A Virtual Check Meter™ subscription is an extra cost. Where is the ROI?

Summary: How Productivity Improvements Reduce the Total Cost of Measurement Operations

The purpose of a measurement organization is not simply to maintain meters. Its purpose is to deliver accurate, auditable measurement data that supports commercial settlements, volume accounting, financial reporting, and operational decision-making.

Measurement errors create direct and indirect costs across the business, including volume imbalances, billing corrections, accounting adjustments, audit exposure, and extensive analysis to reconstruct historical volumes. At the same time, the activities required to ensure measurement integrity, such as inspections, calibrations, validations, testing, documentation, and data review, represent a significant ongoing operating cost.

Therefore, the value of productivity improvement in metering operations comes from two complementary sources:

1. **Reducing the occurrence and impact of measurement errors**, and
2. **Performing measurement assurance activities more efficiently.**

Strategic Benefits

Improved Measurement Accuracy and Confidence

More effective maintenance, calibration, and verification processes reduce meter drift, instrument failures, and data-quality issues. This lowers measurement uncertainty and increases confidence in reported volumes used for billing, balancing, and financial reporting.

The result is fewer volume discrepancies, fewer customer disputes, and greater trust in the integrity of measurement data.

Reduced Cost of Measurement Errors

When metering inaccuracies occur, the costs extend well beyond equipment repair.

Organizations often incur significant expense through:

- Volume balance investigations
- Billing corrections and rebills
- Revenue and cost reallocations
- Out-of-period accounting adjustments
- Historical data analysis
- Engineering reviews
- Audit support activities
- Reconstruction of estimated volumes

Preventing these events produces savings that often exceed the direct maintenance costs of the metering program itself.

More Efficient Accuracy Control and Verification

Productivity improvements also reduce the effort required to maintain a high level of measurement assurance.

Examples include:

- Risk-based verification intervals
- Improved work planning and scheduling
- Mobile inspection and documentation tools
- Automated data validation
- Remote diagnostics and monitoring
- Standardized maintenance procedures
- Better integration of measurement and asset information systems

These improvements allow the organization to achieve the same or better measurement integrity with fewer labor hours, less travel, fewer contractor resources, and lower administrative effort.

Increased Technical Capacity Without Additional Staffing

As work processes become more efficient, measurement specialists spend less time on administrative tasks, manual recordkeeping, and routine rework.

The resulting capacity can be used to:

- Support new assets
- Address higher-risk measurement points
- Conduct additional analysis
- Improve compliance activities

This additional capability is often obtained without increasing headcount.

Reduced Lifecycle Cost of Metering Assets

More productive maintenance practices improve the reliability and longevity of metering equipment while reducing emergency repairs and unnecessary maintenance activities.

The result is lower total ownership cost across the asset life cycle.

Financial Impact

The financial benefits of metering productivity extend far beyond maintenance labor savings.

Value is created through:

Cost Avoidance

- Fewer measurement-related revenue errors
- Reduced imbalance investigations
- Lower accounting rework

- Fewer billing adjustments
- Less audit remediation effort
- Reduced contractor dependence

Operating Efficiency

- Lower labor hours per verification activity
- Reduced travel and field time
- More efficient inspection and calibration programs
- Greater automation of validation and reporting activities
- Increased productivity of technical personnel

Business Performance

- More accurate volume accounting
- Higher confidence in commercial settlements
- Faster financial close processes
- Improved regulatory and audit readiness
- Better decision-making based on trusted measurement data

Bottom Line

The true value of productivity improvement in a metering organization is not simply reducing the cost of maintenance. It is reducing the total cost of measurement assurance while simultaneously reducing the business consequences of measurement error.

A highly productive metering organization accomplishes two objectives at the same time:

1. It prevents costly measurement inaccuracies and the downstream operational, commercial, and accounting impacts they create.

2. It delivers that level of measurement integrity with less labor, fewer resources, and lower operating cost.

Formula for Success

Value of Measurement Team Productivity = Reduced Cost of Accuracy Assurance + Reduced Cost of Measurement Errors + Avoided Billing and Accounting Rework + Lower Volume Reconciliation Effort + Improved Confidence in Financial and Operational Data

From an executive perspective, the measurement team goal is not to perform more calibrations, inspections, or work orders. The goal is to provide the business with the highest level of confidence in measured volumes at the lowest sustainable total cost. Productivity improvements deliver value when they improve both sides of that equation simultaneously.