



OFFICE OF INFRASTRUCTURE

GOVERNOR MIKE DUNLEAVY

State of Alaska Infrastructure Update

Department of Transportation & Public Facilities
Alaska Energy Authority
Alaska Housing Finance Corporation

Overview of Infrastructure Investment & Jobs Act (IIJA)

Enacted November 15, 2021

\$1.2 Trillion

FY 23-27

Funds started arriving to state in 2022

FY 32

Full deployment of funds, with potential extensions

- 65% Increased Formula Funding to existing programs
 - surface transportation, airport improvements, rural, energy, housing
- 30% Discretionary Grants – Focus of Office of Infrastructure
- 5% Loans

Only a small portion of discretionary grants come through the State of Alaska

Overview of Inflation Reduction Act (IRA)

Enacted August 9, 2022

The portion of bill that is infrastructure-related is primarily “Government created; business led” (i.e. tax credits). There are some programs for government entities.

As of March 1, 2024, Alaska has received **\$98 million** for:

- High-Efficiency Energy Home Rebates and Energy Efficiency Contractor Training
- Climate Pollution Planning
- Air Monitoring
- Coastal Climate Resilience Planning
- Forestry-Related Programs

Governor's Infrastructure Priorities

- Lower the Cost of Energy
- Provide Access to Jobs, Resources and Critical Minerals, Recreation
- Affordable Housing
- Food Security
- Childcare

Alaska Sustainable Energy Conference, May 21-23, 2024, Dena'ina Center, Anchorage

Alaska's IJA Funds To Date

\$5.9 Billion*

- Alaska ranks #1 in per capita IJA funds
- 1,849 projects state-wide
- Alaska entities have been awarded +30% of the discretionary grants applied for

*Sen. Lisa Murkowski, November 15, 2023, reported \$6.4 billion; and White House Office of Infrastructure, February 2024, reported \$7.4 billion

Alaska's IJA Funds To Date by Funding Type

Funding Type	Percent of Total (\$5.9 Billion)	Total Funds To Date (in Thousands)
Formula Funding*	72%	\$ 4,271,284
Discretionary Grant Awards	28%	\$ 1,626,237

*Includes \$1.019 Billion for Alaska Broadband Office

Data as of March 1, 2024, as provided by Federal Funds Information for States (FFIS) and Axiom Environmental.

Alaska's IJA Funds To Date by Sector

Sector	Percent of Total (\$5.9 Billion)	Total Funds To Date (in Thousands)
Transportation	58%	\$ 3,445,335
Broadband	27%	\$ 1,592,219
Environmental	8%	\$ 452,078
Energy	4%	\$ 259,944
Resilience	2%	\$ 94,609
Water	1%	\$ 53,336

Data as of March 1, 2024, as provided by Federal Funds Information for States (FFIS) and Axiom Environmental.

Alaska's IJA Funds To Date by Recipient Type

Recipient Type	Percent of Total (\$5.9 Billion)	Total Funds To Date (in Thousands)
State of Alaska	59%	\$ 3,475,303
Tribes / Alaska Native Corporations	13%	\$ 775,609
Local Governments	3%	\$ 187,854
Non-Profits / Utility Cooperatives	8%	\$ 457,589
Federal in Alaska	13%	\$ 752,939
For-Profits	2%	\$ 94,042
Joint Effort (State/Tribe/Local)	3%	\$ 154,185

Data as of March 1, 2024, as provided by Federal Funds Information for States (FFIS) and Axiom Environmental.

Alaska Infrastructure Partners



THE STATE
of ALASKA



ALASKA
MUNICIPAL
LEAGUE



Sen. Lisa Murkowski and staff
Sen. Dan Sullivan and staff
Rep. Mary Peltola and staff
Alaska Tribes
Alaska Native Corporations
Tribal Housing Authorities



Office of Infrastructure

- Good Understanding of Alaska's Infrastructure Needs, Challenges & Stakeholders
- Track & Communicate Funding – Available Discretionary Grants & Awards
 - Weekly Email to +600 state-wide and federal infrastructure stakeholders
- Connect & Support State, Tribal, Community & Infrastructure Partners
- Maximize Funds
 - Work with Congressional Delegation & Federal Agencies
 - Comprehensive Infrastructure Map **Launching April 2024!**
 - Project Bundling
 - Tackle Challenges
- Workforce Development

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Challenges with IIJA Discretionary Grants

- Spending is directed by federal agencies, not Alaska
- Complicated Application Process
- Permitting
- Cost Share
- Build America, Buy America Act
- Operations & Maintenance

Alaska's Infrastructure Looking Forward

- Continued Collaboration
- Comprehensive Infrastructure Map **Launching April 2024!**
 - Planning, Budgeting
- Project Bundling
 - Economies of Scale
 - Maximizing Limited Workforce



OFFICE OF INFRASTRUCTURE

GOVERNOR MIKE DUNLEAVY

Thank you.

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Alaska Department of Transportation & Public Facilities

Infrastructure Symposium

Shannon McCarthy

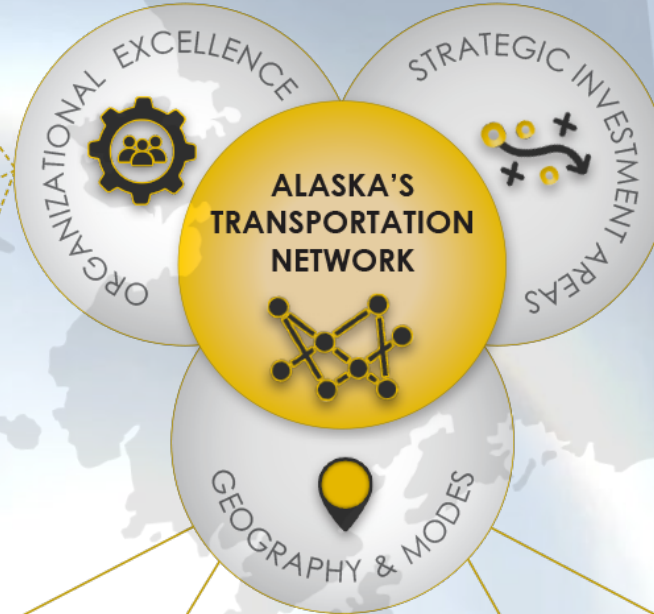
April 2, 2024

VISION

MODERN: We use new ways of working to recruit, solve problems, share information with the public, and efficiently deliver transportation improvements.

RESILIENT: We build cross-functional teams, across regional boundaries, to deliver results faster. Our teams share information, collaborate, innovate to solve problems, respond to emergencies, and deliver projects.

AGILE: We partner with communities, private sector partners and other agencies to build transportation infrastructure for Alaskans. We leverage technology and implement alternative project delivery to accomplish our mission.



SAFETY: Safe and secure transportation system prevents crashes, injuries and deaths.

ECONOMIC VITALITY: Healthy and thriving multi-modal system that efficiently moves people, fuel, and freight, reducing costs and enhancing economic development.

STATE OF GOOD REPAIR: Reliable transportation system with seamless access across modes.

RESILIENCY: Agile and resilient transportation system that protects communities from extreme weather climate trends and natural disasters, which is able to adapt and recover when disruptions occur.

SUSTAINABILITY: Modern and sustainable transportation system that reduces the cost of energy, saves Alaskans money, and provides for a cleaner environment and reduced greenhouse gas emissions.

RURAL



Roads, Ice Roads, Winter Trails, Pedestrian / Bicycle



Rural Airports, AAM



AMHS, Barge Services

URBAN



Highways



International Airports



Pedestrian / Bicycle, Trails

SURFACE CORRIDORS



Highways



Pedestrian / Bicycle, Trails



Multi-modal Connectivity

WATERWAYS



AMHS, Barge Services



Floatplane Docks



Ports & Harbors





STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

2024-2027

Statewide Transportation Improvement Program
(STIP)



More information at dot.alaska.gov/stip

*Background photo: View of northern lights through old Knik River Bridge, headlights from new Knik River Bridge.
By Lisa Torkelson, Alaska DOT&PF*

[PENDING APPROVAL]

- 234 Projects—228 approved
- Over \$5 Billion of investment
- Broke apart groupings and resubmitted as individual projects
- Removed all projects within MPO Boundaries
- Created parent/child projects for larger projects
- Accounted for Advanced Construct project delivery

Construction Overview by Region 2023-2024

	Central	Southcoast	Northern
CY23 Contractor Payments	\$374M	\$49M	\$310M
CY23 Projects Completed	6	13	23
CY24 Continuing Projects	36	4	17
CY24 Anticipated New Projects	41	29	23





Traveler
511 info
AK

The logo features the word "Traveler" in yellow, "511 info" in green, and "AK" in green below "511". A pink circle with a white dot inside is positioned to the right of "info", with three curved lines extending from it towards the "AK".

Alaska Project Exchange



APEX

The word "APEX" is rendered in a large, bold, orange font with a dark grey outline. The letter 'A' has a sharp, triangular point extending downwards and to the left.

Alaska DOT&PF

Connecting Alaska with construction information
at dot.alaska.gov/construction & 511.alaska.gov

Community Led Transportation



SUNNY LANE CEMETERY ACCESS ROAD





THANK YOU

Shannon McCarthy

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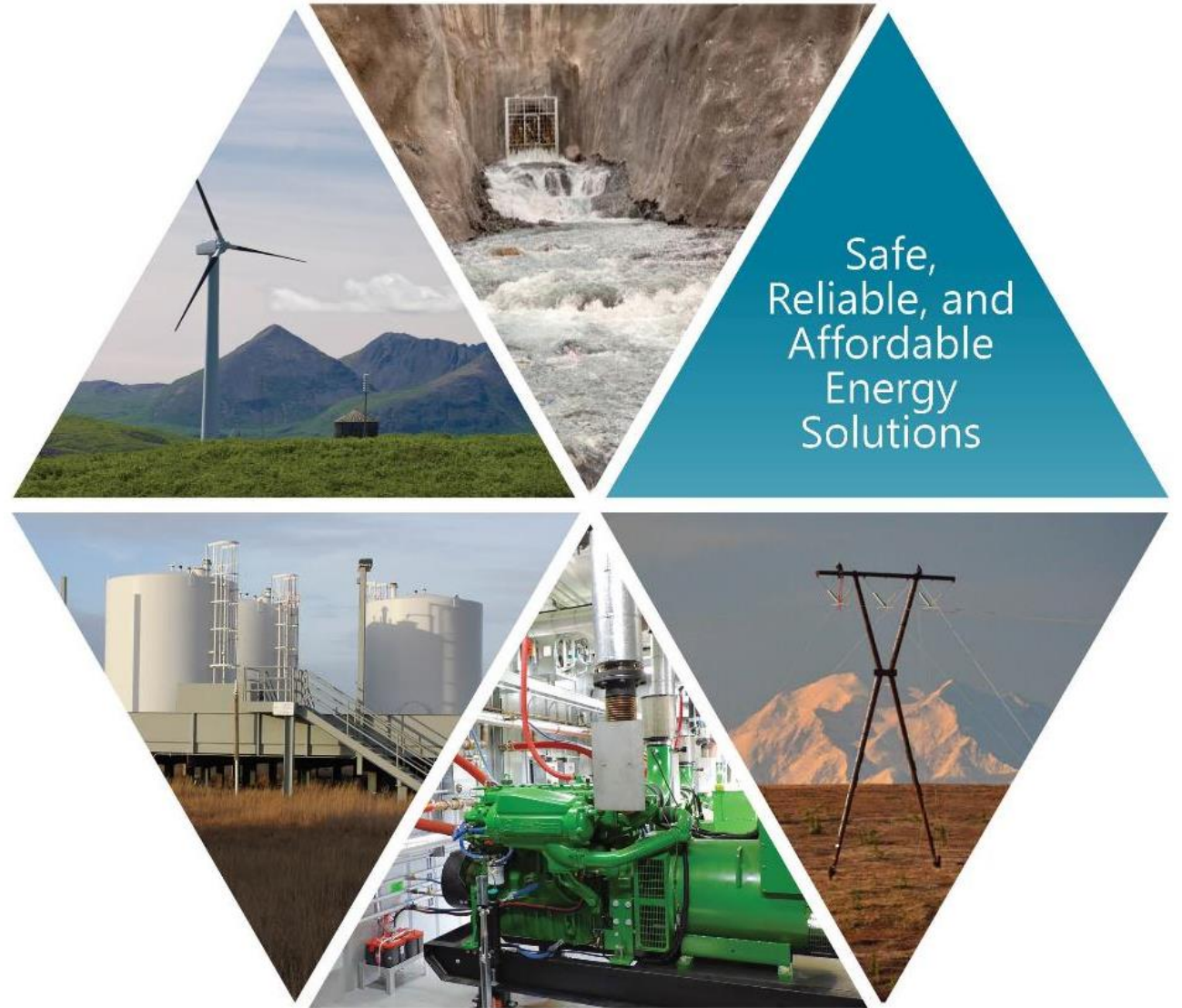


ALASKA ENERGY AUTHORITY

AEA UPDATES

Curtis W. Thayer
Executive Director

2024 Alaska Infrastructure
Development Symposium:
State Agency Updates
April 2, 2024

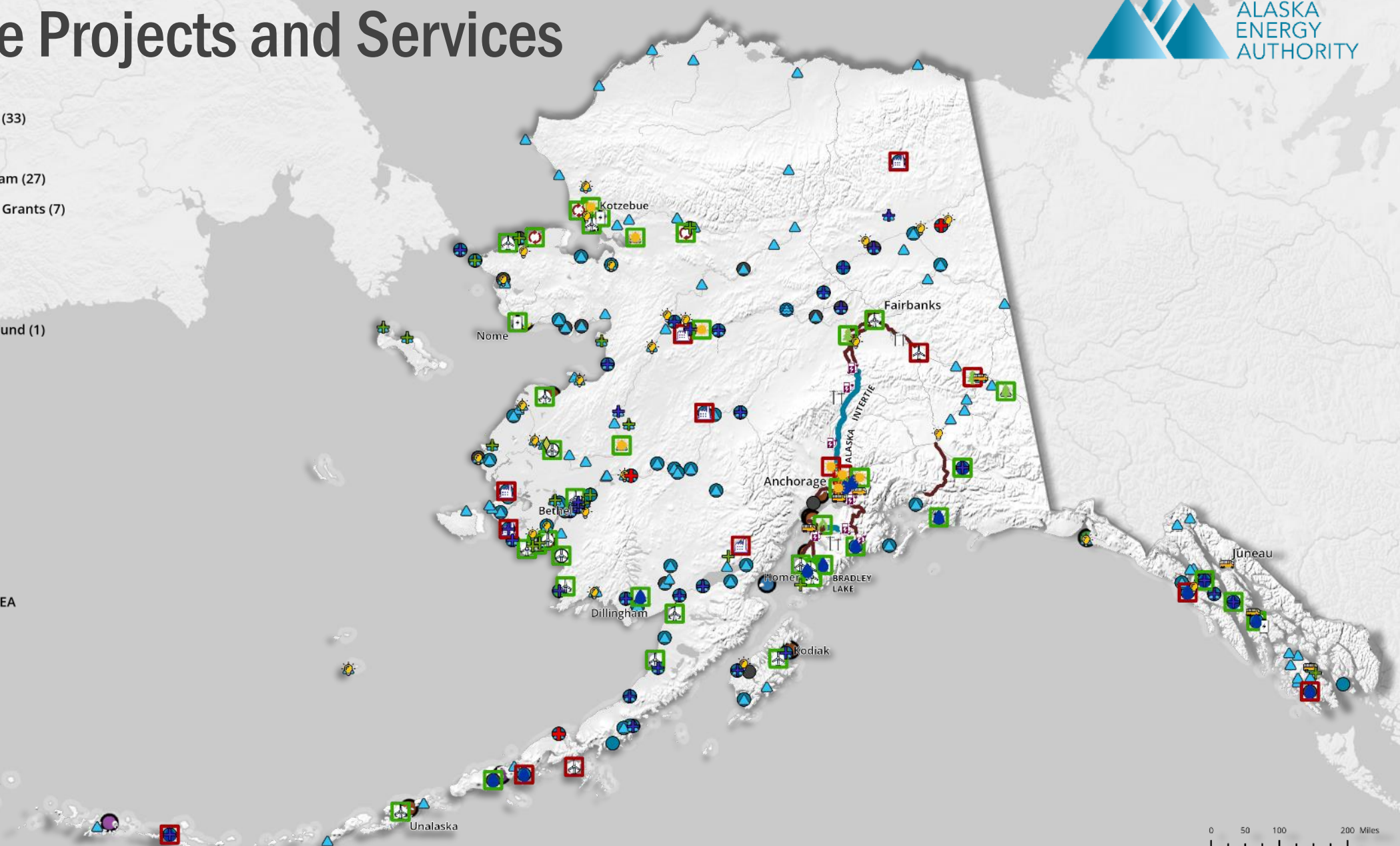


Safe,
Reliable, and
Affordable
Energy
Solutions

AEA Active Projects and Services



- ⊕ Rural Power System Upgrades (33)
- ⊕ Bulk Fuel Upgrades (25)
- 💡 Village Energy Efficiency Program (27)
- 🚚 Volkswagen Diesel Settlement Grants (7)
- 🔥 Biogas (1)
- 🌲 Biomass (4)
- 🏠 Diesel (6)
- 💎 Emerging Energy Technology Fund (1)
- 🚗 Electric Vehicles (9)
- ♻️ Heat Recovery (3)
- 💧 Hydroelectric (18)
- 🌊 Hydrokinetic (1)
- ☀️ Solar (8)
- 🔋 Storage (3)
- 🏗️ Transmission (3)
- 🌬️ Wind (21)
- Transmission Line owned by AEA
- Other Transmission Line
- 📦 Power Project Fund (16)
- 📦 Renewable Energy Fund (44)
- 📍 PCE Communities (193)
- ⊕ Emergency Assistance (3)
- 👤 Circuit Rider Assistance (93)
- 👤 Utility Training (81)



BRADLEY LAKE HYDROELECTRIC PROJECT

AEA owns the 120-megawatt hydro facility, which produces ~10% of the total annual electricity at 4.5 cents per kilowatt-hour and is used by more than 550,000 Alaskans on the Railbelt (~54,400 homes/year).



Dixon Diversion Project

AEA is studying the Dixon Diversion Project to optimize the energy potential of the AEA-owned Bradley Lake Hydroelectric Project. Like the West Fork Upper Battle Creek Diversion Project, the Dixon Diversion Project would divert water from Dixon Glacier in order to increase Bradley Lake's annual energy production by 50 percent.

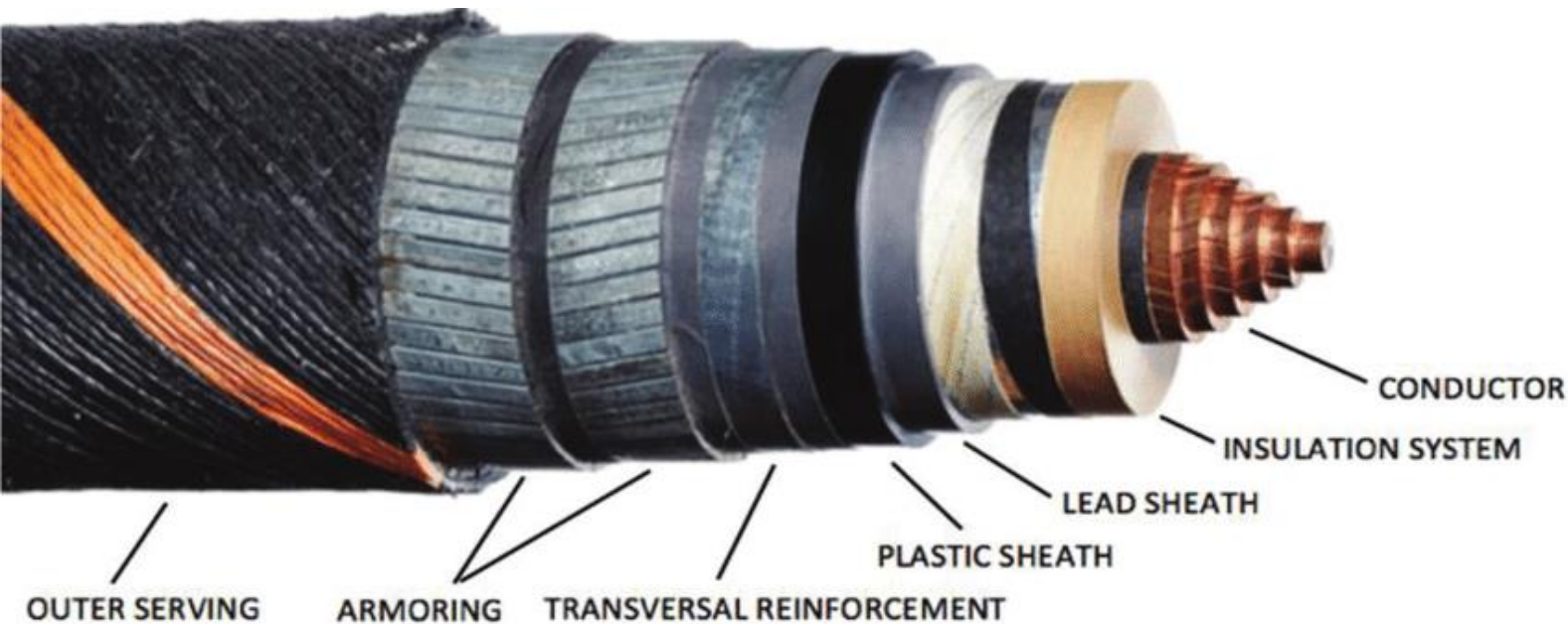
- Located five miles from Bradley Lake and would utilize existing powerhouse at Bradley Lake
- Estimated annual energy 100,000-200,000 MWh (~24,000-30,000 homes)
- Estimated to offset 1.5 billion cubic feet of natural gas per year in Railbelt power generation
- Estimated completion is 2030

*Funding will be used for engineering studies (feasibility, hydrological, geological) and environmental studies (fisheries, water quality, geomorphology).

\$413 Million (206.5 Million Federal and \$206.5 Million Alaska Match)

GRIP 3, Round 1 - Railbelt Innovation Resiliency Project: HVDC Submarine Cable

- The RIR project encompasses several projects — one of them being the installation of **a new submarine high-voltage direct current (HVDC)** transmission line from the Kenai Peninsula across Cook Inlet to the existing Beluga Power Plant — and, if feasible, **one or two battery energy storage systems (BESS)** in the Central (Anchorage) and Northern (Fairbanks) regions.



Anticipated outcomes and benefits:

- Increases transfer capacity between regions that enables higher renewable energy integration into the electricity system.
- Improves resilience and reliability for tribal and disadvantaged communities in the Railbelt region, and a reduction in reliance on fossil fuel generation and associated emissions.
- Supports the retention of high-quality jobs in the region, including 650 highly paid jobs with competitive employer-sponsored benefits.
- Creates apprenticeship and internship programs to train a new generation of lineworkers and wireworkers to reinvigorate Alaska's energy workforce.

\$730 Million

GRIP 3, Round 2 - Beluga to Healy Overhead High-Voltage Direct Current

- The Railbelt Innovative Resiliency (RIR) Project, Phase 2 is a crucial initiative to build a clean, smart, and affordable grid in Alaska. This project consists of constructing a 240-mile high-voltage direct current (HVDC) overhead transmission line from Beluga (west of Cook Inlet) to Healy. Coupled with the RIR Phase 1 project (Subsea cable from the Kenai Peninsula to Beluga), which includes two battery energy storage systems (BESS), this will provide a redundant connection between Bradley Lake Dam and Fairbanks.

Project Status:

- In January 2024, AEA and the Railbelt Utilities submitted a concept paper to the Department of Energy (DOE) for the project. In late February, we were notified that our concept paper had been reviewed and we were encouraged to submit a full application.
- For this type of project, 50 percent of the concept papers were advanced to the full application phase. The full application is due on April 17, 2024, and we expect notification in early third quarter of this year. If successful the DOE will provide 50 percent of the project funding.



\$60 Million (Over Five Years)

Grid Resilience Formula Grant Program, IIJA 40101(d)



Per IIJA section 40101(a)(1),⁸ a disruptive event is defined as “an event in which operations of the electric grid are disrupted, preventively shut off, or cannot operate safely due to extreme weather, wildfire, or a natural disaster.”

- Over the next five years, Alaska will receive **\$60 million in federal formula grants** to catalyze projects to increase grid resilience against disruptive events. In August 2023, **the first two years of allocations, \$22.2 million**, was awarded to AEA. AEA’s competitive solicitation for these funds closed in February 2024. Notification of sub-awards are expected 2nd QTR 2024, pending DOE approval. For fiscal year 2025, AEA requested **\$17,627,018**, Alaska’s formula allocation for year 3, in Federal Receipt Authority and **\$1,816,579 in matching funds**.
- Resilience measures include but are not limited to:
 - Relocating or reconductoring powerlines
 - Improvements to make the grid resistant to extreme weather
 - Increasing fire resistant components
 - Integrating distributed energy resources like microgrids and energy storage
- Formula-based funding requires a **15% state match** and a **33% small utility match**.

\$52 Million (Over Five Years)

State of Alaska Electric Vehicle (EV) Infrastructure Implementation Plan

- AEA and the Alaska Department of Transportation & Public Facilities (DOT&PF), continue their partnership in deploying the **State of Alaska EV Infrastructure Implementation Plan (The Plan)**.
- The **first round of Alaska NEVI awards was announced on September 25, 2023**. AEA and DOT&PF selected projects in nine communities for a total investment of \$8 million. The \$6.4 million in NEVI funding will be matched with \$1.6 million from private entities selected to install, own, and operate the new EV charging stations.
- On September 29, 2023, the Federal Highway Administration approved the fiscal year 2024 plan. This **unlocked \$11 million in addition to \$19 million** available in the fiscal years 2022 and 2023.
- Phases 2 and 3 of The Plan will develop charging infrastructure in more than 30 communities along the **Marine Highway System** and in hub communities as funding allows.



State of Alaska Electric Vehicle Infrastructure Implementation Plan FY24



Home Energy and High Efficiency Rebate Allocations

AEA is collaborating with the Alaska Housing Financing Corporation to distribute Alaska's allocation of \$74 Million

Home Efficiency Rebates

- Rebates for energy efficiency retrofits range from \$2,000-\$4,000 for individual households and up to \$400,000 for multifamily buildings.
- Grants to states to provide rebates for home retrofits.
- Up to \$2,000 for retrofits reducing energy use by 20% or more, and up to \$4,000 for retrofits saving 35% or more.
- Maximum rebates amounts are doubled for retrofits of low-and moderate-income homes.
- **Alaska's Allocation is \$37.4 million**
- **No State match is required.**
- **Funding is estimated to be available between fall/winter 2025.**

Home Electrification and Appliance Rebates

- Develop a high efficiency electric home rebate program.
- Inclusive of means testing and will provide 50% of the project cost for incomes ranging from 80% to 150% of area median income. Rebates to cover 100% of the proposed cost for incomes 80% of area medium income and below, with similar tiers applied for multifamily buildings.
- Includes a \$14,000 cap per household, with an \$8,000 cap for heat pump costs, \$1,750 for a heat pump water heater, and \$4,000 for electrical panel/service upgrade.
- Other eligible rebates include electric stoves, clothes dryers, and insulation/air sealing measures.
- **Alaska's Allocation is \$37.1 million .**
- **No State match is required.**
- **Funding is estimated to be available between fall/winter 2025.**

\$15.7 Million

Black Rapids Training Site (BRTS) Defense Community Infrastructure Pilot Program

AEA partnered with Golden Valley Electric Cooperative (GVEA) was awarded this grant from the Office of Local Defense Community Cooperation under the Defense Community Infrastructure Pilot Program.

Federal Receipt Authority of \$12.7 Million received in fiscal year 2024. A \$3 million supplemental budget request was submitted by AEA to complete additional work requested by the Department of Defense. No State match is required.

GVEA will use the funds to extend an transmission line 34 miles along the Richardson Highway to BTRS. Currently, BTRS is powered by three diesel generators that are nearing the end of their useful lives. This extension will improve long-term sustainability and reliability for BTRS by tying them into GVEA's power grid.



Other Federal Funding Received



Energy Efficiency Revolving Loan Fund – \$4.8 million

\$4,782,840 to capitalize an existing residential energy efficiency loan program through AHFC, under which the State shall provide interest rate reductions for loans, and also grants for residential energy audits, upgrades, and retrofits to increase energy efficiency, physical conform and air quality of existing building infrastructure. AEA will administer the program in collaboration with the Alaska Housing Finance Corporation (AHFC).

State Energy Program – \$3.6 million

\$3,661,930 to develop Statewide Energy Plan and Statewide Energy Security Profile, as well as (1) update AkWarm Energy Modeling Software to the requirements imposed by the Inflation Reduction Act and (2) modernize Alaska Retrofit Information Systems database to accept the AkWarm modifications in collaboration with AHFC.

Electric Vehicle (EV) Charging Equipment Competitive – \$1.6 million

\$1,670,000 to (1) increase access to vehicle electrification in multiple rural and underserved communities across Alaska; (2) demonstrate the benefits of EVs to key decision-makers and the broader public to accelerate clean transportation transition; and (3) support the development of community charging equipment. A 20% match is required, shared by AEA and project partners. Funds became available in Winter 2023.

State-Based Home Energy Efficiency Contractor Training Grant Program – \$1.3 million

\$1.3 million to fund a State-Based Home Energy Efficiency Contractor Training Grant Program to develop and implement a state workforce energy program that prepares workers to deliver energy efficiency, electrification, and clean energy improvements, including those covered by the Inflation Reduction Act Home Energy Rebate Programs.

\$100 Million (Application Pending)

Solar For All Competition



- **AEA and AHFC collaborating to develop a Statewide Solar Program:**
 - AEA focus on development of community solar projects in disadvantaged communities using a Renewable Energy Fund-style grant program.
 - AHFC focus on residential rooftop solar for low income households.
- **Program benefits:**
 - Energy cost savings,
 - Increased resiliency,
 - Equitable access to solar,
 - Asset ownership benefits low income and disadvantaged communities,
 - Workforce development, and
 - Reduction in greenhouse gas emissions.
- **This is a competitive grant program — no match required.**
- **AEA and AHFC submitted an application for a \$100 million grant.**

Climate Pollution Reduction Grants

- **AEA submitted 2 applications for EPA's CPRG Implementation Program:**
 1. AEA is an individual applicant for the **Dixon Diversion Project**
 2. AEA is the lead applicant in a coalition for **Rural Energy Programs**
- **Dixon Diversion Project**
 - Requested funding \$348 million
 - Includes studies, licensing, and construction of the Dixon Diversion
- **Rural Energy Programs**
 - Requested funding \$50 million
 - Coalition members: AEA, Tanana Chiefs Conference, and Northwest Arctic Borough
 - Proposal includes funding for: diesel engine replacements, rural distribution system upgrades, and energy efficiency upgrades to public infrastructure
- **This is a competitive grant program — no match required.**
- **Award selections are expected July 2024.**



Thank You

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Housing Alaska's Infrastructure Engine for Alaska Infrastructure Development Symposium

Akis Gialopsos

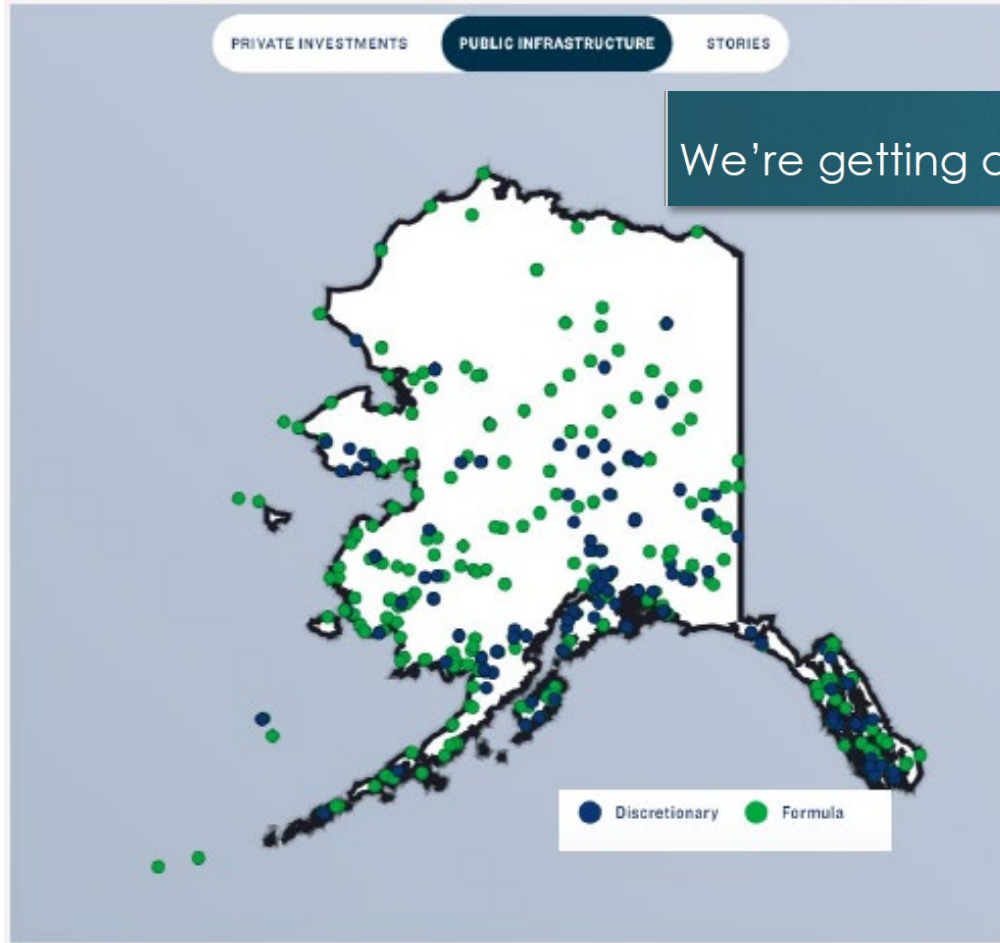
April 2, 2024



Housing is Infrastructure



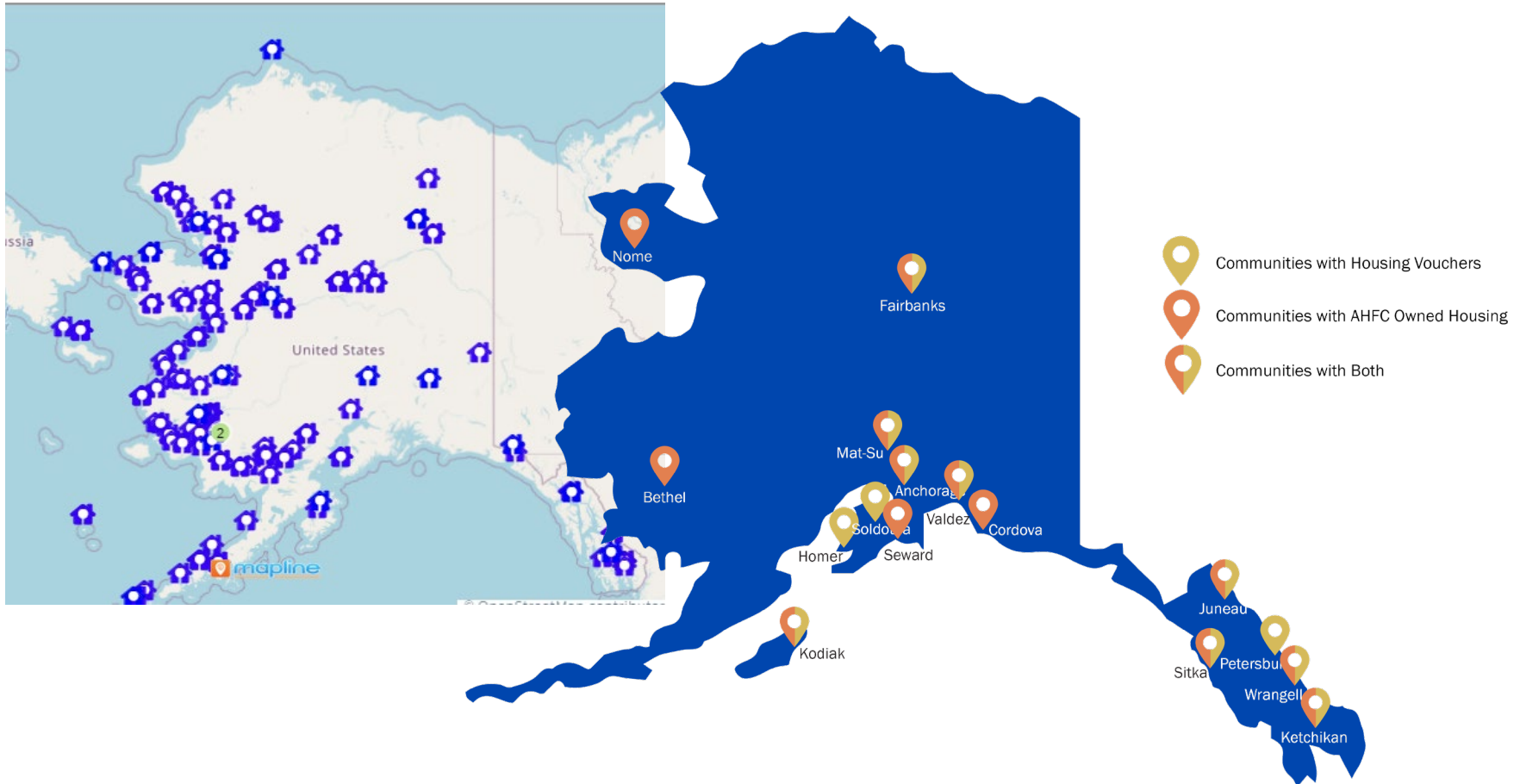
AK DOL to BOMA, Jan. 2024



We're getting a lot of federal infrastructure money

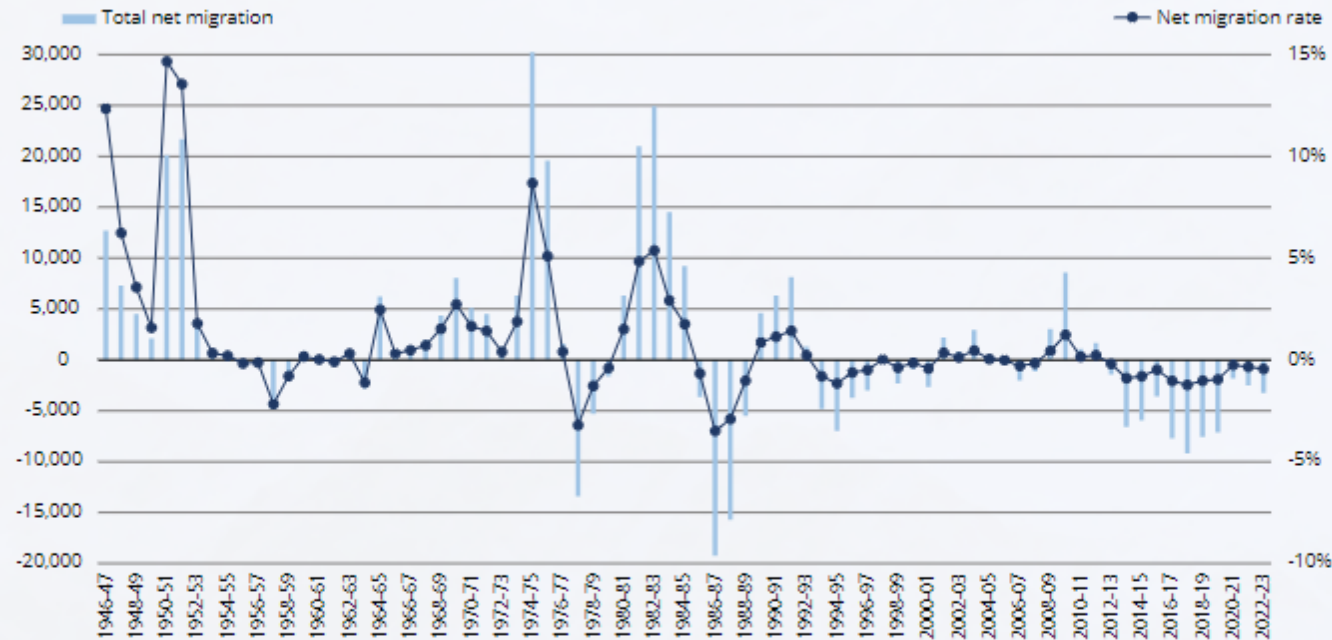
Source: Presentation by Karinne Wiebold, economist, at Building Owners & Managers Association annual lunch, January 11, 2024.

Partnerships: Public Housing & Rural Professional Housing



Net migration: 1946-2003

Alaska's historical yearly net migration numbers and rates, 1946 to 2023



Notes: Yearly net migration is measured from July to the next July, so one data year spans two calendar years. Total net migration is the year's in-movers minus the out-movers, and the rate is the percentage of the total population that the net movement represents.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

Alaska Workforce



Worker shortage is especially acute here, compounded by migration losses, aging

The worker shortage will persist in 2024, particularly for Alaska, and constrain potential growth. We have high job openings and a short supply of workers to fill them; the Bureau of Labor Statistics estimates Alaska has two job openings for every unemployed person seeking work. This makes recruitment and retention a challenge for employers but also gives workers more opportunities than we have seen in decades.

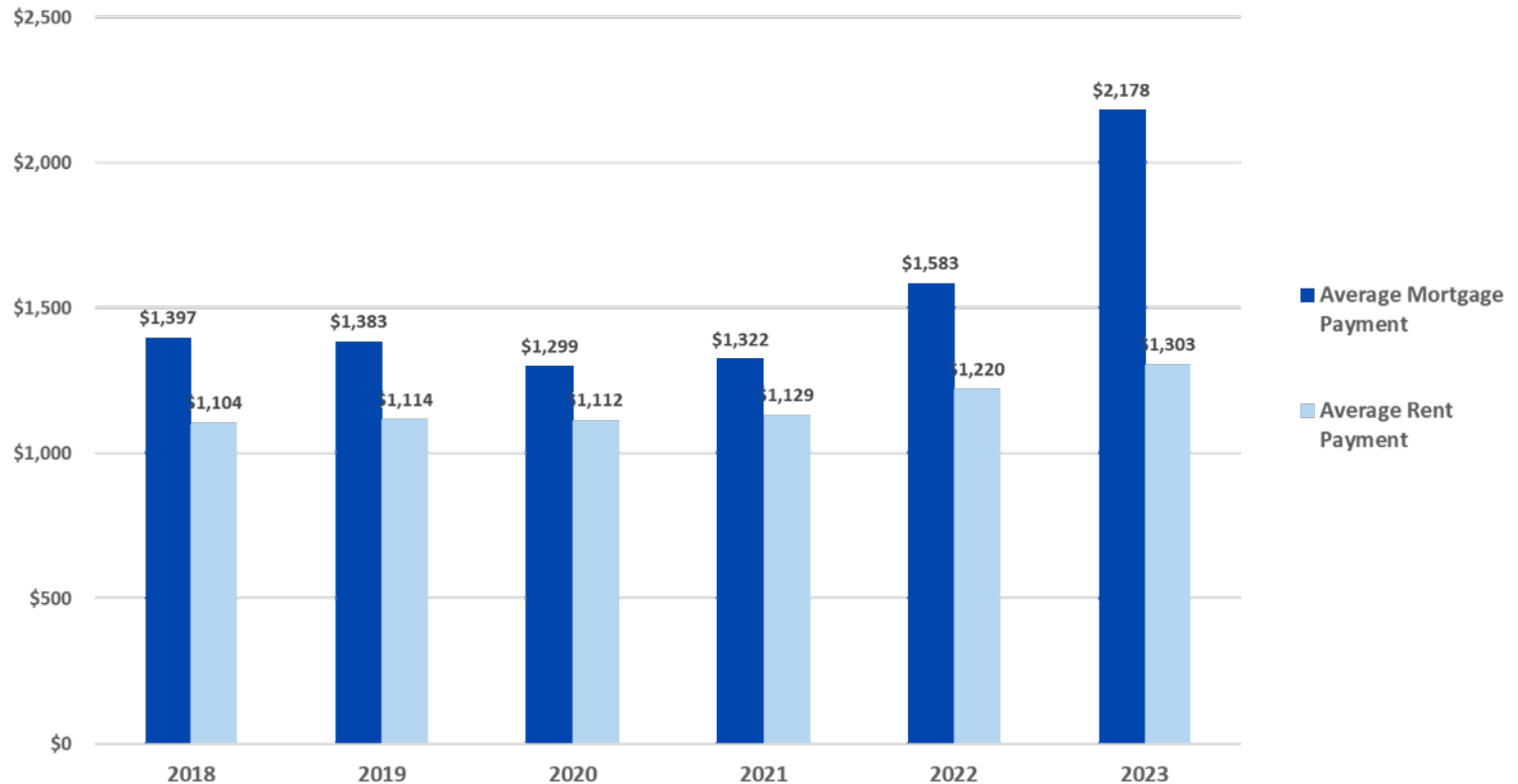
The entire country is grappling with this worker shortage, but Alaska's deficit is stark. In a double blow to worker availability, our population is slightly smaller than it was 10 years ago and is getting older. More Alaskans are aging out of the workforce, and the number in their prime working years (ages 18 to 64) fell by 30,000 from 2013 to 2022.



Source: January 2024, Trends
<https://live.laborstats.alaska.gov/trends-magazine/2024/January/outlook-for-alaska-jobs-in-2024>

Source: Presentation by Sara Bieber, DOL at KPB Working Group Housing/COL subcommittee meeting, 2/29/2024,
<https://www.youtube.com/watch?v=j9D6yf4URyl>

Rent vs. Mortgage Payments Statewide



Sources:

Alaska Housing Market Indicators, Rental Market Survey and Survey of Lenders

Data are collected through a partnership between Alaska Housing Finance Corporation and the Alaska Department of Labor and Workforce Development

One Urgent Solution: Down Payment Assistance for New Homeowners



Proposed as \$25 million program in Governor Dunleavy's capital budget, "Welcome Home" proposes a:

- Forgivable loan of up to \$20,000 for new homeowners to cover down payment
- College or Tech school grad*
- Qualify for an AHFC loan through lending partner
- 5-year commitment for homeownership
- Commitment to primary residency (no subleasing, short-term rental)



*within five years to receive full benefit

One Important Long-Term Solution: Enhancing Homeownership Access



House Bill 273/Senate Bill 191:

- Addresses the cap on loan-to-value ratios defined in statute, thereby lowers AHFC's down payment requirement.

Thank You



2024: Telling Stories of Alaskans

Visit our blog at ahfc.us to read about how we're making a difference one home at a time.

