



Dynamic Uncertainty

THE COST OF ERRORS

Getting it wrong costs money:

Just a 1% under-reading of
85,000 barrels per day
@ \$100 a barrel:

**\$30 million
per year**

Uncertainty changes, and normally increases, over time. Even the smallest miscalculation will have significant financial or environmental impact. This is why we have developed dynamic uncertainty calculation software to provide real-time uncertainty monitoring.

In the context of metering in oil and gas, uncertainty refers to the lack of exactness or precision in the measurements taken by various instruments and devices used to quantify the flow of hydrocarbons. Metering is a crucial aspect of the oil and gas industry, as accurate measurements are essential for various purposes, including financial transactions, custody transfer, production optimisation, and regulatory compliance.

Several factors contribute to uncertainty in metering within the oil and gas industry, from instrumentation calibration to fluid properties and flow conditions and environmental factors, to installation and maintenance. The industry therefore employs various manual, often siloed practices to mitigate uncertainty in metering, such as regular calibration of instruments, adherence to industry standards, use of advanced metering technologies, and quality assurance and control measures. However, as uncertainty increases over time, labour, expertise and scheduled maintenance is required to understand these changes and adjust the calculations.

Traditionally, uncertainty analysis is performed offline at intervals set by the operator. However, uncertainty is a dynamic process, and periodic analysis cannot fully capture and account for any changes that take place in between these intervals. This missing data has very real financial implications, as just a 1% under-reading could cost millions of dollars a day in lost revenue.

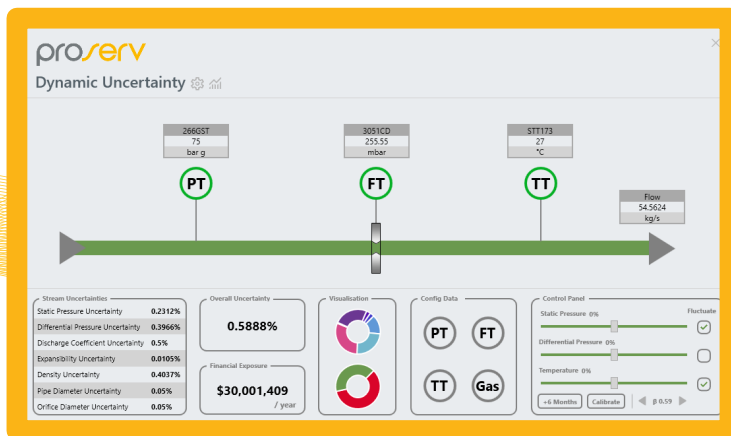
Real-time condition based monitoring

As part of Valid8 metering management suite Proserv has developed a Dynamic Uncertainty Calculation module that deliver real-time trending data to the client for live uncertainty analysis. Our software analyses the entire system run such as temperature, pressure, and flow to provide historical, auditable data to fiscal and custody transfer metering standards.

Unlock the potential of your metering system

Your Solution

Proserv has developed a full set of advanced dynamic uncertainty calculations to monitor uncertainties in metering systems, allowing the operator to act quickly and decisively to mitigate any issue as they arise.



Features

- OEM agnostic: compatible with any SCADA system
- Suitable for a wide range of flow meter types, manufacturers and equipment needed for flow measurement systems
- Acts as a condition-based monitoring system to provide an early warning system
- Identify instruments that have drifted out of calibration
- Potential for flare and vent gas measurement

Industry leading software support services

Proserv has over 30 years experience delivering metering solutions to the energy industry. We treat our clients as partners and we work together over the lifetime of any system or upgrade to ensure we fully support any new available technologies, obsolescence, potential upgrades, needed modifications and system health checks. To back fill all of this we can offer 24/7 technical support via an annual support contract.

Key benefits

Protect your system and minimise financial exposure

Confidence in metering accuracy

Our software ensures measurement to fiscal and custody transfer standards, instilling confidence in the accuracy and accountability of your metering processes.

Environmental compliance

Our metering software enables measurement that meets the 2025 UK NTSA net-zero regulations for flare gas emissions and carbon capture.

Minimise financial exposure

With real-time live data results, there is zero loss or invisibility of critical information, mitigating financial risks associated with delayed or incomplete data.

Mitigate human error

The elimination of manual data input and interpretation requirements significantly reduces the likelihood of human error, ensuring the accuracy and reliability of your data.

Reduce HSE risks

Condition-based monitoring software leads to fewer offshore mobilisations, lowering HSE risks associated with on-site operations.

Auditable and traceable

Accredited by TUV SUD, we ensure compliance with rigorous regulations through trended and historically stored data, providing a robust and traceable audit trail for regulatory purposes.