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Reviewed by: Assembly Counsel

For reading: January 6, 2009

CLERK'S OFFICE

APPROVED

Date: 1/6/09 ANCHORAGE, ALASKA  
AR NO. 2009-14

**A RESOLUTION OF THE ANCHORAGE MUNICIPAL ASSEMBLY TO SUPPORT  
ADOPTION BY THE ALASKA STATE LEGISLATURE OF THE ENERGY POLICY AND  
STRATEGIC ENERGY POLICY GOALS FOR SOUTHCENTRAL ALASKA, PROPOSED  
BY THE TRI-BOROUGH COMMISSION ON FEBRUARY 7, 2008.**

WHEREAS, natural gas is the primary fuel serving Southcentral Alaska population centers, which include over half the state's population, and natural gas from Cook Inlet fuels 90% of electrical power produced for Railbelt usage; and

WHEREAS, an adequate, reliable, affordable, and sustainable supply of energy is the foundation of well-being and long-run prosperity for all Alaska communities, both urban and rural; and

WHEREAS, the current uncertainty created by shrinking energy supplies and rising energy costs is threatening urban and rural community viability and economic health across the State of Alaska; and

WHEREAS, in response to energy uncertainties and expert predictions of severe declines in supply and deliverability of Cook Inlet natural gas, the Mayors of Kenai Borough, Matanuska-Susitna Borough, and the Municipality of Anchorage, as the Tri-Borough Commission, took initiative in September 2007 to establish an energy task force; and

WHEREAS, the Tri-Borough Commission Energy Task Force of 11 representatives, each with significant expertise, worked intensively with the Anchorage Economic Development Corporation to assess necessary action and determine an appropriate methodology to meet challenges; and

WHEREAS, the Tri-Borough Commission strongly believes that the necessary first step for the development and implementation of a viable energy plan, is for the State of Alaska to adopt a comprehensive energy policy with corresponding strategic goals; and

WHEREAS, a substantive *State Energy Policy* with corresponding *Strategic Policy Goals* provides the necessary foundation to guide and direct all divisions of state government in the development and implementation of a coordinated comprehensive energy plan to secure affordable and available energy for each region, whether the region is urban, rural, or both; and

1 WHEREAS, the Tri-Borough Commission's proposed *State of Alaska Energy Policy*,  
2 as attached with 16 specifically identified *Strategic Energy Policy Goals*, was released  
3 February 7, 2008; and

4  
5 WHEREAS, included in the proposed *State of Alaska Energy Policy* and *Strategic*  
6 *Energy Policy Goals* are specific actions that need to be endorsed and implemented by the  
7 State of Alaska to support a comprehensive viable energy plan to secure affordable and  
8 available energy for rural and urban regions throughout the state; and

9  
10 WHEREAS, the substantial work already accomplished by the Tri-Borough  
11 Commission energy task force is consistent with the overview of objectives and  
12 methodology published by the Alaska Energy Authority's *Alaska Energy Plan Project*; and

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14 WHEREAS, the Alaska Energy Authority's *Alaska Energy Plan Project Update* for  
15 December 2008 identifies local leadership objectives and sustainable community  
16 objectives; and

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18 WHEREAS, the local leadership objectives include fostering local solutions,  
19 involving local leaders, and utilizing community-based decision making; and

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21 WHEREAS, the sustainable community objectives include success through helping  
22 each other, working together, and identifying sustainable business models that respect  
23 local cultures and needs; and

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25 WHEREAS, the Tri-Borough Commission's *Proposed State of Alaska Energy Policy*  
26 and *Strategic Energy Policy Goals* is a work product that complements and models the  
27 Alaska Energy Authority's leadership and sustainable community objectives; and

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29 WHEREAS, support, collaboration and partnership among urban and rural regional  
30 efforts and the State are essential to the success of meeting the energy challenges that  
31 face Alaska and each of its communities; and

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33 WHEREAS, adoption of a core Alaska energy policy will establish an effective tool  
34 to coordinate and guide each level of state and local government in the formulation of  
35 consistent legislation, regulation and planned initiatives directly impacting the exploration,  
36 development and delivery of energy to each region in Alaska; and

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38 WHEREAS, a core Alaska energy policy that includes and supports regional efforts  
39 will provide clarity and stability to energy development companies and energy dependent  
40 industries and businesses, thereby promoting and stimulating healthy economic growth for  
41 Alaska; and

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43 WHEREAS, State adoption of the Tri-Borough Commission's *Proposed State*  
44 *Energy Policy for Southcentral Alaska* and *Strategic Energy Policy Goals* will serve to  
45 anchor and support the Tri-Borough Commission's work and allow the Alaska Energy

Authority to focus resources in assisting other urban and rural regions throughout Alaska;  
and


WHEREAS, the Community and Economic Development Committee of the Anchorage Assembly recommends the Tri-Borough Commission's work as having produced a balanced policy and corresponding goals, focused on both non-renewable and renewable energy sources, offering a clear and concise structure to guide all divisions of state government in the development and implementation of a strategic energy plan for the Southcentral/Cook Inlet region; and

WHEREAS, collaboration among the Municipality of Anchorage, its Tri-Borough Commission partners, and the State of Alaska to forward, adopt, and implement the necessary tools identified by the Tri-Borough Commission energy task force will enhance Alaska's economic future, and provide the necessary foundation to meet the short and long term energy needs of the Southcentral/Cook Inlet region and the other urban and rural regions of the State;

NOW, THEREFORE, the Anchorage Assembly resolves:

1. The Tri-Borough Commission's proposed *State of Alaska Energy Policy and Strategic Energy Policy Goals*, attached to this Assembly Resolution 2009-14, are endorsed by the Anchorage Assembly and forwarded to the Legislative Committee of the Assembly for inclusion in the Anchorage Legislative Program.
2. The Alaska State Legislature is encouraged to expeditiously adopt the attached *State of Alaska Energy Policy and Strategic Energy Policy Goals*, proposed by the Tri-Borough Commission, as a necessary preliminary step in the development and implementation of a strategic energy plan for the Southcentral/Cook Inlet region.

PASSED AND APPROVED by the Anchorage Assembly this 6th day of January, 2009.

  
Chair

ATTEST:

  
Municipal Clerk

# **State of Alaska Energy Policy**

(As Proposed by the Tri-Borough Commission)

***It is the policy of the State of Alaska to reach the goal of an adequate, reliable, affordable, and sustainable supply of energy as a foundation of well-being and long-run prosperity.***

- The State of Alaska will actively promote the development of:
  - i. nonrenewable energy resources, including natural gas, coal, oil, gas hydrates, heavy oil and nuclear; and
  - ii. renewable energy resources, including tidal, wave, hydropower, geothermal, solar, wind, and biomass;
- The State of Alaska will pursue, promote and reward energy efficiency.
- The State of Alaska will promote the rational development of resources and infrastructure sufficient to meet the state's growing energy demand, while contributing to the national energy supply, thus reducing dependence on international energy sources.
- The State of Alaska will promote energy security for its economy.
- The State of Alaska will seek solutions that address global climate change.
- The State of Alaska will seek to develop flat priced, zero fuel cost energy resources as part of a diversified supply portfolio.
- The State of Alaska will allow market forces to drive prudent development and use of energy resources, although incentives and other methods can and should be used appropriately to ensure the optimal long-term development and use of energy resources for the benefit of current and future generations of Alaskans.
- The State of Alaska regulatory processes should be thoroughly reviewed and streamlined to balance economic costs with the level of review necessary to ensure protection of the state's various interests;
- When necessary, The State of Alaska will encourage expedited federal action and will collaborate with federal agencies to expedite review; and
- The State of Alaska will create and maintain an environment that provides for reasonable and stable consumer and industrial prices while providing producers and suppliers a fair return on investment, recognizing that:
  - i. Economic prosperity is linked to the availability, reliability, and affordability of consumer and industrial energy supplies; and
  - ii. Investment in new supplies will occur only when adequate financial returns can be realized.

# ***State of Alaska***

## ***Strategic Energy Policy Goals***

(As proposed by the Tri-Borough Commission)

- 1. The State of Alaska should immediately adopt the State Energy Policy.**
  - a. Before any strategic planning can be developed and executed, there must be a guiding policy to link all divisions of State government to work in concert towards the successful implementation of any broad based energy plan for Southcentral Alaska.
- 2. The State of Alaska should perform a complete review of all regulations in all divisions of State government and identify and implement any necessary statutory changes to assure compliance with the State Energy Policy.**
  - a. All divisions and agencies of State government must conform their regulations, rules, and practices to conform with the adopted energy policies of the State of Alaska if that policy is to ultimately be successful.
- 3. Immediately reform utility regulatory processes to support efficiency and conservation, including efficiency-based pricing and demand side management practices, rather than inefficient and outdated volume-based pricing in Railbelt Alaska.**
  - a. The State should develop guidance for rate-makers (RCA) to change volume-based utility rate structures and implement conservation/efficiency based rate designs.
- 4. Reform regulatory processes to provide a more efficient and reliable permitting system to better support investment and expedited exploration and development of non-renewable energy supplies in the Railbelt region.**
  - a. The Southcentral region still has significant potential for the discovery and development of non-renewable energy reserves in the form of natural gas and crude oil. Given the long history of oil and natural gas exploration and production in Cook Inlet, and the corresponding development of best practices for safely extracting those resources, the State of Alaska should develop streamlined permitting systems and Regulatory Commission processes that recognize and favor accepted best practices for on and offshore oil and gas activities in an effort to expedite needed permitting for oil and gas exploration and production.
- 5. Provide encouragement and incentives to promote additional Cook Inlet natural gas and crude oil drilling and infrastructure improvements.**

- a. Cook Inlet natural gas will provide the bulk of the Railbelt region's energy needs, especially heating, for many years to come. And there are still significant potential crude oil reserves that should be developed to stem the rising levels of foreign crude oil that is currently being imported to meet in-state refinery demands. In addition, Cook Inlet's natural gas and crude oil pipeline infrastructure will likely need significant upgrades and expansion as new reserves are developed in the coming years. The State of Alaska should continue to encourage, support and provide incentives as necessary to promote continued exploration, development, production and delivery of Cook Inlet natural gas and crude oil.
- 6. Develop a coordinated plan for natural gas storage that will most efficiently address peak demands in the Railbelt area to eliminate or reduce the possibility of supply interruption.**
- a. Given the aging natural gas fields of the Cook Inlet region, deliverability of natural gas during peak demand periods in winter has become one of the most pressing issues that must be addressed immediately. The State of Alaska should seek immediate and long-term solutions in partnership with producers and utilities to provide adequate stored natural gas reserves for meeting winter power generation and heating utility needs in the short and long term.
  - b. Develop a coordinated program with producers and utilities to address peak demands for the Southcentral region. This could alleviate Cook Inlet shortages, increase reliability, and reduce the probability of major service interruptions.
- 7. To better serve Railbelt customers, utilities must coordinate planning of generation sources and energy infrastructure in the Railbelt region.**
- a. Coordinated planning of large energy infrastructure should include a best-interest finding for all Southcentral consumers. Long-term low cost and reliable energy solutions will require coordination and resource sharing among utilities and fuel suppliers.
- 8. Require full life cycle costs, in particular life cycle energy cost analysis be included and considered as part of the design engineering of publicly financed building projects.**
- a. Over 50% of a building's lifetime costs are energy related, while initial construction costs are typically less than 15%. Therefore, for publicly financed building projects over a designated threshold life cycle energy costs should be evaluated as part of the design engineering and pre-bid conferences. Such a process would encourage the incorporation of state of

the art windows, insulation, lighting and appliances, and would save the public millions of dollars over the lifetime of the building.

**9. Perform a comparative energy use impact analysis of publicly funded transportation projects and include the analysis as part of existing planning and approval processes.**

- a. The state currently relies heavily on federal transportation dollars to subsidize the cost of building roads across the state. The building of such roads presupposes that using motor vehicles is always the most efficient way to move people and goods around the state. As gasoline prices move higher (at \$3 per gallon prices are still well less than half of what Europeans are currently paying) alternative public transportation projects make more and more economic sense. If the state is going to use precious government funds to build transportation infrastructure it makes good economic sense to analyze the energy impacts of publicly funded transportation projects when deciding which projects to move forward with.

**10. The State of Alaska and Railbelt utilities shall initiate a collaborative effort to achieve 30% of electricity supply from zero-fuel renewable energy resources by 2018.**

- a. The Railbelt currently generates about 10% of its electricity from zero fuel renewable energy resources, while the state generates about 24% of its electricity from non-fuel resources. Nearly all of this non-fuel generated electricity comes from hydroelectric projects. A 30% goal for the Railbelt by 2018 could be achieved, especially if plans for several currently proposed projects are moved ahead aggressively. Topping the list of projects that could help the Railbelt meet this goal are large hydro projects either at Lake Chackachamna or on the Susitna River, a large (50-100 MW) geothermal project near Mount Spurr, and large wind projects on Fire Island and near Healy (between 50 and 100 MW each). There are also current proposals to generate electricity from tidal power in Knik Arm.

The Railbelt currently uses about 5 billion kilowatt hours (kWhs) of electricity per year. A 330 MW hydro project at Chackachamna with a 45% capacity factor could produce approximately 1.3 billion kWhs of non-fuel electricity per year. A 50 MW geothermal project with a 95% capacity factor could produce approximately 416,000,000 kWhs of non-fuel electricity per year. Two 75 MW wind projects, each with 33% capacity factors, could produce approximately 433,000,000 kWhs of non-fuel electricity per year. And, a 50 MW tidal project with a 30% capacity factor could produce approximately 131,000,000 kWhs of non-fuel electricity per year. The hydro projects have a lead time of approximately

10 years. The geothermal project would take approximately eight years to complete. The wind projects could be producing power in three years from the time the decision is made to build them, and a tidal project of the size described would probably not be possible for ten years. However, it can be seen that if all the projects were pursued and completed by 2018 that an additional 2.28 billion kWhs of non-fuel electricity (almost half of current demand) could be generated.

**11. Reduce Railbelt per capita residential consumption of electricity 10% by 2020 and natural gas for heating 10% by 2015 through regulatory reforms and state energy efficiency programs and incentives.**

- a. Through a combination of carefully considered measures this goal can be met in 12 years. Heating appliances, electrical appliances and lighting all exist that are far more efficient than those most popularly in use today. The key to meeting this goal will be the adoption of utility, local government, and state incentives and programs to rapidly convert to the more efficient appliances, and to encourage reduced energy usage during peak demand periods. A range of such policies exist in other jurisdictions that Alaskans can examine, tailor and adopt.

**12. Develop regulations, initiatives & incentives to promote, encourage and establish economically viable CO2 underground sequestration infrastructure & industries in Cook Inlet by 2020, including processing facilities, pipelines, Enhanced Oil Recovery (EOR).**

- a. The federal government has estimated that, through the use of CO2 enhanced oil recovery (EOR) techniques, Cook Inlet could produce an additional 300 million barrels of oil from up to 13 existing, aging oil fields in the region. Any likely expansion of the industrial base in the Southcentral region that takes advantage of North Slope natural gas liquids or Alaska coal resources will generate significant volumes CO2 as a byproduct of the manufacturing processes. This green house gas will need to be sequestered in some form if any future ANS natural gas or Southcentral coal-based industrial expansion in the region is to take place. CO2 EOR offers tremendous potential to cost effectively capture and sequester CO2 waste streams from these industrial processes. CO2 EOR in Cook Inlet also would have the added benefit of generating significant new volumes of oil production, while generate a net gain in total sequestration of CO2 waste streams generated by the use of ANS natural gas liquids, Alaska coal and any crude oil generated by the CO2 EOR processes. The State of Alaska should take a leading role in promoting the development of economically viable CO2 EOR usage in the Cook Inlet region.



**13. The State of Alaska should support and invest in upgrades and extension of the existing Railbelt transmission grid system to prepare for and promote future economic growth in the region.**

- a. The Railbelt region of Alaska hosts over 60% of the population of Alaska and will likely see significant economic growth in the coming decades. Infrastructure, and especially electrical transmission systems, will be vital to encouraging and promoting that growth. The 23<sup>rd</sup> Alaska State Legislature established the Energy Policy Task Force to develop a long term energy plan enhancing Alaska's economic future, evaluate our long term energy needs, consider how to use State owned electrical assets in the most efficient manner and determine policy that addresses the State's long term energy needs. Those recommendations remain applicable today and should be addressed as part of a long-range energy plan.

**14. Seek through market processes to connect Southcentral Alaska to North Slope natural gas reserves by 2020 and engage in the recruitment of industrial users of North Slope natural gas and liquids to promote project economics.**

- a. The future energy security and economic growth of the Southcentral region of Alaska is vital to economic future of Alaska. North Slope natural gas and natural gas liquids (NGL's) offer tremendous potential to secure that future. The State of Alaska and the communities of the South Central Alaska should seek to promote and support an economically viable pipeline connection to North Slope natural gas reserves. To maximize economics of scale, the State of Alaska and communities of the Southcentral region should also seek to engage and recruit industrial users for North Slope natural gas and NGL's to establish a long-term industrial base in the Southcentral region.

**15. Encourage distributed generation of renewable electricity at the customer level through a comprehensive "net metering" program established by the State of Alaska.**

- a. Distributed generation allows individual utility customer to generate all or a portion of their own power, generally by way of renewable energy resources such as wind and solar, thereby offsetting power that they would receive from the utility system. During periods when the customer's self-generation exceeds their use the excess power is fed back into the grid system and the customer receives credit that may be used to offset future energy used from the system. "Net metering" rules have been adopted by most states and are an effective means for establishing uniform policies for allowing individual customers to participate in distributed generation. The program allows individual customers to make local and global contributions to the environment and economy.

**16. A School Of Energy should be established within the University of Alaska to promote energy research, education and workforce training focused on supporting the energy goals of the State of Alaska.**

- a. Recognizing the need for applied energy research and testing to achieve many of the recommendations set forward in this report, an interdisciplinary energy program should be established at the University of Alaska and organized as a statewide program. The school could be modeled on existing programs at other institutions, such as the Energy and Environment Research Center at the University of North Dakota or the Wyoming School of Energy; however Alaska has a unique set of challenges and assets which must be addressed. These include renewable energy resources as well as new approaches to fossil fuel extraction, and opportunities for developing stranded energy resources. Existing programs such as ISER (Institute of Social and Economic Research), INE (Institute of Northern Engineering), the Geophysical Institute, the International Arctic Research Center and the Agriculture and Forestry Experiment Station are all important potential participants within the UA system.