



©Ron Niebrugge



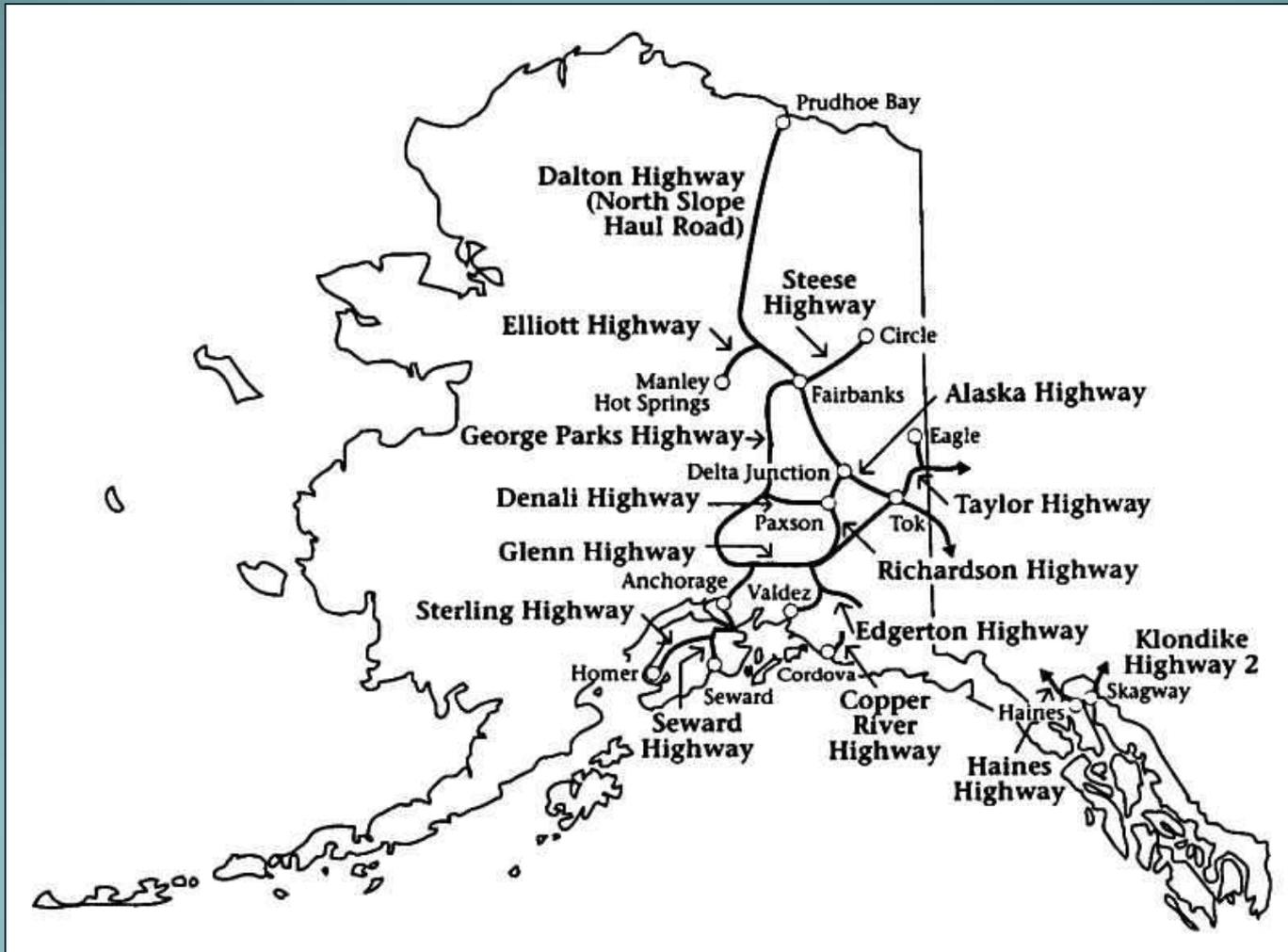
DENALI COMMISSION

Department of Energy – Tribal Energy Conference

Denali Daniels

October 2010

Alaska Road System

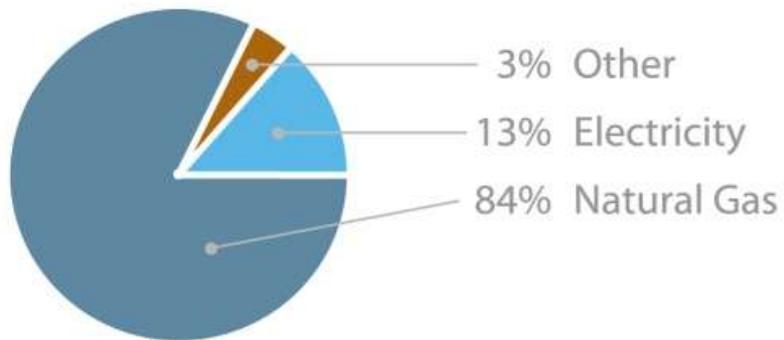


Alaska Fun Facts

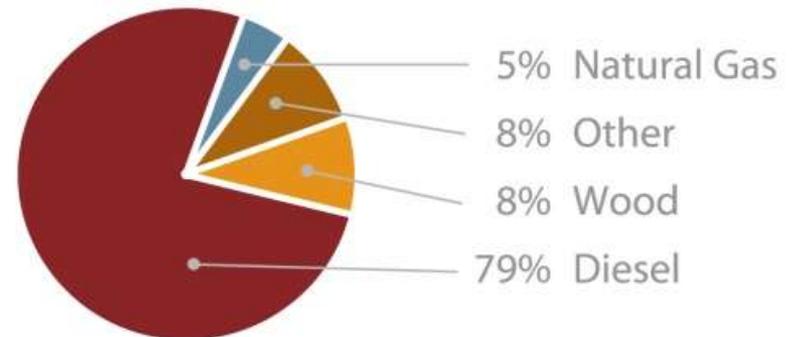
- 13% of Alaska's population is Alaska Native – greatest proportion in the U.S.
- Over 200 of 562 federally recognized tribal governments are in Alaska
- Only one reservation exists in Alaska – Metlakatla
- Alaska Native Claims Settlement Act (ANCSA) model developed 13 regional corporations as an alternative



How Alaska Households Heat Their Homes Using Various Energy Sources



Anchorage



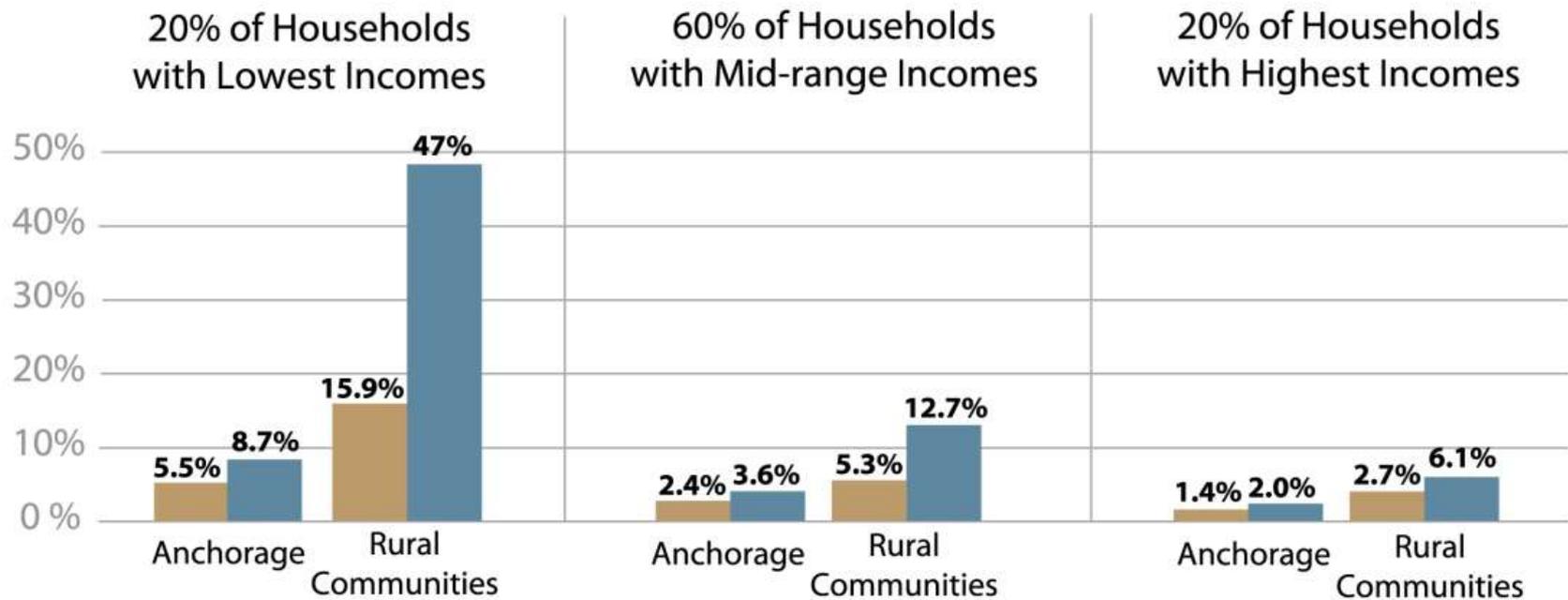
Rural Communities

Source: *Estimated Household Costs for Home Energy Use, May 2008* a report by ISER



Estimated Median Share of Income Alaska Households Spend for Home Energy Use

■ 2000 ■ 2008



Source: *Estimated Household Costs for Home Energy Use, May 2008* a report by ISER



Koyukuk, Tank Farm 1
2 school tanks, liquid tight liner.



Koyukuk, Tank Farm 1
Shared school/city heating fuel fill line far side, city gasoline fill line near side.

Denali Commission Energy Program

Three Program Areas:

- Bulk Fuel Facilities
- Rural Power System Upgrades
- Renewable and Alternative Energy
 - Emerging Technologies

Funded 100 bulk fuel systems



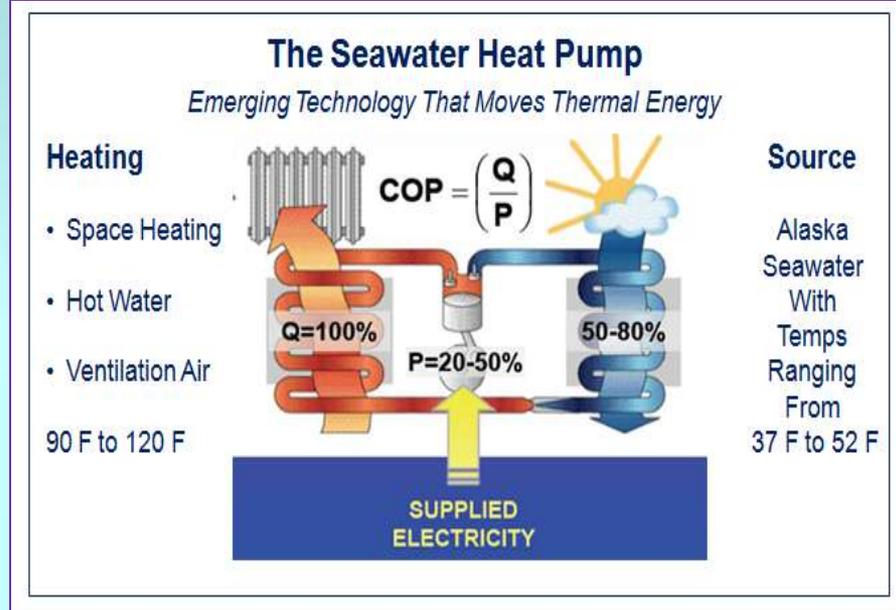
Buckland Tank Farm

Funded 58 rural power system upgrades in rural Alaska





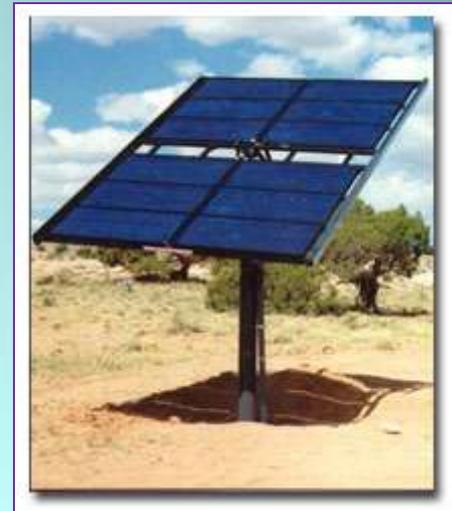
Alaska Sealife Center Seawater Heat Pump





Kotzebue Electric Association

Solar Hot Water Heating System



Wales Wind-Diesel Hybrid Power System

- Retrofit power plant -- high penetration wind-diesel system
- Goal 50% diesel consumption in Wales
- Replication of diesel off across Alaska
- Original grant through DOE



Cordova Psychrophiles Digestor

- Cold-loving microbes (psychrophiles) found in Alaska lake water
- Coupled with feedstock (lunchroom/AC waste) = Biogas
- Cordova High School Students
- Solid waste reduction





Intergovernmental Coordination

Federal Agency Partners

- Department of Energy – National Renewable Energy Lab (NREL)
- Environmental Protection Agency (EPA)
- U.S. Coast Guard
- Housing and Urban Development (HUD)
- USDA – Rural Development
- USDA – Rural Utility Services (RUS)
- Indian Health Service (IHS)
- Bureau of Indian Affairs (BIA)
- National Environmental Protection Act (NEPA)
- Federal Energy Regulatory Commission (FERC)

An Era Ends...

