Kickstarting your gas AMI journey

Glen Mannering, Director, Operational Technology

Rick Hitzemann, Director, Operational Technology

Leonard Xhemali, Superintendent, Meter and

Measurement Engineering, Philadelphia Gas Works



Agenda

- Introductions
- AMI 2.0 Summit
- Next generation gas AMI
- Project overview
- Case study: Philadelphia Gas Works



Speakers



Glen Mannering
Director
Operational Technology
E Source



Rick Hitzemann

Director

Operational Technology

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Leonard Xhemali
Superintendent, Meter and
Measurement Engineering,
Philadelphia Gas Works

Join us for the AMI 2.0 Summit

When October 7, 2025

Where Sheraton Denver Downtown Hotel, Denver, CO 80202

Who Utility professionals driving AMI strategy and operations

What One-day event to discuss, debate, and learn.
Hands-on sessions include Electric 2.0 and Gas AMI.

Next generation gas AMI



Technological trends in US gas utilities



Customer & employee safety



Digitization & automation



Clean gas –

RNG & H2



Demand forecasting & grid optimization



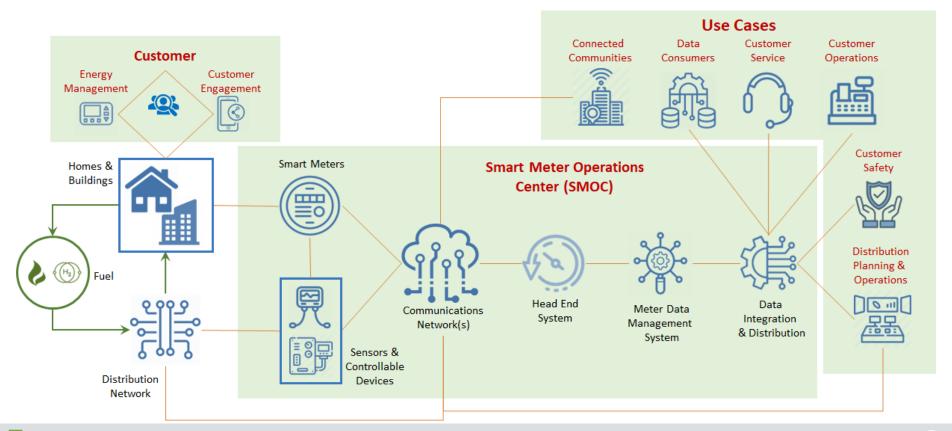
Cybersecurity enhancements



Smart pipeline monitoring

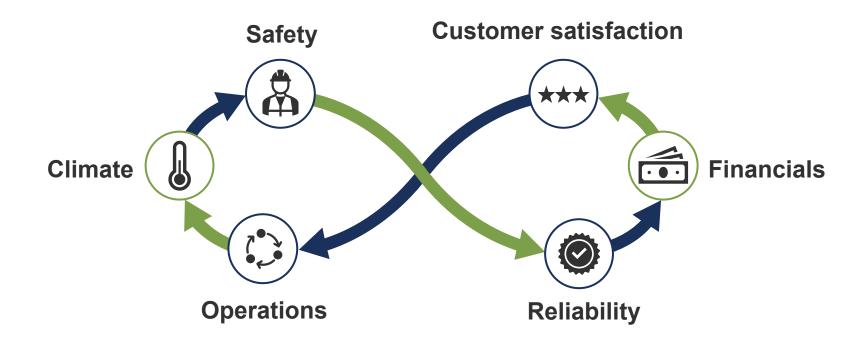


Gas AMI capability evolution





Next generation use cases





AMI and smart grid adoption evolution

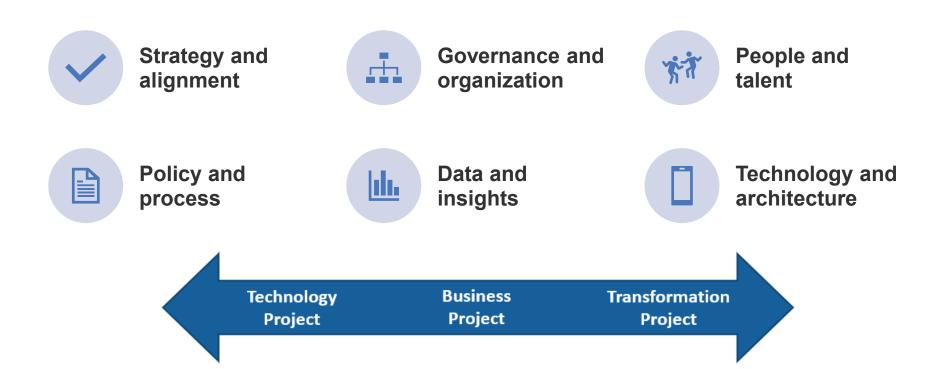




AMI project overview

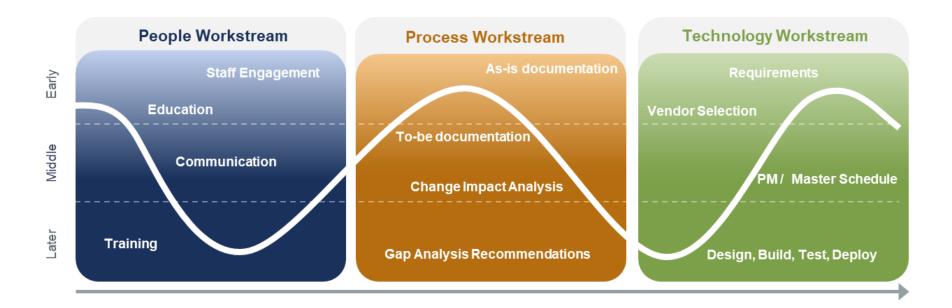


AMI is a transformational evolution



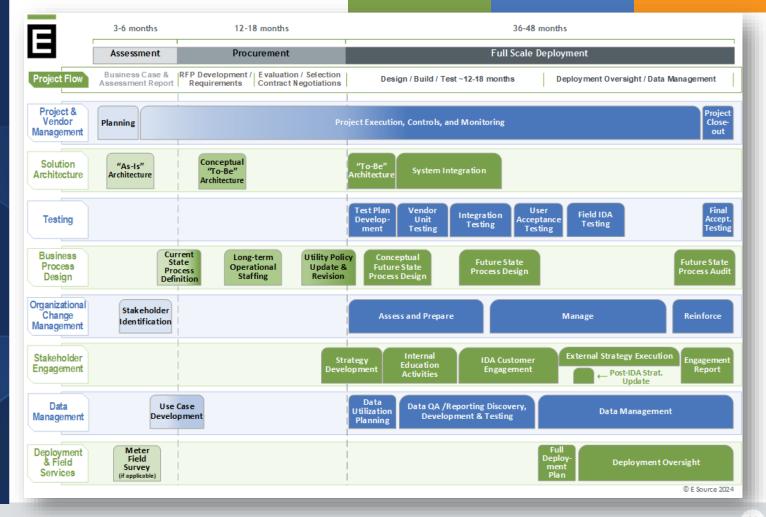


More than a meter replacement or technology project



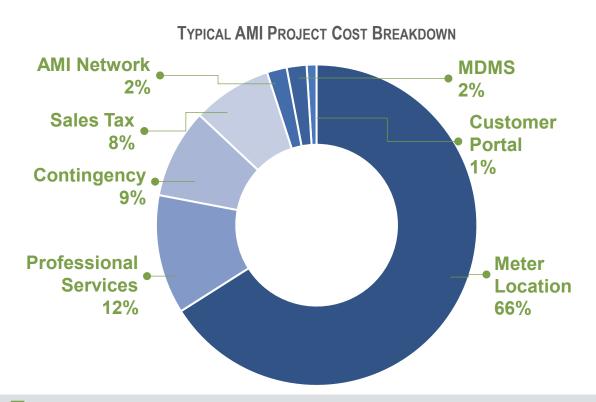


Typical project timeline and work-streams.





AMI project costs



More than 60% of the project cost is at the meter location.



10 steps for success



Establish a comprehensive **business** case.



Employ **program governance** / project management practices.



Develop a project and post-project **staffing plan**.



Craft an employee / customer <u>education</u> and <u>communication</u> campaign.



Engage and capture <u>requirements</u> across <u>all</u> departments.

10 steps for success



Case study: Philadelphia Gas Works



PGW's history



The nation's largest municipally-owned natural gas utility.

- **1836:** The city's first 46 gas lights were turned on.
- 1841: PGW became under city ownership

- 1972: PGW became managed by the Philadelphia Facilities
 Management Corporation (PFMC)
- 2000: PGW regulated by the PublicUtility Commission
- Approximately 1,600 employees

PGW's vision and goals



Drive operational excellence



Grow revenue through expanded offerings



Make PGW easy to do business with



Attain a diverse, skilled workforce



Generate inclusive regional economic growth



Lead Philadelphia's clean energy future



PGW's numbers

Customers served:

~ 98% residential

~ 2% commercial /

~ 520,000

meters

industrial customers

~ 86% of our system runs on low pressure distribution

~ 93% of meters are indoors



Walk-by to AMR transition

- One of the first gas utilities to transition in the early 1990s
- ~99% meter reading success rate
- Fewer manual reads, better accuracy
- Provides tilt and magnetic count



PGW's AMI journey and implementation roadmap

- Exploration began in 2015; active research since 2017
- RFP paused in 2019 due to COVID-19
- Pilot tested various gas meters
- Now in business case review and RFP development
- Planning for deployment, organizational impact, and risk management

Why AMI?

- Overpressure protection for low-pressure gas distribution systems
- Safety enhancements: faster emergency response, remote shut-offs, early leak detection, detects flow/temperature anomalies, methane leaks, and tampering
- Modernizes meter reading and telemetering



AMI benefits

Environmental

- Reduced truck roll outs
- Fewer vehicular accidents and field injuries
- Supports greenhouse gas emission reduction goals

Customer

- Real-time usage data
- Fewer call center contacts
- Enhanced customer choice



Questions



