



Photo by: Cassandra Cerny, GVEA



Alaska Energy Authority

Neil McMahan, Program Manager
Alaska Affordable Energy Strategy Update

7/23/2015

Alaska Energy Authority: Mission

“To Reduce the Cost of Energy in Alaska”

- AEA is an independent and public corporation of the State of Alaska
- Created by the Alaska Legislature in 1976
- 44.83.070: “ The purpose of the Authority is to promote, develop, and advance the general prosperity and economic welfare of the people of the state by providing a means of financing and operating power projects and facilities that recover and use waste energy and by carrying out the powers and duties assigned to it under AS 42.45.”

Senate Bill 138

Alaska Affordable Energy Strategy

Plan and recommendations to the Legislature on infrastructure needed to deliver affordable energy to areas in the state that do not have direct access to a North Slope natural gas pipeline.

Due: January 1, 2017



LAWS OF ALASKA

2014

Source
HCS CSSB 138(FIN) am.H

Chapter No.

AN ACT

Relating to the limitation on the value of property taxable by a municipality; relating to the Alaska Gasline Development Corporation; relating to an in-state natural gas pipeline, an Alaska liquefied natural gas project, and associated funds, requiring state agencies and other entities to expedite reviews and actions related to natural gas pipelines and projects; making certain contracts by the Department of Natural Resources and the Department of Law not subject to the State Procurement Code; relating to the authorities and duties of the commissioner of natural resources relating to a North Slope natural gas project, oil and gas and gas only leases, and royalty gas and other gas received by the state including gas received as payment for the production tax on gas; relating to a report and recommendations by the commissioner of natural resources regarding the delivery and availability of North Slope natural gas in the state, including the identification of risks and recommendations for mitigation; relating to the tax on oil and gas production, on oil production, and on gas production; relating to the duties of the commissioner of revenue relating to a North Slope natural gas project and gas received as payment for tax; relating to confidential information and public record status of information provided to or in the custody of the Department of Natural Resources and the Department of Revenue; relating to apportionment factors of the Alaska Net Income Tax Act; amending the definition of gross value at the "point of production" for gas for purposes of the oil and gas production tax; clarifying that the exploration incentive credit, the oil or gas producer education credit, and the film production tax credit may not be taken against the gas production tax paid in gas; relating to the oil or gas producer education credit; requiring the commissioner of revenue to provide a report to the legislature on financing options for state ownership and participation in a North Slope natural gas project; requesting the governor to establish an advisory planning group to advise the governor on municipal involvement in a North Slope natural gas project; relating to the development of a plan by the Alaska Energy Authority for developing infrastructure to deliver affordable energy to areas of the state that will not have direct access to a North Slope natural gas pipeline and a recommendation of a funding source for energy infrastructure development; establishing the Alaska affordable energy fund; requiring the Department of

Enrolled SB 138

SB 138:

Alaska Affordable Energy Fund

Special account in the general fund to provide a source from which the legislature may appropriate money to develop infrastructure to deliver energy to areas of the state that are not expected to have or do not have direct access to a North Slope natural gas pipeline

- 20 percent of the revenue from the state's royalty gas from an Alaska LNG project (after the payment to the permanent fund)

AkAES Planning Horizons

Short-term:

1. With the current budget climate, what can the state do to maximize the reduction in community energy costs?
2. Test options prepare the state for the long-term plans

Long-term: (2025 at the earliest)

1. How should the state invest money available through the Affordable Energy Fund to provide the maximum benefit to communities?

AkAES: Definition of “Affordable”

Two primary options for using “Affordable” to allocate resources:

1. Need-based: “Affordable” includes the ability to pay
 - a. Some combination of energy unit prices and/or costs and median household income of the community
2. Need-blind: “Affordable” is a price or cost target
 - a. A goal for energy unit prices and/or costs

Assumption: Funding needs will always outstrip supply

The definition of “Affordable” impacts the allocation of resources and which types of policies to recommend, but not the research of how to reduce costs

AkAES Study Overview

Phase 0: 1) Do preliminary research, 2) develop study plan and budget, 3) identify partners and contractors

- 1 & 2 complete, 3 in progress

Phase 1: Data collection: Drivers for energy and project costs

- In progress

Phase 2: 20-year forecast for energy consumption, costs, and project benefits

- In progress

Phase 3: Develop strategies for reducing energy costs

- Scopes defined

Phase 4: Develop and evaluate potential policy options to implement strategies

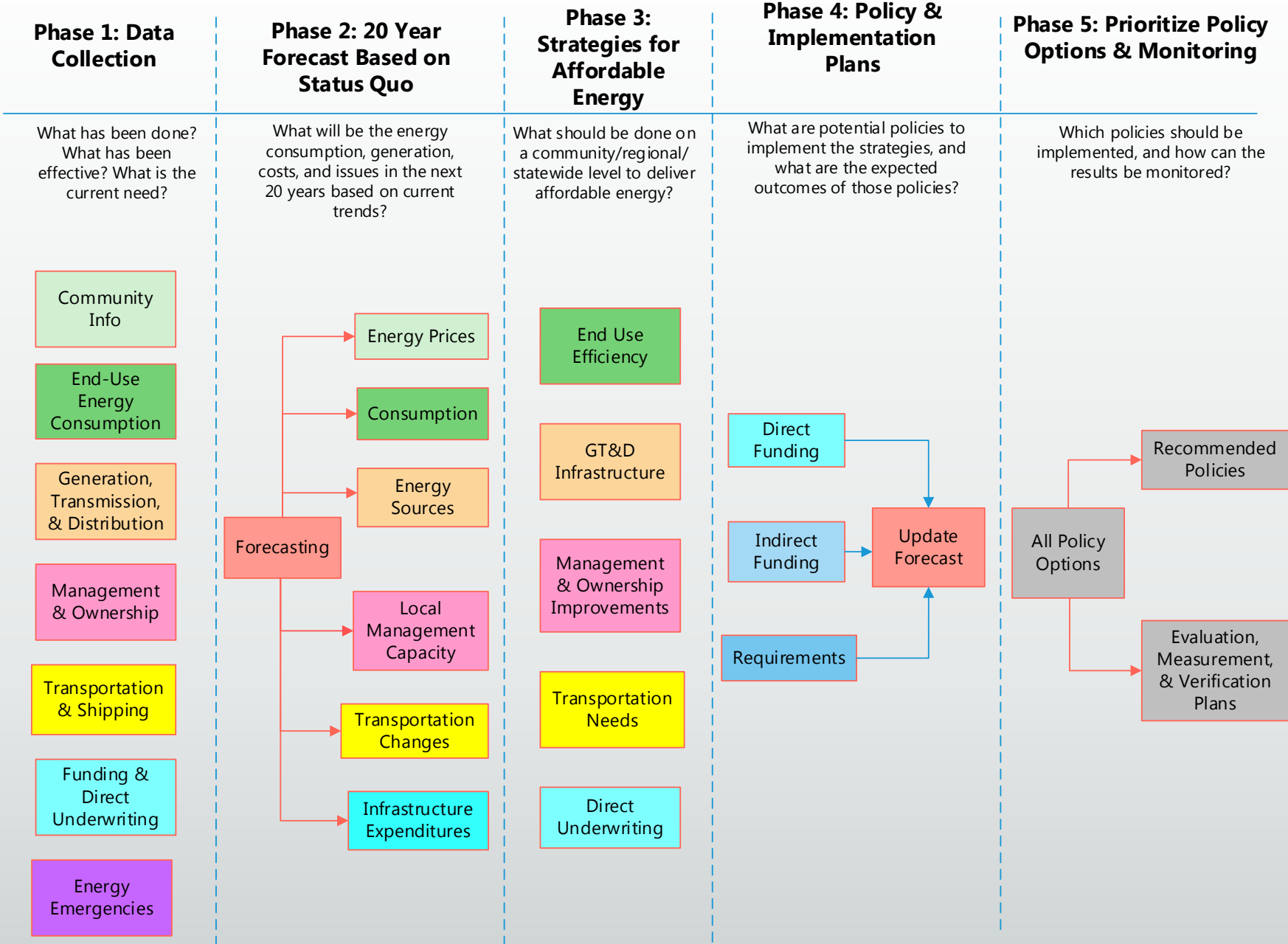
- Scopes defined

Phase 5: Prioritize policy options and develop EM&V plans

- Scopes defined

Alaska Affordable Energy Strategy: Research Overview

Research Areas



AkAES Research Partners & Progress

Research Area

Studies

Status

Community Info

1. Demographic and Economic Scenario Development : ISER

1. RSA being finalized

2. Energy Cost Impact on Migration: ISER

2. Exploration phase

3. Load energy & socioeconomic data into database: AEA, ISER

3. RSA being finalized

Research Area

Studies

Status

End-Use Energy
Consumption

1. Residential and Commercial
Consumption Estimates: AEA

1. Completed,
undergoing QA/QC

2. Catalog EE financing options:
outside contractor

2. RFP released on 7/13

3. Evaluate current state and private
EE programs: outside contractor

3. RFP released on 7/13

4. Estimate potential residential &
non-residential EE by community,
region, and statewide: AEA

4. AEA, through GINA-
led modeling effort

Research Area

Studies

Status

Generation,
Transmission, &
Distribution

1. LNG: outside contractor

1. Proposals received,
negotiating final

2. Biomass: outside contractor

2. RFP in early draft

3. GT&D Program Evaluations:
AEA (likely)

3. Plan still being
scoped

4. Potential Technology
Improvement Strategies: ACEP

4. RSA signed, work
started

5. True cost of power
generation and bulk fuel: ISER

5. RSA being finalized

6. Effectiveness of training:
AEA, ISER, DOL&WD

6. Plan still being
scoped

Research Area

Studies

Status

Management & Ownership

1. Develop strategies to increase the effectiveness of O&M: AEA

2. Institutional design for affordability and private capital attraction: ISER

3. Analyze actual (reported) utility costs: AEA

1. Plan still being scoped

2. RSA being processed at AEA

3. In process

Transportation & Shipping

1. Potential of new regional fuel depots to reduce the delivered cost of fuel: USACE

1. Waiting to be signed at AEA

Research Area

Studies

Status

Funding & Direct Underwriting

1. Subsidy Options: ISER

1. RSA being processed at AEA

2. Attracting private capital to rural Alaska: ACEP

2. RSA being processed at AEA

3. Coordinate with Dept. of Revenue on potential funding sources

3. Has not begun

Energy Emergencies

1. The prevalence and cost of energy emergencies (powerhouse failures, run out of fuel, etc.): AEA

1. Project still being scoped

Research Area

Studies

Status

Other

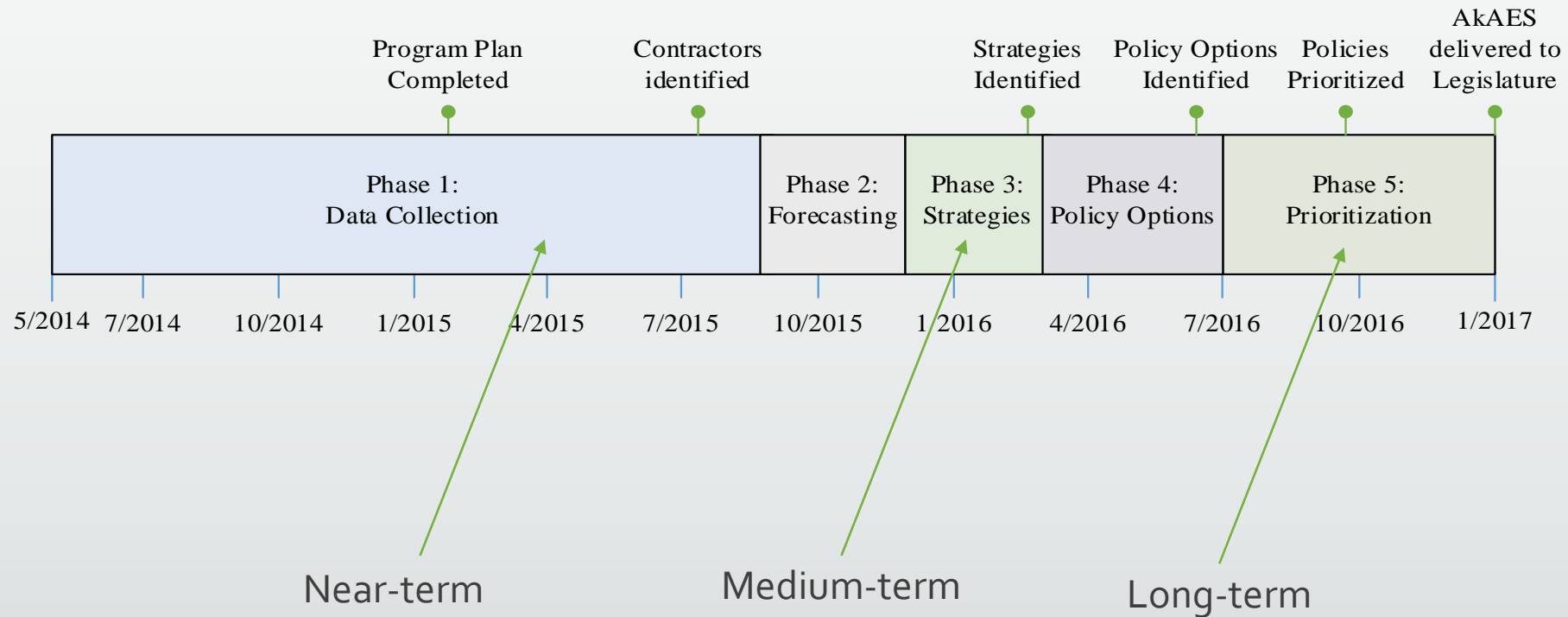
1. Model that incorporates info from research areas to evaluate affordability options: being led by GINA

2. Potential issues and unfunded liability associated with climate change

1. RSA being processed at AEA

2. Plan still being scoped

Timeline



AKEnergyAuthority.org

