Florida microgrids aaron

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Microgrids created electric sanctuaries in Florida, Georgia, Virginia and the Carolinas after Hurricane Ian made landfall in southwest Florida Sept. 27, packing winds as high as 155 MPH. The storm knocked out power to more than 2 million people, leveled homes and sparked floods and water shortages while sending sharks swimming through streets.

Microgrids kept power flowing in at least three residential communities, plus retail establishments, medical facilities, a university and manufacturing operations in the four states.With medical and emergency services needed in the wake of the hurricane"s destruction, a number of critical service operations gained power from microgrids.

A hospital in the storm"s path powered by a PowerSecure microgrid was one of the few hospitals in the area with a backup microgrid and clean drinking water, said Debra Phipps, director of monitoring, PowerSecure.

"For a time it was the only hospital in the immediate area able to take new patients and many patients were transported to this hospital from other locations to be cared for," she said.

Also working to supply electricity to meet the needs of those who provide critical care and emergency response services was FootPrint Project, a non-profit that provides clean energy systems such as microgrids during emergencies. It partnered with New Use Energy, Tesla, Sunrun, Schneider Electric and others.

Smart Aid International and Footprint Project are working to deploy a solar microgrid trailer in Lakeland, Florida, said Paul Shmotolokha, CEO of New Use Energy Solutions, which provided the solar microgrid. The trailer included 1.26 kW of lightweight solar panels, with the ability to expand the system an additional 1.5 kW. It"s especially suited to emergencies because it weighs a low 2,300 pounds and can be towed by a Subaru, he said.

Footprint Project also deployed microgrid systems to help power Toolbank USA"s disaster services trailer in Punta Gorda, Florida, according to a LinkedIn post from Footprint Project. In addition, Footprint Project set up a temporary solar microgrid for Charlotte County Fire emergency services in Florida, as well as for the Port Charlotte Christian Academy preschool. This afforded children, parents and child care providers light and a place to charge their phones, laptops and e-learning devices.

Vicki True, a spokeswoman for Schneider Electric, noted that Schneider has donated $50,000 as a leading supporter of Footprint Project, donating solar PV inverters for the organization"s solar trailer builds.

Over the past week, microgrid provider PowerSecure has kept an eye on more than 1,000 of its microgrid sites in the areas hit hard by the hurricane. The company managed nearly 700 individual power outage events,

including 573 in Florida, 57 in South Carolina, 51 in North Carolina, nine in Virginia and six in Georgia, said PowerSecure"s Phipps.The company monitored 1,093 microgrid sites that provide 750.4 MW of generation in Florida, 267 sites in North Carolina providing 210.2 MW, 86 sites in South Carolina that generate 106.7 MW, 87 sites in Virginia that yield 72.4 MW and 58 sites in Georgia that supply 58.8 MW, she said.

"The importance of energy and community resilience against natural disasters is top of mind and climate change is driving the need for an increased focus on resilience," said Jared Leader, director of resilience for Smart Electric Power Alliance. He noted that as of noon Thursday, 1.86% of customers in Florida were still without power.

Meanwhile, at least three residential communities equipped with solar microgrids met the electrical needs of their residents during and after Hurricane Ian.

In Tampa, Florida, an Emera Technologies BlockEnergy microgrid platform owned and operated by Tampa Electric served the Southshore Bay residential development.