CASE STUDY

Renewable Energy

EMR improves operational efficiency for Enerco Energy with comms infrastructure upgrade across its windfarm portfolio

COMPANY OVERVIEW

ENERCO ENERGY

Its position as one of Ireland's leading renewable energy developers can be attributed to over 30 years experience in civil, electrical and mechanical contracting in addition to its highly skilled engineering and technical staff.

Enerco has a portfolio of low-carbon energy projects and a proven track record of providing innovative, high quality solutions for a sustainable future. It has 15 operational windfarms with a current output of 430 MW. A further four are under construction and are due to be completed by 2020.

Enerco Energy is part of the Craydel Group of companies.

Enerco Energy Ltd is an independently owned Irish company dedicated to the sustainable development of renewable energy technologies in Irish and international markets. The company has played a key role in the promotion of sustainable energy and is committed to achieving commercial success on its projects without compromising the highest ethical or environmental standards.

THE REQUIREMENT

Enerco Energy is an active participant in the sustainable energy market in Ireland. With 15 windfarms dotted across the countryside stretching from Mayo in the West to Cork in the South and four more under construction, the company is firmly committed to further developing the wind energy sector over the long term.

Changes in regulatory reporting requirements to grid operator, Eirgrid back in October 2018 required real-time, reliable and accurate output data from wind operators to allow them better manage the power grid.

Following consultation with colleagues and an industry recommendation from SSE (who EMR have been working with since 2017), the Enerco team turned to EMR to upgrade their comms infrastructure and ensure compliance with those all-important regulatory requirements.

Any comms infrastructure had to be high speed and reliable with in-built resiliency and automatic failover as downtime simply wasn't an option for Enerco Energy .

"With changing regulatory requirements, we had to be able to provide real-time, reliable power data to the grid operator. That meant having reliable and resilient comms infrastructure at each of our windfarms."

Spokesperson for Operations Engineering at Enerco Energy

THE SOLUTION

SOLUTION COMPONENTS

- In-depth telecoms audit at each windfarm with detailed communications recommendations
- Deployment of communications solutions with full resiliency and failover to secondary media, including high speed WAN links based on a variety of microwave, satellite connectivity, 3G/4G utility grade modems and ISDN to IP solutions.
- UPS back up power, firewall technology, switches/routers, SIP telephony and fully managed IP addressing schemes

Having performed a full discovery exercise at each windfarm, the EMR team make a set of recommendations based on the telecoms services available at each site. In all cases, fully redundant satellite backup links are deployed, mitigating the risk of network downtime with automatic failover from primary links.

A best-in-class information security solution is also deployed which protects the integrity of sensitive trading data as it crosses the internet.

This security solution also provides the interface for single pane of glass visibility into the various devices and services that are connected to each windfarm.

A dedicated screen, installed at Enerco's NOC provides 'at a glance' visibility of the status of their field assets at all sites.

"Enerco Energy lean on the EMR team for the depth of its IT and networking skills. We're the company's eyes and ears and they trust us implicitly with their most commercially sensitive data."

Alan Feenan, Sales Director, Communications with EMR

THE BENEFITS

Full regulatory compliance is one of the biggest benefits of working with EMR. Through the robust infrastructure deployed and monitoring service, Enerco's team have eyes on the windfarms at all times. "If there's a problem with Enerco's trading department due to unavailability of data, EMR can tell Enerco where and why the data is not getting through," a spokesperson for operations engineering at the company said.

In addition, having a turnkey service and a reliable technology partner, allows Enerco Energy to concentrate on their core competency which is not IT service provision. They can trade on the grid with full confidence.

"EMR provide us with a level of comfort in that we know our forecasters are getting the data they require in order to trade efficiently and effectively in the market."

Spokesperson for Operations Engineering at Enerco Energy

BENEFITS AT A GLANCE

- Resilient telecoms connectivity with full failover to satellite links, even in the case of adverse weather events
- Reliable and secure trading data flows thanks to monitoring, alerting and escalation service
- Full field visibility of Enerco's windfarm assets as well as comms devices and SCADA status at each site
- High level of IT and networking skills on tap
- Confidence that Enerco's forecasters can generate the data they require to trade in the market, without interruption.

WHY EMR?

"EMR provide a turnkey service. They liaise with our OEMs, get their SCADA systems up and running as well as our own. It takes the pressure off us."

Spokesperson for Operations Engineering at Enerco Energy

ABOUT EMR

EMR Integrated Solutions is a leading provider of communications, SCADA and instrumentation solutions. With a track record stretching back to the early 1980s and a management team with a wealth of industry experience, the company has established a strong, successful foothold in markets as diverse as retail, hospitality, utility, transport, telecoms and public safety.

The organisation has customers across Ireland, the UK and Europe and has the expertise, engineering know-how and project management capability to delivery large, complex, integrated solutions on time and within budget.

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