



# Guam energy storage tanks

Does Guam need to retire power plants?

Guam Power Authority is challenged by the need to retire power plants while reliably and affordably delivering power to its customers. The settlement of an EPA Clean Air Act violation requires GPA to retire older fossil-based generating plants while Renewable Portfolio Standards mandate a transition to carbon-free electricity.

Why is Guam reliant on imported fuel?

With no indigenous fossil energy resources, Guam is reliant on imported fuel for their energy and transportation needs, with most of the imported fuel coming from Asia. The Guam Power Authority (GPA) is a public-power utility and autonomous agency of the government of Guam.

How many gallons of fuel are sold in Guam?

Data source: The Bureau of Statistics and Plans Guam (2022) In 2010, Guam Energy Office reported 109 million gallons of motor fuel sold, including gasoline, diesel, and jet fuel (but excluding shipping, air transport, freight, and military) (Baring-Gould et al. 2011).

Could temporary power be on Guam?

The potential pursuit of temporary power was among the initiatives that GPA presented in late August as a means to address the island's capacity shortfalls within six to nine months. Benavente estimated that temporary power generation could be on Guam and be online within a six-month period.

Will Guam get 40 megawatts of power?

David Castro/The Guam Daily Post The Consolidated Commission on Utilities authorized the Guam Power Authority to pursue the procurement of 40 megawatts of temporary power for Guam. Wednesday's decision allows GPA to petition the Public Utilities Commission, the rate-setting body on Guam, for approval of the procurement.

How much energy does Guam use?

Conclusion Total energy consumption in Guam has been increasing over the past 12 years. In 2021, the island consumed 241 million gallons of imported fossil fuels. Of the total energy consumed on the island, less than 4% is supplied by carbon-free renewable energy.

All utility-scale PV systems must include battery energy storage systems to mitigate intermittent power issues and provide stability for the electric grid. The following energy-related challenges are identified by the report authors:

- o Include 25MW battery energy storage for immediate back up power
- o Treat waste water for cooling and reduce sewer water ocean outfall
- o Reduce water draw from aquifer
- o Reduce Guam's carbon footprint by



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cutting oil imports by >500,000 barrels annually Treated Water Storage Tanks - Staging of tank walls is in progress

The Guam Power Authority's Clean Energy Master Plan (CEMP) is a comprehensive plan for transitioning Guam from legacy fossil fuel fired generation to renewable energy and non-greenhouse gas emissions electric energy supply. The Clean Energy Master Plan is a living document and is continuously being updated.

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