging cables, checking parts, keeping the equipment clean, and some intermittent repairs to chargers. Warranties vary by manufacturer and can be packaged as fixed-term, renewable, or included with equipment costs. However, while routine maintenance can be minimal, repairing broken chargers that are no longer under warranty can be costly. It is necessary to establish responsibility for maintenance costs (site host, charging network, or installer). Maintenance contracts should include response and repair times.

The site hosts and charging vendors will be responsible for the warranty, maintenance, and operations of the sites. The five-year costs related to these activities are expected to be included in the total project cost to be factored in with the federal share and local match. Once the NEVI funds are expended, the costs will entirely transfer to the site host and vendor, where it is expected that the sites will continue to operate and will be supported by collection of charging fees.



word cloud in Figure 22 highlights the responses received, and the notable themes collected from the public during this phase are:

- **Equitable:** In alignment with AEA's goals and the Justice40 requirements, equity will be ensured throughout the program.
- **Community:** The program should provide community charging. Alaskan's transportation patterns do not commonly include corridor travel.
- **Efficient:** Providing adequate speeds of charging will allow those using the charging stations to receive the charge needed and get back on the road.
- **Profitable:** Host sites will need to support the installation and have a return on investment of the match funding provided.
- **Accessible:** The stations need to be accommodating of all users and need to be placed in convenient locations for those traveling.

All procurements will be conducted through a publicly competitive process but conducting engagement activities with suppliers and site owners in advance should help bolster the number of applications received.

Site Selection

Criteria were developed in the initial plan and updated for the RFA so help distinguish sites when multiple applications were received for each Priority Area. The criteria reflected desirable site characteristics such as distance from the AFC, lighting provided on the site, located within a Justice40 boundary, and access to amenities while charging.

Table 16: Site Selection and Prioritization Criteria

Criterion	Max Points
Utility Service Site Information Form Evaluation	80
Has the applicant demonstrated a clear understanding regarding the infrastructure needs and utility improvement costs for the site? Does the project schedule align with the demonstrated infrastructure and utility needs?	
Site is located within 1 mile of the highway	60
Within 1 mile: 60 points	
1-3 miles: 30 points	
3-5 miles: 15 points	
Over 5 miles: 0 points	
Site provides adequate lighting for security around the EVSE.	20
Site has amenities for users to access while charging their vehicle.	40
Site is located within a Justice40 boundary.	40
Site match contribution:	60
20%: 20 points	
25%: 40 points	
30%: 60 points	
Total available base points	300
Bonus Considerations	Max Points
Site offers pull through charging access.	20
Site offers make-ready work for additional ports and increased speed (e.g. 350 kW in the future).	20
Site offers additional plug standards to be inclusive of other drivers (e.g. NACS and CHAdeMO)	10

Diagram illustrating a parking lot layout with various dimensions and signage:

- Dimensions: 9', 11', 5', and 7'.
- Signage:
 - EV charging station sign (blue with white text "EV" and a plug icon).
 - "No Parking" sign (red circle with a diagonal line over a "P" symbol).
 - Text: "EXCEPT FOR ELECTRIC VEHICLE CHARGING".
- Vehicle types: A blue car and a blue truck are shown parked.



ALASKA
ENERGY
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Strategies for EVSE Data Collection & Sharing

AEA will collect data on the usage of the EV charging stations for performance measurement, planning for future deployments, and reporting to the Joint Office on the program's metrics. To be compliant with the expected reporting requirements of the NEVI Standards and Requirements, the grantee shall provide a quarterly report in a form to be approved by AEA that includes the following:

- EV charging station identifier
- Charging port identifier
- Charging session start time/end time
- Charging session error codes
- Energy (kWh) dispensed to EVs per session by port
- Peak session power (kW) by port
- Payment method associated with each charging session
- Charging station uptime for each of the past three months as calculated by the methodology contained in 23 CFR 680.116(b)
- Duration of each outage
- Number of charging sessions per zip code for use by AEA in tracking Justice40 benefits

The grantee shall produce an annual report (as dictated by the NEVI Standards and Requirements) which contains the following data:

- Maintenance and repair cost per charging station for the previous year
- Identification of and participation in any state or local business opportunity certification programs including but not limited to minority-owned businesses, veteran-owned businesses, woman-owned businesses, and businesses owned by economically disadvantaged individuals

The grantee shall produce a one-time report per the NEVI requirements that contains the following data:

- Name and address of the private entity(ies) involved in the operation and maintenance of the chargers
- Distributed energy resource installed capacity, in kW or kWh as appropriate, of asset by type (e.g., stationary battery, solar) per charging station
- Charging station real property acquisition cost, charging equipment acquisition and installation cost, distributed energy resource acquisition and installation cost, and grid connection and upgrade cost on the utility side of the electric meter
- Aggregate grid connection and upgrade costs paid to the electric utility as part of the project, separated into:
 - Total distribution and system costs
 - Total service costs

These requirements will be imposed through the project agreements executed between AEA, DOT&PF and the sitehost. Further, the charging vendor will be required and responsible for sharing information through its own applications and other third-party applications. To enable data sharing with third-party entities, the vendor will be required to provide an application programming interface (API) with specific static information (such as location and name) and dynamic information (such as pricing structure and availability status). The APIs will also be used to create a centralized dashboard for the public to view stats on the Alaska EV program.

The chargers will be required to display and base the price for electricity in \$/kWh. The price of charging will be displayed on the chargers and communicated via the charging network. Further, the pricing structure that is inclusive of maintenance and operation costs will be required to be explained via an application or a



website. In an effort to make EV charging station location information more accessible, AEA will coordinate with the Alaska DOT&PF to add a layer to 511AK. This website garners frequent views due to the dynamic and changing conditions of Alaska's roadways. This will help inform the public of charging station locations and help ease range anxiety.

Strategies to Address Resilience, Emergency Evacuation, Snow Removal/Seasonal Needs

Alaska has significant risks related to earthquakes, mudslides, flooding, and avalanches. All of these—while serious and not entirely uncommon—are not as impactful as winter weather. Certain roads are not maintained during the winter season, and year-round availability and maintenance of the charging stations. Some local entities have designed enclosures for the DCFC stations to maintain an acceptable operating temperature during the winter.

Site partners will be required to clear the parking spaces for the EV charging equipment, but it may take additional time to complete snow removal based on the weather conditions. These factors cannot be used against the vendor for station uptime, especially if the adjacent roadway is not traversable. Requirements for operating temperatures and conditions will be included in the project agreements, but modifications, such as enclosures, may need to be accepted if the available equipment does not meet the specifications of the surrounding environment.



*Charging station at the Dimond Center, Anchorage
Photo courtesy of AEA*

Strategies to Promote Strong Labor, Safety, Training, and Installation Standards

To ensure Alaska's workforce is prepared to install and maintain EV infrastructure, AEA will coordinate with and seek feedback from unions including the International Brotherhood of Electrical Workers (IBEW Local 1547), the National Electrical Contractors Association (NECA), and local Laborers' International Union of North America (LIUNA) affiliates like the Laborers' Local 942 in Fairbanks and the Laborers' Local 341 in Southcentral Alaska, and other vocational organizations. Coordination efforts will focus on identifying challenges and risks in training Alaska's workforce to prepare for EV infrastructure and creating recommendations for certification requirements and state regulation changes, if needed.



Coordination efforts with unions will take place through the AKEVWG as outlined in the Public Outreach and Engagement Plan in Appendix A. The Working Group includes representatives from Alaska's business community, including chambers of commerce, small businesses, and potential site hosts. All recommendations related to the labor issues surrounding EV infrastructure that are discussed in technical group sessions will be presented to the larger group for consideration.

The NEVI Standards and Requirements identifies the EVITP as the certification program for electricians to install, maintain, and operate EV infrastructure. The EVITP website currently lists four Alaska businesses (located in Anchorage and Fairbanks) as utilizing EVITP-certified installers. The Public Outreach and Engagement Plan lists each of these businesses as potential stakeholders to help inform future EV installation and maintenance standards due to their experience with the certification process. As the Working Group considers the best path to certification for Alaskans, it will consider the option to allow certification through a registered electrical apprenticeship program that includes EVSE-specific training, as outlined in the proposed NEVI program regulations.

Bringing labor, business, and contracting groups into the EV conversation will have the added benefit of creating EV community advocates as workers learn more about EVs in Alaska and their economic development potential.

Bringing labor, business, and contracting groups into the EV conversation will have the added benefit of creating EV community advocates as workers learn more about EVs in Alaska and their economic development potential.



An EV passes through the intersection of Fireweed Lane and Arctic Blvd in Anchorage. Photo courtesy of AEA



Strategies to Address Compliance with Minimum Standards

There were no significant plan changes from the initial plan document to adhere to the NEVI Standards and Requirements Final Rule that was posted on February 28, 2023, and became effective March 30, 2023. All requirements and associated final rule reference sections can be found in Table 17.

Table 17: [*National Electric Vehicle Infrastructure Standards and Requirements*](#)

Requirement	Reference
Procurement Process Transparency for the Operation of EV Charging Stations	Section 680.106(a)
Number and Type of Chargers	Section 680.106(b)
Connector Type	Section 680.106(c)
Power Levels	Section 680.106(d)
Availability	Section 680.106(e)
Payment Methods	Section 680.106(f)
Equipment Certification	Section 680.106(g)
Security	Section 680.106(h)
Long Term Stewardship	Section 680.106(i)
Qualified Technician	Section 680.106(j)
Customer Service	Section 680.106(k)
Customer Data Privacy	Section 680.106(l)
Use of Program Income	Section 680.106(m)
Interoperability of EV Charging Infrastructure	Section 680.108
Traffic Control Devices or on-premises signs acquired, installed or operated	Section 680.110
Data Submittal	Section 680.112
Charging Network Connectivity of EV Charging Infrastructure	Section 680.114
Communication of Price	Section 680.116(a)
Minimum Uptime	Section 680.116(b)
Third-Party Data Sharing	Section 680.116(c)
Other Federal Requirements	Section 680.118(a) & Section 680.118(b)
ADA Requirements	Section 680.118(c) & Design Recommendations for Accessible Electric Vehicle Charging Stations
Title VI of the Civil Rights Act	Section 680.118(d)
Title VII of the Civil Rights Act	Section 680.118(e)
Uniform Relocation Assistance and Real Property Acquisition Act	Section 680.118(f)
National Environmental Policy Act of 1969 (NEPA)	Section 680.118(g)



Equity Considerations

DOT&PF and AEA employees know and understand the varying demographic communities throughout the state of Alaska as well as the importance of reaching out to all of our communities. The State is committed to not only public input and public outreach from our rural, underserved, and disadvantaged communities, but continued communication throughout the life cycle of the process and project of delivering EV charging stations within the communities and proposed corridors. Alaska has extensive rural regions and communities that range from all around the borders of the state to the interior border with Canada.

Rural communities face challenges related to location, terrain, resources, and communication capabilities. AEA will work with community leaders to provide opportunities to engage, comment, and participate in the development of the EV charging stations.

AEA will use social media, community councils, radio ads, in-person meetings, virtual meetings, and partnerships with local governments/municipalities and tribes to collaborate with these groups to understand local needs. Within the urban areas, community leaders will have the opportunity to attend virtual meetings and in-person meetings to provide comments from the community as well as reviewing site selections and project rollout.

In rural communities, social media, virtual meetings, and in-person meetings with the DOT&PF's tribal liaison, tribes, and community elders will provide vital information as to sacred areas/burial grounds within their communities to avoid. The State understands the subsistence hunting/fishing lifestyle and times of year and will work with the tribes to avoid outreach/public participation within those time frames with the goal to re-engage with those communities at a later date.

The Plan reflects that the concerns, questions, input, and ideas from the public comments/public outreach events will have a direct effect on the corridor and EV site selection. Continued communication with communities and stakeholders throughout the life cycle of the project will allow for modifications to the Plan



based on public feedback from individuals within disadvantaged communities. As contractors are selected for capabilities, DOT&PF and AEA will require the selected vendor to review and evaluate site locations within the EV study area using federal requirements and guidelines made available by the Joint Office.

Identification and Outreach to Disadvantaged Communities (DACs) in the State

Through Executive Order 14008, the Justice40 Initiative was signed by President Biden. The Justice40 Initiative sets a goal that 40% of the overall benefits in certain federal investments flow to DACs that are marginalized, underserved, and overburdened. Through meaningful and consistent stakeholder engagement, Justice40 will allow stakeholders and community members the opportunity to engage and provide input on project and programs decisions. Through the use of the Climate and Economic Justice Screening Tool, which is the digital tool developed with the use of U.S. Census Bureau data, AEA will identify marginalized, underserved, and overburdened communities within the project area for outreach and DAC participation.

The initial stakeholder list contains many government communities that fall within Justice40 boundaries as other DACs, including tribal councils. AEA commits to furthering outreach through promotion of efforts on social media and through newsletters so AEA can continue to foster engagement with all communities. 39.8% of Railbelt residents live in DACs or Alaska Native village statistical areas, so the benefits along the AFC should meet the Justice40 requirements.

Large parts of the AFC lie within DACs, so initial outreach will occur in these communities for deployment, while outreach in other communities will be used to update and refine the Plan for the out-years. The investments beyond the AFC will focus on the AMHS, where many of the port communities fall within

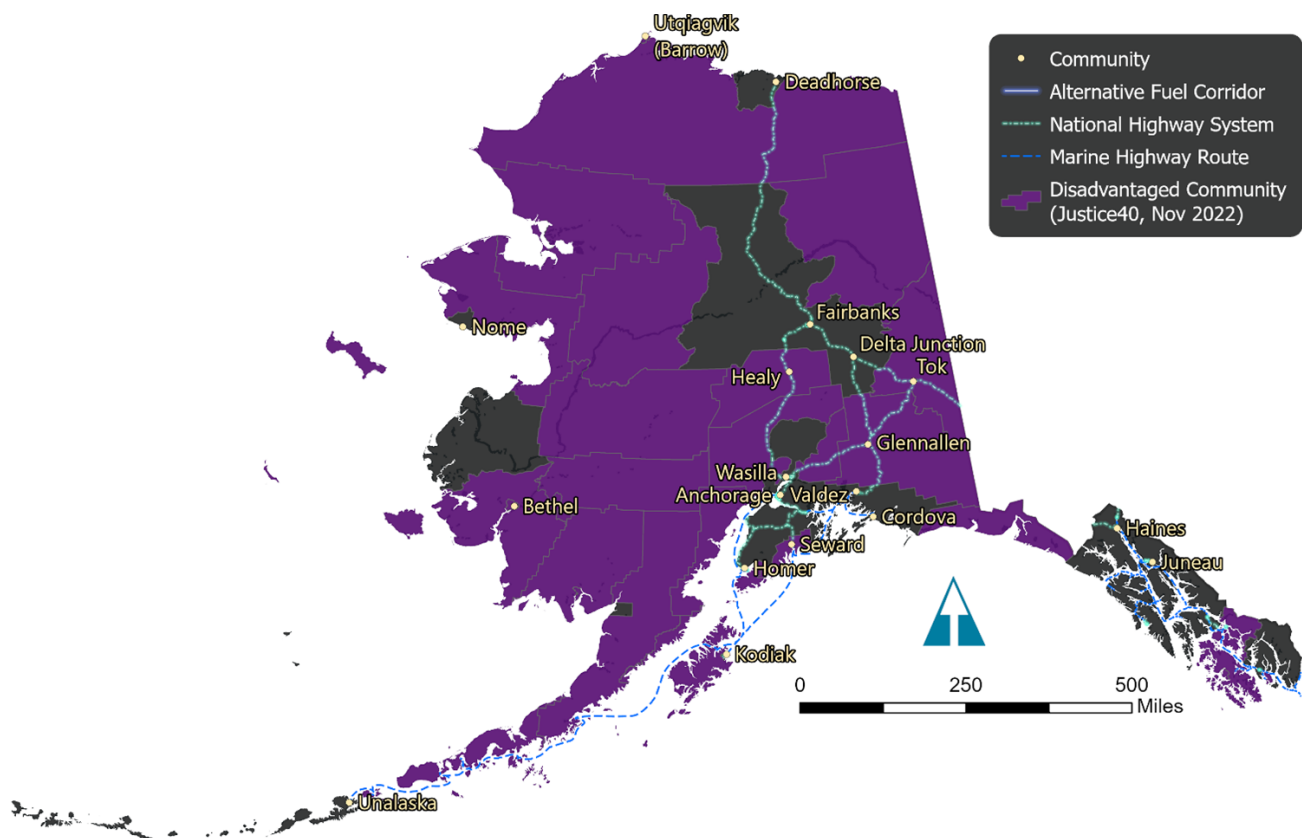


Figure 24. Alaska's Justice40 Tracts
Source: <https://screeningtool.geoplatform.gov/>



Electric vehicle charging station in Anchorage. Photo courtesy of AEA

Justice40 boundaries, and then community and destination charging where AEA can provide charging access in rural DACs to foster growth for EVs. The expected penetration in the early years in these communities is expected to be low, but the investment will ensure that the DACs are not left behind as the vehicle fleet shifts to electric power.

To support equitable deployments, 30 of the 54 (56%) communities and local governments on the stakeholders list lie within Justice40 boundaries. By only having one AFC, AEA will have the flexibility to disseminate investments and benefits to more communities across the state. AEA and DOT&PF are also currently reviewing the Justice40 map for discrepancies between their own records of DACs, as it appears the two datasets are not in alignment. Should discrepancies be found, AEA will request credit for the benefits of DAC deployments not located on the Justice40 map.

Process to Identify, Quantify, and Measure Benefits to DACs

The initial measurement method to track the benefits to DACs will be quantifying the amount of funding invested into DACs. This process will involve identifying the infrastructure installed within Justice40 boundaries. For locations that are not within boundaries, an evaluation will be performed using GIS mapping to determine if the infrastructure is in close proximity to the boundary and along a roadway to the community. With Alaska's roadway network, terrain, and rural nature, many communities only have one access point to the roadway network, so infrastructure placed along that access but outside the boundary may still benefit the DAC.

Consultant and AEA labor will also be tracked for engagement activities that directly correlate to DACs, as education and outreach will be important to involve DACs, collect their input, and support them with the NEVI funding. Awareness of the project will also increase chances of small business participation in the communities as site hosts, recognizing the indirect benefit of site sales while travelers charge. AEA understands that community needs are dynamic. The current engagement plan recognizes this and will be updated accordingly throughout the NEVI program. The plan calls for meeting with DACs, engaging with their needs, providing transparency in the implementation process, and eventually gaining trust within the community.

There is an additional opportunity to integrate DACs into the clean energy job pipeline as job training related to EV infrastructure installation and general clean energy infrastructure could be provided. Such training measures would not only increase community engagement related to the clean energy transition, but also provide additional income and job security that could provide upward mobility from DAC status. AEA will coordinate with the AWP, and the AATCA, AGC, and ABC to support women and minority participation in the apprenticeship programs.



Benefits to DACs through this Plan

AEA is in the early stages of identifying and setting performance targets for the benefits to DACs. Investment in communities ensures access to EV charging infrastructure. While adoption rates may be low initially, providing access will make the transition to EVs easier as more affordable and accessible vehicles are released by Original Equipment Manufacturers (OEMs). Context-sensitive approaches must be utilized in Alaska, especially as it pertains to alternative vehicles like All Terrain Vehicles (ATVs) and snowmachines. While electric versions of these vehicles are by no means low-cost capital, they are significantly more affordable than electric passenger vehicles. ATVs and snowmachines are used daily by some Alaskans, and their personal preferences must not be disregarded. Including these means of transportation in the EV transition may be a more financially viable variation for DACs in the transition to electric passenger vehicles.

While total cost of ownership is typically lower over the life of the vehicle, financial barriers to entry into the EV market can be prohibitive. Therefore, an alternative to remedy these barriers could be the popularization of -transit and shared-ride vehicles for DACs. By alleviating the financial burdens of individual vehicle purchase and providing community support for transit, DACs can receive the same mobility benefits for a lower per capita price. These communally utilized modes also cut down on vehicle miles traveled in their entirety, decreasing the economic and environmental constraints of EV producers and EV users.

These wholesale changes to travel habits would result in air quality improvements due to increased EV adoption. Air quality improvements are critical as DACs are oftentimes disproportionately affected by transportation emissions from ICE vehicles.

A measure that AEA expects to monitor but may be more qualitative is resilience. For instance, if there are charging stations that are supported by a battery back-up system, a user could charge during a power outage. AEA plans to monitor these occurrences to determine other benefits of the program.

Table 18: Benefits Category and Strategy for Tracking Benefits

Benefits Category	Strategy for Tracking Benefits (Metrics, Baseline, Goals, Data Collection & Analysis Approach, Community Validation)
Improve clean transportation access through the location of chargers.	<p>Metric: Increase number of EV charging stations in Justice40 areas</p> <p>Baseline: The number of EV charging stations prior to RFA awards</p> <p>Goals: At least 40% of the cost of investment with new charging stations is within Justice40 boundaries</p> <p>Data/Analysis: AEA will track the expenditures of the program and identify the costs for locations within J40 boundaries to determine this benefit.</p> <p>Community Validation: Community engagement during July 11, 2023 technical session on J40 Benefits. Future outreach events and listening sessions in J40 communities.</p>
Decrease the transportation energy cost burden by enabling reliable access to affordable charging.	<p>Metric: Transportation Energy Cost Burden</p> <p>Baseline: 2020 US Census Data; 2021 EV registration data</p> <p>Goals: Reduce the transportation energy cost burden in J40 communities.</p> <p>Data/Analysis: Overlay EV registration data (from DMV data 2022-) to determine adoption in census tracts to calculate a revised transportation energy cost burden; price of gas; price of electricity by census tract, J40 overlay; Zip codes that are J40</p> <p>Community Validation: Community engagement during July 11, 2023 technical session on J40 Benefits. Future outreach events and listening sessions in J40 communities.</p>



Benefits Category	Strategy for Tracking Benefits (Metrics, Baseline, Goals, Data Collection & Analysis Approach, Community Validation)
Reduce environmental exposures to transportation emissions	<p>Metric: Environmental Exposure</p> <p>Baseline: Emissions and air quality models from the state and regional planning agencies; 2021 EV registrations</p> <p>Goals: Reduce PM2.5 and CO2 emissions.</p> <p>Data/Analysis: Use model to determine the change and apply cost of impacts to determine benefit; new EV registrations by zip code</p> <p>Community Validation: Community engagement during July 11, 2023 technical session on J40 Benefits. Future outreach events and listening sessions in J40 communities.</p>
Increase the clean energy job pipeline, job training, and enterprise creation in disadvantaged communities.	<p>Metric: Number of new clean energy jobs, and jobs related to clean energy.</p> <p>Baseline: Number of EVITP contractors and personnel in 2022, Number of electricians, contractors, and engineers working on EV infrastructure in 2022.</p> <p>Goals: Increase the number of EVITP contractors and personnel by 5 in 5 years, Increase number of electricians, contractors, and engineers working on EV infrastructure by 5% in 5 years.</p> <p>Data/Analysis: EVITP registrations, Survey of contracted entities for NEVI program, Zip code of employees,</p> <p>Community Validation: Community engagement during July 11, 2023 technical session on J40 Benefits. Future outreach events and listening sessions in J40 communities.</p>
Economic impacts to business owners.	<p>Metric: Indirect impacts of retail/site sales while patrons charge</p> <p>Baseline: With no NEVI creditable sites, there is no existing indirect impact currently.</p> <p>Goals: Show a positive benefit at all sites commissioned through NEVI funding.</p> <p>Data/Analysis: Voluntary economic benefits by site hosts; survey results</p> <p>Community Validation: Community engagement during July 11, 2023 technical session on J40 Benefits. Future outreach events and listening sessions in J40 communities.</p>
Knowledge Sharing and Program Awareness.	<p>Metric: Community opportunities for engagement about the program.</p> <p>Baseline: Pre-2022 engagements</p> <p>Goals: Increase engagements with communities.</p> <p>Data/Analysis: Number of educational and listening sessions, Labor costs to produce</p> <p>Community Validation: Community engagement during July 11, 2023 technical session on J40 Benefits. Future outreach events and listening sessions in J40 communities.</p>



Labor & Workforce Considerations

Alaska expects the capacity of the state's EV workforce to increase with the implementation of NEVI funds. EV adoption in Alaska is an opportunity for the development of skilled workers and job creation. As EV penetration and charging infrastructure increase, the demand for an in-state EV workforce and associated training programs will increase as well. The State of Alaska has a current EV penetration level of approximately 0.362%, with minimal supporting EV charging infrastructure in place. A significant amount of EV installation, operations, and maintenance expertise currently resides out of state.

The goal of the State's NEVI Labor and Workforce plan is to develop and retain as many EV workforce opportunities as possible within the state. This can be accomplished, in part, by working with our partners at the Department of Labor, AWP, AATCA, AGC, ABC, IBEW, and other vocational schools and universities to promote in-state EV training programs and opportunities.

To ensure a network of reliable and effective EV chargers, Alaska will need to implement strong labor, training, and installation standards. Electricians installing EVSE and charging equipment must understand the aspects of the market to adequately address customer questions, concerns, and satisfaction. Currently there are four EVITP certified contractors in Alaska—three in Anchorage and one in Fairbanks. This number has not changed between FY 23 and FY24. The planned EV infrastructure investment will bring a significant amount of EV employment opportunities to the state, which could overwhelm the current in-state EVITP certified workforce capacity.

In March 2023, AEA joined the EVITP course at the IBEW Local 1547 to discuss the NEVI program and share the outlook for future EVSE work opportunities in Alaska. The IBEW in Alaska offers 2 EVITP courses per year; one of these courses is offered in Anchorage and one is offered in Fairbanks. The EVITP course is 20 hours



with typical attendance of 10 electricians. Over time, the IBEW EVITP course registration numbers have been steadily increasing.

AEA begun to discuss how the state can support Electric Vehicle Charging Vocational Training. The intent is to increase access and frequency of EVITP training to the local vocational workforce and expand on the existing 20-hour EVITP certification in a continuing education style course for journeyman electricians. The program would aim to develop a curriculum to support future EVSE deployment throughout Alaska by providing the following:

- Classroom training for Level 2 and DCFC charging protocols and electrical requirements (Existing EVITP).
- Hands-on experience with AC Level 2 and DCFC chargers; installation, maintenance, and troubleshooting (Existing EVITP).
- Creation of an “Alaska-specific” EVSE training program to meet EVITP required coursework or supplement EVITP required coursework.
- Support to obtain supplies to power and purchase EVSE for the “lab/hands on” portion of the training program.
- Support for instructor certification and continuing education.
- Develop program to facilitate charger manufacturer-specific installer/maintainer certifications. This component of the program would facilitate local electrician’s ability to receive “factory certification” to do service and warranty work on their equipment. Facilitate an in-state training where training can occur on-site.



*Dedication of an AEA-funded EV charging station at the Linny Pacillo Parking Garage in Anchorage.
Photo courtesy of AEA*



AEA plans to work with DOT&PF and FHWA to develop a funding mechanism for labor and workforce development activities. Workforce development activities for NEVI formula program projects are eligible so long as they are directly related to the charging of an EV. States are required to comply with the qualified technician requirements in 23 CFR 680.106(j). Workforce development activities funded by the NEVI formula program will contribute to the State's compliance with these requirements.

The State of Alaska has a Policy on Anti-Discrimination and Equal Opportunity to protect against illegal discrimination. Alaska is one of the most racially and ethnically diverse states in the nation and is committed to promoting a workforce that is representative of all Alaskans. As an employer and service provider, the State fully supports equal opportunity, equal employment opportunity (EEO), and affirmative action. The State does not condone, permit, or tolerate discrimination against its employees or applicants for State employment on the basis of race, color, national origin, religion, sex, age, physical or mental disability, marital status, changes in marital status, pregnancy or parenthood, or status as a veteran or veteran with a disability.



Physical Security & Cybersecurity

Physical Security

Providing a welcoming and secure environment for motorists looking to charge their vehicles will help ensure the success of the deployments. This is a challenge, due to the remoteness of some of the locations along the AFC and the lack of sunlight in the winter months. Adequate lighting is paramount and was included as a scoring criterion in the selection process for this reason. Other site amenities that could aid in security include cameras, security detail, a staffed facility that is open 24/7, and locating the stations on-site in areas with high visibility. AEA will work with the vendors through the selection and design process to ensure that physical safety is kept in mind.

Cybersecurity

AEA's approach to deploying infrastructure through the NEVI program is to use third-party vendors to own, operate, and maintain the EV charging stations and the data that is stored and transmitted. The data that will be publicly available will be transmitted through an API, and the data will be limited to non-sensitive material. AEA does not intend to collect, nor does it want personally identifiable information (PII).

The energy sector is uniquely critical as all other infrastructure sectors depend on power and/or fuel to operate. A threat on energy infrastructure can directly affect the security and resilience within and across other critical infrastructure sectors—threatening public safety, the economy, and national security.

AEA is in the process of writing a State Energy Security Profile (SESP) as an essential part of energy security planning. These plans will describe the state's energy landscape, people, processes, and risks, and will include



considerations and planning as they relate to EVSE. AEA will work with partners to develop and finalize a plan to ensure the infrastructure is safe against all physical and cybersecurity threats.

As part of the contract with the site partner and/or charging providers, language surrounding cybersecurity requirements will be included. The vendor will be responsible for meeting the latest cybersecurity requirements around PII and Payment Card Industry Data Security Standard (PCI-DSS) security standards to protect customer payment information. The vendor will be responsible for alerting AEA and the Cybersecurity and Infrastructure Security Agency of any known or suspected network or system compromises.

In addition to ensuring payment information is secured in compliance with PCI-DSS, AEA will work with partners to ensure all potential threat vectors are reviewed with respect to current standards and best practices for each. This will require design reviews and collaboration with charging providers to ensure EVSE cybersecurity is fully addressed. In the absence of any one specific EV charging cybersecurity standard, the following standards and guidelines will be used as part of these discussions. This is not an exhaustive list and is updated regularly as the industry evolves: NIST Interagency Report 8294; NREL Project 1.3.4.402, Consequence-Driven Cybersecurity for High Power Charging Infrastructure; SAE J1772 for EV plugs and adapters; IEC 68151-1 EV Charging Modes; IEC 62196 EV plugs and adapters and ISO 15118 where applicable.

Design reviews will include discussions of Open Charge Point Protocol (OCPP) implementations; Public Key Infrastructure Architecture and Certificate Management methodologies; and other protocol reviews from a cybersecurity perspective to ensure that secure development lifecycle and operations best practices are used by all vendors.

AEA will ensure best practices by vendors are followed to include but not be limited to:

- A method to authenticate all software as part of the initialization phase
- Secure configurations in all meter equipment, disabling any unused ports and protocols such as Bluetooth or Telnet
- Encryption of all over-the-air transmissions where applicable
- Transport Layer Security for all web-enabled devices
- FedRAMP and/or SOC 2 certification for all cloud services
- Continuous monitoring by the EV Charging Management System

AEA will consider requesting cybersecurity scan results from the charging provider, ensuring all configurations and vulnerabilities have been addressed prior to operational service date.

AEA has considerable cybersecurity resources available to assist in ensuring the entire EV ecosystem is securely implemented and maintained.



Program Evaluation

Monitoring

AEA will work with Alaska DOT&PF to develop a public-facing dashboard that displays the data collected from the infrastructure deployed with NEVI formula funding. This dashboard will inform the community of the number of stations, their usage, and their uptime. The AEA program manager will be responsible for monitoring the deployment schedule and monitoring the progress of the installations. The dashboard will be updated as new stations come online.

Reporting

The dashboard developed to monitor the program will also assist AEA in reports that need to be developed for submittal to the Joint Office. These reports will assist in evaluating compliance for speed of charging provided as well as station uptime. Alaska will comply with the quarterly and annual reporting requirements identified in the NEVI Standards and Requirements. AEA will also provide an extract of the maps produced and provide them to DOT&PF for incorporation into the 'Family of Plans' and other transportation-related maps.

Annual Updates

This report is intended to be a living document and will be updated annually based on data collected throughout the year. Summaries will be included to inform Alaskans and the Joint Office on the progress of the program and its usage. This data will also aid in informing out-year decisions, such as if additional capacity at certain locations is required or the type of facility that benefits the most from infrastructure installation.

While AEA has developed a roadmap for the five-year NEVI program, continued engagement with stakeholders will refine and alter the proposed method and locations for infrastructure outside the AFC.



Discretionary Exceptions

Summary of Requests

AEA and DOT&PF, on behalf of Alaska, are currently requesting three discretionary exceptions to the NEVI requirements as identified in Table 19.

Table 19. Discretionary Exception Requests

Exception #	Type	Distance of Deviation	Included in Round 7 AFC Nomination	Reason for Exception Request
1	✓ 50 miles apart 1 mile from exit	27 miles — miles	Yes ✓ No	✓ Grid Capacity ✓ Geography Equity Extraordinary Cost
2	✓ 50 miles apart 1 mile from exit	27 miles — miles	Yes ✓ No	Grid Capacity ✓ Geography Equity Extraordinary Cost
3	✓ 50 miles apart 1 mile from exit	16 miles — miles	Yes ✓ No	Grid Capacity ✓ Geography Equity Extraordinary Cost

Justification for Exception 1

The State of Alaska is requesting an exception to the requirement that EV chargers be placed no more than 50 miles apart due to the lack of electric service and infrastructure area along a 77-mile stretch of the AFC. There is currently no electric infrastructure between approximately Parks Highway mile 135 (north of Trapper Creek) and mile 210 (Cantwell). The recommended sites for award leave this gap at 77 miles. It was approved in the



initial plan due to the lack of electric grid.

The Matanuska Electric Association provides electric service to points south of mile 135. Its certified authority extends north to approximately mile 173, although no infrastructure is currently installed north of mile 135. Golden Valley Electric Association provides electric service to points north of mile 210 and its certified authority extends south to mile 199. This leaves a 26-mile gap where no electric utility has regulatory authority to install new service.

Within the area where no electric infrastructure currently exists, there are few commercial establishments and none that operate year-round, leaving limited options for utilities to recoup the costs of extending power lines. Installing power lines to EV charging stations to meet the 50-mile distance requirement would be prohibitively expensive and logistically onerous, with few, if any, site stakeholders to engage to host the stations within the gap. The two utility companies on either side of this utility gap are active stakeholders in the AKEVWG, which will continue to work to overcome these challenges.

AEA proposes to install charging stations as close as feasible to the edges of the utility gap to minimize the EV charging infrastructure gap along the AFC. AEA will work with businesses and property owners to find suitable sites to minimize the length of this gap to the greatest extent possible.

One alternative solution considered was to install a charging station within the utility gap that utilizes diesel or solar power generation, or a combination of both. The environmental costs of diesel power generation, the feasibility of utilizing solar power during Alaska’s dark winter months, and the cost of constructing and operating a NEVI-compliant charging station with these alternative power sources rule out this option.

Map of Exception 1

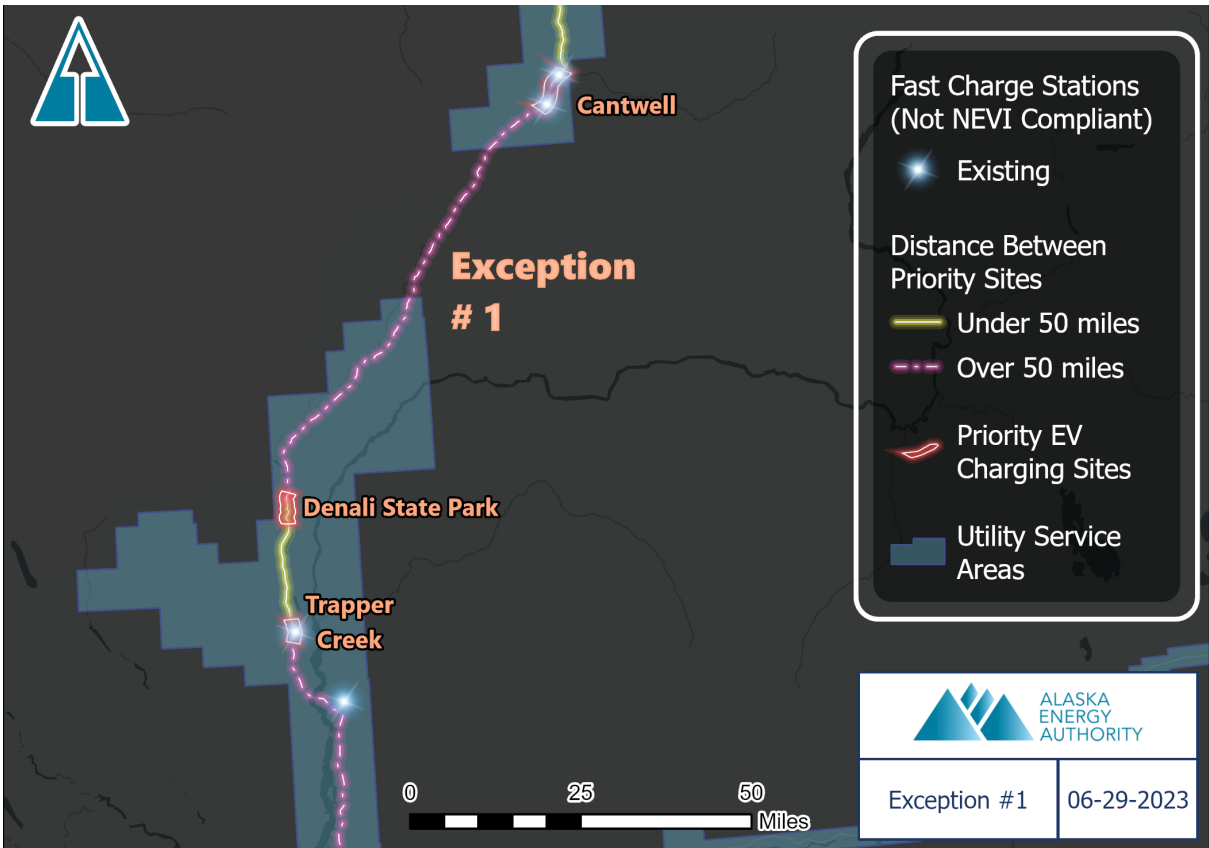


Figure 25. Discretionary Exception 1



Justification for Exception 2

The State of Alaska is requesting an exception to the requirement that EV chargers be placed no more than 50 miles apart between Wasilla and Trapper Creek. The recommended sites for award leave this gap at 77 miles. The were no acceptable submissions in Houston or Willow that would have reduced this gap, and it is not expected than there would be an acceptable sites submitted in another round of RFA due to the lack of development in these locations. Further, cutting this distance could harm the economic viability of the charging stations installed in Wasilla and Trapper Creek, as it is expected there will initially be low utilization of the four ports.

Map of Exception 2

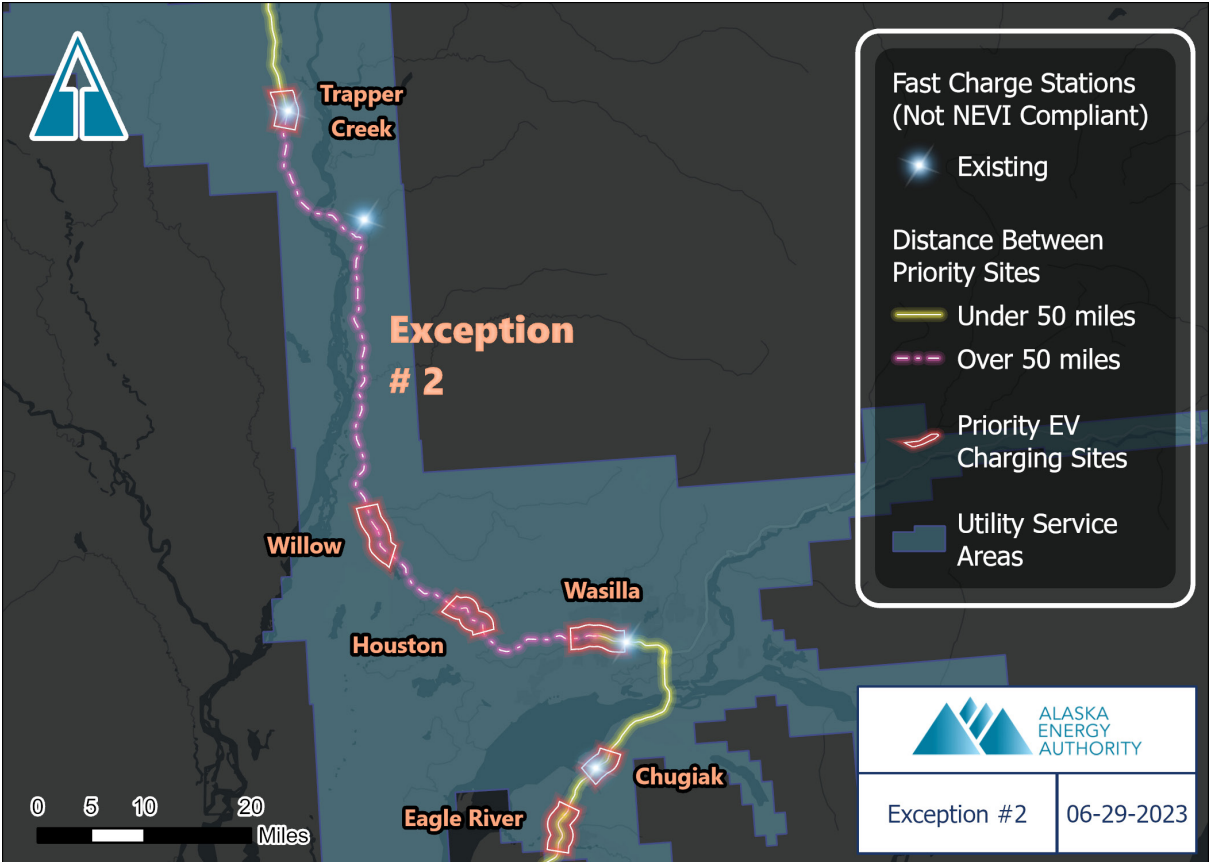


Figure 26. Discretionary Exception 2

Justification for Exception 3

The State of Alaska is requesting an exception to the requirement that EV chargers be placed no more than 50 miles apart between the Healy assigned site and Nenana. The recommended sites for award leave this gap at 66 miles. The identified priority site identified between these two locations was Clear and it received no submissions during the RFA initial round. AEA does not expect to receive any applications in any future rounds due to the lack of development in this area of the AFC. Initially, AEA decided to attempt to solicit a site in this location but without any applications received, additional effort should not be expended to solicit a site in this area.



Map of Exception 3

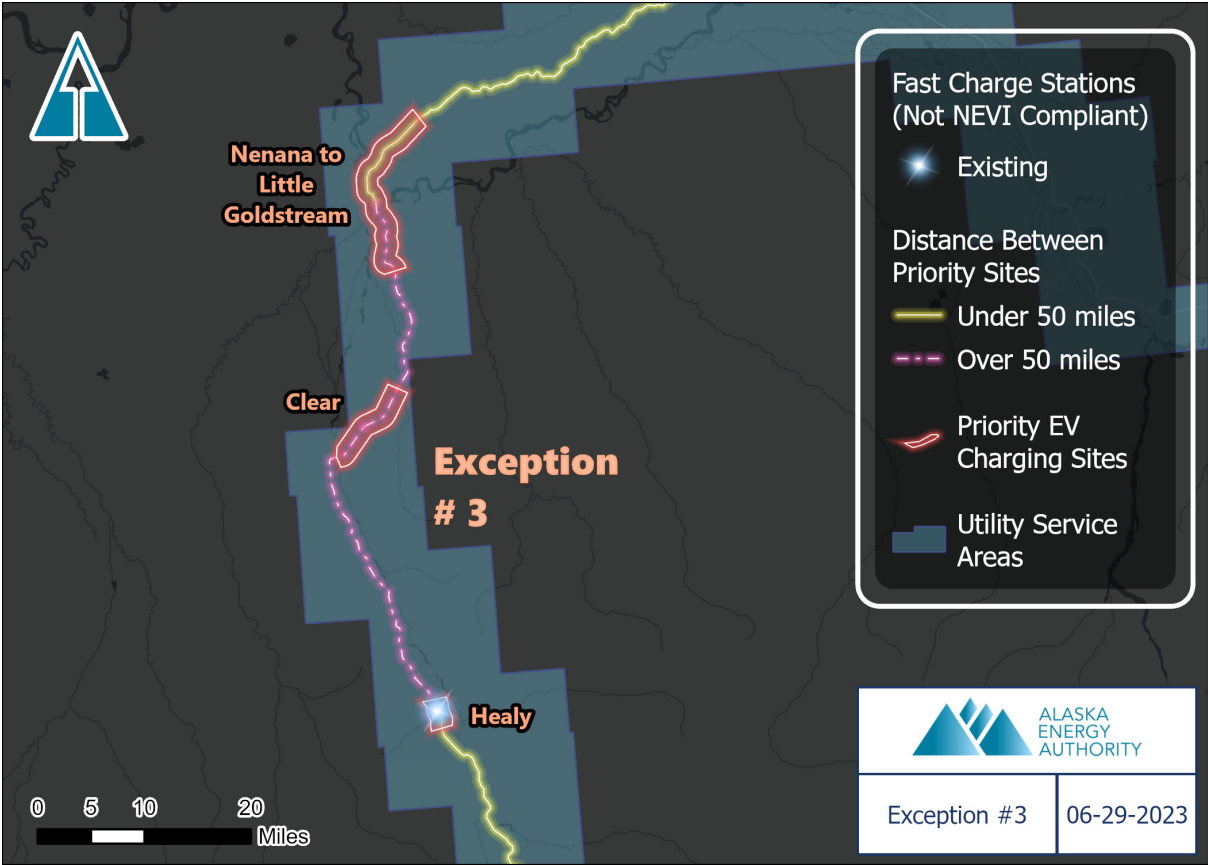


Figure 27. Discretionary Exception 3



Appendix A: Public Outreach and Education Plan

ALASKA ELECTRIC VEHICLE OUTREACH & EDUCATION PLAN

UPDATE AUGUST 1, 2023

Prepared for:



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This public outreach and education plan is a living document. It may be updated to add or remove objectives, stakeholders, strategies, or methods as needed to adapt to new and changing circumstances as project development progresses.

BACKGROUND & OVERVIEW

The Infrastructure Investment and Jobs Act (IIJA) seeks to improve the United States' nationwide network of electric vehicle (EV) charging infrastructure through the National Electric Vehicle Infrastructure (NEVI) Formula Program by creating a network of 500,000 EV chargers by 2030. This will allow reliable, affordable, convenient, and equitable charging opportunities for all EV users. The NEVI Formula Program required each state to submit an initial EV Infrastructure Deployment Plan by August 1, 2022 outlining how each state intends to use its formula funds. Plan updates are required to be submitted annually throughout the life of the program. This document supplements the State of Alaska's first plan update.

The Alaska Energy Authority (AEA) is the lead agency in Alaska charged with reducing barriers to the adoption of EVs across the state, disbursing federal grant and program funding related to EVs, and planning for and implementing the expansion of the state's EV infrastructure. One component of this mission and a requirement of the federal funding program is to develop a public outreach and education campaign to support the expansion of EV infrastructure across the state.

GOALS AND OBJECTIVES

We will support the expansion of EV charging infrastructure across the state and break down barriers to EV adoption through the following objectives:

1. Create opportunities for stakeholders to work through and collaborate on EV issues statewide through the following objectives measured between July 2023 and June 2024:
 - a. Host public meetings in at least five communities across the state
 - b. Host four working group meetings that provide an opportunity for stakeholder updates and discussion
 - c. Host nine technical sessions in a panel- or discussion-based format that address specific EV issues relevant to Alaska (e.g., workforce training, winter maintenance)
2. Keep the public informed about NEVI-related activities in Alaska as measured by the following objectives:
 - a. Earn five Alaska-based media stories in print, radio, or television
 - b. Distribute 12 monthly email newsletters, with content cross-posted on the AEA website and social media, covering a variety of topics of interest to Alaskans
 - c. Attend at least five external community events (e.g., Alaska Federation of Natives conference, Alaska Municipal League conference, Transportation Fairs, Alaska Sustainable Energy Conference, and chamber of commerce events) to provide information about EVs in Alaska and the NEVI program
3. Conduct equitable and inclusive public outreach as measured by the following objectives:
 - a. Receive engagement in the form of meeting attendance, comments, or survey results from communities in each region of the state, including remote communities that are not connected to the contiguous North American highway system
 - b. Target one technical session to Justice40 communities along the Railbelt to ensure the communities' needs are reflected in Phase 1 roll-out

- c. Help facilitate the pursuit of additional grant funding to support EV charging infrastructure deployment in rural and remote communities

This Public Information Plan will comply with best practices in public involvement and all applicable local, state, and federal regulations including 23 CFR 450.210.

STRATEGY

Meetings and events will be the primary avenue for engaging stakeholders and the public with EV-related information. Through quarterly working group meetings, technical sessions, and community workshops, we will ensure a wide variety of topics and targeted interests are represented in our outreach. We will also engage directly with communities and the public by attending events, meeting Alaskans with EV-related information where they are.

DATA COLLECTION

To ensure our outreach is equitable and reaches multiple and disadvantaged communities, we will collect demographic data throughout the public involvement process. We will analyze this data to identify gaps and address them with new techniques or approaches (for example, offering different meeting times, advertising through different formats, or changing venues to increase ease of access). We will enact tasks to gather participant data to include but not limited to:

- Hard copy sign in sheets
- Required registration for virtual meetings
- Demographic questions within each survey
- Email sign up form on website

TIMELINE

This plan covers to period of July 2023 through June 2024. Outreach work, however, is ongoing and planned to continue throughout the life of the NEVI program

OUTREACH TACTICS

Our primary outreach tactics are:

2. **Quarterly Working Group Meetings:** AEA established this group in 2020 to solicit feedback and share information among EV stakeholders across the state. Working group meetings are generally held once per quarter and typically include about 60 attendees.
3. **Technical Sessions and Community Workshops:** AEA hosts targeted meetings based on specific topics related to EVs in Alaska (technical sessions) and individual community coordination (community workshops) to ensure AEA's statewide efforts are aligned with local community efforts. Each technical session has an in-person and virtual attendance option and are held 8-10 times per year. Community Workshops are scheduled by request or are offered when staff are traveling for other business needs.

4. **Email Newsletters and Announcements:** AEA’s email listserv for EV-related news is robust with high open and click rates. This listserv is utilized for monthly newsletters, meeting announcements, funding opportunity announcements, and calls to action.
5. **Community Events:** AEA attends community events (such as the Arctic Road Rally in Fairbanks and the DOT&PF Transportation Fair in the Mat-Su Valley in 2022) to share information with the public about EVs in Alaska. Staff also give presentations by request to community groups like chambers of commerce.

QUARTERLY WORKING GROUP MEETINGS

This working group of EV stakeholders was established in 2020 after the State of Alaska received funding from the VW emissions settlement. The group’s quarterly meetings, which are open to the public, allow stakeholders to share information, discuss EV-related projects, and learn about EV-related topics on the national and statewide level.

Over the life of this plan, we intend to host four quarterly Working Group meetings tentatively scheduled for August, November, February, and May. Each meeting will be open to the public and will include in-person and virtual attendance. The in-person component will typically be hosted in Anchorage. Meetings typically occur over the lunch hour between 11:30 a.m. and 1:30 p.m. Meeting minutes are recorded and posted online within one week of each meeting.

Providing updates on NEVI plan progress and implementation will be a standing agenda item at each meeting. We will also solicit presentations from stakeholders to update the group on other projects, new infrastructure and business partnerships, state agencies, and the electric vehicle market in Alaska. Due to feedback from the group, we will focus on Alaska-specific content over national content.

MEETING NOTICES & DOCUMENTATION

We will use the following tactics to advertise the meeting to our stakeholders and the public:

- **Email blast** to working group, including all previous attendees who have provided their email addresses
- Post content on Alaska Energy Authority **social media** pages
- Create content for **flyers** to be posted at community locations like local businesses and post offices

Each advertisement will include a link (and QR code on flyers) to the AEA website where all meeting information will be housed and archived including the date, time, and in-person meeting location; agenda (posted at least three days prior to each meeting); and the virtual meeting link.

Sign-in sheets that collect demographic information will be distributed to in-person attendees. Virtual attendance will require registration. A recording and transcript of each meeting will be posted to the AEA website within one week of the event.

TECHNICAL SESSIONS AND COMMUNITY WORKSHOPS

Technical sessions and community workshops are targeted outreach intended to serve specific stakeholder groups. Technical sessions are held 8-10 times per year and focus on specific topics or issues. We typically solicit panelists from stakeholder groups and provide them with questions ahead of the meetings to prompt discussion. For example, a technical session held in 2022 focused on workforce development and training. We solicited panelists from the state's primary electric workers' union, small businesses with staff who had completed the EVITP certification process, and a professor who is training students on EV maintenance. The discussion revolved around Alaska's current readiness to support EV infrastructure and strategies to develop training programs in-state.

Community workshops similarly target outreach to local areas and issues. AEA solicits attendance from community leaders and the public, and typically will give a presentation on the NEVI program and potential future funding opportunities. Attendees always have the opportunity to discuss and comment on their own EV-related plans and how those fit into AEA's work.

MEETING NOTICES & DOCUMENTATION

Technical sessions and community workshops will be noticed and documented using the same process as the quarterly working group meetings.

EMAIL NEWSLETTERS AND ANNOUNCEMENTS

We will create content for the monthly EV newsletter, which will be sent from the AEA communications team to the EV listserv hosted by AEA. Each newsletter will focus on a different topic related to EVs in Alaska. We will also include any meeting information or public comment opportunities in these monthly emails. Past topics for the newsletter include:

- The latest options for off-road electric vehicles
- Electric vehicles and electricity derived from fossil fuels
- Electric vehicles in fleet, transit, and air travel in Alaska
- Clean vehicle tax credit
- Arctic Road Rally event in which a group of electric vehicles traveled the Dalton Highway
- Electric vehicle workforce in Alaska

In addition to the monthly newsletter schedule, the listserv will be utilized for meeting announcements, funding opportunity announcements, and calls to action.

COMMUNITY EVENTS

AEA staff will seek out opportunities to participate in various events throughout the state to share information to groups and the public about the NEVI program and EVs in Alaska. These events could take the form of attendance at a booth, as we did in 2022 at the Arctic Road Rally and DOT&PF Transportation Fair. It could also involve giving a presentation or hosting a workshop, as we did at the 2023 Alaska Municipal League conference where we distributed a survey to rural communities soliciting feedback about interest and needs related to EVs.

STAKEHOLDERS

Current stakeholders are either involved in the working group or have signed up for the monthly newsletter. We will continue to review this list to define gaps and ensure we are reaching Alaskans equitably. Stakeholders with an asterisk indicate groups or communities that are found within a Justice40 area identified by the U.S. Department of Transportation.

CURRENT STAKEHOLDERS

The list below includes groups or communities that participate in our outreach activities or are included in the email listserv.

Communities & Local Governments		
Akutan*	City of Houston*	Old Harbor*
Municipality of Anchorage	Hydaburg*	Ouzinkie*
City of Anderson	City and Borough of Juneau	City of Palmer*
City of Angoon*	Kachemak*	Pelican
Coffman Cove	Kake*	Petersburg Borough
Cold Bay	Kasaan*	Port Lions*
Cordova	Kenai*	Saxman*
Craig*	Kenai Peninsula Borough*	Seldovia*
Delta Junction	City of Ketchikan*	Seward
Denali Borough	Ketchikan Gateway Borough	City and Borough of Sitka*
Eagle	King Cove*	Municipality of Skagway Borough*
City of Fairbanks	Klawok*	Soldotna*
Fairbanks North Star Borough	City of Kodiak	Tenakee Springs
False Pass*	Kodiak Island Borough*	Unalaska*
Gustavus	Matanuska-Susitna Borough*	City of Valdez
Haines Borough	City of Nenana*	Wasilla*
Homer*	North Pole	Whittier
City of Hoonah*	North Slope Borough	Yakutat
Native Organizations		
Ahtna, Inc.*	Cook Inlet Regional Corp*	Metlakatla Indian Community*
Chickaloon Native Village*	Doyon*	
Chugach Corp*	Kodiak Area Native Association*	
Utilities		
Alaska Electric Light & Power Co.	Cordova Electric	Kotzebue Electric Association
Alaska Power & Telephone	Enstar Natural Gas	Matanuska Electric Association
Alaska Power Association	Golden Valley Electric Association	Southeast Alaska Power Agency, Ketchikan
Chugach Electric	Homer Electric Association	
Copper Valley Electric	Kodiak Electric Association	

Agencies		
Alaska DOT&PF	Bureau of Land Management	US Department of Energy
Alaska Energy Authority	Federal Highway Administration	
Alaska Housing Finance Corporation	Regulatory Commission of Alaska	
Businesses		
Adventure Denali	Loopy Lupine	Denali Chamber of Commerce
ChargePoint	Sheep Creek Lodge	Willow Chamber of Commerce
Dimond Center	Chugiak Eagle River Chamber	Three Bears Alaska
Local Organizations		
Alaska Municipal League	Easy Park	Pacific Northwest Economic Region
Alaska Center	Fairbanks Economic Development Corporation	Prince William Sound Economic Development District
Alaska Electric Vehicle Association (AKEVA)	FAST Planning MPO	Prince William Sound Science Center
Alaska Public Interest Research Group	Haines Economic Development Corporation	ReCharge Alaska
Alaska Trails	IBEW Local 1547	Renewable Energy Alaska Project
Anchorage Metropolitan Area Transportation Solutions (AMATS)	Juneau EVA	Sitka Conservation Society
Anchorage Economic Development Corporation	Kenai Peninsula Economic Development District	Southeast Conference*
Bering Strait Development Council	Launch Alaska	Southwest Alaska Municipal Conference*
Copper Valley Development Association	Norton Sound Health Corporation	
Education		
University of Alaska Anchorage	University of Alaska, Fairbanks	

POTENTIAL FUTURE STAKEHOLDERS

The list below includes groups or communities that we would like to engage with moving forward.

Alaska Dept. of Environmental Conservation, Air Quality Division	Calista Corporation*	Laborers' Local 341
Alaska Federation of Natives*	CCI Electrical Services, LLC	Laborers' Local 942
Alaska Inter-Tribal Council*	Chugach Native Association*	Maniilaq*
Alaska Native Tribal Health Consortium*	Cook Inlet Tribal Council*	McKinley Private Investment
Alcan Electrical & Engineering, Inc.	Copper River Native Association*	NANA Regional Corporation*

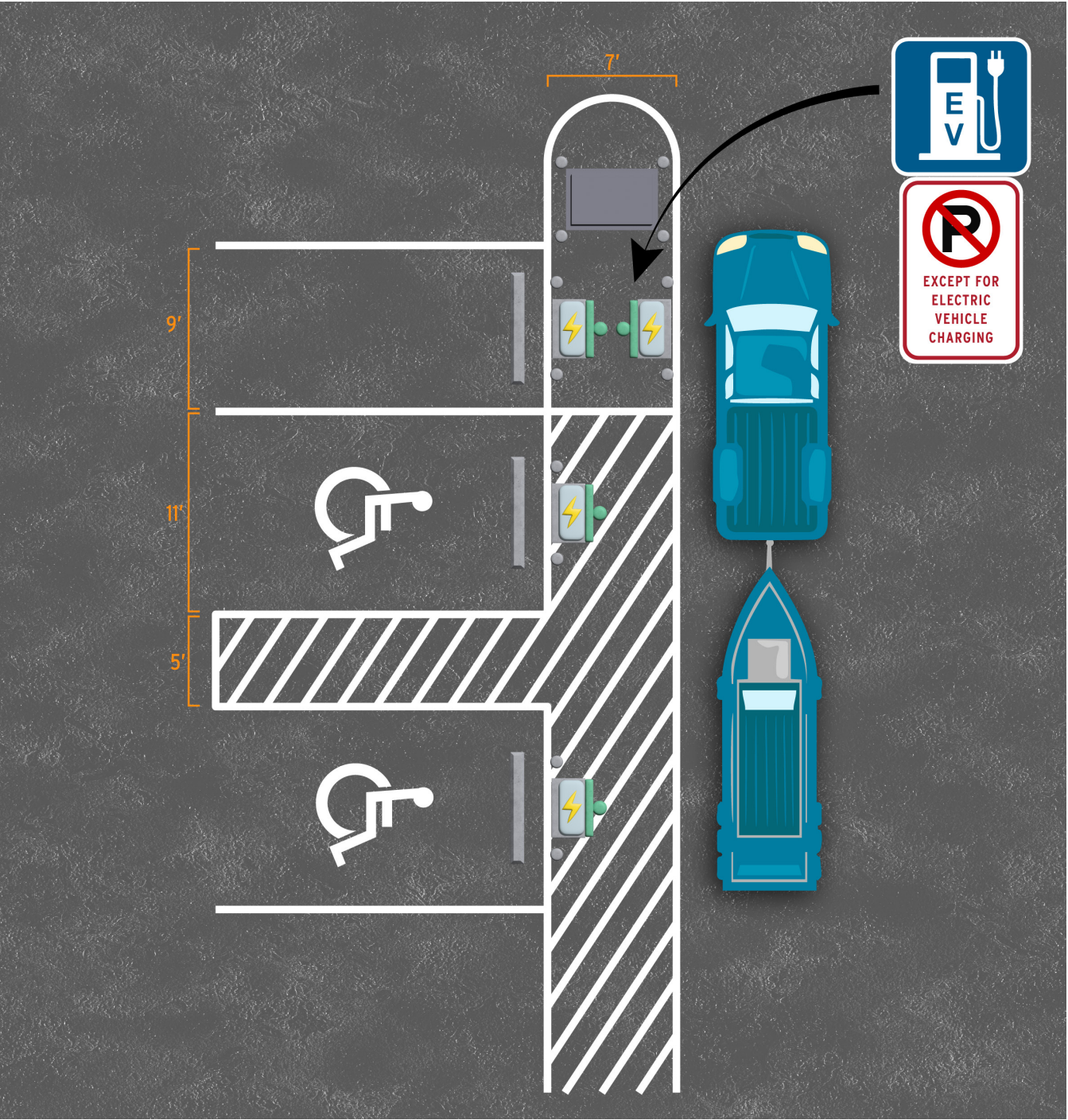
Aleut Corporation*	Fairbanks Native Association*	National Park Service
Aleutian Pribilof Island Association*	Fullford Electric, Inc.	Northern Alaska Environmental Center
Alyeska Resort	Greater Fairbanks Chamber of Commerce	Sealaska Corporation*
Arctic Slope Regional Corporation	Kawerak	Tanana Chiefs Conference*
	Koniaq Incorporated*	Telecommunications/Internet Entities
Association of Village Council Presidents	Knik Tribe*	Tok Transportation
Bering Straights Native Corporation*	Kodiak Area Native Association*	Bristol Bay Native Corporation*



Appendix B: Example Site Layouts

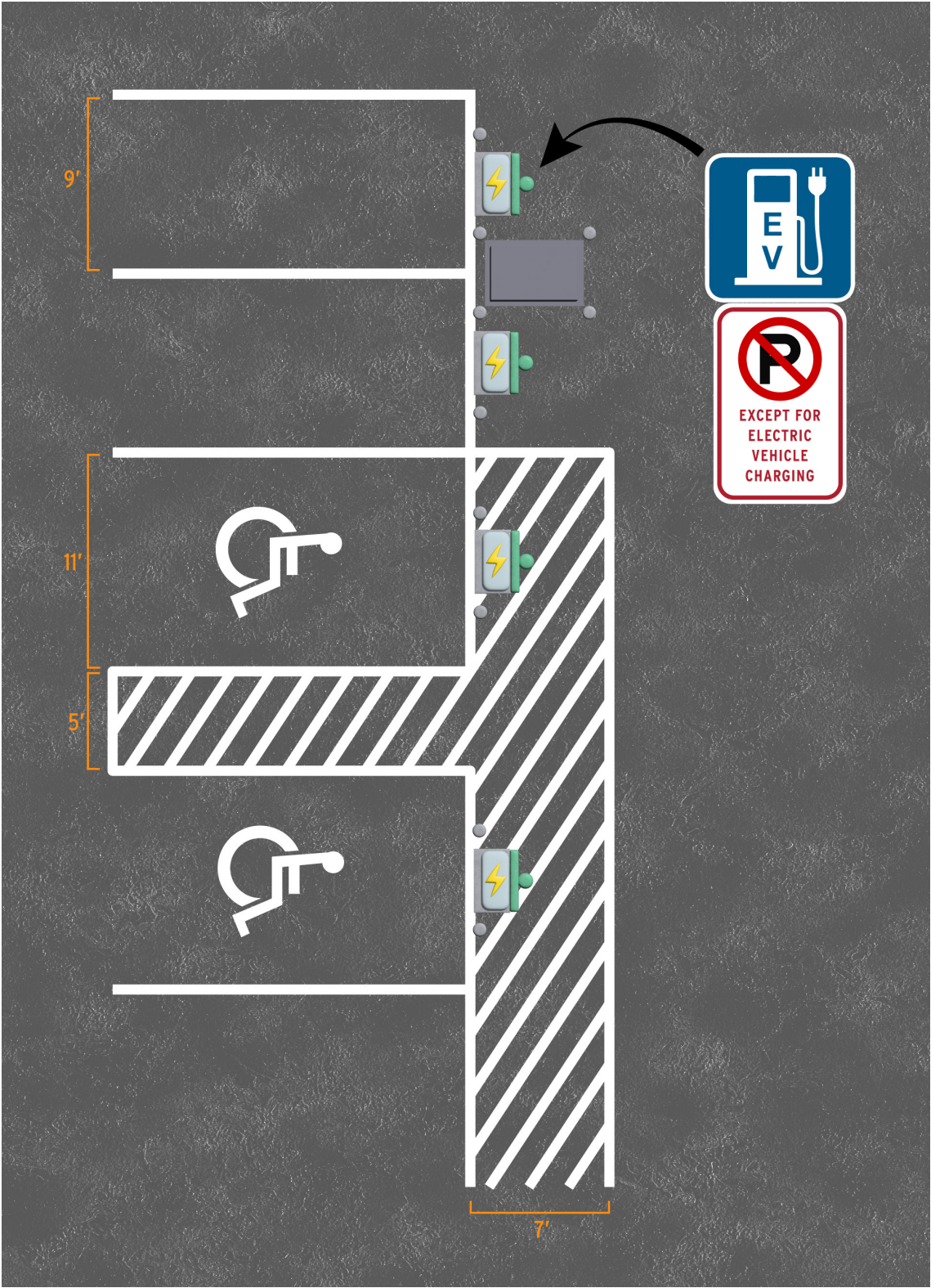


Example One: three stalls and one pull-through station



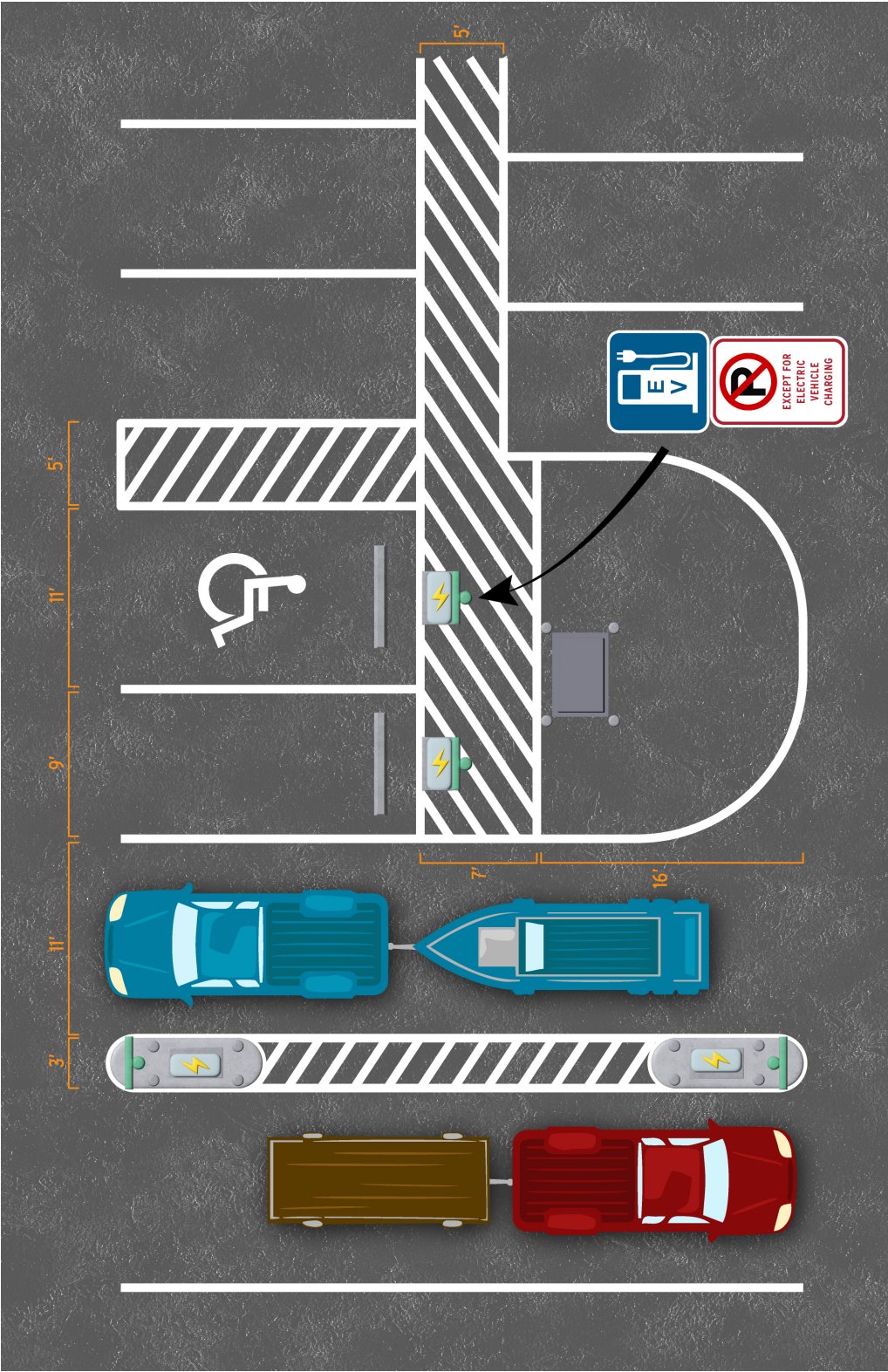


Example Two: four stalls and no pull-through stations



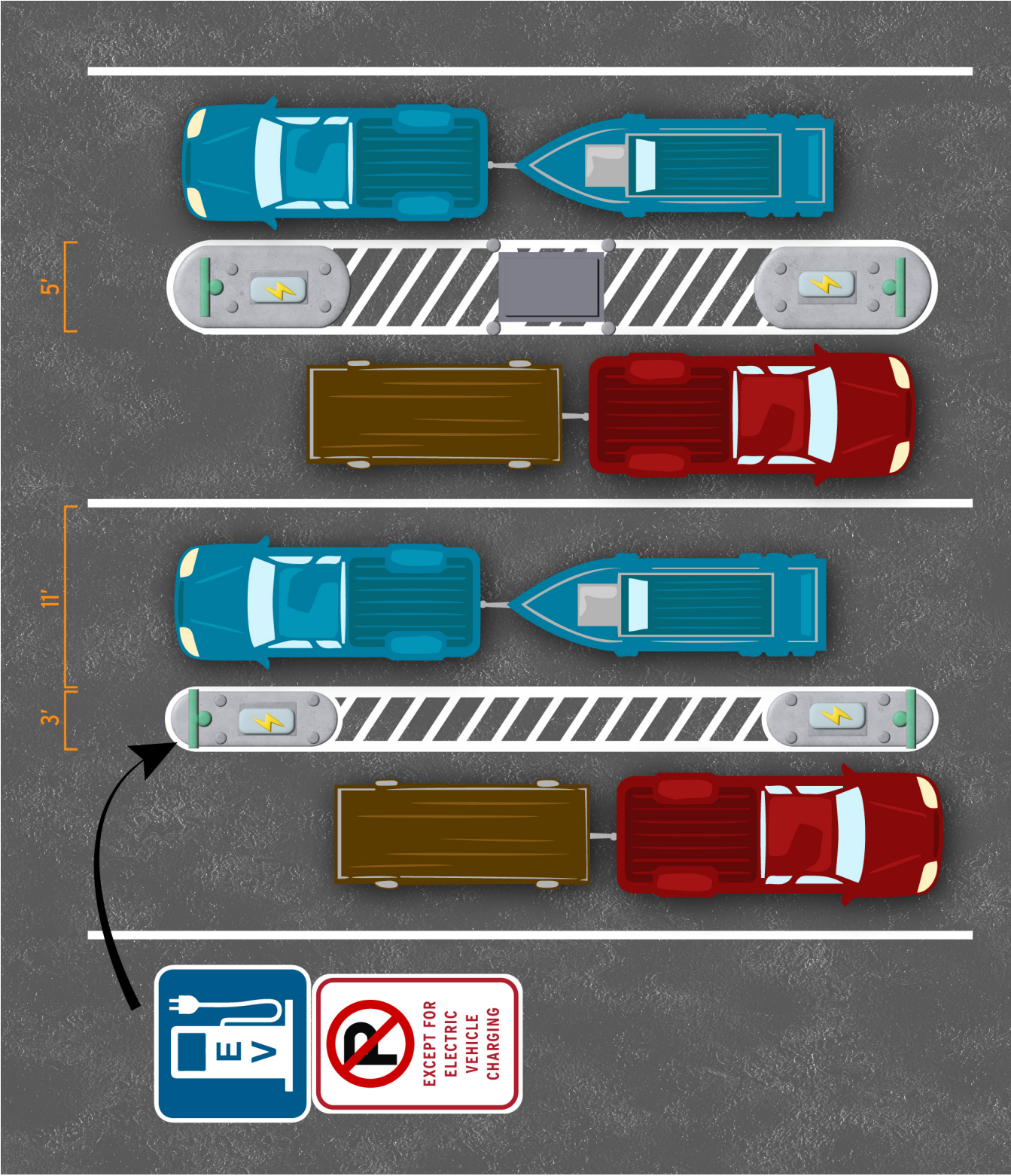


Example Three: two stalls and two pull-through stations





Example Three: no stalls and four pull-through stations





Appendix C: Summary of Public Comments



Public Comment	Agency Response
<p>If NEVI chargers are not going to be constructed until 2024, consider using NACS (SAE J3400 standard) as the sole plug type to future proof the system. Existing CCS or CHADEMO adapters are widely available but since 40+% of current AK EV owners drive Tesla, and most manufacturers will be installing NACS by 2024/25, this seems prudent to avoid future plug swaps later. NACS also supports plug-and-charge which increases EV adoption with it's ease-of-use. NACS supports up to 1000V architecture--if CCS chargers were deployed prior to broader NACS deployment, consider requirements for at least 400V architecture. Encourage canopy (roof) installations at chargers (like gas stations) to minimize the need for plowing and damage to chargers. Charging partner needed between Palmer and Glenallen (Glacierview?). Any DCFC deployment at or near airports should have a requirement to preclude rental car company use. In L48, there are currently significant issues with Hertz using public Superchargers for daily fleet charging which swells capacity at each site.</p>	<p>AEA has been keeping a close eye on the developments with auto manufacturers and charging network companies related to NACS. We have also consulted with the Joint Office, as have other states. AEA is supportive of NACS, indicated by the bonus points in the RFA for proposing to use it, but is not able to require it at this time until there would be a change in the NEVI Standards & Requirements. Once SAE concludes its standardization process, we will re-evaluate with our federal partners and DOT&PF. The report does offer discussion around NACS and request additional guidance from the Joint Office.</p>
<p>How will AEA and DOT&PF encourage vendors to set up in Southeast and rural communities where payback is less likely/less profitable? For example, Juneau has found it impossible to attract vendors of DCFCs. AEA and DOT will need to do more than just "coordinate"</p>	<p>AEA was impressed with the response to the RFA and believes that the federal contribution to less profitable sites has had a positive influence on making them viable. We will work with partners in the region as that phase ramps up to identify desirable sites and publish solicitations for those sites rather than solely rely on vendor site selection. We will refine our approach to Phase 2 with lessons learned from Phase 1.</p>
<p>EV Adoption Rate vs Energy Growth: Any projections for adoption rates should also consider public or commercial vehicle fleet EVs that may further accelerate growth with large volumes of EVs planned for deployment within the next five years. This includes light, medium, and heavy-duty EVs. These vehicles may represent a larger increase in EV energy consumption compared to private passenger vehicles, although they may not have a significant dependence on public charging infrastructure. We suggest including EV energy consumption as a component of the growth scenarios in addition to the number of EVs.</p>	<p>The focus on the NEVI program is light-duty vehicles and we do discuss other vehicle times, but do not focus on the infrastructure to support them within the confines of this effort. AEA is supportive of other vehicle classes electrifying. In future updates to the plan, we will consider evaluating energy consumption growth.</p>



Public Comment	Agency Response
<p>Transit Considerations (document pages 37-38, PDF pages 63-64): Chugach notes that significant potential exists for private transit vehicles including tour and shuttle vans and buses. Electric school bus fleets, including those managed by third parties, also pose significant potential for d</p>	<p>AEA agrees with sentiment and is supportive of electrifying other classes of vehicles.</p>
<p>EV Adoption Rate (document pages 24-25, PDF pages 48-49): Chugach contracts with S&P Global Mobility to perform a count of EVs every six months based on State of Alaska vehicle registrations. The most recent data available are current through December of 2022 and shows approximately 1,800 light-duty EVs (BEV only) registered in Alaska. Chugach has used the same contractor to supply these data for the past six years and has observed notable changes in EV adoption trends across Alaska. Our most recent data show annual EV growth for the Railbelt at over 70%, which is significantly higher than the statewide average. We believe the Aggressive Growth Scenario presented on page 25 of the Plan is a more realistic representation of the Railbelt region.</p>	<p>AEA appreciates this comment and had included some of the discussion in the final report.</p>
<p>Implementation (document pages 44-48, PDF pages 73-74): Chugach supports guidelines to ensure transparency on pricing structure and fees at EV charging stations consistent with the final federal rulemaking. We also strongly support including a mechanism to ensure that funding received through this program is contingent upon continued compliance with the minimum standards for site power and uptime during the required five-year period. A mechanism to claw back public funds given to sites found to be non-compliant will provide incentive for sites to maintain the minimum performance standards.</p>	<p>AEA agrees with transparency on pricing and the NEVI Standards & Requirements addresses this concern. Those requirements were carried through to the RFA. Additional discussion can't be provided at this time due to the development of the draft award contracts.</p>
<p>Required Data (document pages 50-51, PDF pages 76-77): Chugach suggests including the EV state of charge, port connector type, and charge start/end time as additional reported metrics. Chugach also suggests clarifying the session details to include the type of completion (plug out at vehicle, network terminated, etc.). These metrics are valuable for understanding network performance and user behavior.</p>	<p>The requirements identified in the draft report are aligned with the NEVI Standards & Requirements and were carried through into the RFA requirements.</p>



Public Comment	Agency Response
<p>Chugach: EVSE Data Sharing and Program Evaluation (document pages 51, 61, PDF pages 77, 91): Chugach supports the monitoring and reporting requirements with a mechanism to make data reasonably available to stakeholders. Ensuring the accuracy of real time charging station status will also be critical to maintaining public trust in charging infrastructure. Viewing price and charging station status may be acceptable through either established third-party platforms like Plugshare or proprietary charging networks. Chugach supports reducing the number of different networks, apps, and proprietary platforms necessary to use different charging stations along the AFC.</p>	<p>The requirements identified in the draft report are aligned with the NEVI Standards & Requirements and were carried through into the RFA requirements.</p>
<p>Minimum Standards (document page 54, PDF page 80) Chugach suggests clarifying portions of the minimum standards beyond the definitions in the NEVI Standards and Requirements Final Rule.</p> <p>a. 680.106(c) Connector – Chugach supports the implementation of the NACS port as an optional or primary connector type for charging sites. We suggest clarifying that sites must have at least one CCS1 port available either by a cable or adapter permanently affixed to a charging station.</p> <p>b. 680.106(d) Site Power – Chugach suggests clarifying that the minimum site power of 150 kW must be available to EVs with 400-volt nominal architecture. This has a significant bearing on the actual charging speed of EVs, as many DCFC stations satisfy the 150-kW minimum power on paper but cannot deliver this power to most EVs in the real world. Generally speaking, charging current multiplied by EV battery voltage dictates potential power for a charging session. For example, a 150-kW charging station with a 200-Amp cable may be able to deliver rated power to an 800-volt EV but can only deliver 80 kW to a 400-volt EV. As of December 2022, over 99% of all EVs in Alaska are 400-volt vehicles. We suggest establishing a minimum current rating of 350 Amps or greater for charging cables to help ensure compliance with the spirit of the minimum power requirements.</p>	<p>The requirements identified in the draft report are aligned with the NEVI Standards & Requirements and were carried through into the RFA requirements. AEA provided discussion and requested additional guidance from the Joint Office in regards to NACS.</p>
<p>Miscellaneous: Chugach suggests providing a consolidated resource of best practices for the design, implementation, and operation of EV charging sites.</p>	<p>AEA has noted this suggestion for future consideration.</p>

State of Alaska
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Find EV information at akenergyauthority.org
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