

Utility Board Candidate Questionnaire 2020

The Alaska Center envisions a thriving, just, and sustainable Alaska for future generations. We engage, empower, and elect Alaskans to stand up for our clean air and water, healthy communities, and a strong democracy.

About this questionnaire: The Alaska Center thanks you for taking time to complete this questionnaire. Your responses will be an important factor in our endorsement consideration. Your answers to this questionnaire are private and will not be shared publicly. Please return the form electronically to jennymarie@akcenter.org

Due Date: May 11 or before.

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 - 1. Do you support the aspirational goal of reaching 100% clean energy by 2050? What steps can your utility take and what policies would you support in order to reach such a goal?

Alaska's world-class renewable energy resources are well documented and largely undeveloped. My goal for Chugach Electric is **100%** renewable energy production. There are no technical or environmental reasons why this can't be done before **2030**. Several smaller utilities in Kodiak, Cordova, Juneau, Ketchikan and Sitka are nearly there. The challenge is to scale up renewable capacity to meet the demand of the railbelt utilities. This requires a strategic plan for the development of renewable energy generation, transport and storage, as well as a reorganization of existing transmission systems. Adopting a policy for new generation capacity solely from clean energy sources is essential. Regulatory policies based on fossil-fuel generation models employing "avoided cost" analyses are strongly skewed against renewables by ignoring or grossly underestimating the true cost of petroleum exploration, production, storage, transport and pollution.

2. How can your utility better partner with local municipalities and boroughs to achieve increases in renewable energy, clean transportation, and energy efficiency in Anchorage?

As a government entity, MOA needs to support the development and access to renewable energy from all sources and work with Chugach Electric to overcome land-use and permitting restrictions that limit development of renewable resources within the Municipal boundaries.



There are multiple opportunities for Chugach to partner with the Municipality of Anchorage. For example, commercial and residential solarization of buildings in Anchorage could be greatly expanded. The energy efficiency of public buildings and lighting could be improved in numerous ways. Electrification of transportation offers the biggest opportunity to reduce emissions. The MOA vehicle fleet should begin a conversion to electric or hydrogen fuel-cell vehicles. The bus system is an obvious opportunity to test and evaluate electric vehicles along with the development of the charging and refueling infrastructure needed to deploy the new technologies. Methane capture from solid waste disposal is another area that requires attention. While this is not a renewable energy source, releasing methane directly into the atmosphere produces about 5x the greenhouse effect of burning the methane to produce energy with CO2 as a byproduct.

3. Do you support a regional approach to energy generation and consumption on the railbelt?

The best renewable energy sources are usually not located near population centers and must be connected to the electric grid through high capacity transmission lines. In its present form, Alaska's railbelt grid is is a patchwork of transmission lines operated by local utilities from Fairbanks to Homer. There are numerous gaps and capacity bottlenecks in the current system which limit the ability of the system to dispatch the lowest cost power to areas where it is needed. These issues must be addressed on a system-wide level before the benefits of major renewable energy projects can be achieved for the entire railbelt.

The solution used in other places is to separate the generation and transmission functions by forming a transmission company, or Independent System Operator (ISO), to operate the transmission system connecting producers to consumers. This concept has been under discussion by Alaska utilities for several years in the ARCTEC group but has not yet progressed to the point of establishing an ISO or agreeing on ownership terms and transmission rates among the six member utilities. I strongly support such an approach and believe that a cooperative non-profit corporation provides the best solution for the railbelt, where the ARCTEC utilities are all non-profit member cooperatives or municipalities.

4. Currently the State's Net Energy Metering regulation allows a utility to cap participation when electricity from Net Metering customers reaches 1.5 percent of the utilities peak load. Are you supportive of raising the net-metering cap? Why or why not?

Two points worth noting about net-metering are: 1. The 1.5% cap allows a utility to limit participation by IPPs in accordance with policies set by the utility. If a utility wants to allow higher, meaningful production by IPPs, nothing prevents them from doing so. 2. No railbelt utilities are close to exceeding the 1.5% cap at the present time.

The only valid reason for a net-metering cap is to protect the transmission infrastructure from being overloaded or unbalanced at the point of connection to an energy load/source. In reality,



net-metering caps are one of the main regulatory strategies employed by some utilities to protect their expensive monopolies on fuel-based energy generation and transmission. Expanded renewable energy production depends on having a level-playing field with netneutrality rules governing access to energy production and distribution. In other words, no netmetering caps for arbitrary regulatory reasons.

5. The Lower Eklutna River Dam has blocked the Eklutna River for 88 years, but in 2018 that dam was removed. While the removal of the dam is a big step forward, it is only the first stage in restoring the Eklutna to a fully functioning river. Do you support returning water to the Eklutna River before the current mitigation agreement of 2032 in order to see a return of healthy salmon populations? If yes, what is your path forward for doing so?

It is simplistic to think that the removal of dams on the river will lead to restoration of salmon populations. The effects of climate change on ocean conditions in the Gulf of Alaska have devastated salmon populations throughout southcentral Alaska from Prince William Sound to the Cook Inlet and Susitna drainages. Unless we begin reducing global carbon emissions immediately, we risk losing all of our salmon populations to ocean warming and the resulting changes in marine ecosystems and circulation patterns.

The Eklutna Hydroelectric Plant has a peak capacity of 40MW, but typically produces less than 20MW of clean energy due to low water levels in Eklutna Lake. The lake is also a primary source of drinking water for the Municipality of Anchorage. The power plant uses water flow from the lake that would otherwise flow into the Eklutna River. The low flow in the Eklutna River is mainly caused by the diversion of water to the power plant, which releases its outflow through the Eklutna Tailrace into the Knik River. There is ample flow from the lake for both power generation and a healthy river ecosystem, except that the flow from the power plant is being diverted away from the Eklutna River into the Tailrace, which is also the site of a very popular salmon fishery. Effectively, the Eklutna River, and its salmon, have been relocated to the Knik River via the Tailrace.

Preliminary studies show that the Eklutna region provides a natural site for pumped-hydro energy storage which could supply 100% of the railbelt demand through renewable energy and also restore the flow in the Eklutna River. The concept uses wind power to pump water from the Knik Glacier drainage uphill into Eklutna Lake, as well as higher alpine basins, in order to store the wind energy. The resulting higher water levels in the lake would allow the power plant to be expanded, as well as restoring flow to the river in a controlled manner that would enhance fish habitat.

I support beginning work immediately on engineering and environmental studies of pumpedhydro energy storage for the Eklutna complex with the goal of expanding hydroelectric production at Eklutna as the means to restore the flow in the Eklutna River to the level necessary to support a healthy salmon population.



Chugach Electric, combined with Anchorage Municipal Light and Power, holds majority ownership of the Eklutna Power Plant. Along with Matanuska Electric, they will determine the future development and restoration of the Eklutna region watershed. However, it is important to recognize that the Eklutna region, like most of Anchorage, lies on the traditional lands of the Dena'ina people. Their full support and leadership will be required for any proposed project to move ahead.

6. Have you read our expected <u>Code of Conduct (attached)</u>, and can you adhere to these expected behaviors?

Yes. Absolutely.