District Metering Analysis
Itron Analytics

REDUCE NON-REVENUE WATER AND UNACCOUNTED-FOR GAS

Lost gas or water is lost money. Whether caused by incorrectly-sized or broken meters, distribution system leaks or unauthorized consumption, lost gas or water hits the bottom line, causing preventable increases in operational costs. Over the years, water loss in utilities has ranged from 3% up to 65%, with an average of 15%. Controlling losses means controlling revenue and assists in the conservation of our precious natural resources.

To help gas and water utilities get a handle of distribution losses and decrease lost revenue, the Itron Analytics District Metering Analysis application enables utility personnel to identify, prioritize and act on areas that provide the largest non-revenue Water (NRW) or lost and unaccounted-for gas (LAUF).

NEAR REAL-TIME DISCOVERY

Leverage gas and water consumption data collected through your OpenWay® Riva or ChoiceConnect™ AMI system each day with District Metering Analysis. The gas or water consumption data for all individual customer accounts is compiled and compared with the gas or water delivered to a District Meter Area (DMA). Accounting for distribution inflow and outflow meters for each DMA, the utility can see a prioritized list of district losses for each day, week, month or year and address the DMA that has the most impact on their losses as that meter data is submitted and analyzed by the Itron Analytics platform.

Time-synchronized metering at both the inflow and outflow meters is the key to gaining critical insight to DMA analysis. Other approaches, such as manual inflow/outflow comparison with non-synchronous data, are inaccurate and make it more difficult to identify losses.

Don’t just find out what losses were last year—find them and act to reduce losses now.

With District Metering Analysis, Utilities Benefit By:
» Reducing operational costs of non-revenue water or lost and unaccounted-for gas
» Quickly identifying, prioritizing and acting on District Metering Area losses in near real-time
» Determining real losses vs. apparent losses using interval data
FEATURES AND BENEFITS

The Itron Analytics platform introduces a modern and intuitive web-based user interface that enables analysts to see distribution losses prioritized by DMA. Losses are calculated by comparing the collected volume delivered to a DMA to the collected volume measured by consumption meters.

Dashboard View

Dashboard View includes a dashboard view that offers:
- Map view of DMAs displaying distribution meter locations
- DMAs colored to specific threshold to highlight problem geographic areas
- Visualization of losses by DMA, prioritized by volume lost over a user-specified date range
- Trendline of overall system losses to support analysis if losses are improving over time
- Prioritized grid view and CSV export of all DMAs in the system
- Inflow and outflow distribution meters accounted for in loss calculations for a selected DMA

District Details

Analysts can dig into the details of a prioritized DMA to target further analysis of how best to reduce losses.
- Map view of distribution meters supplying (inflow), diverting (outflow) and consumption meters by geographic location
- Visualization of volume supplied to DMA, volume recorded by consumption meters within the DMA and calculated losses by hour, day, week, month or year
- Visualization of hourly interval data to perform Minimum Night Flow (MNF) analysis to identify real vs. apparent losses
- Grid and timeline view of analytic events (tamper, no usage on active/zero consumption, usage on inactive and metered leaks) to identify apparent losses due to malfunctioning meters or unauthorized consumption
- Use Itron Analytics Theft Detection application to further identify and recover unauthorized consumption

System Requirements

- Itron Analytics Software as a Service platform with District Metering Analysis application
- Itron OpenWay Riva or ChoiceConnect AMI system
- Hourly interval consumption recorded and submitted to Itron Analytics Platform for distribution and consumption meters for each DMA
- Distribution and consumption meters identified for each DMA
- Distribution meters identified as inflow or outflow for each DMA

1 “Water Loss Determination: For What It’s Worth”