

Industry: Water

Products Used: Drives /// Modular PLCs /// SCADA /// IEC61131-3

Welsh enhance environment and economy

The £89m Newport & SE Coastal Strategy Scheme, which is due for completion later this year, is a monumental step in the environmental clean up that will help South Wales develop a thriving post-industrial economy.



The control system was developed for Hyder plc's consulting business, which has design and project management responsibility for a large proportion of Dwr Cymru Welsh Water's capital schemes, and was built by General Panel Systems in Bristol.

Application story first released September 1999 by Mitsubishi Electric UK

At the two main outstations at Orb and Liswerry, massive 500kW Mitsubishi Electric A500L inverters help control the flow rate to precise levels. The feeder stations also have extensive networks of Mitsubishi Electric's high performance AnS-series programmable logic controllers (PLCs) that control all aspects of the plant. These PLCs are linked via a modem to a Mitsubishi MX32 SCADA system based at Nash, which performs high level control and monitoring functions.

Hyder is creating a library of software programming modules using Mitsubishi's Melsec Medoc Plus (MM+). This means all the control software written will be highly portable across many of Dwr Cymru's Welsh Water's sites. This is enhanced by Mitsubishi's Modular Software Initiative which embraces the IEC 1131 standard, ensuring all software has a consistent 'family resemblance'.

"The total cost of Newport's control system alone, excluding peripheral hardware such as motors, is £2m," Says Nigel Harrison of General Panels. "Considering what was involved engineering-wise and what is at stake from a human and ecological point of view, it is money well spent."

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Nigel Harrison
General Panels

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The extensive use of Mitsubishi Electric control equipment follows the signing of a framework supply agreement with Dwr Cymru Welsh Water, aimed at reducing the cost of ownership through standardisation of hard- and software.