

# **Case Study**

# Rotork CMAs enable shale gas well compliance and reduce maintenance and downtime

**Industry:** Oil & Gas - Oilfields

Client: A shale gas company in Louisiana, USA

**Product:** CMA

# **Summary**

Rotork CMA electric control valve actuators delivered an efficient and reliable process control solution and eliminated venting and greenhouse gas emissions in compliance with new environmental protection legislation at remotely sited shale gas installations in the USA.

#### Overview

Shale gas is natural gas that is found trapped within shale formations. Shale gas has become an increasingly important source of natural gas in the United States. Most shale wells and flow lines are unmanned and located in remote areas that are difficult and expensive to monitor.

# Challenge

Traditionally spring diaphragm actuators powered by the produced gas have been used on shale gas sites but the EPA (US Government Environmental Protection Agency) mandates now limit this process to lower fugitive emissions caused by bleed gas. A shale gas company in Louisiana wanted an affordable and efficient low power solution that

could be run by solar panels to replace existing actuation equipment and control a variety of fluids at line pressures up to 413 bar (6,000 psig).

### **Solution**

The key objective was to provide an efficient and reliable process control actuator which could be retrofitted on installed valves to reduce costs and downtime. Rotork's local agent Setpoint Integrated Solutions engineered an interface to enable CML-250 actuators to be easily fitted to installed valves and improve the level of control, without venting gas and with the low power demand required for solar powered operation.

The success of this solution has enabled the Louisiana customer to standardise on the CMA actuator for future flow control applications. Around the world, increasing numbers of CMA actuators are used for similar duties.

Designed for quarter-turn, multi-turn and linear valve operation, robust Rotork CMA actuators perform numerous process control valve, choke valve, metering pump and damper applications demanding precise position control and continuous modulation. Single-phase or DC electrical power is all that is required for simplified installation and control valve actuation. Explosionproof certification to international standards is available for hazardous area applications.



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Recent developments enable the CMA to be specified with increased functionality encompassing local controls, LCD positional display and programmable fail-to-position performance.

## **Customer Benefits**

Most shale wells and flow lines are unmanned and located in remote areas that are difficult and expensive to monitor. Previously, engineers had to travel to site, check data, identify the problem and perform manual shutdowns. Rotork actuators provided a practical and cost-effective solution to automate and monitor valves at the remote wells, removing manual intervention. This improves worker safety and reliability of valve operation. Gas is no longer vented, allowing the customer to comply with the EPA's mandates of low fugitive emissions.

The actuators are powered by solar panels, therefore reducing traditional power supply demands.