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Alaska has unique challenges for supplying power that require consideration of alternatives to those used in the lower 48. The population size and density of Alaska combined with the location of the state create these issues. The separation from the main grid means that Alaskans are more isolated and have few options to get additional power in the event a power station is down. Having single large power stations in Alaska carries higher risk than in states connected to the grid. Loss of a large power plant in Montana may require a utility to purchase power from another state, but that option is available. The remote nature of Alaska means that power reliability is more valuable. The other challenge is supply of fuel to power stations in Alaska. The Alaskan weather impacts transportation ability, so not only is fuel more expensive than in lower 48, the supply chain is more exposed to risk. Large and even small modular nuclear reactors may not make as much practical sense in Alaska even if they look to on a cost per MW because of the large percentage of the total power supply that single plant may be providing for an area and compensating for that power loss when the plant is offline is harder.

Looking into the use of microreactors makes sense because Alaska has the conditions where they may be economically practical. There is no one right power source for all applications. Hawaii is even more isolated than Alaska from power grids, and fuel costs are high there as well, but the fuel supply chain has less exposure risk. In addition the consequences of unreliable power on survival in Hawaii is different than Alaska. Alternative energy options are more challenging in a state that doesn't have "normal" sunrise and sunset patterns, and wind turbines have limitations on where they can be installed in Alaska. Alaska will need the ability to produce power on demand as needed, and looking at alternatives to conventional fossil fuels to improve energy reliability and reduce emissions without having adverse economic impacts is a reasonable thing to do. Microreactors are definitely worth looking into to see if they can solve some problems.