EEMITS CONNECTS 36 WIND FARMS TOGETHER FOR EDF RENEWABLES WITH ULTRA-SMART RADIO SYSTEM

UTILITIES

Following a successful tender process, we got to work on creating a seamless network infrastructure system, one that keeps workers across all sites safe and connected with each other.

THE CHALLENGE

EDF Renewables specialises in wind power, solar and battery storage technology. They have an operational portfolio of 36 wind farms in the UK – two of which are offshore facilities.

The challenge was to give ultra-reliable two-way communication connectivity to all of EDF Renewables' UK wind farms.

Not only that, but EDF needed a solution in place where all of their Renewables sites could communicate with each other and systems could be monitored from a centralised location - with a "they know we know" system health check approach in place between EDF and Eemits.

There was also software and feature requirements to support their lone workers who operate across a vast amount of space, in confined areas (such as inside the turbines) and at a height.

PRODUCTIVITY
up

EFFICIENCY
raised

SAFETY
increased

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Ultra Smart Digital **Two Way Radio Solutions**
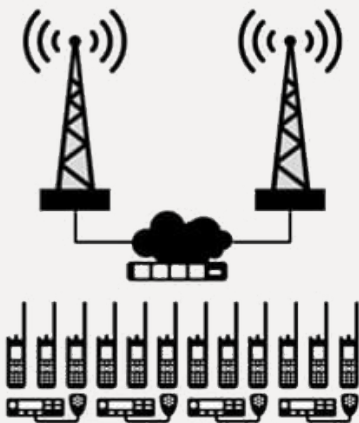
TRBOCALL™
GREATER THAN THE **SUM OF ITS PARTS**

THE SOLUTION

We installed our ultra-smart digital two-way radio solution - TRBOCALL – a modular platform comprising the following:

INFRASTRUCTURE

EDF Renewables chose:

Capacity Max

What is Capacity Max?

Capacity Max is our wide area network coverage system that uses IP architecture to create an innovative, highly secure trunked radio communications solution.

Capacity Max was the perfect solution for EDF Renewables as it supports up to 3,000 users at up to 250 sites, and can be monitored from remote desktop locations.

The Benefits:

Capacity Max is optimised for high performance and high efficiency. It gives EDF access to instant, reliable voice and data across a large-scale operation.

Control is centralised, so EDF can manage and monitor their systems from their own desired locations, and because it's built using IP architecture, Eemits is able to monitor their system remotely, to know when EDF knows that issues need fixing.

The system also offers high security. All voice, data and control traffic is encrypted, and radios are securely authenticated.

With a mixture of antennas and repeaters (strategically placed across all sites), we are also able to provide them with a solution that has multiple layers of system redundancy - so no point of failure will bring the system to a standstill.

This is vital for their operation. Workers need to be able to communicate on a regular basis, from a safety, productivity, and efficiency point of view.

And as it's Digital Mobile Radio Tier III compliant, it offers a range of highly sophisticated features, including advanced location tracking, personnel management, and alarm notifications.

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HARDWARE & ACCESSORIES

EDF Renewables chose:

Motorola Solutions DP4801e radios

Motorola Solutions SLR5500 UHF Repeaters

The Benefits:

Motorola Solutions DP4801e radios

The Motorola Solutions DP4801e was recommended due to its power output, rugged design, and IP68 rating – meaning the radio can withstand dust, dirt, sand and is be resistant up to 1.5 meters under water.

The device also has Lone Worker emergency features and a large, textured push-to-talk button, making it easy to operate for workers who wear gloves whilst on shift.

Motorola Solutions SLR5500 UHF repeaters

The Motorola Solutions SLR500 UHF repeater was recommended and implemented as it has powerful trunking capabilities, and delivers the power of digital two-way radio by integrating voice and data seamlessly at an increased level of capacity.

With up to 50 watts of radio frequency output power, it made perfect sense to strategically place repeaters in different areas of a site that is nearly 10 kilometres from one end to the other.

Back-up batteries for the repeaters were also supplied to EDF, to further enhance system redundancy.

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THE SOLUTION

We installed Eemits ultra-smart digital two-way radio solution - TRBOCALL – a modular platform comprising the following:

SOFTWARE

EDF Renewables chose:

TRBONET dispatch system

Telephone Interconnect

TRBONET mobile app

FEATURES

EDF Renewables chose:

GPS tracking

Lone Worker

The benefits:

TRBONET dispatch system
From a control room, EDF Renewables are able to monitor device location and send out/respond to periodic or emergency alarms.

Monitoring device location is of great importance, as it allows EDF to ensure staff are where they should be and no issues are present. Being able to trigger and react to alarms is also key in an environment where staff are isolated, sometimes inside the turbine itself.

Telephone Interconnect
On-site workers are able to make calls (and receive calls) from their radio to landline and mobile devices thanks to Telephone Interconnect. Integrating with EDFs telephony system, this smart piece of software increases communications between workers on-site and workers in the control room/or off-site.

TRBONET mobile app
EDF Renewables have staff that supervise and monitor the area via car, so we installed the TRBONET mobile app on their smartphone devices, to give them two-way radio-style features, such as push-to-talk and GPS tracking.

Lone Worker welfare
Using GPS tracking their whereabouts can be monitored via a desktop dispatch system, and an emergency alarm can be triggered if they fail to respond to period alerts (sent out via the dispatch system). Workers can also sound an alarm via their radio to let people know that they may be in danger.

Lone Worker is an important feature for EDF Renewables as they have workers who operate inside the turbines, often at a height, and across a vast amount of space.

THE SOLUTION

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SERVICE WRAP

EDF Renewables chose

60-month Managed Service with:

Access to the latest technology

Enhanced Warranty with Accidental Repairs

Annual Preventative Maintenance Check

Business Hours Reactive Maintenance

Remote system health-check monitoring

Business Hours Telephone Support

Software upgrades

Ofcom licence management

No price change during contract

The Benefits:

60-month support & aftersales care
EDF Renewables benefit from expert engineering and dedicated aftersales care throughout the duration of their Managed Service.

Access to the latest technology
EDF have their radios on a long-term hire basis. This means their fleet can be futureproofed by making sure they have the latest models and technology during their contract and beyond.

Enhanced warranty with accidental repairs
In such a rugged environment, and with workers operating at a height, having an enhanced warranty with accidental repairs means we can take of any damaged radios and replace them straight away.

Annual preventive maintenance check
One of our engineers goes up to Scotland once a year to carry out a full site check, ensuring network coverage is performing how it should be.

Business hours reactive maintenance
As our TRBOCALL solution is cloud-based, we can carry out reactive maintenance tasks without having to make site visits and incurring more costs for the customer. We also carry out

Business hours telephone support
Our Service team provides technical support and advice during business hours to answer questions they may have.

Software upgrades
We programme and make software updates remotely, so their radios are always up-to-date with the latest software, firmware, and features.

Ofcom licence management
EDF Renewables use licenced radios, so we take care of managing their Ofcom licence for the duration of its validity, so they can get on with the job at hand.

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WHAT THEY SAY ABOUT US:

SUMMARY

EDF Renewables now have a solution in place that gives them reliable communication connectivity at wind farms across the UK.

They also have a solution in place that helps to protect and support workers, particularly those in isolated environments.

Eemits innovative modular platform TRBOCALL - a unique combination of hardware, bespoke software applications and digital features - together create an ultra-smart two-way radio system. Combined with unrivalled wide area network coverage, our customers have the flexibility to build their own system with all, or a combination of infrastructure, hardware, software service wrap, features and accessories that suite their individual business needs.

EEMITS CLIENTS BENEFIT FROM:

Productivity increased by up to

40%

PER SITE

Efficiency raised by up to

1hr

PER EMPLOYEE PER DAY

Safety increased for

100%

OF YOUR WORKFORCE VIA DIGITAL RADIO WHERE EVER THEIR LOCATION

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