



# Alaska Affordable Energy Strategy Update

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# Update

- Modeling: GINA
- LNG: Northern Economics
- Bulk Fuel Storage: USACE
- Utility Costs and Structures & Subsidies: ISER
- Demographic and Economic Scenario Development: ISER
- Migration & Energy Costs: ISER
- Barriers to Private Investment: ACEP
- Technology Trends: ACEP
- Energy Efficiency Gaps & Barriers: VEIC

# Modeling

- Lead: GINA
- Goal:
  - Integrate the best available data to evaluate which project types will be most likely to be cost effective in delivering more affordable energy to the AkAES region
- Recent progress:
  - Integrating with Gateway database
  - Delivered consumption estimates for 11 test communities
  - Programmed energy efficiency modules
- Expected next steps:
  - Develop visualization tools
  - Extend consumption & EE modules to rest of AkAES region
  - Program additional project types

# LNG

- Lead: Northern Economics
- Goal:
  - Investigate if LNG could be a viable alternate fuel for the AkAES region
- Recent progress:
  - Received, reviewed, and provided feedback on consumption estimates for 10 test communities
  - Sub-contractor has completed preliminary engineering & cost analysis
  - Investigated regulatory & infrastructure requirements for delivering LNG
- Expected next steps:
  - Perform economic analysis of delivering LNG to 10 test communities

# Bulk Fuel

- Lead: US Army Corps of Engineers
- Goal:
  - Determine if strategically placed fuel depots could improve transportation efficiency and reduce the delivered cost of fuel
- Recent progress:
  - Agreement was finalized the first week of January
  - Kick-off meeting, scoping complete
- Expected next steps:
  - Compile and review previous work
  - Interviewing fuel deliverers
  - Develop modeling assumptions

# Utility Study and Subsidy Analysis

- Lead: ISER
- Goal:
  - Determine if 1) alternate utility structures could improve affordability and 2) how to structure subsidies for greatest community benefit
- Recent progress:
  - Compilation of historical government funds for capital projects
  - Recent meeting to rescope project
- Expected next steps:
  - Investigation of price stability as affordability indicator
  - Complete Cost of Service Model
  - Complete True Cost of Electricity & Bulk Fuel analysis

# Demographic and Economic Scenario Development

- Lead: ISER
- Goal:
  - Ensure logical consistency of demographic and economic scenarios
- Recent progress:
  - Delivered community-level population forecasts
- Expected next steps:
  - Complete Alaska Economic and Demographic Model at the borough
  - Integrate community-level population forecasts with economic scenarios

# Migration & Energy Costs

- Lead: ISER
- Goal:
  - Determine the amount of impact that energy costs have on population mobility
- Recent progress:
  - Analyzed publicly available data which has shown a correlation between intraregional migration and energy prices (more strongly correlated by the availability of jobs & geography)
- Expected next steps:
  - Analyze the non-public individual PFD data to assess the recent results



# Barriers to Private Investment

- Lead: ACEP
- Goal:
  - Identify and determine how the state could remove barriers to private investment in rural Alaska
- Recent progress:
  - Case studies of private investment in rural Alaska
  - Draft of final report with comments from AEA
- Expected next steps:
  - Additional interviews and updated draft

# Generation Technology Trends

- Lead: ACEP
- Goal:
  - Document the technology development needs and forecast potential performance and cost improvements
- Recent progress:
  - Briefing papers, with comments from AEA, of 10 generation & storage technologies
- Expected next steps:
  - Revise and update briefing papers
  - Convene expert panels to discuss state of technology, past trends, and future needs to reduce costs and improve performance

# Energy Efficiency Gaps & Barriers

- Lead: Vermont Energy Investment Corp.
- Goal:
  - Gaps & barriers to energy efficiency in Alaska
- Recent progress:
  - Lit review, program catalog
  - Stakeholder interviews
- Expected next steps:
  - Assessment of public and private EE programs
  - Rough outline of the final report and analysis

# Final Report

- Discussion....

[AKEnergyAuthority.org](http://AKEnergyAuthority.org)

