Shell chooses PlantWeb™ architecture for Malampaya project

Fisher-Rosemount recently announced a contract award to supply Shell with process automation controls and services for their Malampaya Development. This project will use the DeltaV™ scalable automation system, Asset Management Solution software and FOUNDATION™ FIELDBUS based Instrumentation.

The Malampaya development, the ‘Deep-water Gas To Power’ project, is designed to supply natural gas to power plants in the Philippines. Commercial gas delivery is scheduled for January 2002.

David Greer, Managing Director of SPEX, Shell Philippines Exploration B.V. said, "Malampaya is a long term project which will have a tremendous positive impact on the Philippines’ economy and people. We’re committed to providing a world class gas production facility that operates safely, efficiently and reliably. In co-operation with Fisher-Rosemount, we aim to ensure that the Open Standards incorporated into the PlantWeb™ architecture will result in the breakthrough performance standards we aspire to achieve."

The project will include 5 subsea wellheads, an offshore gas processing platform, a 500-km long 24-inch gas pipeline to the island of Luzon, and an onshore gas treatment plant with dispatch centre. The primary engineering contractors for this project are Brown & Root Energy Services (Offshore Platform), Cameron (Subsea Wellheads), and Foster Wheeler (Onshore Treatment Plant).

This is the first application of our PlantWeb architecture using FOUNDATION FIELDBUS on a major offshore gas production platform. We’re confident that the significant project cost savings and operating performance improvements that this technology delivers will enable Shell to achieve its goals and serve as a model for many more of these in the future,’ said John Berra, president of Fisher-Rosemount. This gas production and distribution process will incorporate a wide range of FOUNDATION FIELDBUS enabled products, including Rosemount flow, pressure temperature, analytical and level transmitters as well as Fisher FIELDVUE O DVC500F Series digital valve controllers and a Emerson Process Management's DeltaV scalable process system with integrated Asset Management Solution software.

"The technical and commercial challenges for the automation system on this project are considerable. With the selection of the DeltaV system though, we have been able to pursue a truly Open System ‘field based architecture’, using Windows NT, FOUNDATION FIELDBUS and OPC (OLE for Process Control), offering a host of competitive application and sub-system integration opportunities. This is in contrast to the classical ‘proprietary DCS control room centric’ interface topology. The non-proprietary FOUNDATION FIELDBUS digital control technology has ushered in a new era users a free choice to install ‘Best-in-Class’ host and field devices from confidence these products will work seamlessly on the same control network. We /will integrate information from comprehensive plantwide process and equipment monitoring and control areas with, “Safety Instrumentation Systems’, gas pipeline monitoring systems and telecommunications systems," said Dick Wismeijer, Shell Principal Process Control. Instrumentation and Telecomm Engineer for the project development.

"We’re using satellite communications to link systems on the platform with an onshore operations center and beyond. The standard OPC communications protocol built into the DeltaV system will make interfaces between the various Network applications seamless. We also will use the diagnostic information from our intelligent fieldbus devices to insure high overall production system delivery availability, setting a new standard of unprecedented uptime. Though the selection of the Open System's architecture marks a major breakthrough in project engineering, significant challenges lie ahead in seeking full recognition of this information-rich automation system in a continuing effort to enhance the Company’s bottom-line," he
Asset Management Solutions software provide an opportunity to configure, calibrate, diagnose and perform long-term predictive maintenance on the project’s instrumentation and telecommunications. All communications ‘integration’ between systems will be made with commercial off-the-shelf (COTS) technology including Ethernet (TCP/IP) and OPC (OLE for Process Control). The automation system will incorporate vibration- and condition-based monitoring systems to track system hardware health and performance. Operating information will be integrated into a comprehensive data historian with integration into a business management execution system.

“We see the Malampaya project as another major validation of our direction with the PlantWeb architecture, DeltaV scalable control system, and FOUNDATION FIELDBUS,” said John Gardner, Senior Vice President of Sales at Fisher-Rosemount Systems. “We’ve had tremendous success with the sales of this technology across a wide range of industries. The proof can be seen in our growing orders. We are currently experiencing double digit year over year orders growth in an overall automation market that we believe to be flat or down slightly. We are focused on delivering improved business results though the use of our new technologies, products, services, and the global reach of the people of F-R. The orders from our customers and the confidence shown by Shell with the Malampaya project validate the benefits possible and proven in installations to date.”

Fisher-Rosemount Systems will provide services for this project including system design, implementation, personnel training, startup assistance, and overall Data Integration. Fisher-Rosemount is a leading global supplier of process management products and solutions, including control valves, regulators, transmitters, analyses, process management systems, and related services. PlantWeb field-bases architecture combines intelligent field devices, standards and scalable platforms, and modular software to provide not only process control, but also integrated asset management and integration with other plant and business systems. Fisher-Rosemount is part of Emerson Electric Co.

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