Resilient Southeast

Opportunities and Challenges for Deploying Resilient Solar+Storage in Five Cities

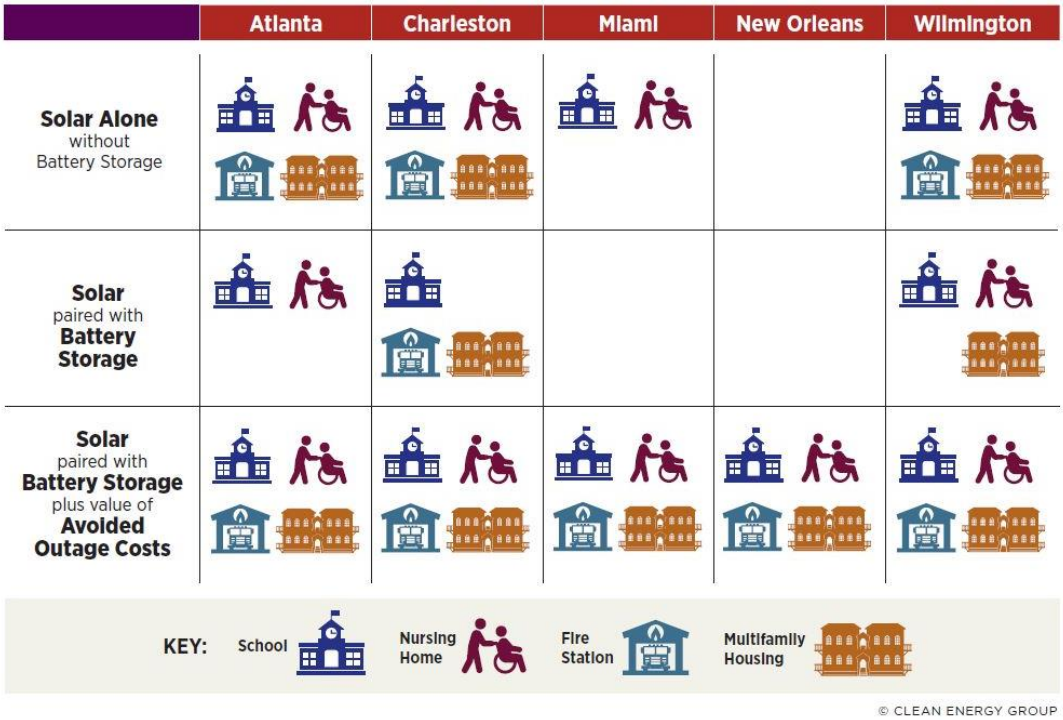
Solar and battery storage technologies can be a cost-effective solution to deliver clean, reliable backup power for many critical community facilities in the Southeast, according to Clean Energy Group's newly released "Resilient Southeast" report series. The report series details a first-of-its-kind economic analysis and landscape review for solar PV and battery storage (solar+storage) in the region. In some cases, solar+storage was found to be a positive investment based on electric bill savings alone, and, when the value of resilience is accounted for by factoring in the avoided cost of power outages, the technologies were found to make economic sense for all cases evaluated.

The report series explores the obstacles and opportunities for development of resilient solar+storage in five cities: **Atlanta, GA**; **Charleston, SC**; **Miami, FL**; **New Orleans, LA**; and **Wilmington, NC**. Each of these cities has a history of increasingly severe weather and extended power outages that have left vulnerable populations without access to resources when they are most in need of assistance. The report series includes detailed economic analysis results, presents potential near-term opportunities for policies and regulatory changes that could advance resilient solar+storage development, and concludes with a set of recommendations.

The Economics of Solar and Battery Storage in the Southeast

The report series evaluates four critical community building types – **schools**, **nursing homes**, **fire stations**, and **multifamily housing** – across the five cities. Solar alone, without storage, was found to be a positive economic investment for most building types across all locations except New Orleans. Solar paired with battery storage, which can be configured to provide resilient backup power during grid outages, was also found to be economic for some building types in Atlanta, Charleston, and Wilmington based on electric bill savings alone, though the economics of the combined systems were not as strong as solar alone. When the economic benefit of increased resilience is factored in, by considering the avoided outage-related costs, solar paired with battery storage results in positive economics for the four building types in all five cities.

What Works Where – Results of analysis by technology, building type, and location



Summary of Results: Ranking the Opportunities for Resilient Solar+Storage

The report series ranks the five cities from best to worst based on the economic analysis results and on a landscape review of the policy, regulatory, and market environment for solar and battery storage development across the Southeast.

	Opportunities	Barriers
#1 — Wilmington, NC 	**Wilmington ranked first with the strongest economics; solar+storage found to be a cost-effective solution for most facilities based on electric bill savings alone.**	
	• utility solar incentive • favorable net metering policies	• lack of certain financing options • little support for customer-sited battery storage
#2 — Charleston, SC 	**Charleston ranked a close second with good economic outcomes; solar+storage found to be a cost-effective solution for most facilities based on electric bill savings alone.**	
	• state solar tax incentive • favorable net metering policies	• lack of certain financing options • little support for customer-sited battery storage
#3 — Atlanta, GA 	**Atlanta ranked third with weaker solar economics; solar+storage found to be a cost-effective solution for some facilities based on electric bill savings alone.**	
	• strong potential for electric bill savings • variety of financing options for both solar and battery storage	• no net energy metering • lack of supportive incentives or policies
#4 — Miami, FL 	**Miami ranked fourth, with solar+storage only found to be a cost-effective solution when accounting for additional savings due to avoided power outages.**	
	• favorable net metering policies • financing options for both solar and battery storage	• low potential for electric bill savings • lack of supportive incentives or policies
#5 — New Orleans, LA 	**New Orleans ranked fifth with the weakest solar economics; solar+storage only found to be a cost-effective solution when accounting for additional savings due to avoided power outages.**	
	• favorable net metering policies	• low potential for electric bill savings • lack of supportive incentives or policies

Read the report series at:

www.cleanegroup.org/ceg-resources/resource/resilient-southeast

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Clean Energy Group partnered with Alliance for Affordable Energy, Catalyst Miami, Energy and Policy Institute, Southern Alliance for Clean Energy, Southern Environmental Law Center, Southface Institute, and Upstate Forever for this report series. The economic analysis was performed by The Greenlink Group, based in Atlanta.