

ALASKA'S CHANGING ARCTIC

Energy Issues & Trends

Executive Summary

The “Alaska’s Changing Arctic: Energy Issues and Trends” inaugural report is designed specifically for state government and Alaska citizens. It is a collaborative University of Alaska effort. The authors are experts with local, national and international partnerships in both public and private sectors. The shared result is a synthesis of the key trends that the Alaska government may need to pay attention to as they seek success in the globalizing Arctic.

Alaska makes the United States an Arctic nation and enables U.S. membership in the Arctic Council, where it has the ability to create and maintain policies that are state and regionally specific. These decisions can serve to expand Alaska’s Arctic role as well as address effects of environmental and developmental changes. Even though there is not a routine suite of information for the State Legislature in relation to Arctic issues, the Arctic Policy Act of 2015 ([44.99.105. Declaration of State Arctic Policy](#)) directs the state to attend to its Arctic nature.

This report addresses the first of four priority lines of effort identified in Alaska’s Arctic Policy, “promoting economic and resource development,” through the topic of energy. While the report recognizes the policy-making power of local and tribal governments, it highlights key interactive trends in Alaska and the Arctic that are most likely to require legislative decision-making in the near future. The report covers:

- the history of reliance on oil and its boom and bust impact on the state’s economy,
- how Alaska currently produces energy and has become an expert in cold climate renewables and microgrids,
- energy infrastructure planning under rapidly changing environmental conditions, and
- current competition and cooperation in the international Arctic energy regime.

In each of its four focus areas, the report offers specific policy implications for Alaska based on the trajectory of its energy regime.

Alaska’s Arctic Oil Economy: The lack of revenue diversity in the state ties its citizens and businesses to the boom and bust cycle of the global hydrocarbon economy, which Alaska cannot control or direct. This creates uncertainty in the state’s economy that can disincentivize business investment and cause instability for individual households, particularly outside of the Railbelt. Diversification of the state’s economy can buffer private and public sector jobs, investment and government budgets and can provide opportunities for innovative economic and technological advances to foster job growth for residents. Alaska does not have to choose between renewables or oil, and in fact the state’s recently diversifying energy portfolio shows that Alaska can be a leader in deliberate energy transition.

Alaska’s Arctic Energy System: Creating energy from multiple geographically appropriate sources can foster business growth alongside locally driven priorities such as less-expensive electricity. Development of wind, solar, hydropower, biomass, geothermal and nuclear possibilities are receiving a significant influx of federal funding. As they gain attention within the state, these opportunities will need regulatory and logistical support to reach economies of scale, especially in rural locations where grid networks can be more cost effective than individual communities working alone.

Climate Smart Infrastructure: New infrastructure is required to diversify Alaska’s energy portfolio and generate economic gains in construction and other sectors related to transitions in the state’s energy development and production. Given the rapid changes to Alaska’s coastal and terrestrial environments, infrastructure for oil and gas, as well as any renewables, will have to account for instability in permafrost, unpredictable rains or flooding, drought and storms. Alaska can be an Arctic leader in developing climate safe infrastructure techniques and materials.

Alaska in International Affairs: In response to Russia’s invasion of the Ukraine during Russia’s current chairmanship of the Arctic Council, the other seven member states (including the U.S., which is a member via the state of Alaska) temporarily suspended their participation in and paused the work of the Arctic Council. Shortly before the completion of this report, China issued a statement that it will not recognize the Arctic Council for the duration of this punitive action. This adds to the tension surrounding Alaska’s proximity to Russia and highlights the fact that Alaska’s economy is deeply intertwined with other countries’ domestic decisions. Decisions made by the Alaska Legislature can determine how dependent Alaska’s energy future is on volatile global marketplaces.

Access Alaska’s Changing Arctic: Energy Issues and Trends in January 2023
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