

## **Agenda – Special Meeting**

Juneau Commission on Sustainability

Wednesday, August 17, 2022

12pm-1pm

Zoom Webinar

<https://juneau.zoom.us/j/86822854137> Meeting ID: 868 2285 4137 OR

Phone [+16699006833](tel:+16699006833),[86822854137](tel:+16699006833)#

### **I. CALL TO ORDER**

### **II. AGENDA CHANGES**

### **III. APPROVAL OF MINUTES**

- a. July 6, 2022

### **IV. PUBLIC PARTICIPATION**

### **V. ACTION/DISCUSSION ITEMS**

- a. Electric Bus and Electric Infrastructure Grant Updates – Rich Ross (CBJ Capital Transit Superintendent)
- b. JCOS letter supporting CBJ's USDA composting application (draft attached) – Gretchen Keiser (JCOS)
- c. CBJ Comments on AEA Draft State EV Plan (L. Sowa's email attached) – Lori Sowa (CBJ) & Steve Behkne (JCOS)
- d. Outreach on Juneau Climate Impacts Report – Jim Powell (JCOS)
- e. Community Indicators – Jim Powell (JCOS)
- f. Sustainability 5-Yr Work Plan (draft attached) - Steve Behnke (JCOS)

### **VI. INFORMATION ITEMS**

- a. Outreach Committee Notes (attached)

### **VII. COMMISSIONER COMMENTS**

### **VIII. Next meetings**

Monthly Regular meeting	Sept 7, 2022 @ 12PM ZOOM
Monthly Work session/Subcommittee	Sept 21, 2022@ 12PM ZOOM
Monthly Work session/Subcommittee	Oct 5, 2022 @ 12PM ZOOM

### **VIII. ADJOURNMENT**

**DRAFT MINUTES**  
**Juneau Commission on Sustainability (JCOS)**  
**Wednesday, July 6, 2022, 12:00 p.m. (Noon)**  
**Zoom**

**I. Call to Order.** Chair Keiser called the meeting to order at 12:06 p.m.

Present: Chair Keiser, Members Steven Behnke, Danielle Meeker, Duff Mitchell, Jim Powell

Absent: Member David Teal

A quorum was present.

Staff & Others Present: Staff Liaison Denise Koch, Former Staff Liaison Beth McKibben, Planning Commission Liaison Paul Voelckers, Nate Abbott, Alec Mesdag, Michele Elfers

**II. Agenda Changes.**

Hearing no objections, the agenda was approved.

**III. Approval of Minutes.**

a. May 27, 2022

**MOTION** by Mr. Mitchell to approve the May 27, 2022 minutes. *Hearing no objection, the minutes were approved by unanimous consent.*

**IV. Public Participation.** none.

**V. Action/Discussion Items**

**a. JCOS Staff Liaison Transition – Beth McKibben (CDD) & Denise Koch (EPW)**

Memo from City Manager Rorie Watt explains the transition of liaison from CDD to EPW.

**b. JCOS Member Recruitment – Gretchen Keiser (JCOS)**

Currently two applicants, including one application for reappointment. According to the Deputy Clerk, JCOS appointments are on the agenda for July 11th meeting. More information about JCOS' mission is available on website.

**c. JCOS 2022 Work Priorities - Gretchen Keiser (JCOS)**

Table of meeting priorities is included in meeting packet. Recently lost two committee chairs with departure of three commissioners. JCOS is in need of Vice Chair.

Regarding RAISE Grant application, JCOS hopes to hear back on application status in September 2022.

Chair Keiser asks Staff Liaison Koch whether JCOS or CBJ will take the lead on revising requirements for LEED certification/exemptions. Ms. Koch notes that CBJ architects will probably not be able to work on this issue until early fall.

Chair Keiser notes that JCOS identified \$500,000 as a placeholder amount for waste diversion/reduction projects (under local waste recovery goals). CBJ did not approve this funding.

CBJ Engineering and Public Works is recruiting for an Environmental Project Specialist. JCOS has previously proposed the creation of a Sustainability Coordinator position. Chair Keiser suggests that JCOS work with future Specialist and EPW department and strengthen relationships. Staff Liaison Koch adds that application will close on July 15th. The new position will report to Lori Sowa, CBJ Engineer II. Environmental Project Specialist will work on projects related to JCOS priorities (e.g., GHG inventory, waste reduction, composting), as well as other projects, such as monitoring source control by wastewater utilities (i.e., controlling what goes into sewers). Position is fully funded by CIP.

Mr. Mitchell asks about the similarities in responsibility between this position and a potential JRES Energy Manager or Sustainability Coordinator. Ms. Koch responds that, from the CBJ perspective, this position would take on several of the responsibilities of a sustainability coordinator. Mr. Powell suggests that JCOS continue to emphasize the commission's priorities in order to support action. Ms. Sowa notes that embedding sustainability-focused positions within CBJ helps to put focus where it belongs and ensure sustained support for projects that require funding and staff time.

#### **d. Juneau Climate Report – Jim Powell (JCOS)**

Commissioner Powell reports that the climate report is finished and has been printed. Climate report had 23 authors, and is significantly different from 2007 report in terms of graphic design and including nine key messages, as well as recommendations. Mr. Powell is preparing a press release for distribution on July 11th. City Manager Rorie Watt suggested that the report be delivered to Katie Koester from the Department of Engineering and Public Works. Mr. Powell is planning to share the report with the Assembly at the July 11th meeting via public comment.

Chair Keiser asks if Mr. Powell is planning to organize a sustainability session in the fall. Mr. Powell responds that he is working on a roll-out plan and will plan to coordinate with UAS and, potentially, CBJ on a webinar. Report will be posted on the Alaska Coastal

Rainforest Center website. Mr. Powell notes that he will be working on sustainability indicators next.

## **VI. Information Items**

### **a. Whitehorse Waste Management - Gretchen Keiser (JCOS)**

Chair Keiser visited Whitehorse waste management facility and met with key staff. Whitehorse has a solid waste action plan published in 2013, which includes a goal of 50% diversion to recycling. Whitehorse completed the plan over 15-18 months, with assistance from consulting firm. Plan authors first held sector-specific meetings to present information and better understand sectoral needs. Focus of plan is on tackling commercial institutions first. The city owns public waste facilities.

### **b. Energy Management at CBJ Facilities – Nate Abbott (Parks & Rec)**

Memo is included in meeting packet. Mr. Abbott reports that Parks & Rec has been using a program called Energy Star Portfolio Manager. The program has its drawbacks, however. Parks & Rec has been trying out several new software packages, and has selected Brightly Energy Manager (which is also used by Juneau School District). Parks & Rec has sent the contract over the CBJ Legal Department and to Brightly. Mr. Abbott reports that Parks & Rec hopes to start using the software in the fall to monitor and bill ~60 buildings. New accounts payable position will assist in collecting more information. The goal is to make it easier to get information into the system. The biggest lift is the initial set-up of the system.

Mr. Behnke asks Mr. Abbott if Parks & Rec is missing any critical information. Mr. Abbott responds that the ~60 buildings does not include smaller facilities, including parts of the airport. Brightly software is set up to bill per building, so the addition of extra meters in a building does not add to cost. Mr. Abbott notes that one of the long-term goals is to understand energy use of CBJ facilities on a daily basis.

Mr. Abbott shared a presentation – included in meeting packet.

### **c. Community Wide GHG Tool – Denise Koch (EPW)**

Ms. Koch reports that CBJ has teamed up with Dynamhex. CBJ did not receive federal grant for this work, and is now working on purchasing the software after approval of sole-source contract. Mr. Abbott has participated in previous meeting with DynamHex.

## **VII. Commissioner Comments**

## **VIII. Next Meetings**

Monthly Work session/Subcommittee July 20, 2022@ 12PM ZOOM

Monthly Regular meeting Aug 3, 2022 @ 12PM ZOOM

Monthly Work session/Subcommittee Aug 17, 2022 @ 12PM ZOOM

**IX. Adjournment:** Mr. Behnke motions to adjourn at 1:27 pm.

Submitted by Danielle Meeker, Secretary



## Juneau Commission on Sustainability

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155 S. Seward Street • Juneau, AK 99801

August XX, 2022

US Department of Agriculture  
Composting & Food Waste Reduction Cooperative Agreements  
Re: Letter of Support for CFWR Project “....  
Applicant: City and Borough of Juneau, Alaska

Grant Review Committee:

The Juneau Commission on Sustainability (JCOS) strongly supports the City and Borough of Juneau’s (CBJ) 2022 Composting and Food Waste Reduction (CFWR) grant request. This project clearly aligns with the CBJ long term goals of:

- reducing the amount of food waste sent to the local landfill,
- curbing the venting of climate-damaging methane gas produced from organics decomposition at the landfill, and
- increasing composting and local food production within the community.

The JCOS is an advisory board to the elected local Assembly and fulfills a research, education, and advocacy role to increase the economic, environmental, social and governmental sustainability of the community. In March 2021, JCOS issued a report on Juneau’s solid waste management with recommended actions the Assembly should take to address waste reduction and diversion, recycling, composting, and local resource recovery. A key recommendation – Zero Waste (ZW) Planning – has been initiated with FY2023 funding by the Assembly. The timing of the City’s 2022 CFWR grant request is perfect for the multi-year ZW planning efforts as the project would generate useful information on the diversion the substantial food waste stream from local schools to a private composting company. The CBJ is interested in expanding private sector opportunities in waste handling in a public-private partnership.

The CBJ project works with school children as a fundamental element to affect the long-term paradigm shift needed on waste in the Juneau community. To maximize the benefits, the JCOS stands ready to help CBJ educate the public about the results of this CFWR project. Through its long standing “Sustainability Sessions” JCOS can assist the CBJ in spreading the word about composting and local food production.

The USDA grant would be of tremendous value to the CBJ as it takes the next steps in community food waste reduction, composting and local food production.

Sincerely,

Gretchen Keiser, Chair, Juneau Commission on Sustainability

# Alaska Electric Vehicle Infrastructure Implementation Plan

65% DRAFT

June 24, 2022

NOT FINAL – FOR REVIEW AND INPUT ONLY

SUBMIT COMMENTS TO

[electricvehicles@akenergyauthority.org](mailto:electricvehicles@akenergyauthority.org)



ALASKA  
ENERGY  
AUTHORITY



## 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.

### **Executive Oversight**

Curtis Thayer, Executive Director, AEA

James Marks, Director of Planning, Alaska DOT&PF

### **Staff**

Audrey Alstrom, PE, Director of Alternative Energy and Energy Efficiency Programs, AEA

Josi Hartley, Project Manager, AEA

Daniel Aicher, Project Manager, AEA

Taylor Asher, Project Manager, AEA

Philana Miles, Project Manager, DOT&PF

Rashaud Joseph, Civil Rights Office Manager & Compliance Officer, DOT&PF

Aaron Nickols, OJT Program Manager, DOT&PF

Chrissy McNally, Transportation Planner, DOT&PF

Randi Bailey, Transportation Planner, DOT&PF

### **Support**

Jeff Kupko, PE, PTOE, Consultant Project Manager, Michael Baker International

Karin McGillivray, Public Engagement Manager, Michael Baker International

Jennifer Gross, GIT Supervisor, Michael Baker International

Caitlin Frye, Communications Specialist, Michael Baker International



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## Acronyms

AEA	Alaska Energy Authority
AFC	Alternative Fuel Corridor
AKEVWG	Alaska EV Working Group
AMHS	Alaska Marine Highway System
BIL	Bipartisan Infrastructure Law
CCS	Combined Charging System
CHAdemo	CHArge de MOve Protocol
CISA	Cybersecurity and Infrastructure Security Agency
DAC	Disadvantaged Community
DCFC	Direct Current Fast Charging
DEC	Department of Environmental Conservation
DNR	Department of Natural Resources
DOT&PF	Department of Transportation & Public Facilities
EV	Electric Vehicle
EVSE	Electric Vehicle Supply Equipment
EVTIP	Electric Vehicle Infrastructure Training Program
FHWA	Federal Highway Administration
IBEW	International Brotherhood of Electrical Workers
ICE	Internal Combustion Engine
LIUNA	Laborers' International Union of North America
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
NEMA	National Electrical Manufacturers Association
NEVI	National Electric Vehicle Infrastructure
NPRM	Notice of Proposed Rulemaking
OEM	Original Equipment Manufacturer
OPN	Online Public Notice
P3	Public-Private Partnership
PCI	Payment Card Industry
PII	Personally Identifiable Information
RCA	Regulatory Commission of Alaska
RFI	Request for Information
RPS	Renewable Portfolio Standard
RSA	Reimbursable Service Agreement

# 1. 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. 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 on 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 Plan outlines a comprehensive 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, the Alaska Department of Environmental Conservation, Local Governments, utilities, and stakeholder groups in Alaska. The Plan provides research and analysis, details the role of contracting with third-parties, public outreach and engagement including equity considerations for rural and disadvantaged communities, workforce considerations, cybersecurity concerns, and other factors relevant to Alaska's landscape.

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

After the AFC is built and accepted by FHWA, the Authority plans to install DCFC and Level 2 charging stations throughout the rest of the state; from Anchorage to Homer and Seward, along the Alaska Marine Highway System, marine highway, and rural Alaska.

- 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 Alaska
- Phase 4: Develop charging sites in Urban and "Destination" Locations

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

- Phase 1: 2023-2024
- Phase 2: 2024-2025
- 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 NEVI Implementation Plan. Below is a summary of activities conducted 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 an MOU with the Alaska DMV 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 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: Implementation Plan Released for Public Comment
- July 27, 2022: Implementation Plan submitted to the Joint Office
- September 30, 2022: Expected Joint Office approval

This plan is intended to be a living document as AEA increasingly collaborates with communities, laws or policies change, adoption projects alter, and additional guidance from the federal government is published. The document will be updated annually, and prior year progress and changes will be documented.

## 2. 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 the development

and implementation of the NEVI program.

Since the designation of AEA as the State's lead agency for EVs, 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 DC Fast charging in Alaska provides the agency with the background and experience needed to implement the NEVI program. 

A Memorandum of Agreement (MOA) was developed and signed by The State of Alaska Department of Transportation and Public Facilities (DOT&PF) and the Alaska Energy Authority 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 acknowledges AEA as the lead agency for implementation of the NEVI program as requested by the Governor. DOT&PF will make NEVI and other related FHWA funds available to AEA through a Reimbursable Service Agreement (RSA). 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 Plan is a product of close coordination between DOT&PF and AEA. An internal advisory group comprised of subject matter experts within DOT&PF and AEA and an FHWA representative was formed in April of 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 and DOT&PF will comply with the Buy America requirements issued for the NEVI program, and utilize US-made 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 meet quality standards, Alaska will seek a waiver from the Buy America requirements.



### 3. Public Engagement

In 2020 AEA created the AK EV Working Group. This working group of EV stakeholders was established 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. Smaller technical committee meetings are held 8-12 times per year to focus on specific topics or issues that are shared with the larger group during quarterly meetings. The working group's newsletter, website updates, and public presentations keep stakeholders and the public informed about the latest Alaska EV news and meetings.

Outreach activities related to the NEVI deployment will include updating and maintaining the AEA EV website, distributing flyers and email newsletters, developing social media content, engaging high school students with an essay contest on EVs, and other community-sourced activities.

#### Stakeholders Involved in Plan Development

The list of organizations that have been engaged **and likely will be engaged moving forward** are identified in Table 1 below. An asterisk identifies a stakeholder that supports the Justice40 goals of the program.

#### Current Stakeholders

Table 1: Current Plan Development Stakeholders

Agencies	Communities & Local Governments
Alaska DOT&PF	Akutan*
Alaska Energy Authority	Municipality of Anchorage
Alaska Housing Finance Corporation	City of Anderson 
Bureau of Land Management	City of Angoon*
Federal Highway Administration	Coffman Cove
Regulatory Commission of Alaska	Cold Bay
US Department of Energy	Cordova
	Craig*
<b>Businesses</b>	Delta Junction
Adventure Denali	Denali Borough
ChargePoint	Eagle
Dimond Center	City of Fairbanks
Loopy Lupine	Fairbanks North Star Borough
Sheep Creek Lodge	False Pass*
Chugiak Eagle River Chamber	Gustavus

Denali Chamber of Commerce	Haines Borough
Willow Chamber of Commerce	Homer*
Three Bears Alaska	City of Hoonah*
	City of Houston*
<b>Utilities</b>	Hydaburg*
Alaska Electric Light & Power Co.	City and Borough of Juneau
Alaska Power & Telephone	Kachemak*
Alaska Power Association	Kake*
Chugach Electric	Kasaan*
Copper Valley Electric	Kenai*
Cordova Electric	Kenai Peninsula Borough*
Enstar Natural Gas	City of Ketchikan*
Golden Valley Electric Association	Ketchikan Gateway Borough
Homer Electric Association	King Cove*
Kodiak Electric Association	Klawok*
Kotzebue Electric Association	City of Kodiak
Matanuska Electric Association	Kodiak Island Borough*
Southeast Alaska Power Agency, Ketchikan	Matanuska-Susitna Borough*
	City of Nenana*
	North Pole
<b>Local Organizations</b>	North Slope Borough
Alaska Municipal League	Old Harbor*
Alaska Center	Ouzinkie*
Alaska Electric Vehicle Association (AKEVA)	City of Palmer*
Alaska Public Interest Research Group	Pelican
Alaska Trails	Petersburg Borough
Anchorage Economic Development Corporation	Port Lions*
Bering Strait Development Council	Saxman*
Copper Valley Development Association	Seldovia*
Easy Park	Seward
Fairbanks Economic Development Corporation	City and Borough of Sitka*
Haines Economic Development Corporation	Municipality of Skagway Borough*
Juneau EVA	Soldotna*
Kenai Peninsula Economic Development District	Tenakee Springs
Launch Alaska	Unalaska*

Norton Sound Health Corporation	City of Valdez
Pacific Northwest Economic Region	Wasilla*
Prince William Sound Economic Development District	Whittier
Prince William Sound Science Center	Yakutat
ReCharge Alaska	
Renewable Energy Alaska Project	<b>Native Organizations</b>
Sitka Conservation Society	Ahtna, Inc.*
Southeast Conference*	Chickaloon Native Village*
Southwest Alaska Municipal Conference*	Chugach Corp*
	Cook Inlet Regional Corp*
<b>Education</b>	Doyon*
University of Alaska Anchorage	Kodiak Area Native Association*
	Metlakatla Indian Community*

\* indicates organization that supports Justice40 initiative

## Potential Future Stakeholders


Table 2: Current Plan Development Potential Future Stakeholders

National Park Service	Knik Tribe*
Alaska DEC – Air Quality Division	Tok Transportation
Alyeska Resort	Greater Fairbanks Chamber of Commerce
Mickinley Private Investment	University of Alaska Fairbanks
Northern Alaska Environmental Center	Alaska Native Tribal Health Consortium*
Fairbanks Native Association*	Tanana Chiefs Conference*
IBEW Local 1547	Laborers’ Local 942
Laborers’ Local 341	Alcan Electrical & Engineering, Inc.
Fullford Electric, Inc.	CCI Electrical Services, LLC
FAST Planning	AMATS
Arctic Slope Native Association*	Kawerak
Maniilaq*	Association of Village Council Presidents
Cook Inlet Tribal Council*	Bristol Bay Native Corporation*
Aleutian Pribilof Island Association*	Chugach Native Association*
Kodiak Area Native Association*	Copper River Native Association*
Arctic Slope Regional Corporation	Aleut Corporation*
Bering Straights Native Corporation*	Bristol Bay Native Corporation *

Calista Corporation*	Koniag, Incorporated*
NANA Regional Corporation*	Sealaska Corporation*
Alaska Federation of Natives*	Alaska Inter-Tribal Council*

\* indicates organization that supports Justice40 initiative

## Public Outreach

AEA in coordination Michael Baker created an Outreach and Education Plan outlining outreach goals, activities and resources for the Alaska Electric Vehicle Infrastructure Plan. This outreach plan can be found in Appendix A. 

# 4. Plan Vision and 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 the Alaska Energy Authority is to lower the cost of energy in Alaska, and the Authority's secondary mission is to reduce barriers to EV adoption. Alaska's NEVI 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.

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. The State of Alaska's NEVI program will include requirements for each charging location to facilitate measurable data collection and evaluation. Project partners will support this program goal with data collection and analysis to inform participants of the performance of EVs and EVSE, and decision-makers on the efficacy of vehicle electrification in Alaska.

Alaska 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 Railbelt and road systems, this program will serve locations comprised of Alaska Natives, residents of multiunit housing, low-income, rural, and disadvantaged communities to ensure equitable access to EV charging infrastructure and vehicle 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.

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 on 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 Alaskan's desire to transition to green energy. In 2020, Alaska generated about 31% of its electricity from renewable energy sources. Alaska's Railbelt grid is currently comprised of 15% renewable generation, and most of 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 Internal Combustion Engine (ICE) vehicles.

AEA will work closely with partners to maximize the public benefit by providing resources for EVSE site selection and development to partners. A campaign will be coordinated for public EV education and outreach, with an increase in EV education and exposure to underserved communities.

## 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. DC Fast charging stations will be located approximately 50 miles apart along the Alternative Fuel Corridor 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 located conveniently, no more than one mile from the AFC. The sites will provide at least four units with 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 5-year operations and maintenance contract to ensure the station is operational to meet a 97% uptime goal.

The Authority will monitor station uptime through vendor-reported usage data on a quarterly basis at minimum.

2. **Ensure the benefits are distributed and applied equitably for all Alaskans.** Alaska is planning for equitable EV charging capabilities between our rural and urban areas. At least 40% of the benefits of the program investments will be distributed to disadvantaged and rural communities. Phases 2 and 3 of the Implementation Plan will develop charging infrastructure in rural communities and communities along the Marine Highway System.
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. **Develop 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 questions, common misconceptions, and acts 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, changes in adoption, and publish charging usage and efficacy of vehicle electrification in Alaska. The data will be analyzed for the outyear 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.

## Outlook for 5-year Program

The plan will deliver a reliable, grid connected DCFC infrastructure charging network from the south end of the Alaska Alternative Fuel Corridor (AFC) in Anchorage and 355 miles north to Fairbanks within the first two years. During this same timeframe, 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.

### **1. Phase One, Build out Alaska's Alternative Fuel Corridor**

- a. Year one will focus on building out Alaska's Alternative Fuel Corridor to meet FHWA guidance, where practically feasible, along the AFC from Anchorage to Fairbanks.
- b. Plan activities will include site selection, public outreach, 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.
- c. Outreach and coordination will continue with the Alaska Department of Natural Resources (DNR), Department of Environmental Conservation (DEC), the Regulatory Commission of Alaska (RCA), and electrical utilities that provide power to the communities to be served by the NEVI funded stations.
- d. Due to the seasonality of Alaska's climate, public and private contracting for initial design and construction projects is planned to be complete by the end of year two.
- e. Several 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 will not meet the NEVI requirements and will need to be upgraded.

### **2. Phase 2, Build out Alaska's Highway and Marine Highway Systems**

- a. Develop EV fast-charging infrastructure along Alaska's highways outside of the AFC and the Alaska Marine Highway System (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 Southeast Alaskan communities located on the Marine Highway System. 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.

### **3. Phase 3, Install Charging Stations in Rural Alaska**

- a. Install community-based charging stations in EV-ready communities throughout rural Alaska including hub and satellite communities. Thirty percent of the state's population resides in over 200 remote and rural communities, most of which are only

accessible by plane or marine vessel. 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. DCFC equipment will not be feasible in most rural communities and therefore Level 2 charging stations will be installed in these locations to provide drivers access to charging while driving local trips.

#### **4. Phase 4, Urban and “Destination” Locations**

- a. 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.

## **5. Contracting**

AEA has conducted a review of relevant statutes to determine contracting mechanisms available to deploy the infrastructure. This section summarizes that review and recommends the preferred method.

### **Alaska State Laws on Electric Vehicle Infrastructure and Procurement**

#### **Design-Build**

The Alaska DOT&PF supports the implementation of a single contract with one entity (the Design-Builder) for design and construction services to provide a finished product. Design-Build projects are beneficial because they cut out the “middleman” and assign design and construction to a single entity. The client provides one contract to the entity, expediting both the design and construction phases of projects. An expedited process could help the infrastructure be deployed in a timely fashion. If the process is applied to the right project, with the right controls in place, the public gets a quality product in a shorter time. The challenge could be grouping sites into an economic model with one provider, given that multiple site hosts are expected along the corridor.

#### **Grant Program**

Grant-style programs have been used in Alaska for EV charging, as the Volkswagen mitigation funds were deployed through a grant program. This program type requires the management and monitoring of grant applications and administration. Consideration should be given to the reimbursement schedule, as site hosts may struggle carrying the cost of the entire project if the reimbursement occurs at closeout. Initial funds and/or progress payments may ease this burden.

#### **P3**

Public-private partnerships (P3s) are authorized in Alaska for projects pertaining to transportation infrastructure, municipal facilities (public works infrastructure), and environmental projects. P3s are contractual agreements between a public agency and a private entity that allow for greater private participation in the delivery of projects. In transportation projects, this



participation typically involves the private sector taking on additional project risks such as design, construction, finance, long-term operation, and traffic revenue. The P3 approach may prove particularly effective in Alaska due to the long travel distances, however, private parties could strategically monopolize locate EV infrastructure. While this strategy would assuredly prove profitable for the private parties, the utility for EV users, and the reputation of public authorities should not be sacrificed.

### **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 to site hosts and government agencies that they can use to increase community awareness about the charging station including flyers and social media graphics. Each contractor and site host will also be supported by the comprehensive public engagement plan included in this document, which includes earning media coverage across the state, social media outreach, and participating in community events like state fairs.

### **Opportunities for Small Businesses**

In accordance with Title 23 of U.S.C. 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.


### **Recommended Procurement**


AEA is proposing to utilize a grant-style program. This methodology will continue on the experience and lessons learned from the administration of the Volkswagen settlement funding deployments. Relationships have been forged with potential site hosts through this effort, and AEA believes this will be the most effective and successful way to deploy the infrastructure due to the continued interest of the VW site hosts and new interest from other entities. The process will be an open and competitive selection, and AEA has experience administering a similar program in the past.

## 6. Existing and 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 United States, 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.  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. 

Alaska's transportation network is relatively undeveloped compared to its national peers. Of the state's 17,690 centerline miles of road, 82% are considered rural and 65% is unpaved. Less than 1% of the state's land is under private ownership. 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 west with Canada and some travel routes across Alaska traverse Canada, adding complexity to supporting state-wide EV movements that will require international coordination.

Due to its incredible size, 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 an Alaska summer. Based on the temperature and precipitation averages, Alaska is divided into five climate regions.

## Alaska 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 predominately tundra, 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 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.

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.

## 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 provides 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 over 30 communities. The Alaska Department of Transportation and Public Facilities 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 Long Range Transportation Plan, 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 Alaska Marine Highway System serving over 3,500 miles of coastline and 35 communities, many of which rely on ferry

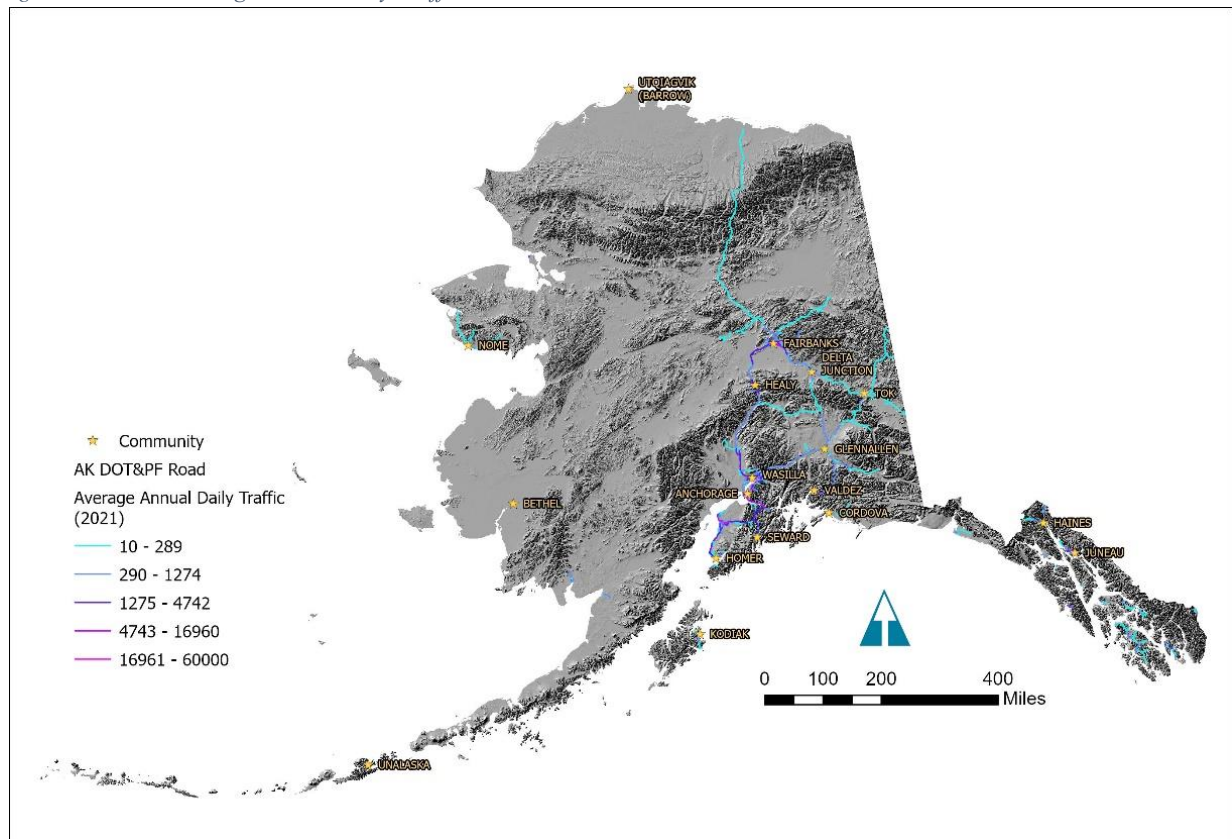
for travel and goods.

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 wide-spread 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. 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 up to 68,000 a day (2019), and the Dalton Highway – 400 miles of the 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. According to traffic pattern data, there is a pattern of travel surrounding Nome, but these roads are closed during the winter months and therefore most travel to Nome is done by plane.

Figure 3: Alaska's Average Annual Daily Traffic



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](#). Key cities with federally funded public transportation programs include:

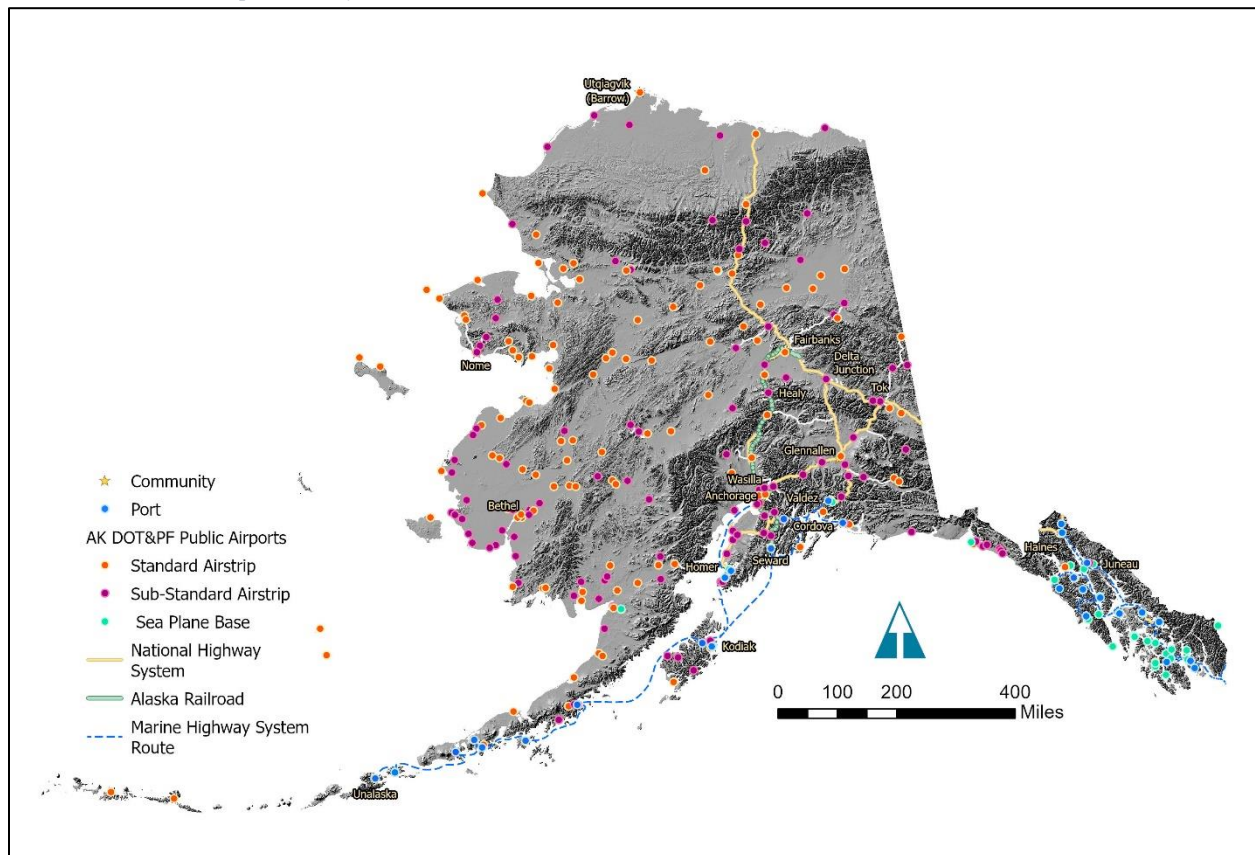
- Anchorage – People Mover and AnchorRIDES
- Bethel Transit Bus System
- Central Kenai Peninsula – Central Area Rural Transit (CARTS)
- Fairbanks – Metropolitan Area Commuter System (MACS) and Van Tran
- Girdwood – Glacier Valley Transit (GVT)
- Gulkana – Soaring Eagle Transit (SET)
- Hollis – The Inter-Island Ferry Authority (IFA)
- 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). \$1 billion of funding from the Infrastructure Investment and Jobs Act is dedicated to the Alaska Marine Highway System (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.

Figure 4: Alaska's Transportation Systems

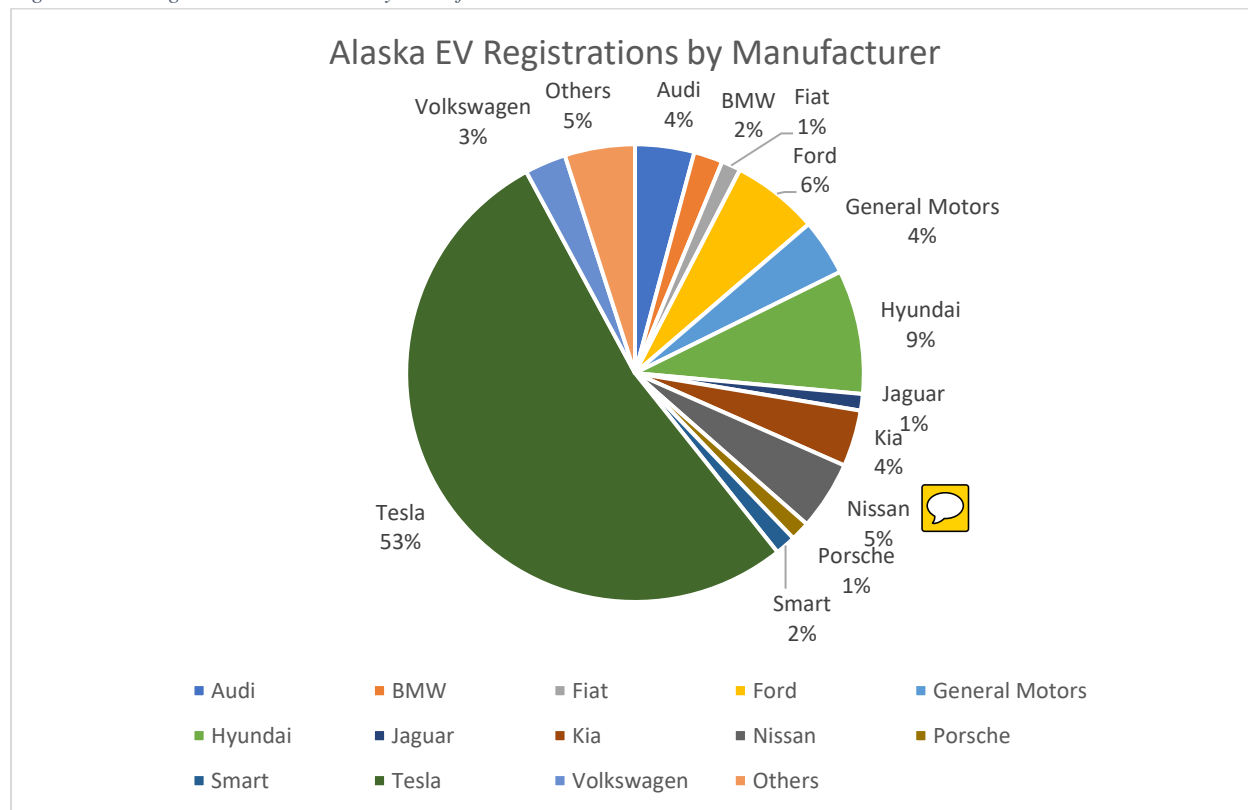


### Future State of EV Adoption in Alaska

As of December 2021, there were 1,250 EVs registered in Alaska.  The EV adoption in Alaska is trending upward like many states and the global markets saw a significant jump in the second half of 2021 with over 300 EVs added to the registration database. Sport Utility Vehicles (SUVs)

and pick-up trucks account for 80% of new vehicles purchased in Alaska<sup>1</sup>. Due to this vehicle preference trend, it is expected that EV market share in Alaska will increase once battery electric pick-ups trucks are readily available to Alaska consumers.

Figure 5: EV Registrations in Alaska by Manufacturer



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's important to recognize that there are a variety of factors that 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 4,000 EV sales per year on average, adding about 20,000 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.

### Aggressive Growth Scenario

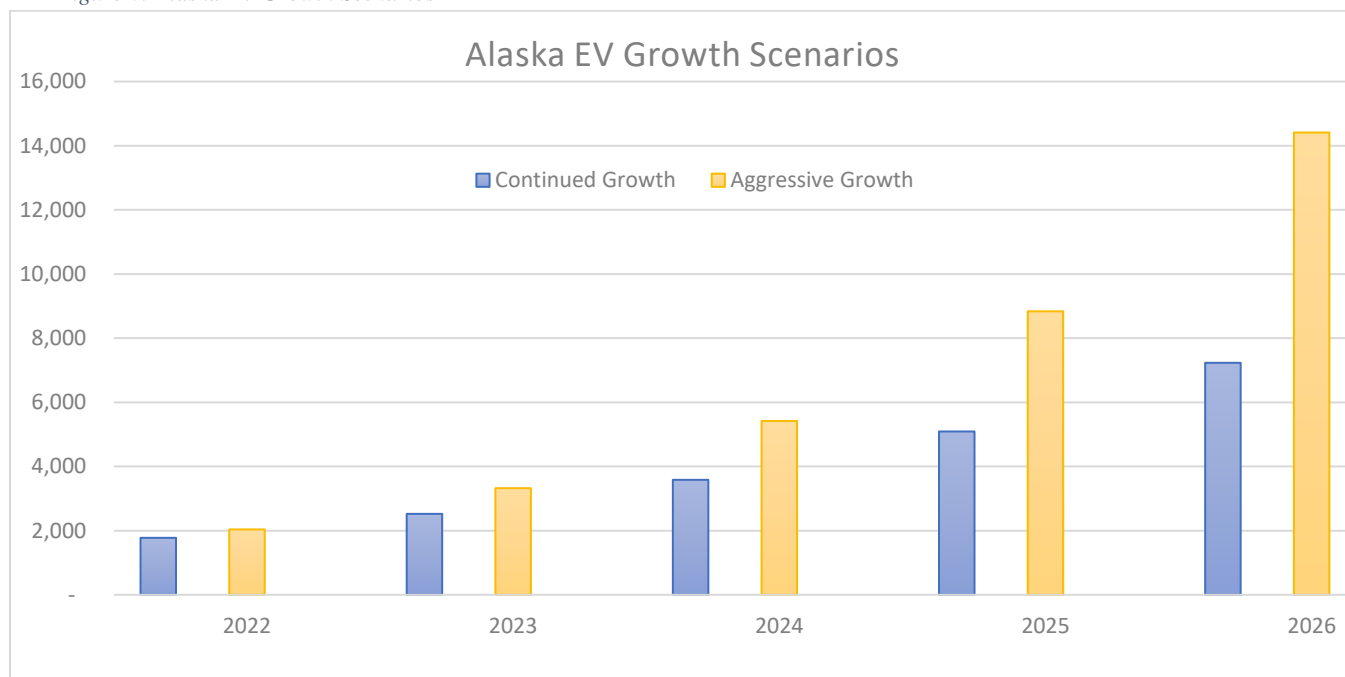
The aggressive growth scenario increases the 2020 to 2021 growth by a factor of 1.5 resulting in

<sup>1</sup> [White Paper – Electric Vehicles and Infrastructure in Alaska](#)



a 63% growth rate. This scenario addresses the expected increase in registration due to the new battery electric pick-up truck models coming to market and expanded offerings for SUVs. The results are that the state would realize about 6,800 EV sales per year on average, adding about 34,000 new EV registrations over the 5-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.

Figure 6: Alaska EV Growth Scenarios

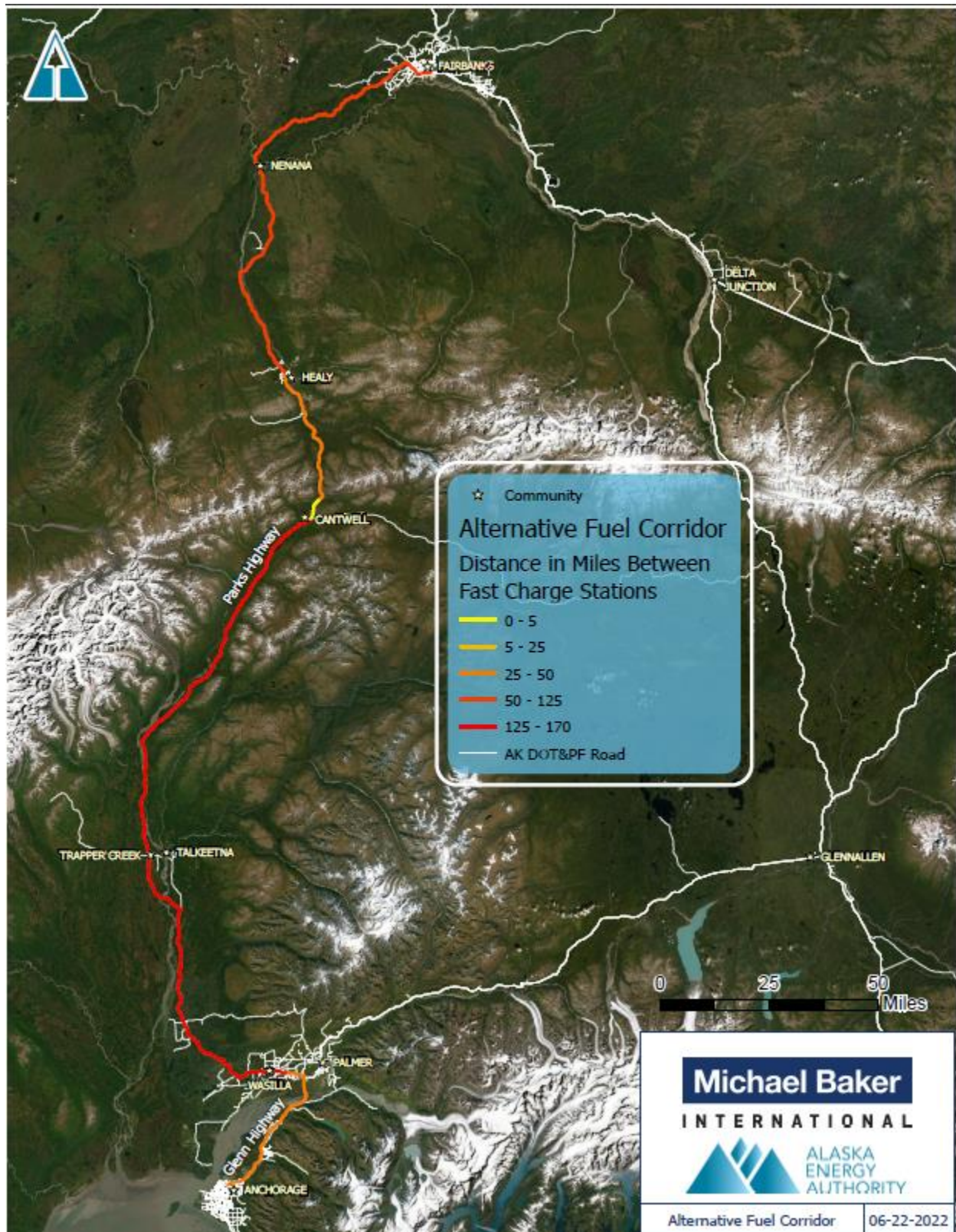


### AFC - Corridor Networks

Alaska does not have any designated interstates due to its isolation from the contiguous United States. However, Alaska submitted and was approved Corridor Pending status for a single Alternative Fuel Corridor in Round 4 of nominations. The nominated section of the highway is between Anchorage and Fairbanks, with a distance of 358 miles.



Figure 7: Alaska Alternative Fuel Corridor



## Corridor Pending Corridors

The route from Anchorage to Fairbanks is the only approved AFC through the initial six 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 in two years.

## Existing Locations of Charging Infrastructure Along AFCs

As of June 2022, there are 4 existing DCFC stations located within a mile of Alaska's proposed AFC along the Parks and Glenn Highways. Of the existing quick charge locations, none have connectors that meet the NEVI standards for 150kW output. The average output is 50kw for the 6 existing quick charge connectors. Figure XX displays the gaps in coverage for quick charge locations, the longest gap spans 170 miles from Wasilla to Cantwell. Within that span there are 3 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 quick charge location is approximately 4.5 miles from the AFC. The third longest gap is the 38-mile stretch of the Glenn Highway from Anchorage to the Trunk Road exit where level 2 charging is available at Mat-Su Regional Hospital. Neither quick charge stations nor level 2 stations have yet been installed along the Glenn Highway.

Table 8: Existing Locations of EVSE Along Alternative Fuel Corridors

State EV Charging Location Unique Id*	Charger Level (Dcfc, L2)	Charger Type	Location	Number Of EV Connectors	EV Network (If Known)	Seasonal
Mat-Su Regional Medical Center	Level 2	NEMA 14-50	1790 S Woodworth Loop, Palmer AK 99645	4	Non-Networked	Year Round
Chevrolet of Wasilla	DCFC, Level 2	2 J1772, (240v 50amp Wall), CCS/SAE	3700 E Parks Hwy, Wasilla AK 99654	4	Non-Networked	Year Round
Kendall Ford Wasilla	Level 2	J1772	2701 Mountain Village Dr, Wasilla AK 99654	1	Non-Networked	Year Round

Advanced Blasting Services	Level 2	Tesla	281 S Conquest Cir, Wasilla AK 99654	2	Non-Networked	Year Round
Montana Creek Campground RV Park	Level 2	NEMA 14-50	49941 Parks Hwy, Willow AK 99688	2	Non-Networked	Summer Only
K'esugi Ken Campground	Level 2	NEMA 14-50	135.4 Parks Highway, Trapper Creek, AK 99683	2	Non-networked	Summer Only
Jack River Inn	DCFC, Level 2	J1772, CHAdeMO, CCS/SAE	Mile 209.9 Parks Highway, Cantwell AK 99729	3	FLO	Year
Adventure Denali	DCFC, Level 2	2 Tesla Wall, 1 DCFC, NEMA 14-50	Mile 214.5 Parks Highway, Cantwell, AK 99729	4	Non-Networked	Round
Denali Rainbow Village & RV	Level 2	NEMA 14-50	Mile 238.6 Parks Highway, Denali National Park and Preserve, AK 99755	2	Non-Networked	Summer Only
Tesoro Gas Station Rainbow	Level 2	Tesla	Mile 238.6 Parks Highway, Denali Park, AK 99755	2	Non-Networked	Summer Only
Alaska Totem Inn	DCFC	CHAdeMO, CCS/SAE	248.7 Parks Hwy, Healy AK	2	Non-Networked	All
Rivers Edge RV Park & Campground	Level 2	NEMA 14-50	4140 Boat St, Fairbanks AK 99709	1	Non-Networked	Summer Only

\*Defined by the State – this should match the unique ID in the State’s applicable GIS databases.

[Note that the table can be included in the Appendix, if too lengthy to include here.]



Figure 9: EV Charger Levels Along Alaska Alternative Fuel Corridor




## Known Risks and Challenges


Recognizing the diverse and challenging terrain of Alaska paired with its vast size and low population density, it is important to document the risks and challenges to a successful project so AEA can mitigate the challenges to the best of its ability.

### 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.

For communities that are not connected to the North American road system, like Juneau, the lack of development along corridors will not be a primary issue. Costs to install EV charging infrastructure in communities that are not connected by the road system or the AMHS, however, could be considerably higher. 

The lack of reliable internet or cell service in underdeveloped 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, a RFI was issued by AEA in April 2022 for public comment, and to elicit feedback regarding EVs and charging infrastructure needs in Alaska. Over sixty 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.

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 10)

Some of the fast-charging stations in rural areas 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**

Alaskans tend to be slow adopters of new technology. Overcoming skepticism about whether electric vehicles are appropriate for Alaska's geography and climate will be difficult to overcome. 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.

### **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 28% 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). Utilities include 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 for regulated electric utilities that will be charged by electric utilities to the operators of high-speed commercial electric vehicle 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 electric vehicle 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. The Railbelt 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 under which demand charges are waived for EV charging. The approved charging station rates are:

- Golden Valley Electric Association: \$0.65480/kWh
- Homer Electric Association: \$0.16441/kWh
- Matanuska Electric Association: \$0.30243/kWh
- Chugach Electric Association: \$0.15274
- Juneau Utility, Alaska Electric Light and Power Company: \$0.1383 to \$0.2489/kWh depending on class of customer and time of year

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.

The remaining 30% of the state's population resides in remote and rural communities. Alaska's 183 remote villages are 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 varies significantly among the 183 powerhouses dispersed across Alaska's remote communities. Each village is a stand-alone microgrid without the typically 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.

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 Northwest Arctic regions. Some communities in 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.

## 7. 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.

### Funding Sources

The VW Settlement Trust deployment secures the match funding from the site hosts. However, given that those locations deployed one or two 50kW DCFC stations, the scale and cost of deploying four 150kW DCFC stations is significantly different. 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.
- **Volkswagen Settlement funds** – AEA has approximately \$200,000 remaining in the trust fund that can be used to offset some of the local match funding, if allowable by court trustee.





- **Utilities** – Given that utilities will be able to collect a return on investment through the distribution and sale of the electricity, some utility companies may be willing to support some or all of the match.

No state funding or highway gas taxes will be leveraged in the deployment of the infrastructure, so the funding sources will come from one or a mix of the above options.

## 2022 Infrastructure Deployments/Upgrades

An inventory of proposed EV charging installations 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, as well as present opportunities to engage with potential site hosts that already support EV charging.

Table 10: Proposed EV Charger Installations

State EV Charging Location Unique ID*	Charger Level (DCFC, L2)	Charger Type	Location	Number of EV Connectors	EV Network (if known)	Corridor
	DCFC, Level 2	J1772, 2 CHAdeMO, 2 CCS/SAE	22211 Birchwood Loop Rd, Chugiak AK 99567	6	Non-Networked	AFC Within 1 mi
	DCFC	CHAdeMO, CCS/SAE	23471 S Parks Hwy, Willow AK 99688	2	Non-Networked	AFC Within 1 mi
	DCFC	CHAdeMO, CCS/SAE	248.5 Parks Highway, Healy, AK 99743	2	Non-Networked	AFC Within 1 mi
	DCFC	CHAdeMO, CCS/SAE	800 E Dimond Blvd, Anchorage, AK 99515	2	Non-Networked	Outside
	DCFC	CHAdeMO	19842 Hope Hwy, Hope, AK 99605		Unknown	Outside
	DCFC	CHAdeMO	18280 Sterling Hwy, Cooper Landing, AK 99572	1	Unknown	Outside
	DCFC	CHAdeMO	2001 Seward Hwy, Seward, AK 99664	1	Unknown	Outside
	DCFC	CHAdeMO	35722 Kenai Spur Hwy,	1	Unknown	Outside

			Soldotna, AK 99669			
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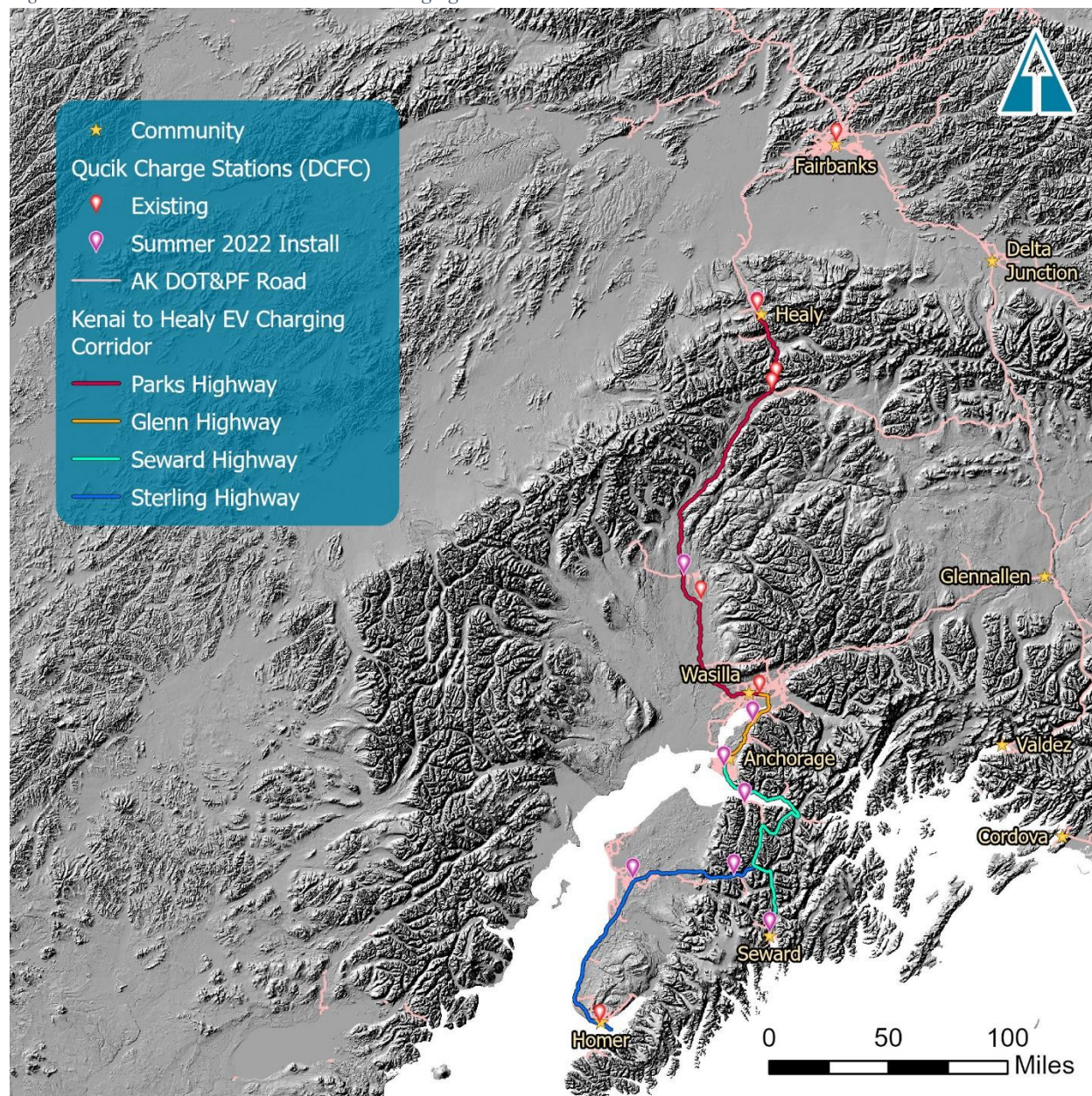
\*Defined by the State – this should match the unique ID in the State’s applicable GIS databases. It should be clear that the Unique IDs correspond to general locations for proposed installations rather than pinpoint geocoordinates.

\*\*Federal Government Owned (FG), Jointly Owned (J), Local/Municipal Government Owned (LG), Privately Owned (P), State/Provincial Government Owned (SG), or Utility Owned (T)

### **Homer to Healy EV Charging Corridor**

In 2021, AEA spent \$1 million from the Volkswagen emissions settlement to fund a charging corridor from Homer and Seward on the Kenai Peninsula to Healy, south of Fairbanks. The nine charging stations will be commissioned in the Summer of 2022, and are separated by less than 100 miles, allowing drivers the ability to travel from the Kenai Peninsula to Fairbanks without fear of losing power. Figure 11 below identifies the corridor deployment. The proposed stations will not meet NEVI requirements as all of the DCFC stations will be 50 kW and at most there will be two stations at a site installed.

Figure 11: Alaska's Current and Future EV Charging Locations



### Upgrades of Corridor Pending Designations to Corridor Ready Designations

The corridor 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 additional fast charging locations, as none of the existing stations meet the requirements of the NEVI program. The process to select the locations was determined by the following factors: current EV charging locations, utilities power lines and 50-mile radius.

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.



### **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, as the EV penetration in Alaska is low and the long-distance travel is infrequent and likely seasonal by car.

### **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 travels between the urban centers of Anchorage and Fairbanks.

According to the Alaska Trucking Association, the trucking industry in Alaska is not anticipating the electrification of fleets in the foreseeable future, and he 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 not feasible. 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 Alaska Marine Highway System fleet.

### **Public Transportation Considerations**

The state of Alaska currently houses two electric buses—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 problems since its purchase in spring 2021, keeping it out of service for weeks at a time. Its range is also lower than expected in the summer and winter months. Although expected to have a 210-mile range (about 10 hours), in ideal conditions it can go for 170 miles (8 hours) and in colder winter months about 120 miles (5 hours). The decreased battery efficiency is primarily due to the energy needed to heat the inside of the bus. Despite the difficulties with its first bus, Capital Transit plans to purchase more electric buses for its fleet, citing improved EV technology.

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 electric vehicles, 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, although the school district recognizes the future potential of electric buses, the cost and performance of the buses on long routes, especially in the winter, makes them unviable.

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 Transit](#), operated by the Gulkana Village Council, that runs between communities in the Copper River Basin and Anchorage). None of these services utilize electric vehicles but could benefit from the build-out of electric vehicle 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 \$8-10 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.

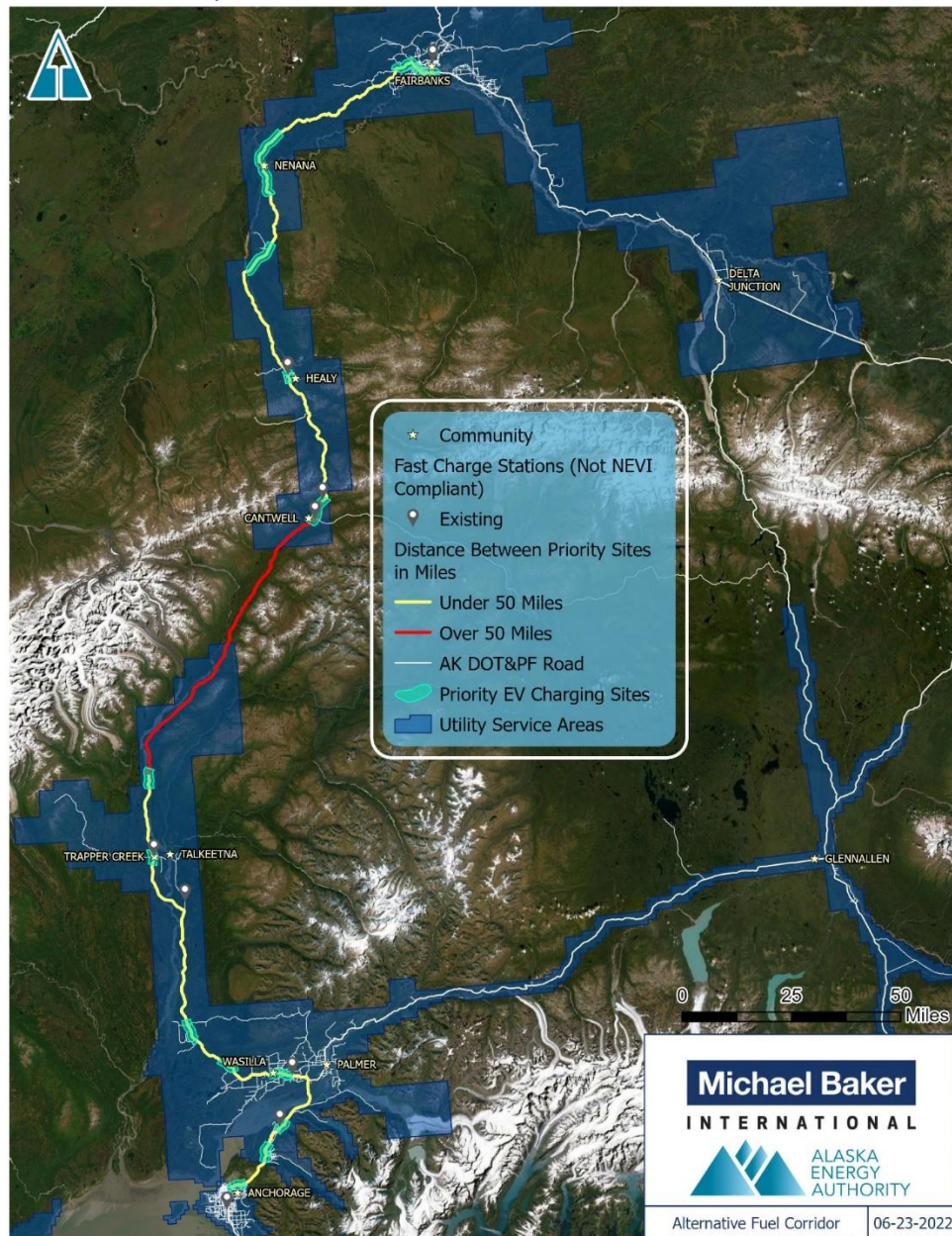
AEA will continue to monitor electric bus technology improvements and agencies as they plan to purchase electric buses to determine if there are opportunities to collaborate on future infrastructure deployments outside of the designated Alternative Fuel Corridor.

### 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' shaded regions of the below figure. Applications will be solicited to host the NEVI sites in each zone to maximize coverage of the corridor. With the deployment, there is an expected gap of 79.54 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 12: Distance Between Priority Sites in Alaska



### 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, that 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.<sup>2</sup>

### **State Energy Policy**

The State Energy Policy (Alaska Statutes 44.99.115) recognizes the importance of promoting energy efficiency in the transportation sector.<sup>3</sup>

### **State Motor Fuel Tax – Registration Fees**

The State’s Motor Fuel Tax does not allow electric, plug-in, and alternative fuel vehicles to have permanent eligibility of vehicle registration. Instead, a biennial registration fee is required which funds a highway fuel tax account for highway construction, maintenance, and operations. Electric and alternative fuel vehicles must pay \$100 and hybrid vehicles are required to pay \$50.<sup>4</sup>

### **Volkswagen Trust Funds and State Energy Program (SEP) Funds**

The 2016 settlement resolved claims that Volkswagen violated the Clean Air Act by selling approximately 590,000 vehicles with 2.0- and 3.0-liter diesel engines having emissions defeat devices. The settlement consisted of multiple agreements and required Volkswagen to pay \$2.9 billion to a national environmental mitigation trust fund. Beneficiaries such as the state of Alaska must use their shares to fund specific projects that reduce emissions of nitrogen oxides from vehicular sources.

Utilizing Volkswagen Trust funds, State Energy Program (SEP) funds as an added incentive and matching private funds from participating site hosts allows the state to embark on ambitious, sustainable infrastructure projects.<sup>5,6</sup>

### **Alternative Fuel Vehicle Acquisition Requirement**

Per Alaska Statutes 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 department may work jointly with public or private partners.<sup>7</sup>

### **Regional Zoning**

Zoning ordinances are useful tools for state and local governments to indicate where EV supply equipment (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.

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<sup>2</sup> (Poux, 2021)

<sup>3</sup> (Alaska State Government, 2020)

<sup>4</sup> (Josephson, 2021)

<sup>5</sup> (Alaska Government, 2022)

<sup>6</sup> (Missouri Department of Natural Resources, n.d.)

<sup>7</sup> (U.S. Department of Energy, n.d.)

For example, in the case of Methuen, Massachusetts, an addendum to the existing zoning ordinance to permit 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 parking facilities counts as three spaces toward meeting off-street parking requirements. The effects of this ordinance are twofold: Electric Vehicle use is incentivized, and traditional internal combustion engine vehicle use is constrained and disincentivized.

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.<sup>8</sup>

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**

Alaska Electric Vehicle Association (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 their 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.<sup>9</sup>

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". The group has voiced satisfaction with The Alaska Electric Vehicle Association's 2020 R-20-005 tariff. The Regulatory Commission of Alaska evaluated the current electrical tariffs for emerging EV market and concluded that the R-20-005 incentive for electric users 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.<sup>10</sup>

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<sup>8</sup> (U.S. Department of Energy, 2015)

<sup>9</sup> (AKEVA, 2022)

<sup>10</sup> (Hall, 2022)



## 8. 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 electric vehicle infrastructure installation process, there will be several operational and maintenance 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.

#### Fees

Charging stations who want to generate revenue or recover costs may assess a fee for use of the charging infrastructure. Many charging networks will facilitate the fee transaction at the charging unit, but fees can also be collected via app, credit card, over the phone, or at a nearby establishment.

#### Pricing Structures

A report released by the University of California Los Angeles Luskin Center for Innovation details important information about the factors that influence the financial viability of charging stations. Common pricing structures charge by kWh, session, length of time, or through a subscription. The Regulatory Commission of Alaska has enabled charging by the kWh – the preferred method for EV drivers – so AEA will request that the recipients of the NEVI funding assess fees per kWh.

### Strategies for Identifying Electric Vehicle Charger Service Providers and Station Owners

Through previous deployment programs, AEA has a list of nine approved program vendors. While the NEVI stations will need to be independently procured to meet the minimum requirements of the program and the federal contracting language, the engagement can begin with these vendors to generate interest in bidding on proposed locations.

On May 13, AEA released a RFI directed at interested site hosts. The intent was to begin a list of entities to engage as the program unfolds, generate interest in the program, and compare interested parties with identified areas for infrastructure deployment.

All procurements will be conducted through a publicly competitive process but having engagement with suppliers and site owners in advance should help bolster the bids received.

### Strategies for EVSE Data Collection & Sharing

The 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. The minimum data to be collected will include:

- Charging station location identifier
- Charging session start time, end time, and successful session completion (yes/no) by port
- Energy (kWh) dispensed to EVs per session by port
- Peak session power (kW) by port
- Charging station uptime
- Cost of electricity to operate
- Maintenance and repair cost

These requirements will be imposed through the procurement documentation and subsequent contracts executed between AEA and the site partner and charging vendor. 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 Department of Transportation & Public Facilities to add a layer to 511AK. This website garners frequent views due to the dynamic and changing conditions of Alaska's roadways, so this can 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 in Alaska. Certain roads are not maintained during the winter season, so that may impact the ability of the charging stations to be available and maintained year-round. Local entities have had to get creative and design an enclosure for the DCFC stations to keep them at an acceptable operating temperature during the harshest times of the year.

Site partners will be required to clear the parking spaces for the EV charging equipment, but it may take days to complete based on the time of year and the storm. 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 procurement and contract documents, but modifications, such as enclosures, may need to be accepted if the standard equipment does not meet the specifications of the surrounding environment.

### 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) 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. 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 Alaska Electric Vehicle Working Group (AKEVWG) as outlined in the Public Involvement Plan. 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.

FHWA's Notice of Proposed Rulemaking (NPRM) 4910-22-P identifies the Electric Vehicle Infrastructure Training Program (EVITP) as the proposed certification program for electricians to install, maintain, and operate EV infrastructure. The EVITP website currently lists three Alaska businesses (located in Anchorage and Fairbanks) as utilizing EVITP-certified installers. The Public Involvement 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.


### Strategies to Support State Fleet Transition

Alaska is interested and focused on evaluating how it can transition its fleet vehicles from internal combustion powered to battery electric powered. While the full detail of this evaluation is not included in this first draft of the NEVI Deployment Plan, Alaska is framing out the evaluation of the fleet that will occur in the 4<sup>th</sup> quarter 2022.

The fleet vehicles will be inventoried, at a minimum, based on the following data:

- Department owner
- Mileage
- Vehicle age
- Expect vehicle life
- Average daily miles
- 85<sup>th</sup> percentile daily mileage drive
- Maximum daily mileage driven
- Vehicle class
- Current miles-per-gallon
- Fuel type

A set of ranking criteria will be established to determine the order of vehicle replacements, and to determine if there are any vehicles that may not be ideal for the transition at this time, be it the use case doesn't fit within electrified models or the current market models cannot meet the demand of the use case.

This transition plan is important because it will identify the vehicles and locations where the fleet will transition first and could be ripe for investment with future formula funds or discretionary funds. Consideration will be given to providing public access to EV charging stations wherever fleet vehicles will necessitate infrastructure installations. 

## 9. Civil Rights

The Alaska Department of Transportation and Public Facilities (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 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 (P.L. 100.259)), 23 CFR Part 200 (Title VI Program and Related Statutes – Implementation and Review Procedures), the Federal-Aid Highway Act of 1973, Section 504 of the Rehabilitation Act of 1973, Age Discrimination Act of 1975, The Americans with Disabilities Act of 1990, and 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, LEP (Limited English Proficiency), and Title VI (Non-Discrimination). To ensure that AKDOT&PF is in compliance with these programs The Title VI Program Manager conducts Title VI program reviews of each of the

department within AKDOT&PF. If an area is found to be non-compliant the Program Manager works with the staff within the department to bring the identified non-compliant 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, The Alaska Department of Transportation & Public Facilities is committed to making reasonable modifications in policies, practices, procedures, and programs that 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 (<https://www.access-board.gov/ada/guides/chapter-5-parking/#electric-vehicle-charging-stations>), it is recommended: "Provide access to a reasonable number of spaces serving EV charging stations" or use the scoping table in §208.2 (<https://www.access-board.gov/ada/guides/chapter-5-parking/#minimum-number-of-accessible-parking-spaces>) to determine an appropriate number. (The number of accessible spaces serving EV charging stations must be determined separately from the required number of car and van parking spaces.)"

## 10. 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.

Understanding the challenges in rural communities relative to location, terrain, resources, and communication capabilities, AEA will work with those communities and their leaders to provide the necessary opportunities to engage with comment and participation in the development of the EV stations.


AEA will use of social media, community councils, radio ads, in-person meetings, virtual meetings, partnerships with local governments/municipalities, and Tribes, to collaborate with these groups to develop 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 to review 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 had a direct effect on the corridor and EV site selection. With continued communication with all communities and stakeholders involved in the project throughout the life cycle of the project there can and will be edits as the economy changes and electric vehicles become more attainable by individuals within disadvantaged communities. As contractors are selected for capabilities, DOT&PF and AEA will require the selected vendor to review, evaluate, and 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

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.

Large parts of the AFC lie within DACs, so the 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 outyears. The investments beyond the AFC will focus on the Marine Highway, where many of the port communities fall within 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 in 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 measure 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 road accessing the roadway network, so infrastructure placed along that access but outside the boundary may still provide benefit to the DAC.

Consultant and AEA labor will be tracked for engagement activities that directly correlate to DACs as well, as education and outreach will be important to involve DACs, collect their input, and support them with the NEVI funding. AEA understands that community needs are dynamic and not static. The engagement plan already developed 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.

### **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 pertains to alternative vehicles like All Terrain Vehicles (ATVs) and snowmobiles. While electric versions of these vehicles are by no means low-cost capital, they are significantly more affordable than electric passenger vehicles. ATVs and snowmobiles 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 prove profound. Therefore, an alternative to remedy these barriers could be the popularization of transit and shared-ride vehicles for DAC. 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. 

Such wholesale changes to travel habits would welcome air quality improvements due to increased EV adoption. Air quality improvements are pivotal as DACs are oftentimes disproportionately affected transportation emissions from internal combustion engine vehicles. Furthermore,

## 11. Labor and 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 0.2%, 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, Alaska Works Partnership (AWP), Alaska Apprenticeship Training Coordinators Association (AATCA), Associate General Contractors (AGC), Associated Builders and Contractors (ABC), 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. A Request for Qualifications (RFQ) process will be carried out by AEA to establish a list of qualified EVSE suppliers and contractors and validate vendor qualifications. The staffing and training requirements will be developed in the RFQ based on NEVI program guidance and industry best practices. The RFQ will solicit information from vendors to ensure that electricians have received Electric Vehicle Infrastructure Training Program training.

Currently there are three EVITP certified contractors in Alaska, two in Anchorage and one in Fairbanks. 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.

There are several apprenticeship programs offered in-state through our various partners. The addition of EVITP training and certification opportunities should be included in the curriculum of local electrical apprenticeship programs.



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 (EO), Equal Employment Opportunity (EEO), and Affirmative Action (AA). 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. In compliance with 49 CFR Part 26, and the Alaska DOT&PF's Equal Employment Opportunity (EEO) Policy Statement, Affirmative Action Plan, and its ongoing commitment to integrating diversity, equity, and inclusion, the Alaska NEVI Plan will establish procedure to incorporate certified Disadvantaged Business Enterprises (DBEs) as either prime contractors or subcontractors. Proposals for NEVI contracts will be required to submit a DBE Performance Plan as part of a responsive proposal.

## 12. 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).

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 (PCI) security standards to protect customer payment information. This vendor will be responsible for alerting AEA and the Cybersecurity and Infrastructure Security Agency (CISA) of any known or suspected network or system compromises.

## 13. 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 will also assist AEA in reports that need to be developed

to submit 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 NPRM.

## Annual Updates

This report is intended to be a living document and will be updated annually. As data are 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, the continued engagement with stakeholders is expected to both refine and alter the proposed method and locations for infrastructure outside of the AFC.

## 14. Discretionary Exceptions

[SECTION STILL BEING EVALUATED]

*The exception requests may be submitted as a separate attachment to the State Plan or the information included below may be incorporated directly into the State Plan. **States are encouraged to submit a completed template to the Joint Office of Energy and Transportation for review and preliminary feedback in advance of State Plan submittal.** To submit the exception request in advance of the State Plan submittal send the MS Word or PDF file as an attachment to the [DriveElectricSubmission email](#).*

### Summary of Requests

*To complete this template, you will need to do three things:*

- *Populate the following table summarizing each of the exception requests;*
- *Insert the corresponding exception number on a map highlighting where the exception(s) is requested and the corresponding Alternative Fuel Corridor; and*
- *Provide, in paragraph form, the justification for exceptions as explained below*

Table 13: EVSE Exceptions

Exception # <sup>1</sup>	Type <sup>2</sup>	Distance of Deviation <sup>3</sup>	Included in Round 6 AFC Nomination	Reason for Exception Request <sup>4</sup>
	<input type="checkbox"/> 50 miles apart <input type="checkbox"/> 1 mile from exit	___ miles ___ miles	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Grid Capacity <input type="checkbox"/> Geography <input type="checkbox"/> Equity <input type="checkbox"/> Extraordinary Cost

	<input type="checkbox"/> 50 miles apart <input type="checkbox"/> 1 mile from exit	__ miles __ miles	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Grid Capacity <input type="checkbox"/> Geography <input type="checkbox"/> Equity <input type="checkbox"/> Extraordinary Cost
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1. Indicate the number for this specific exception request that corresponds to the same number located on the map provided below.
2. Select 50-mile and/or 1-mile distance exception or both
3. Note the distance of the exception request. For example, if the exception request is for a deviation of 5 miles from the 50-mile requirement, indicate 5-miles.
4. Check all reasons that apply. [INSERT MAP]

### Justification for Exception(s)

For **each** exception request in the table above, provide a justification in paragraph form:

1. Explain why the request for an exception is being made, providing information to substantiate each of the allowable reasons that are applicable.
2. Describe the alternative location that is being proposed and explain how the alternative being proposed to the requirements contributes to the completion of a national network of convenient, affordable, reliable, and equitable EV charging infrastructure.
3. Reference or include any analysis that has been performed that substantiates the request for a discretionary exception.

## Appendix A: Supporting Materials

TO BE POPULATED

DRAFT August 12, 2022

Proposed approach to a 5 year CBJ sustainability work plan: 2022-2026

"Planning to reduce GHG emissions is like retirement planning -- its not enough to just identify the big end goal -- you have to lay out a path to follow to get there." David Teal July JCOS meeting.

As discussed at its 7/20/22 Work Session, JCOS should help the CBJ develop a 5-year sustainability priority list and workplan. This would build on the items identified in our draft sustainability update and outlook "Juneau's Climate Action - Sustainability 7.26.22".

JCOS and the CBJ have made significant steps toward implementing the 2011 JCAIP and the 2018 JRES, as described in the draft "Juneau's Climate Action -- Sustainability 7.26.22". However, implementing projects are typically framed in terms of annual activities, and it is hard to see how they fit into, or contribute to, the long-term aspirational goals.

A mid-term priority list/workplan can help frame and guide year to year JCOS and CBJ activities and funding requests/grant applications. It can show how the diverse CBJ and community efforts fit together, and where there are gaps. It can be used to provide input and guidance to CBJ planning and budgeting processes, including the 6-year CIP, and the newly proposed 5-year legislative priorities plan. E&PW Director Koester made it clear that the latter will guide CBJ involvement in applying for federal grants -- indicating that if a project is not an Assembly priority staff won't be working on it. This makes it all the more important that sustainability priorities be identified.

While we aren't yet able to quantify how well the community is doing in meeting these goals it seems clear that to reduce GHG emissions 25% by 2032, and to shift 80% of Juneau's energy use to renewable sources by 2045, Juneau needs to accelerate community-wide action. This includes the equitable and cost-effective decarbonization of buildings and transportation, integration of resilience into built and natural infrastructure, and engagement to support community-driven projects.

JCOS should assist the CBJ in developing a priority list and work plan to drive city and community sustainability actions over the next one to five years, setting Juneau on a path to continue and accelerate implementation of the JCAP and JRES over the coming decades. The actions included in the work plan will be developed in consideration of the community's sustainability and climate goals, past and ongoing community efforts, and existing planning documents, city programs and Assembly priorities as described in JCOS's 7.26.22 draft.

The priority list and work plan will build a foundation for accelerating climate action and developing community resilience for coming decades, with key objectives that include:

1. Drive down emissions from city operations; CBJ leads by example.
2. Support and strengthen community efforts that support climate goals.
3. Reduce institutional barriers and better enable climate actions
4. Identify and develop funding and financial and workforce plans to support accelerated climate action by the CBJ and community as a whole.
5. Identify shovel-ready projects
6. Ongoing implementation -- make sustainability part of normal operations for the CBJ and the residents and businesses of Juneau.
7. Measure, track and report progress

Over the next several years, federal, and potentially state, funding for infrastructure and climate projects will increase significantly. Juneau is in a good position to receive funding for key projects. To prepare for and make the best use of this funding, these projects should be made “shovel-ready” to the extent feasible. The CBJ has identified some sustainability projects as priorities, including dock electrification, electrification of the Capital Transit fleet, public EV charging infrastructure and support for non-profit initiatives. It is exploring the feasibility of an electric downtown circulator bus, and development of a solid waste/zero waste initiative.

Other major opportunities for sustainability projects and policies are less developed, including the CBJ's role in helping to finance clean energy improvements, internal CBJ energy management policy, an energy code update, electrification of the CBJ's light vehicle fleet and other government and private fleets, and the CBJ's support and role in a potential downtown district heating system, among others. There is also a need and opportunity to quantify, track and report changes in energy use and GHG emissions, and the costs and benefits of mitigation measures.

JCOS is in a strong position to help CBJ staff develop a 5 year list of sustainability priorities that can provide input to the CBJ Assembly as they develop their priorities for programs and funding.

JCOS Outreach Committee Notes – June 2022  
(from Anjuli Grantham, previous Chair)

Sustainable Juneau Facebook Page

- Denise is an administrator. Outreach Chair is an administrator
- Not many followers or activity on here.

Promoting sustainability sessions

- Write a press release and share with the public information officer at CBJ. The PIO edits and issues the press release, including sharing it on CBJ's webpage.
- Consider booking a slot on Juneau Afternoon or KINY to promote the event. Both radio stations are usually happy to host.

Zoom webinars

- Work with Denise to schedule Zoom sessions.
- We usually host a practice session beforehand, so speakers can practice sharing their screen, discuss the format and content, etc.
- In 2021 we hosted a series of lunch time webinars on the fourth Thursday of the month from noon to one.

Webpage

- Occasionally make changes to the JCOS webpage hosted by CDD (now E&PW).