

ABB's XIO Implementation for a Large Onshore Upstream Producer

A Case Study



The implementation of ABB's XIO solution, coupled with the RMC system and XMV devices, has not only addressed the immediate challenges faced by an operator but has also unlocked opportunities for enhanced efficiency, cost savings, and future expansion.

Measurement made easy

Customer Background:

In this Case Study, the customer is a significant player in onshore upstream production, operating extensively in the continental United States. With a focus on efficiency and innovation, they have built a substantial install base primarily comprising a competitor's flow computers/instrumentation and PLCs. Their operations span across large, multi-well pads, necessitating streamlined solutions to manage and optimize their production processes.

The Challenge

One of the primary challenges faced by the operator was the costly installation and management associated with their existing setup.

Each gas meter run on their extensive well pads required a dedicated flow computer, resulting in a 1:1 ratio of meter runs to flow computers. This setup was not only financially burdensome but also complex to manage efficiently.

The Solution

To address these challenges, our team proposed a comprehensive solution centered around ABB's Remote Measurement and Control (RMC) system, along with the implementation of ABB's XIO and XMV devices.

Centralized RMC Installation: Instead of deploying individual flow computers for each meter run, we installed an ABB RMC in a central location on the pad. This centralized approach simplified management and reduced installation costs significantly.

Strategic Placement of XIO: ABB's XIO units were strategically positioned near sets of meter runs, ensuring optimal data collection and control capabilities while minimizing the need for excessive hardware.

Installation of XMV Devices: ABB's XMV devices were installed on each meter run to provide precise measurement and control of gas flow, enhancing operational efficiency and accuracy.

Utilization for Gas Lift and Plunger Lift

Optimization: Beyond basic metering functions, the RMC/XIO setup was leveraged for advanced optimization tasks such as gas lift and plunger lift optimization, further enhancing production efficiency and reducing operational costs.

The Benefit

The implementation of ABB's XIO solution brought substantial benefits to the customer:

- 1. Cost Savings:** By transitioning to a centralized RMC setup with strategically placed XIO units and XMV devices, the client realized significant cost savings of \$20-30K per well. This reduction in both installation and operational costs directly contributed to improved profitability.
- 2. Advanced Optimization Opportunities:** The success of the XIO implementation has paved the way for additional optimization projects, such as gas lift advanced optimization.

By harnessing the capabilities of ABB's solutions, the client can further enhance production efficiency and maximize resource utilization.

- 3. Expansion to Other Operating Areas:** The success and proven benefits of the RMC, XIO, and XMV setup have prompted our client to consider expanding the implementation to their other operating areas. This demonstrates the scalability and versatility of ABB's solutions in addressing diverse operational challenges across different environments.

Conclusion

In conclusion, the implementation of ABB's XIO solution, coupled with the RMC system and XMV devices, has not only addressed the immediate challenges faced by our client but has also unlocked opportunities for enhanced efficiency, cost savings, and future expansion. By partnering with ABB, our client is well-positioned to optimize their operations and maintain a competitive edge in the dynamic upstream production landscape.

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