

# MonitorPro to integrate with Big Data at major power station



## MonitorPro

A professional environmental and sustainability information management solution, particularly suited for industries related to natural resources. MonitorPro is globally tested and used in water and waste water industries, as well as waste management, metals and mining.

Medway Power Station was commissioned in 1995 as a joint venture. In 2003 SSE took full ownership of the site.

SSE has undertaken a comprehensive programme of upgrade works at Medway Power Station. The works have enabled the power station to operate at higher efficiency and with the increased flexibility necessary to satisfy the trading requirements of the local transmission system.

## The History Behind it

Scottish and Southern Electric (SSE) are a FTSE 100 energy company who care about making a difference. They provide clean and sustainable energy whilst operating as one of the UK's biggest service providers.

Medway Power Station approached EHS Data in late 2014 in order to provide a solutions to aid the management of their demanding environmental regulations.

A full data-integration was established by the EHS team which works to continually extract data from a number of data sources via the sites OSIsoft PI system.

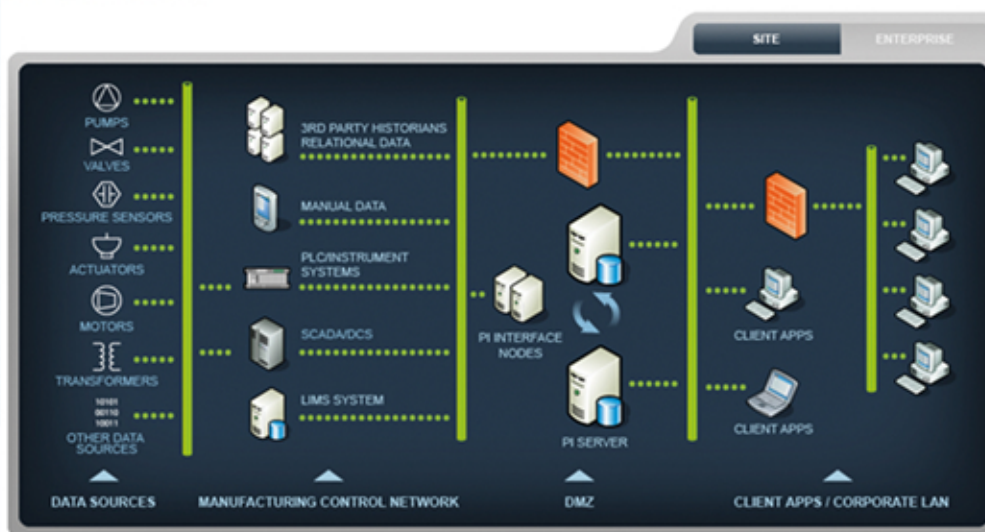
# Automatic Quality Control and Early Warning System

EHS Data worked closely with the operations team at Medway to understand their specific needs for their environmental data management requirements.

An initial scoping exercise highlighted that integration between Medway's OSIsoft PI historian and MonitorPro would need to be established. PI receives and stores data from the power stations comprehensive array of instruments in real time. Each dataset is stored against a 'Tag' which enables users to differentiate and locate the correct data. An example of one Tag Code could be 'pH in the cooling tower at 30 minute intervals'.

PI is a powerful tool but lacks the data validation, interpolation and reporting strengths of MonitorPro. MonitorPro was implemented to work in tandem with PI and the other data capture systems utilised at Medway to improve visibility of the data to the end users, aid reporting and notifications of exceptions in data capture.

PI System Architecture



The figure illustrates the complex architecture of data management at a facility like Medway. MonitorPro is accessible at the Client Apps user interface level and is used as a tool for data management, reporting and trend analysis.

The integrated system now automatically collects, validates and interprets upwards of thousands of individual data points captured from PI on a daily basis.

Implementation of MonitorPro at Medway has allowed for;

- Integration of PI to MonitorPro via the use of the MonitorPro Tag Importer, with customisable and adaptable data capture periods
- Re-creation of user specific, daily, weekly and monthly log sheets providing instantaneous reporting for internal process and monitoring purposes, sent straight to an e-mail distribution list
- Configuration of a number of complex calculations providing instantaneous values for gas usage, power generated and CO2 emissions as the raw data is captured in real time
- Full integration to MP-Web technologies allowing the end user to easily access and download graphical output and view quick summaries of gas usage and carbon emissions
- Set-up of immediate internal warning systems which highlight faulty sensors and loss of data capture
- Capabilities for the operations team to instantly view and analyse real time data direct from source, allowing for greater efficiency and ultimately reducing risk to the local environment

## Outcome

The installation of MonitorPro has allowed Medway power station to become much more efficient and accountable for their environmental needs whilst allowing key members of staff more time to address the important challenges.

## Future

MonitorPro will continue to be developed to complete a number of calculations and additional reporting requirements currently undertaken in Excel.