



COMMONWEALTH
NORTH

Illuminating Alaska's Issues

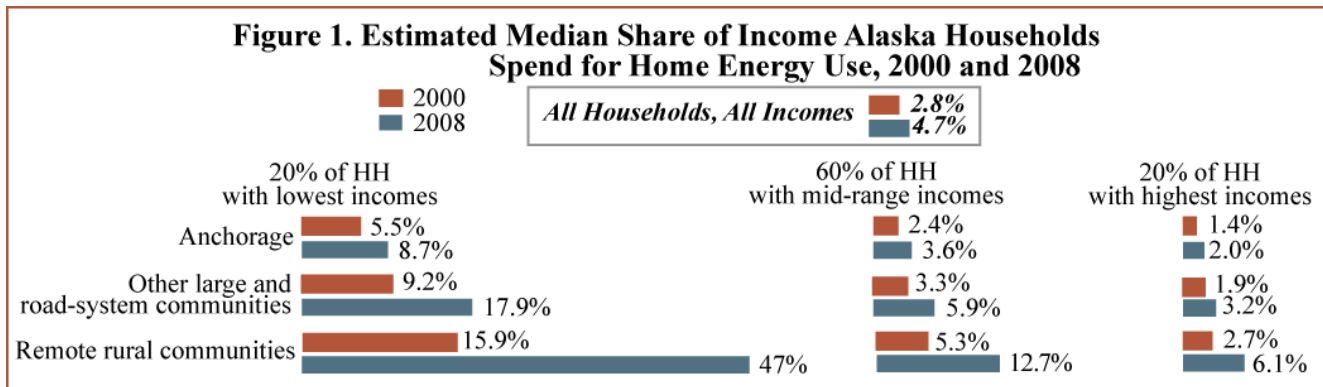
RURAL AND ALTERNATIVE ENERGY STUDY GROUP

MAY 19, 2011

CIRI

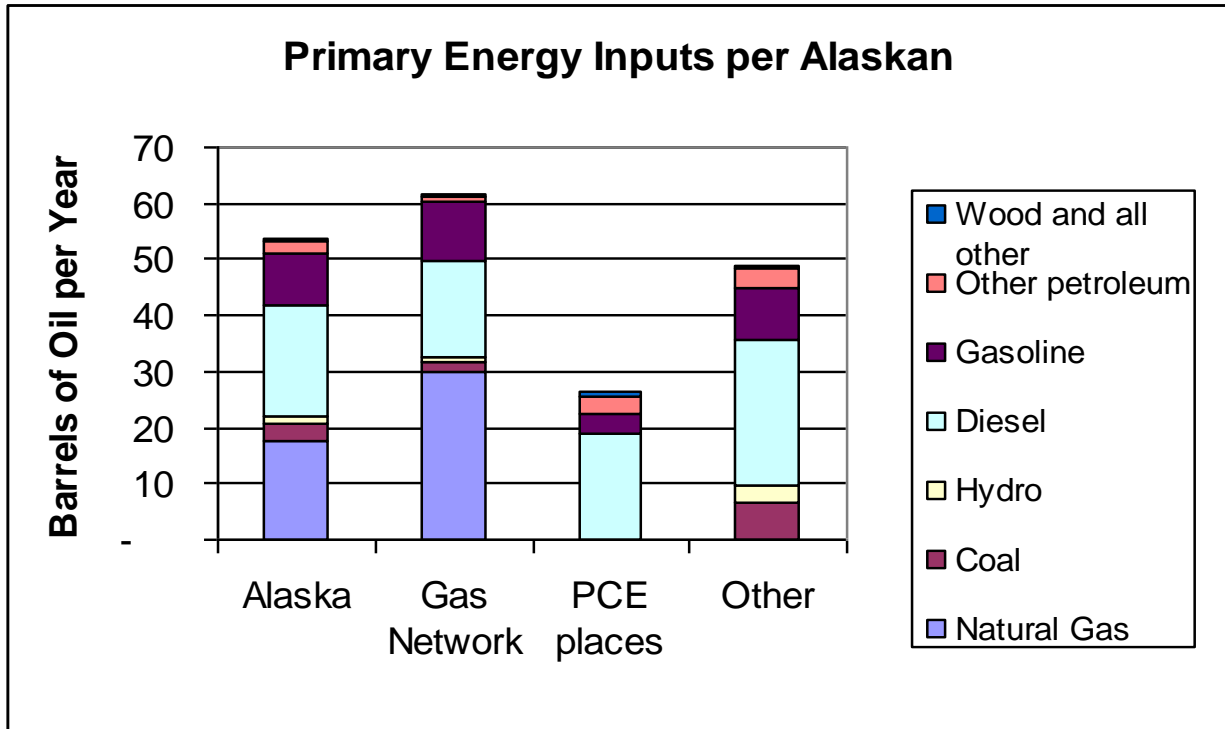
MINUTES

1. **CALL TO ORDER:** Meeting was called to order at 12:02pm by Co-chairs Meera Kohler and Ethan Schutt
2. **Commonwealth North Rural and Alternative Energy Study Overview**
 - This study will develop an understanding of the current state of energy production, transportation and consumption in rural Alaska and examine efforts underway to develop long-term, viable, cost-effective solutions to those challenges. This study will attempt to inform Alaskans about energy challenges that exist outside the “Railbelt” and to develop recommendations on the most cost-effective solutions to provide for the long-term energy needs of rural Alaska
 - The study group will meet throughout the summer primarily on Thursday afternoons from 12-1 at CIRI with rural energy experts. The goal is to complete the study and release a report at the Alaska Rural Energy Conference in Juneau, September 27-29, 2011.
3. **Rural Alaska Energy Expenditures & Fuel Transportation Costs – Steve Colt, Professor of Economics, ISER**
 - Burden of Energy Costs - The Bottom Line
 - 20% of households with the lowest incomes in 2008 are spending almost 47% of the household income on energy, which corresponds to Power Cost Equalization (PCE) communities¹



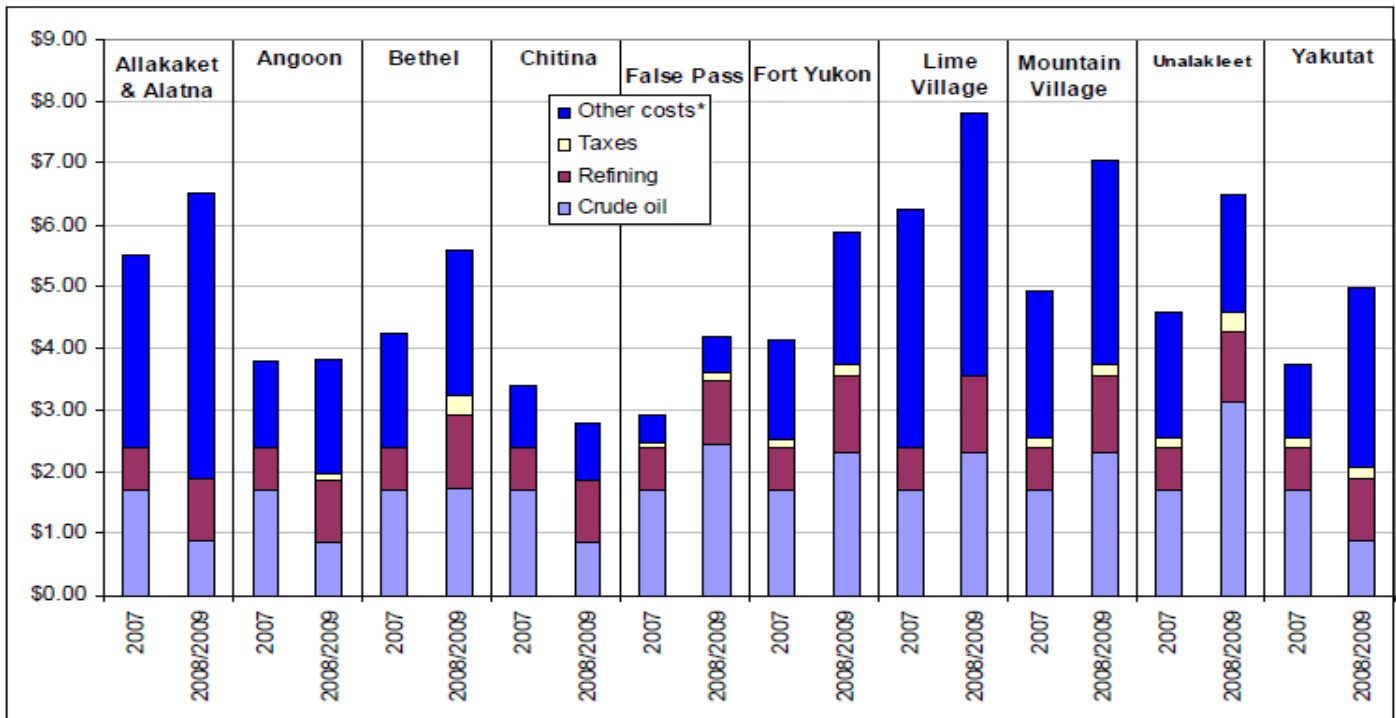
¹ Ben Saylor, Sharman Haley, and Nick Szymoniak, *Estimated Household Costs for Home Energy Use*, May 2008
<http://www.iser.uaa.alaska.edu/Publications/webnote/LLFuelcostupdatefinal.pdf>

- The average Alaskan uses about 1,000 gallons of diesel a year
- Rural Alaskans use less fuel than the rest of Alaskans²



- Energy Costs and Community Viability³

Figure 3. Diesel Fuel



² Colt, S. 2005. Energy Flow in Alaska. Presentation to Rural Energy Conference.

http://www.iser.uaa.alaska.edu/Publications/colt_energy_flow.pdf

³ Fay, G. et al. 2009. Study of the components of delivered fuel costs in Alaska January 2009 Update.

<http://www.iser.uaa.alaska.edu/Publications/fuelpricedeliveredupdate.pdf>

- Why does fuel cost so much?
 - How Transported (truck, barge, plane)
 - It costs a lot of money to move fuel
 - Distance transported
 - The further the community is from the hub the greater the cost
 - Difficulty of transportation (especially by river)
 - Number of times fuel is handled enroute
 - Year round or seasonal delivery
 - Time of delivery, the day you buy
 - Local storage capacity
 - Local moorage and unloading equipment
 - Port landing facilities and improved equipment could mitigate some of these costs
 - Competition among transporters and suppliers
 - Credit status matters to bulk fuel purchasers
 - Refining cost going up
- ISER's determination that the "other costs" in figure 3 are legitimate transportation , storage and maintenance costs
- Transportation and when you buy fuel causes the most volatility in cost
 - Delivery costs of fuel can range significantly in the current and recent climate, sometimes as much as \$1 -\$3/gal in rural Alaska
- Energy costs have not been pinpointed as the definitive reason for migration from rural communities into more urban ones
 - The main reason has been employment, cannot make a living (which translates to – can't afford the cost of rural living)
- Electric Versus Other Energy Use
 - Electricity accounts for about 30-40% of the total energy consumption in rural Alaska. Heat and transportation account for the rest.
 - Non-fuel costs have been declining over the last 20 years and the total cost of power had been going down until oil prices spiked above \$100 a barrel in recent years
- Policy Ideas
 - State revenue/consumption ratio: 3:1
 - The state of Alaska makes a lot of money when the price of oil goes up. For every additional dollar that people pay for energy, the State of Alaska takes in about \$3
 - Possible idea to create a community oil royalty where money is allocated to communities paying the highest energy costs, this would require an energy endowment with capital appropriations
 - On the one hand focus State research and development (R&D) dollars on the adaption of emerging, but proven energy technologies for rural Alaska while on the other hand because we lack strong infrastructure, there may be a good opportunity to explore exotic alternatives. (For example, hydrogen stations used in the lower 48, they need a conversion, but we could put one station in several communities)
 - Need the private sector to innovate and take risk to reduce costs
- Questions To Consider – Rural Energy Issues CWN can help address
 - Smoothing volatility and equalizing disparities between communities
 - How much energy is being used for space heating & transportation?

- How can we integrate renewables, electricity, space heat and transportation into a coherent system
- How does RCA regulation affect adoption or purchase of alternative energy sources, may need statutory change
- Are we taking sufficient advantage of the opportunity to build energy-efficient infrastructure
- Is regional connectivity a realistic goal
- Further Discussion
 - Recommendation to have transportation companies such as Crowley or Delta Western speak to the group
 - Delivery systems to rural Alaska, not a homogenous group, no one system to deliver funds for energy needs or development
 - Renewable energy projects are local whereas money spent on diesel fuel goes to urban areas and the lower 48. We should be capturing these dollars in AK

4. Adjourned: 1:07pm

5. Upcoming Meetings (12-1pm, CIRI)

- **Friday, May 27**, Meera Kohler, President/CEO, AVEC - Cooperative approach to locally owned electric utilities
- **Thursday, June 2**, Sara Fisher-Goad, Executive Director, Alaska Energy Authority - Overview of the current rural power statistics