

SOLUTION STORY

Measurement Management Compliance

MetSolv

METERING SOLUTIONS & VALIDATION



THE SITUATION

When an operator went through a structural reshuffle, a great depth of knowledge on metering related management and compliance was lost.

Compliance problems were resulting in costly unplanned preventative maintenance and compliance verification.

Current systems were not transparent enough to provide detail of what was required, how and when it was to be executed.

THE INSIGHT

MetSolv realised the operator needed a more effective Measurement Management System to address the challenging elements of their network.

To rationalise compliance and supporting documentation requirements.

The processes required usability and accessibility from all levels of engineering and management.

THE SOLUTION

MetSolv established a measurement point compliance criterion for meters in the production & sales stations.

Determined the classification of each point, associated the compliance and financial risk of measurement.

Created a metering lifecycle roadmap based on ISO 10012.

AS FOUND - MEASUREMENT SYSTEMS							
	A	B	C	D	E	F	G
Accuracy 0.5% (Uncertainty)	✓	✗	✗	⚡	⚡	⚡	⚡
Accuracy 1% (Uncertainty)	⚡	⚡	⚡	✗	✗	✓	✓
API MPMS 5.1 (Measurement by Meters)	✗	✗	✗	✗	✗	✓	✓
API MPMS 5.3 (Turbine Meters)	✓	✓	✓	⚡	⚡	⚡	⚡
API MPMS 5.6 (Coriolis Meters)	⚡	⚡	⚡	✓	✓	✓	✓
API MPMS 4.2 (Displacement Prover)	✓	⚡	✓	⚡	⚡	⚡	⚡
API MPMS 4.5 (Master Meter Prover)	⚡	✓	⚡	⚡	✓	✓	✓
API MPMS 4.8 (Operation of Provers)	✓	✗	✗	✗	✗	✓	✓
API MPMS 21.2 (Calibration/Verification)	✗	✗	✗	✗	⚡	⚡	⚡

AS LEFT - MEASUREMENT SYSTEMS							
	A	B	C	D	E	F	G
Accuracy 0.5% (Uncertainty)	✓	✓	✓	⚡	⚡	⚡	⚡
Accuracy 1% (Uncertainty)	⚡	⚡	⚡	✓	✓	✓	✓
API MPMS 5.1 (Measurement by Meters)	✓	✓	✓	✓	✓	✓	✓
API MPMS 5.3 (Turbine Meters)	✓	✓	✓	⚡	⚡	⚡	⚡
API MPMS 5.6 (Coriolis Meters)	⚡	⚡	⚡	✓	✓	✓	✓
API MPMS 4.2 (Displacement Prover)	✓	⚡	✓	⚡	⚡	⚡	⚡
API MPMS 4.5 (Master Meter Prover)	⚡	✓	⚡	⚡	✓	✓	✓
API MPMS 4.8 (Operation of Provers)	✓	✓	✓	✓	✓	✓	✓
API MPMS 21.2 (Calibration/Verification)	✓	✓	✓	✓	✓	⚡	⚡

THE RESULT

MetSolv assisted in delivering a Metering Management System compliant for measurement and developed meaningful key performance indicators (KPI's) for each measurement classification.

Established a verification and inspection program required to meet compliance requirements and provided training to develop technician competency.

A follow up inspection audit was undertaken to ensure the systems and processes were functioning in their intended manner and continuing to provide measurement compliance.

PROVIDING CONFIDENCE IN MEASUREMENT QUALITY