

Customer: UK Power Networks Limited

Country: United Kingdom

Solution: Effective & sustainable remote access

## Benefits

- The Ewon Cosy easily connects the Siemens power-quality measurement devices with the central control room, as well as with remote and on-site engineers
- Talk2M gives stakeholders unrestricted access to vital operational information
- Remote access to measuring devices improves maintenance and troubleshooting

*"The Ewon Cosy securely connects us in the office to the meters in the remote location. We are then able to review the records in the power meter, review the event list and see if there are any disturbances."*

Rinu Ravikumar  
Senior Design Engineer  
UK Power Networks

## Clean water uses clean power as proven by the Ewon Cosy

UK Power Networks Services needed to deploy power quality monitoring at a major UK water treatment plant. Part of the contract included remote access to operational data to streamline the process. The Ewon Cosy 131 proved to be the ideal choice.

### Maintaining critical infrastructure in continuous operation

National water supplies are classified as critical infrastructure in the UK and many other countries. In this respect, they attract more attention when they go wrong and must place concerted emphasis on maintaining 100% uptime.

The water industry relies heavily on other critical utilities, including electricity. So, in much the same way, the electrical suppliers have to be just as committed to helping their water-industry customers maintain as close to 100% uptime as possible.

A typical water treatment plant will consume a lot of power across multiple disciplines and services, and keeping tabs on all this supply and consumption is a full-time job. Power quality levels and uninterrupted supplies are extremely important.

### UK Power Networks uses Cosy to support water supplier

In a recent application, UK Power Networks was approached by a major UK water supplier who was experiencing power quality issues at a large treatment works. They were tasked with identifying causes of disruptions that could not be directly attributed to a simple power outage of the incoming electricity supply. These disruptions can be caused by momentary dips in the electricity supply voltage levels. Although they may only be for a fraction of a second (<100 ms), they are often sufficient for motor controls or local control systems to crash.

The scope of work included the supply of three Siemens SICAM Q100 voltage and current quality devices on each of the incomers, which will provide permanent power quality monitoring of the feed-in locations. Another essential element of the installation was a communication solution that would allow engineers and operators to access the data from these devices remotely. For this role, UK Power Networks turned to HMS Networks and its Ewon Cosy cellular gateway, an industrial device that establishes a secure VPN connection between the power quality monitors and the operators, no matter where they are. The connection is made through Talk2M, a highly secured industrial cloud service included for free with the gateway.



## Cosy helps increase power resilience

According to Rinu Ravikumar, Senior Design Engineer at UK Power Networks:

“The power quality meters record disturbances or deviation from the expected power quality levels. The Ewon Cosy securely connects us in the office to these meters in the remote location. We are then able to review the records in the power meter, review the event list and see if there are any disturbances. Moreover, we can also extract historic disturbance records from these power meters and then analyse the electrical characteristics of the network to provide recommendations to improve power quality. From this we can generate a report that captures all this information, ultimately helping to improve power resilience to the customer. We utilise the eCatcher application to access these meters from our engineering laptops,” he adds, “while our customer or local engineer uses M2Web to access the meters remotely using the internet.”

## Improved troubleshooting & productivity

The benefits of this remote connectivity solution include:

- The identification of root-cause issues
- Early identification of issues prior to greater escalation and potential downtime

- In-depth power quality analysis to identify outages, sag, swells, and transient harmonics
- Comparison against baseline figures to detect abnormalities that could lead to an inefficient operation or failure
- The ability to review stored, continuously monitored waveforms to help in the diagnosis of problems before an unwanted event develops

## Conclusion

Bilal Khan, Technical Sales Manager at HMS Networks, concludes:

“The remote access capabilities offered by the Ewon Cosy saves both UK Power Networks and its water industry customer significant amounts of time and effort and with the data analysis. Further gains should be achievable in the future as more proactivity kicks in. One of the primary goals was to allow the engineers to work more efficiently, which this installation certainly achieves. Even if the engineers have to go on-site, the rich data made available means they don’t need to hunt for issues, as they can now locate causes much more quickly.”



## Learn more on [www.ewon.biz](http://www.ewon.biz)

The Ewon Cosy is an industrial VPN gateway designed to offer effective and sustainable remote access to machines and installations on customer sites or in the field. Machine Builders and System Integrators can troubleshoot machines remotely without going on site, drastically reducing support costs while maximizing productivity.

