

ACES

Climate Pollution Reduction Grant (CPRG)

Accelerating Clean Energy Savings Across Alaska's Coastal Communities

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Who is AK Heat Smart?

501(c)(3) incorporated in 2019

AHS' mission is to promote energy efficiency in Alaska homes and buildings by providing education and support for weatherization and clean energy solutions. AHS works to help Alaska residents save money, increase comfort, and reduce environmental impact through improved heating systems and energy efficiency upgrades.



AHS Programs...

- **Home Energy Assessment Program:** empowers homeowners to make informed decision about home heating electrification
- **Healthy Homes:** lower-income, whole home energy retrofits
- **Clean Heat Incentive Program:** offers up to \$3,000 to income-qualified homeowners for heat pump installations
- **AK Carbon Reduction Fund:** lower-income oil to heat pump direct assistance
- **NORTHH:** statewide nonprofit building energy retrofits









So, why heat pumps?



- Move heat, don't make it
- Can reach 300%+ efficiency
- Can save 25-75% on heating bills
- Clean and local
- Supports community labor
- Supports local grids
- Financial support available for up front costs





ACES

Accelerating Clean Energy Savings

→ **6100 Heat Pump Installations Over Five Years**

6100 heat pumps to replace fossil fuel heat in 50 communities.

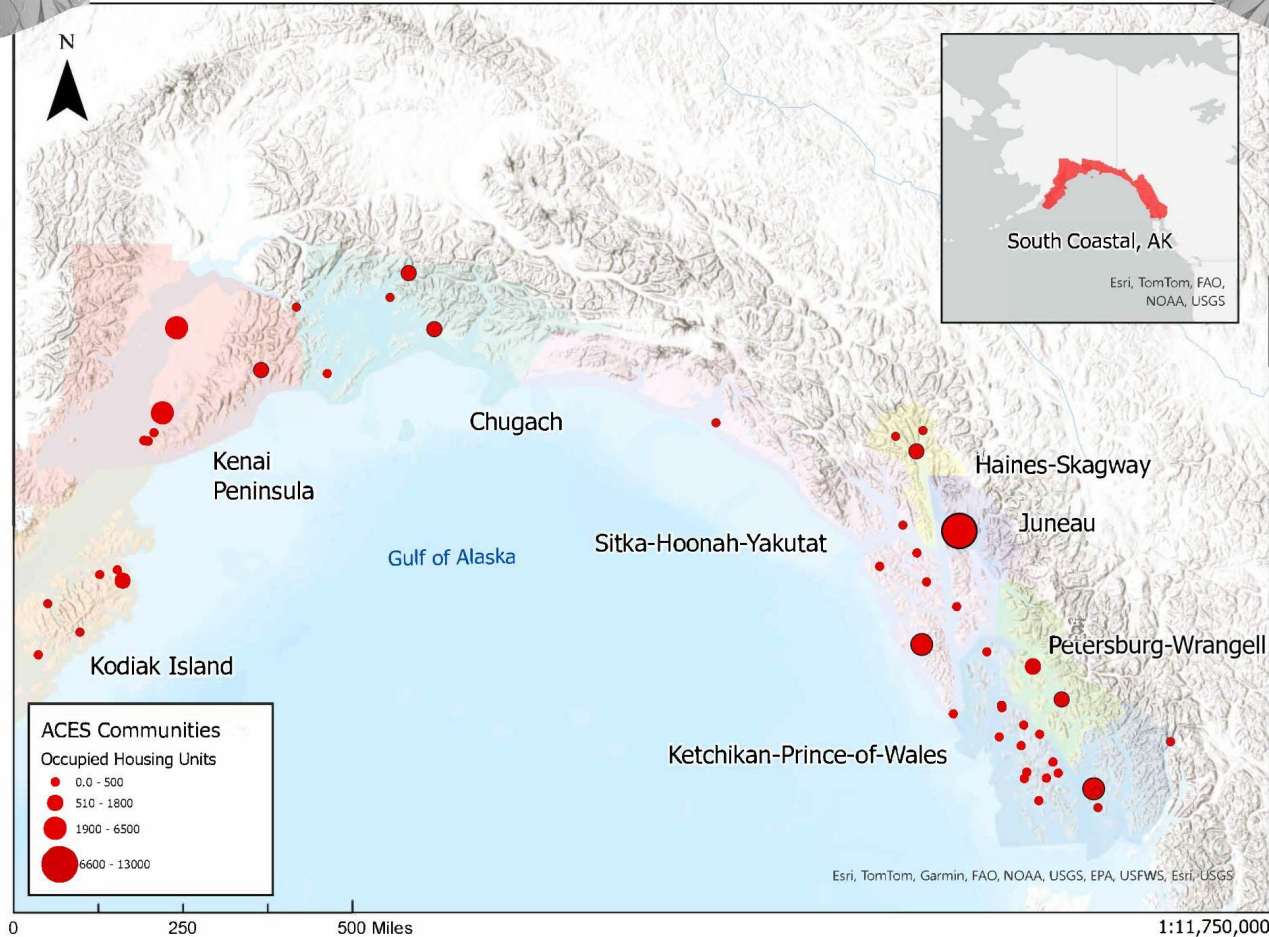
→ **Dramatically Reduce Regional Carbon Emissions**

Through 2030, reduce heating oil demand by 3.3 million gallons and reduce emissions by a cumulative 80,253 tonnes CO₂.

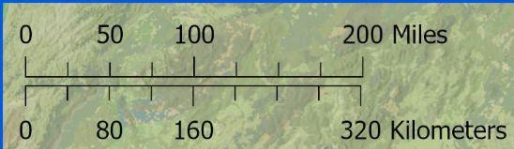
→ **Expand Alaska Heat Smart Services and Contractor Workforce Regionwide**

Share the AHS home energy assessment education and empowerment model coastwide, Homeowners will land in 'the driver's seat' and be positioned to make informed decisions about home heating.

ACES PROGRAM REGION



1. Roughly 1,200 miles of coastline
2. Few to no roads between communities
3. Boat and plane access only for most
4. Travel costly and prone to delays



Alaska Canada
Area of detail

Gulf of Alaska

So again...why heat pumps?

- Maritime climate / mild Gulf waters
- Abundant low-cost hydroelectric power
- Expensive 'imported' heating oil
- Large impact from delivered fuels
- Supportive community leadership

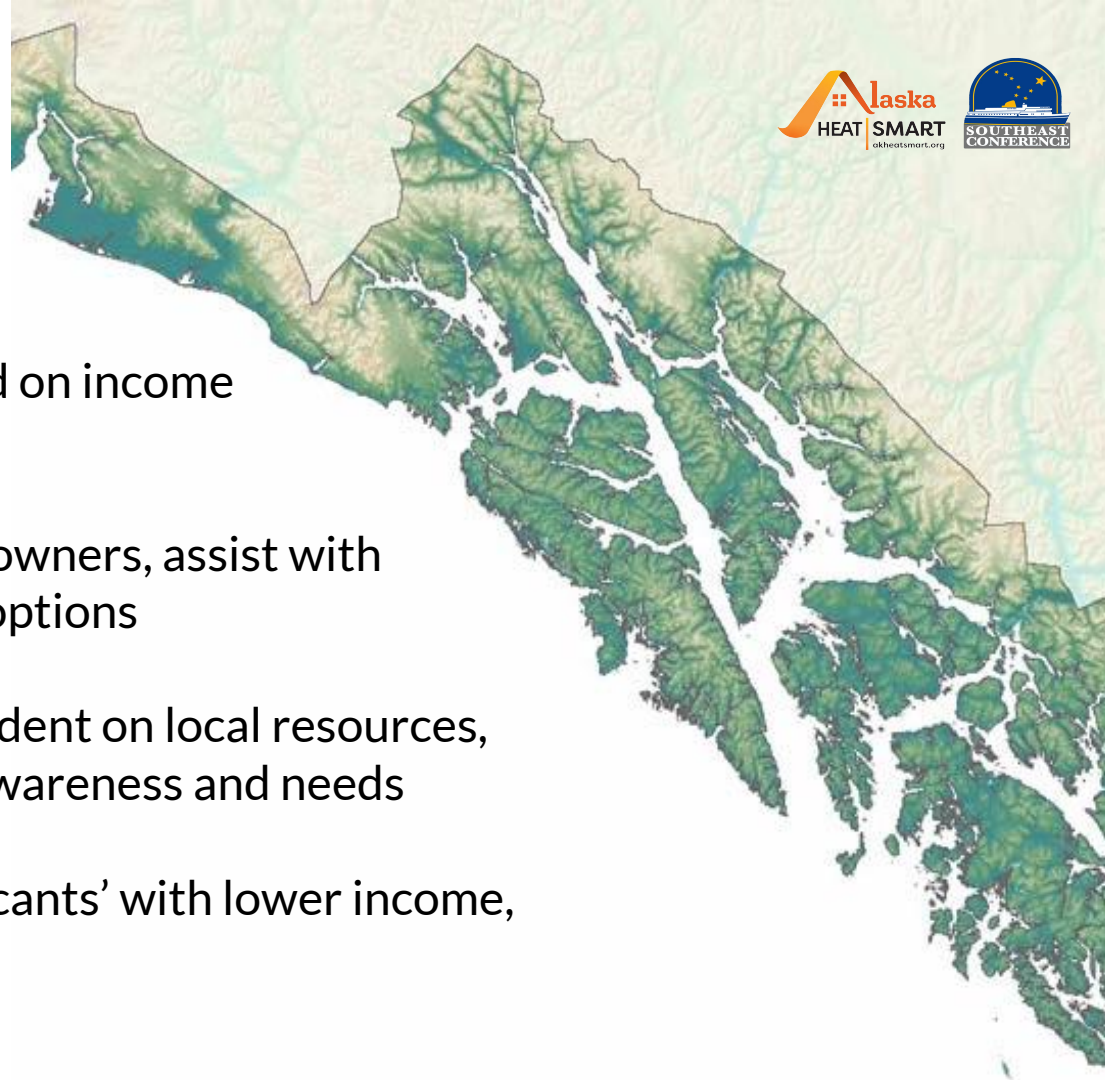


Regional Snapshot



- 'Hydro towns' – inexpensive hydroelectric power / avg. \$0.13 / kWh
- 'Partial-hydro' towns – hydroelectric power / avg. \$0.26 / kWh
- Heating oil delivered by barge and truck / from \$4 - \$7 per gallon
- Average home burns ~500 gallons annually
- ~24,600 oil-burning homes in ACES project area / 85,000 residents
- ROUGH estimate of 4000 heat pumps present across the region

ACES Strategy



1. Generous \$\$ incentives based on income
\$4,000 / \$6,000 / \$8,500
2. Assess homes, educate homeowners, assist with
developing home heat pump options
3. Tiered program roll out dependent on local resources,
existing support, community awareness and needs
4. Full direct assistance for applicants' with lower income,
(<80% AMI)

ACES Challenges



- Limited contractor workforce in most communities
- Likely supply chain constraints for equipment
- Homeowner education about heating system options
- Household savings lower in communities with higher cost electricity
- Need to ensure follow up customer service

Estimated ACES GHG Reductions

1. Annual GHG emission reductions:

a. 2025 through 2030:

Year	2025	2026	2027	2028	2029
Annual Reductions MTCO ₂ e resulting from each year's measures	3871	9400	16,607	22,694	27,680

b. 2030 through 2050: 27,680 MTCO₂e

2. Cumulative GHG emission reductions

a. 2025 through 2030: 80,253 MTCO₂e

b. 2025 through 2050: 633,858.30 MTCO₂e







www.akheatsmart.org

www.seconference.org

www.epa.gov/inflation-reduction-act/climate-pollution-reduction-grants

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