



CASE STUDY

# REVIVING A SOLAR PLANT WITH NEXTDAS + PLANT CONTROL



## THE BMR STORY

# Renewable Resilience in the Caribbean

BMR Energy, part of the Virgin Group, develops, finances, constructs and manages clean and renewable energy projects in the Caribbean and Central America. BMR Energy currently operates facilities in Jamaica and Guatemala, with additional plants under development throughout the area.

Founded in 2014, BMR Energy brings the combined expertise of 10,000 MW of energy infrastructure projects, local insight and access to reliable capital backed by Virgin Investments. This allows for the development, acquisition, finance, construction and operations of energy infrastructure within the Caribbean and Central America.

## COMPANY

BMR Energy



## SIZE

4.1 MW

## TYPE

Ground Mounted Solar PV

## WHAT NEXTDAS REPLACED

Draker DAS, Plant Controller

## BENEFITS

- Dynamic plant control
- Open platform SCADA system
- Sophisticated email reports
- Optimized plant performance

## THE CHALLENGE

# Reviving a Damaged Solar Plant

In 2018, BMR Energy purchased the 4 MW Spanish Town solar plant, which supplies power to 1,600 homes in St. Croix, U.S. Virgin Islands.

In 2017, hurricanes Irma and Maria caused significant damage to the plant's panels, infrastructure and control and monitoring system. The plant remained offline for nearly five months while grid repairs were underway, and production was limited to less than 45% of its energy capacity.

BMR Energy brought the almost 17,000-panel plant back to life with site-wide repairs, nine new SMA central inverters, new meteorological equipment, and a new monitoring and control system.

## Finding opportunity in the reconstruction process

With some of the existing equipment lost, BMR recognized an opportunity for improvement. The Director of Engineering, David Perri, P.E., stated that "there was an existing DAS system that provided basic monitoring, which was partially damaged by the storm. After considering the cost of those repairs, we decided to use this as a chance to get something better." BMR needed a resilient control system to maximize power generation and energy stability for the region. They selected Ulteig to provide a sophisticated plant controller and DAS solution.

## Choosing the right DAS supplier for the job

Capital and operating costs were a key factor in BMR's choice, as Perri explains: "The NextDAS system was competitively priced and will be less expensive, on an ongoing basis, as BMR grows its portfolio, and we have access to the development environment if the need arises." The modular nature of NextDAS ensures that integration of further assets is straightforward and cost-effective.



## FROM THE SOURCE

*"Unforeseen field issues are inevitable when reviving a power plant that was damaged in a hurricane. Ulteig was a great team player in helping us to resolve these issues."*

David Perri, P.E.  
Director Engineering

*“The system is designed to easily incorporate our complete portfolio of solar and wind assets.”*

## THE SWITCH TO NEXTDAS

### Flexibility at Last

One of the most significant drawbacks to other DAS systems is their inflexible approach to form and function. The interface and data queries are predefined, and do not allow for any kind of custom reporting. NextDAS provides dynamic reports that can be customized to show all data reports for a specific device or data set, including weather data, device downtime, voltage output, alarms, and more.

### Enhanced visibility with custom screens and reports

BMR required a system that was customizable and expandable, as Perri explains: “We were looking for an experienced company with a flexible system that could be tailored to our exact needs and could support our complete portfolio of solar and wind assets.” Today, BMR relies on NextDAS to supply daily, monthly, and yearly email reports. These can be customized to summarize general and specific operational metrics for the St. Croix solar site, as well as alarm and utility billing reports.

### Dependable on-site support for a seamless transition

Ulteig worked diligently onsite to ensure the NextDAS plant controller and DAS system commissioning happened in a timely manner. “Their ability to have boots on the ground in St. Croix was invaluable to us. They kept us in the loop with regular status updates and meetings and answered our calls day or night” (Perri, Dir. Eng.).



## FROM THE SOURCE

*“Overall, we're extremely satisfied with the performance of the Ulteig team, and we now have a comprehensive O&M platform to manage our entire portfolio of solar and wind assets.”*

Kevin A. Fleming, CPA  
Controller & VP Administration

*“The implementation of NextDAS at our St. Croix site was a great success.”*

## **The Results**

Ulteig was instrumental in reviving the St. Croix solar site by supplying a new centralized monitoring system and plant controller that thoroughly addressed BMR’s operational and data management needs.

### **Maximized power generation with improved controller**

The plant control system developed by Ulteig adjusts to maximize energy generation in varying cloud cover and weather conditions, within PPA limits through dynamic control of inverters. Ulteig “delivered a new automated plant control system that’s working optimally” (Perri, Dir. Eng.), and improved plant performance and responsiveness while adhering to utility requirements.

### **Time spent on manual reporting tasks cut in half**

Ulteig was able to quickly deliver additional features related to operational exceptions, performance analysis and financial reports. BMR’s Senior Vice President, Pip Decker recognized the unprecedented potential of the system: “Once we started using the Ulteig system, we quickly realized how powerful and flexible it really was. We were able to incorporate and automate key business processes including utility invoicing, exception management, root-cause and performance analysis.”

### **100% increased visibility in operations**

Ulteig DAS Unlimited licensing includes unlimited sites, field equipment, data points, users, client connections and development environments. This enables BMR Energy to monitor, store and analyze every data point from every piece of field equipment in real-time. This level of data availability allows for complete control of the most minute aspects of plant function for maximum energy generation.