

Renewable Energy Opportunities

Sitka, Alaska



Sitka's Power Supply

Sitka relies entirely on hydropower generated by the Green Lake and Blue Lake dams. Sitka can also use backup diesel power to supplement hydropower as needed.



Blue Lake Green Lake Diesel Power (<1%)

Current Electrical Generation Capacity

Sitka's generation capacity depends on its annual rainfall, which varies. As the community grows and electrifies, the annual electric load may grow by 20 percent in 5–10 years (see Frequently Asked Questions for assumptions).

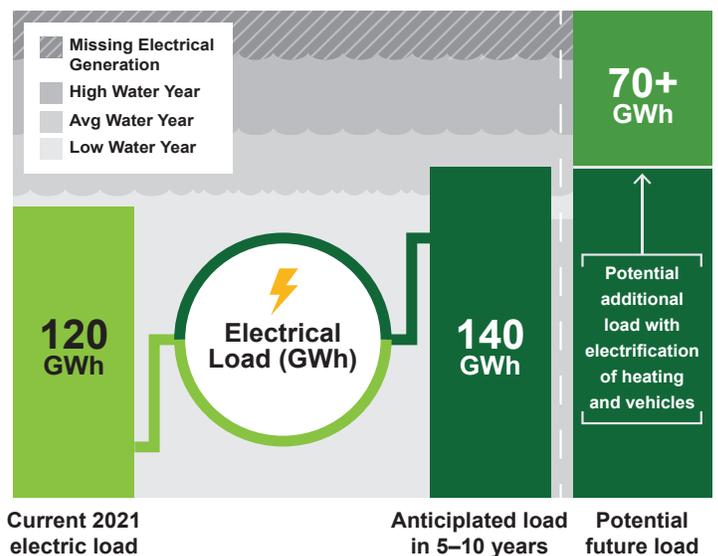
What was this ETIPP study?

In 2021, the City and Borough of Sitka's electric department commissioned a team of experts through the Energy Transitions Initiative Partnership Project (ETIPP) to assess clean energy alternatives to diesel if hydropower alone cannot meet demand in the future.

How does this study help?

This study supports a quickly electrifying community with changing needs by providing:

- A step forward in long-term planning
- Data to inform potential investments in future energy infrastructure
- Scenario building in a future with less predictable rainfall
- Solutions to bolster energy resilience and minimize climate impacts.

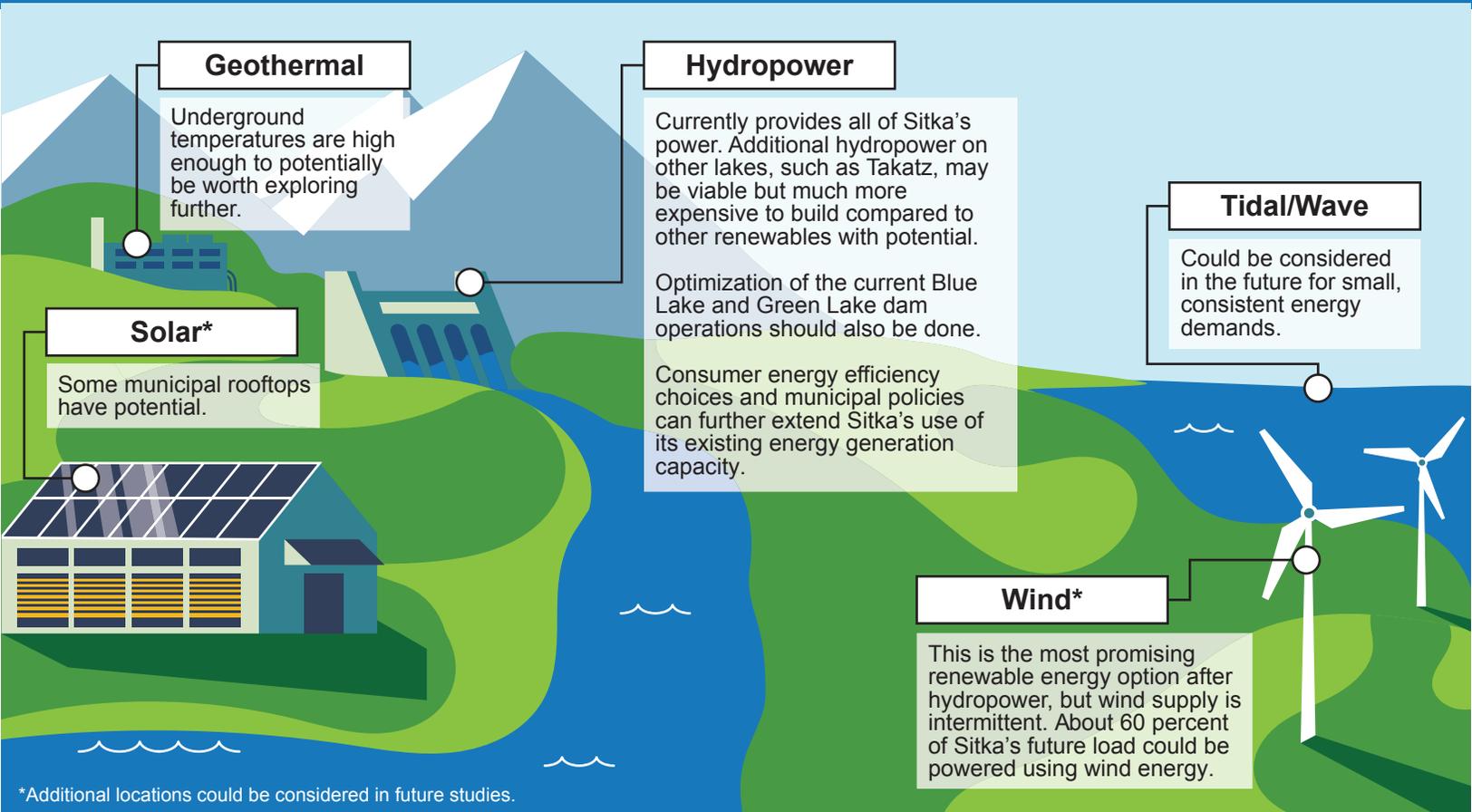


Most importantly, it shows that Sitka has choices for powering its future!



PNNL-SA-192784

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Frequently Asked Questions

What assumptions about loads were made?

A few high-level estimates were used to approximate future loads, including the new SouthEast Alaska Regional Health Consortium hospital, electrified cruise ship docks and buses, and electric heating and vehicles throughout Sitka.

Are there other options for power generation?

This report did not assess all possible options for generating electricity in Sitka, such as additional hydropower, home solar, or floating solar. Further investigation of energy efficiency methods and policies could be next steps.

Is Sitka running out of power? No, but as climate change makes annual rainfall harder to predict and Sitka continues to electrify, the now highly infrequent need to supplement with diesel may become more frequent. This is expensive and inefficient. Since energy planning takes a long time, this report shows what options Sitka has in the future.

What about the current grid and updating its systems?

The ETIPP project included grid models and controls upgrades, which can be used to learn more about future scenarios.

What comes next? Sitka is continuing this work with a focus on the community. With renewed support from ETIPP, the City and Borough of Sitka Planning and Community Development Department and the Sustainability Commission are creating Sitka's Community Renewable Energy Strategy. This strategy will establish a shared vision of Sitka's energy future to guide energy-related community decisions and shape a roadmap for community and policy actions that advance the shared energy vision.

For more information contact:

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