

SCIENCE & TECHNOLOGY

Goonhilly Earth Station

Space pioneer installs 165 wireless sensors to deliver real-time insight into energy consumption across a historic satellite communications site, targeting a 10% reduction in total energy use.

165

Sensors deployed

10%

Expected energy savings

Site-wide

Circuit-level visibility

The Challenge

Goonhilly Earth Station operates one of the world's most significant satellite communications facilities, with mission-critical loads spread across legacy and modern infrastructure. Without circuit-level visibility, the operations team could not pinpoint inefficiencies, validate equipment performance, or measure the impact of optimization projects.

The Solution

Emergent deployed 165 Panoramic Power self-powered wireless sensors across cooling plant, antenna drives, server rooms, and ancillary distribution. The PowerRadar analytics platform aggregates 10-second data and surfaces anomalies, schedules, and load profiles by asset.

Results

- Continuous, circuit-level visibility into every major load across the site.
- Identified always-on baseload waste in support systems running outside of mission hours.
- Forecast 10% reduction in total site energy consumption within 12 months.
- Verified equipment performance against vendor specifications.

“Panoramic gives our engineering team the resolution we need to optimize systems we previously had no way to measure.”

— Operations Lead, Goonhilly Earth Station