

# Alaska Infrastructure Development Symposium

## Sustainable and Affordable Energy Planning



THE STATE  
of ALASKA





# Climate Pollution Reduction Grant (CPRG) Overview

# What is sustainable energy planning?

EPA's Climate Pollution Reduction Grant (CPRG) funded planning work for 188 Alaska tribes and the State of Alaska to create plans with measures that reduce GHG emissions while providing community benefits such as:

- **More affordable energy**
- **More resilient energy systems**
- **High labor standards and workforce development**
- **Improved quality of life (cleaner air, less noise pollution)**



The planning grant has three deliverables:

- **A priority plan (March/April 2024)**
- **A complete plan (summer-fall 2025)**
- **A status report (summer-fall 2027)**

# Statewide Scope to Complement Tribal Planning

DEC and AML collaborated to develop the Alaska Priority Sustainable Energy Action Plan to serve as Alaska's PCAP for CPRG



## Alaska's CPRG planning will:

- Create statewide & community-level emissions inventories;
- Collect a list of emissions reduction measures;
- In-depth analysis of workforce needs, community benefits;
- Emissions projections;
- And emissions reduction targets.

# EPA Guidance – Planning Grants

**Already complete: Alaska Priority Sustainable Energy Action Plan**

**Next fall: Alaska Comprehensive Sustainable Energy Action Plan**

Plan Element	Priority Climate Action Plan	Comprehensive Climate Action Plan	Status Report
GHG Inventory	Required	Required	Update Encouraged
GHG Emissions Projections	Not Required	Required	Update Encouraged
GHG Reduction Targets	Not Required	Required	Not Required
Quantified GHG Reduction Measures	Required (priority measures only)	Required (comprehensive)	Status and Updates Required
Benefits Analysis	Encouraged	Required	Required
Low Income/ Disadvantaged Communities Benefits Analysis	Required	Required	Required
Review of Authority to Implement	Required	Required	Update Required
Intersection with Other Funding Availability	Encouraged	Required	Required
Workforce Planning Analysis	Encouraged	Required	Required
Next Steps/Future Budget and Staffing Needs	Not Required	Not Required	Required

# Why all this?

CPRG is offering **\$4.6 billion** in implementation grants (due April 1 /May 1)

for key infrastructure, with a tribal set-aside and no required match.

Further CPRG planning will position measures to benefit from other funding programs and will help Alaska answer pressing questions re: building more sustainable and affordable systems.



*Municipalities, including Homer, Juneau, and Anchorage have been leading the way in this energy planning – in 2007, Homer completed a “Climate Action Plan” looking at their municipal operations energy usage.*



# Alaska Priority Sustainable Energy Action Plan

# Alaska PSEAP – Submitted March 1

## State of Alaska Priority Sustainable Energy Action Plan

*Meeting the requirements of the Priority Climate Action Plan for EPA's Climate Pollution Reduction Grant Program*



### III. Emissions Reduction Strategies

#### A. Residential

##### *AHFC Weatherization Assistance Program & Energy Rebate Program*

###### Summary

Weatherization has been a housing policy priority throughout Alaska for many years, due to its ability address multiple community challenges, such as poor quality housing and high energy costs, in one fell swoop. Residential energy use accounts for 7.6% of Alaska's energy use<sup>29</sup>, and can be a major household expense, with Alaska's average household spending \$4,186 which is over 1.8 times the national average;

[Read at AKFederalFunding.org/CPRG](https://AKFederalFunding.org/CPRG)



# Alaska PSEAP Components



## II. State of Alaska GHG Inventory 2022

This report summarizes the GHG emissions from the State of Alaska for the calendar year 2022. The methodology used in the inventory involved the collection or modeling of energy use data and the calculation of GHG emissions based on fuel types and uses from different sectors of the community, borough, census area and state-level. The inventory determines the total greenhouse gas emissions in terms of carbon dioxide equivalent (MTCO<sub>2</sub>e) for three greenhouse gases: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O).



## IV. Initial Workforce Planning Analysis

### Employment Data

Looking first at the more traditional measure of unemployment, Alaska's unemployment rate remains near the historic low of 3.6% in May 2023<sup>49</sup>. While the unemployment rate is even lower in urban areas, unemployment remains high in most rural areas. For example, December 2023 unemployment (not seasonally adjusted) sat at 9.8% in the Bethel Census Area and 7.4% in the Nome Census Area, while Anchorage and the Mat-Su sat at 4% for the same period<sup>50</sup>. The prime-age employment gap data confirms that parts of the state are doing relatively well by that measure, other parts of the state have gaps of as much as 39 percentage points and all of the state's economic development regions have pockets with high gaps.



## V. Benefits Analysis

### LIDAC Benefits Analysis

Alaska's GHG reduction measures would have a hard time impacting a community other than one considered LIDAC. The following map – produced using EPA's IRA Disadvantaged Communities tools – indicates that almost the entirety of Alaska qualifies under federal criteria, which combines CEJST and EPA EJScreen datasets – where gold indicates disadvantaged status.

The State of Alaska's PSEAP recognizes the

# Generalized Measures

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- **Basic retrofits for public buildings**
  - Ex: A school district or municipality implements cost-effective energy audit recommendations, like improved HVAC controls & retro-commissioning
- **Renewable electric generation**
  - Ex: A cooperative or IPP partners with a municipality to build a sizable and cost-effective Railbelt generation project; or a tribal government not covered by another PCAP builds a solar/storage project
- **Household weatherization & beneficial electrification**
  - Ex: A housing authority offers a program of weatherization and heat pump installations that reduces energy burden and improves housing quality

## Residential buildings

AHFC – Boosting Weatherization & Energy Rebates

SEC/AHS – Coastal AK beneficial electrification (heat pumps)

## Electric Generation

AEA - Dixon Diversion

AEA – DERA/VEEP/Rural Distribution

## Public buildings

DOT&PF/UA/DEED – energy audits and improvements

CBJ – Wastewater Treatment Plant

## Other Sectors

Various – Green Corridor, EVSEs

Tlingit and Haida – Composting



# Next Steps - Alaska Sustainable Energy Action Plan

# Future CPRG Planning - Workshops

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August 2024 – | ~9 workshops  
May 2025 | *Sector targets*  
*Additional/updated measures*  
*Sector working groups*

With guidance from community/statewide leaders and technical experts, these workshops will be Charette-like exercises to produce reports looking at possible targets and strategies for each emissions sector – they will also establish working groups to continue to develop/review plan development.

# Emissions Sector Workshops for State Planning\*

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Railbelt Electric & Power

Rural Electric & Power

Residential buildings

Non-residential buildings; Water/Wastewater

Solid Waste

Industrial

Transportation

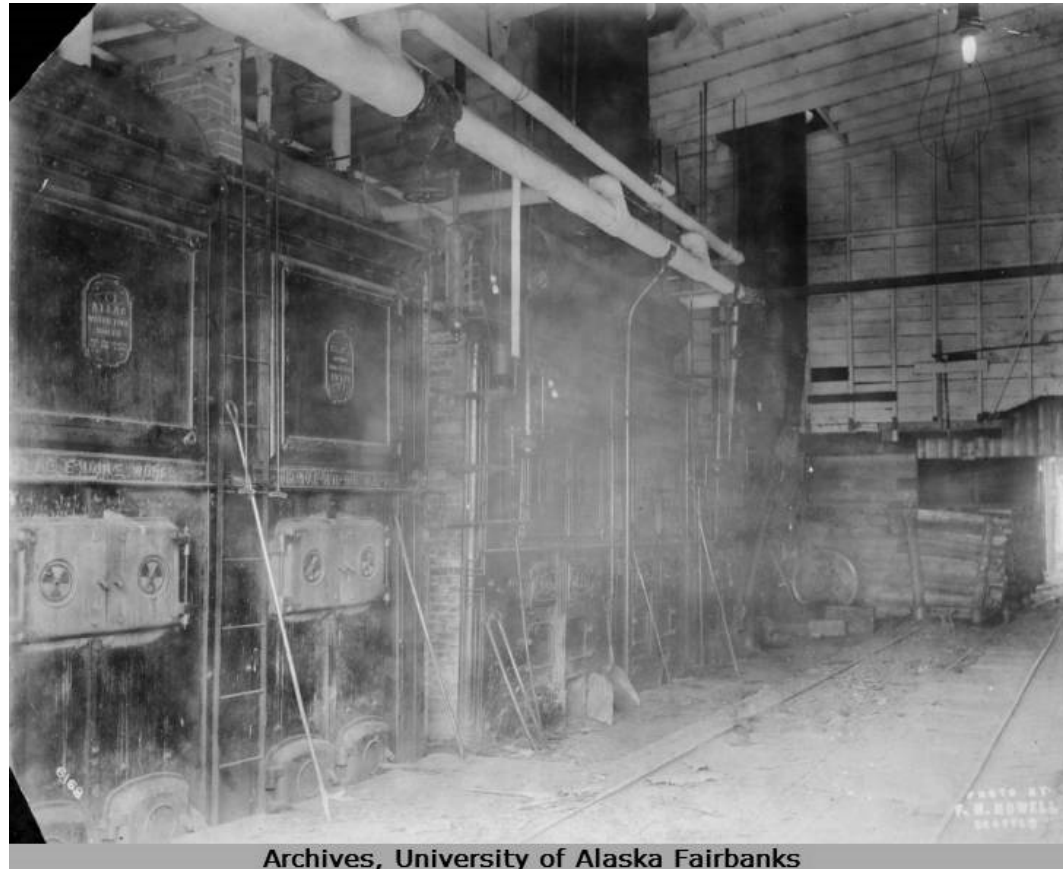
Land Management / Carbon Capture, Utilization, and Sequestration

*\*Not final*

# Looking to Alaska's energy past



[Courtesy of Phil Wight, ACEP – Telling the Story of Alaska's Electrification](#)



# Thank you!

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Find more information at [AKFederalFunding.org/CPRG](https://AKFederalFunding.org/CPRG)

Share your projects and find resources at [akml.org/energyhub](https://akml.org/energyhub)

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