

# Virtual Power Plants for Island Resiliency

## Team: Virtual Power Plants for Low-Income Island Communities

TEPRI is a 501(c)3 nonprofit organization that advances equitable solutions for affordable, reliable, and clean energy for disadvantaged communities. We engage with communities and test solutions that can support an equitable energy transition as the country integrates more diverse sources into our energy composition.

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## Community: Gulf Breeze and Holland House Apartments

- Gulf Breeze and Holland House provide housing to 356 households combined. Located on Galveston Island, these facilities provide affordable housing to low-income families prioritizing elderly persons and persons with disabilities.
- Both facilities contend with regular outages on the distribution system averaging 10 hours a year – twice the rate of other Houston and Galveston homes and businesses.
- TEPRI conducted surveys<sup>1</sup> in the Houston/Galveston area and found that 86% of respondents in the region expressed at least some concern about weather-related blackouts. Respondents with household incomes below \$50,000 expressing the highest level of concern.

## Partner organization: Galveston Housing Authority

GHA has been providing low-income housing on Galveston Island for over 80 years and owns and operates Gulf Breeze and Holland House.



Justice 40 Objective	GHA VPP Project
Increase parity in clean energy technology	Installation of 100-150 kW solar and 250-500 kWh battery
Decrease energy burden	Provides bill savings and revenue through solar gen. and grid services
Decrease environmental exposure and burdens	Reduces the use of polluting backup generators during a grid outage
Increase energy resiliency	Backs up power for shared spaces during an outage
Increase energy democracy	Allows GHA to become active participants in the energy industry

<sup>1</sup> [TEPRI Community Voices in Energy Survey](#)