# AEA Overview

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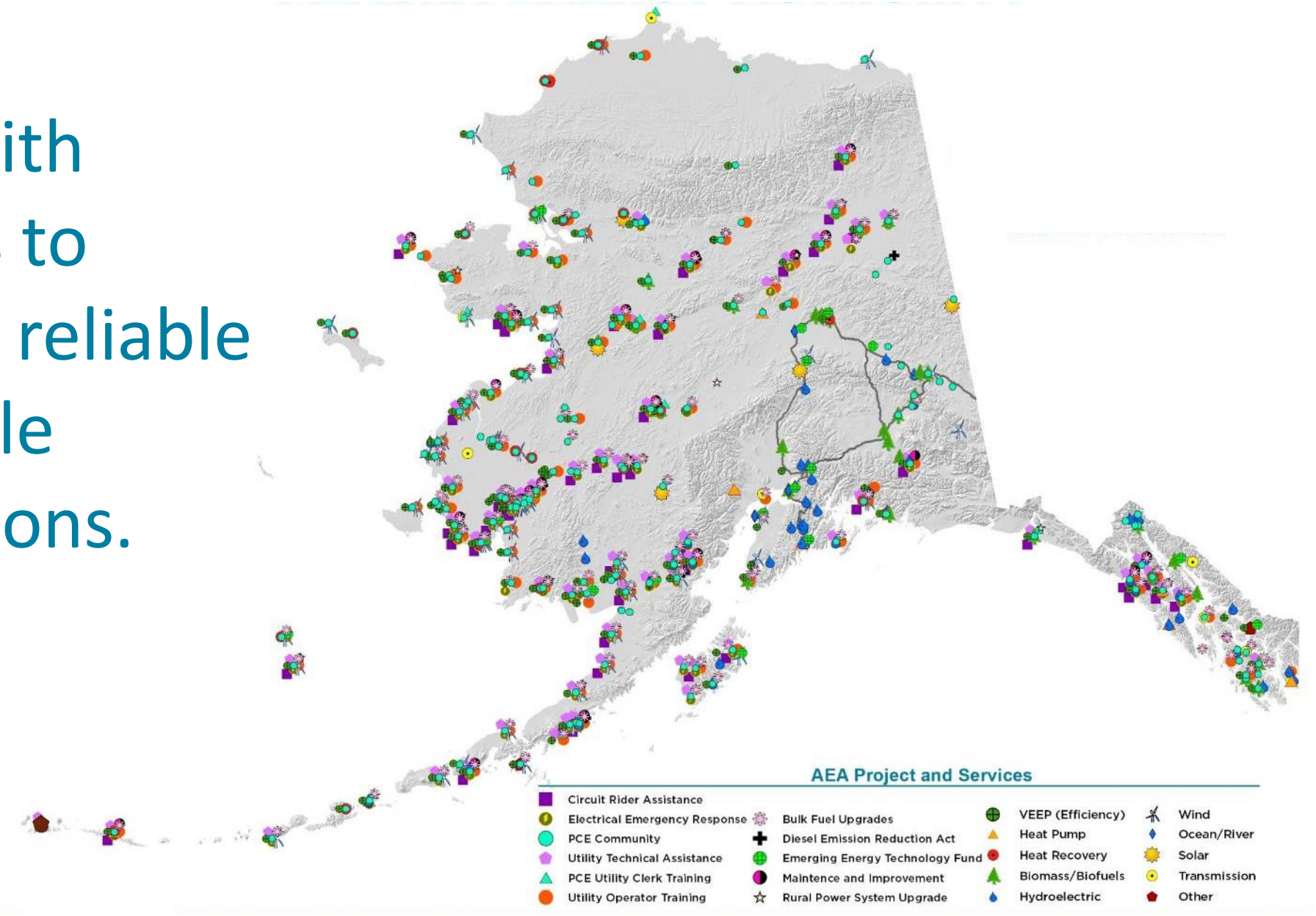
ALASKA ENERGY AUTHORITY

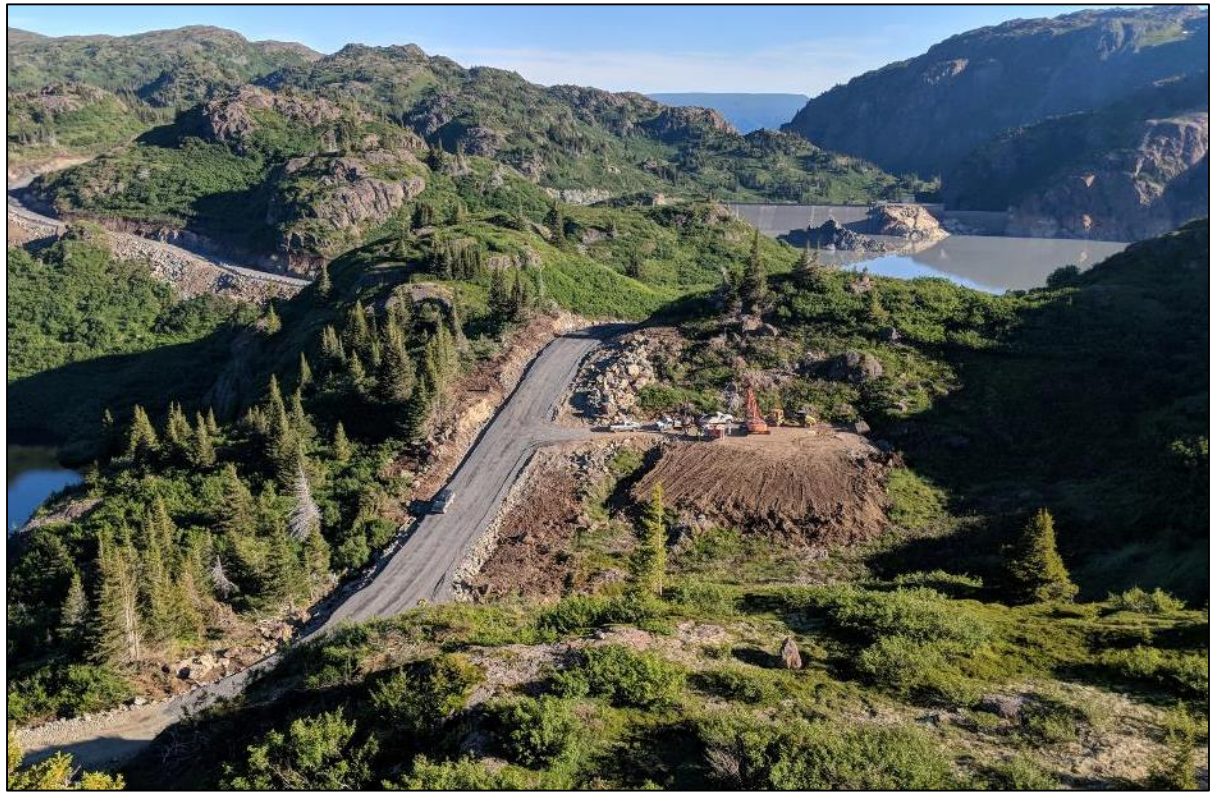
# AEA's mission is to reduce the cost of energy in Alaska

# AEA works with communities to provide safe, reliable and affordable energy solutions.



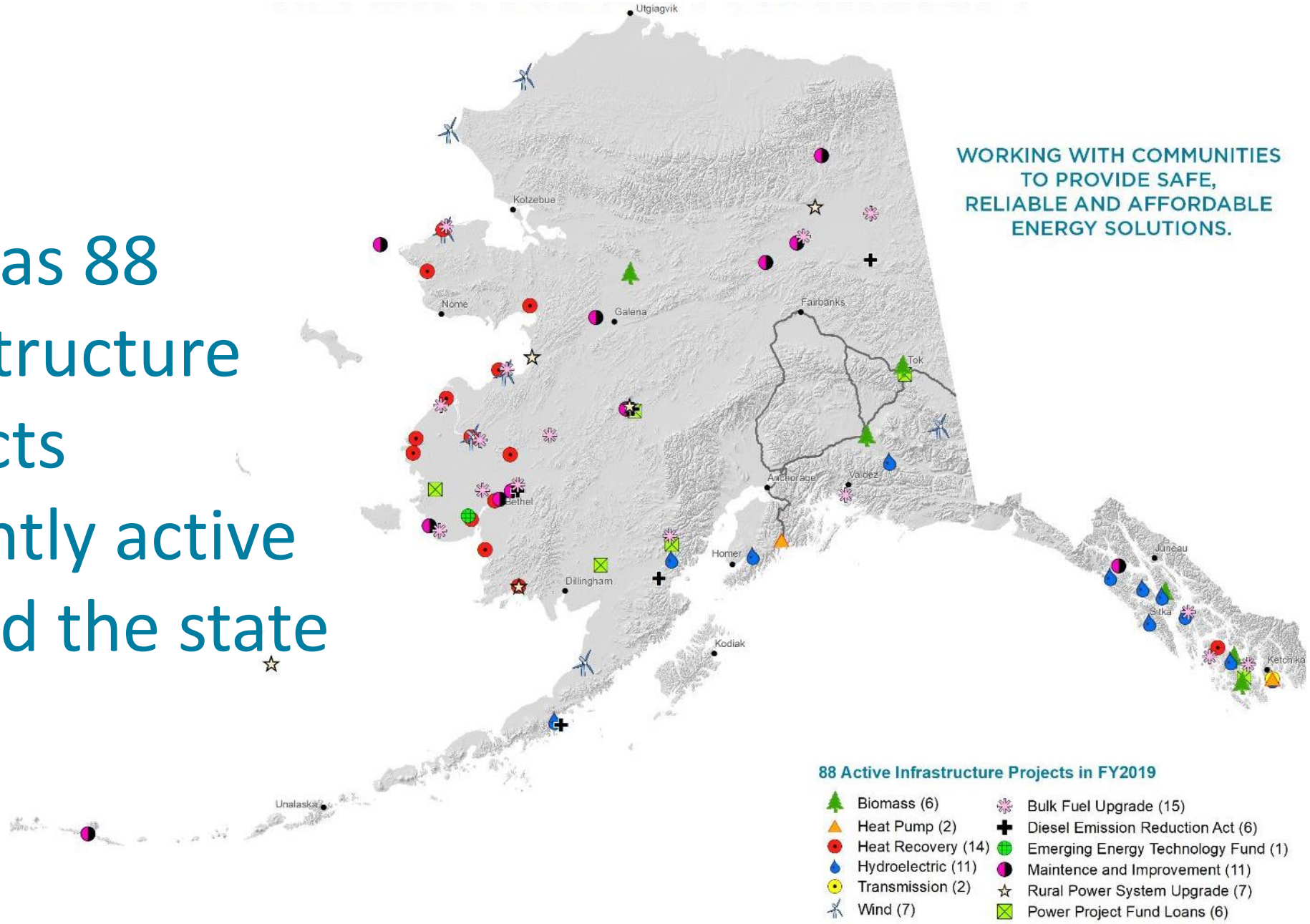
# AEA Programs and Projects

- Bradley Lake Hydro
- Alaska Intertie
- Bulk Fuel Upgrades
- Rural Power System Upgrades
- Rural Utility Assistance
- Power Cost Equalization
- Renewable Energy Fund Grants
- Power Project Fund Loans
- Alternative Energy
- Energy Efficiency
- Energy Project Development



Battle Creek lower access road (foreground), Bradley Lake Dam (background); picture taken summer 2018

# AEA has 88 infrastructure projects currently active around the state



# Bradley Lake Hydroelectric Project

- Produces ~ 10% of Railbelt electricity, 4.5 cents/kWh
- Benefits members of:
  - Golden Valley Electric
  - Matanuska Electric
  - Municipal Light & Power
  - Chugach Electric
  - Homer Electric
  - City of Seward
- Battle Creek Diversion Project: $47M, will add ~10% energy

Bradley Lake Dam

# Alaska Intertie

- 170 miles from Willow to Healy
- Allows Golden Valley Electric Assoc. (GVEA) to connect to and benefit from lower cost power
- Improves reliability within Railbelt system
- Operated by AEA and Railbelt utilities
- $27.4M savings for GVEA in FY2018

# Bulk Fuel Tank Farm Upgrades (BFU)

- Builds code compliant fuel storage facilities
- Preventing spills and contamination
- Decreasing the per unit cost of fuel by allowing the community to purchase bulk quantities
- 118 projects completed since 2000

Kipnuk Bulk Fuel Tanks being loaded onto the barge in WA

# Rural Power System Upgrades (RPSU)

- Improving power system efficiency, safety and reliability
- Builds code compliant facilities providing stable and reliable power
- ~10% to 20% efficiency improvement in diesel generation
- 86 projects completed since 2000

Kipnuk powerhouse

# Rural Utility Assistance

CR Assistance

AVTEC Training

Hughes Electrical Emergency Assistance

**103**

Communities received **circuit rider** and **rural utility worker** assistance in FY2018

**38**

Communities received **training** in FY2018

**6**

Communities assisted with **electrical emergencies** in FY2018

# Power Cost Equalization (PCE) Program

- 195 communities served
- Disbursed $27M in FY2018
- Supported by AEA rural utility assistance
- Online portal to create increased efficiency and accuracy of reporting

Akiachak

# Renewable Energy Fund (REF)

- $268M invested in REF by the State
- Boosted renewable energy market in Alaska
- Leveraged hundreds of millions of federal and private dollars
- 73 operational projects, 56 in development
- Displacing ~30 million diesel equivalent gallons annually
- ~$74M in fuel savings in 2018

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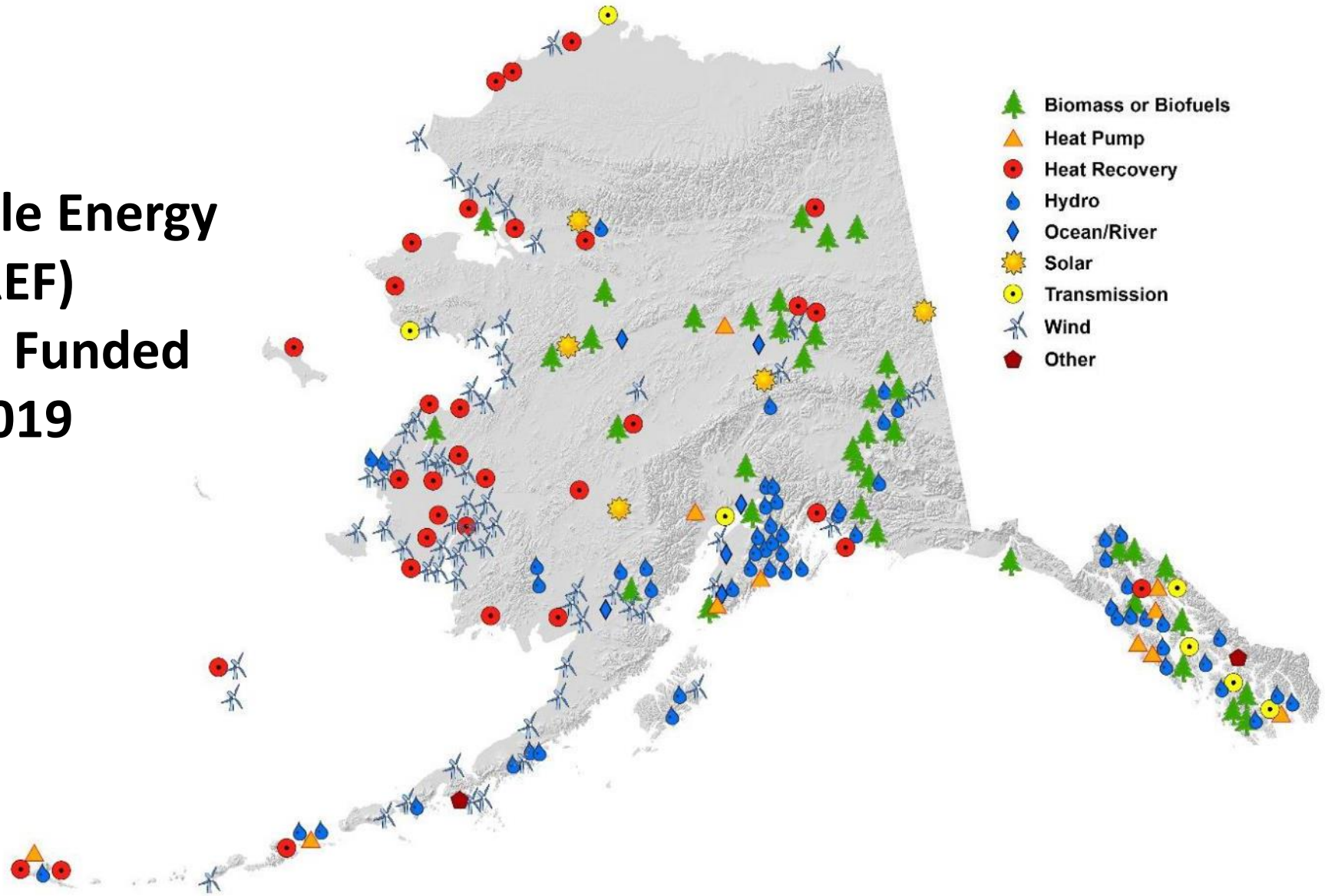
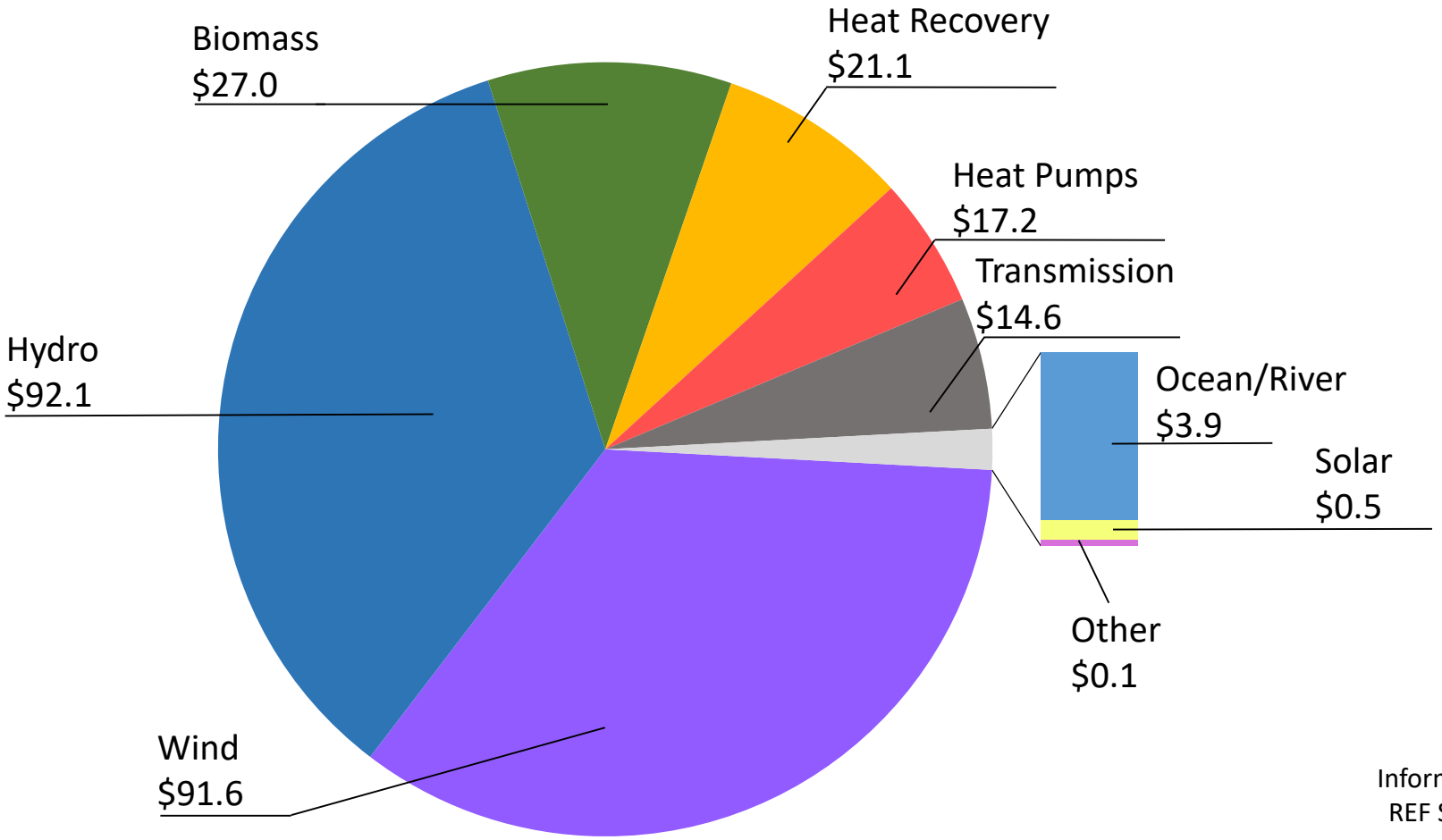
# 295 Renewable Energy Fund (REF) Applications Funded 2008-2019



# REF Funding by Energy Resource ($ millions) Rounds I-IX (2008-2019)




Information taken from the 2018 REF Status Report, available on AEA's website.

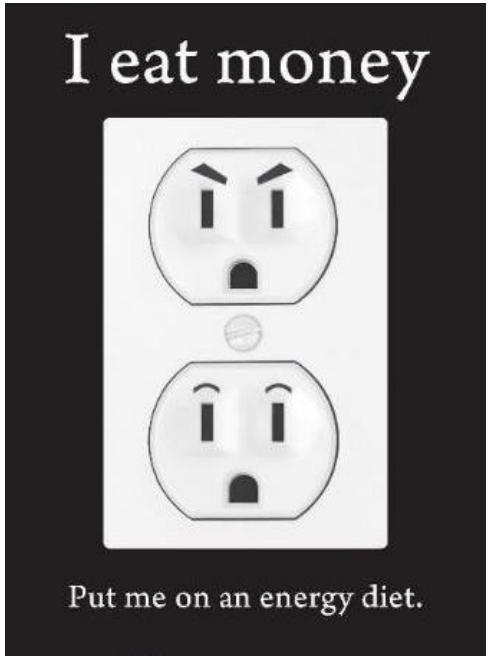
# Power Project Fund Loan Program

- $27.5 committed or disbursed for 18 loans
- $10.7 million uncommitted
- Flexible loan program
- Covers all aspects of supply side system
- Relies on unique, in-house technical expertise for evaluation of loan viability and regulatory compliance
- Loan applications are also vetted for economic and finance viability
- Critical resource in shift from grant funded to debt financed energy projects

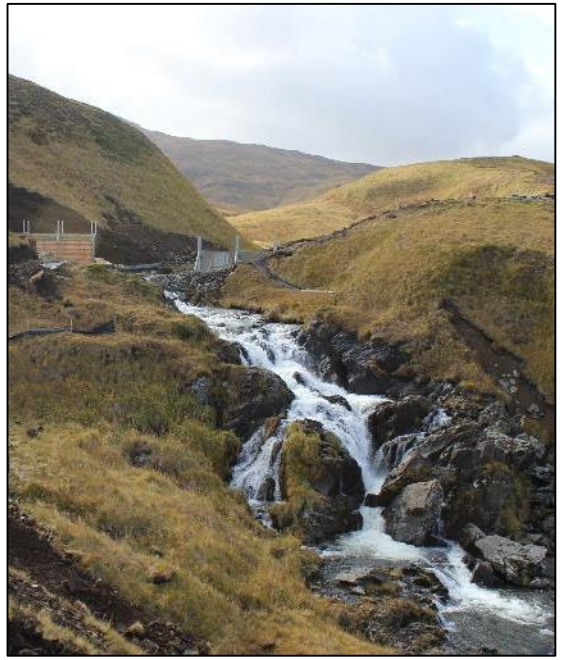
Waterfall Creek, King Cove

# Alternative Energy & Energy Efficiency

Energy Efficiency




Hydro



Biomass

Wind

# Energy Project Development & Financing

AEA's "Energy Solutions Center" Front Door

- Planning, evaluation and project development assistance
- Data collection & reporting
- Utility business assistance
- Financing
- Critical federal partnerships (Denali Commission, Department of Energy, USDA Rural Development)

AEA provides energy solutions to meet the unique needs and opportunities of Alaska's rural and urban communities.

# ALASKA ENERGY AUTHORITY

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