



Water Meter Replacement with Advanced Metering Infrastructure Update

Presentation to City Council

June 10, 2025





Agenda

- 1 Project Goals and Objectives**
- 2 AMI Overview**
- 3 Project Overview To-Date**
- 4 Current and Future State**
- 5 Project Funding**
- 6 Project Next Steps**



Project Goals & Objectives

Goal

- Modernize metering infrastructure and improve the customer experience

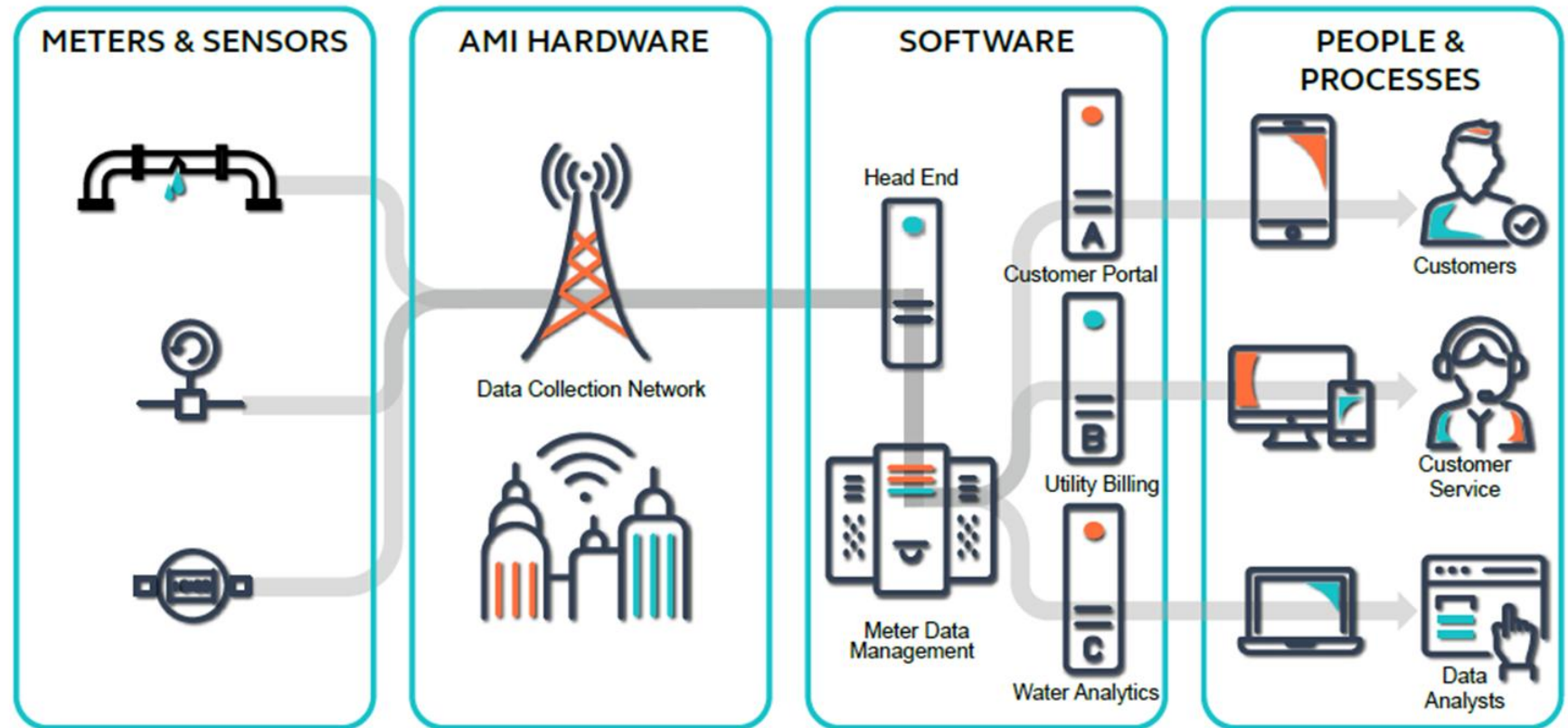
Objectives

- Optimize water conservation efforts with improved water usage analytics
- Improve customer experience by providing water usage & billing information more quickly
- Optimize in-house operations and processes
- Improve metering accuracy and reduce non-revenue water
- Stay current with industry norms and practices

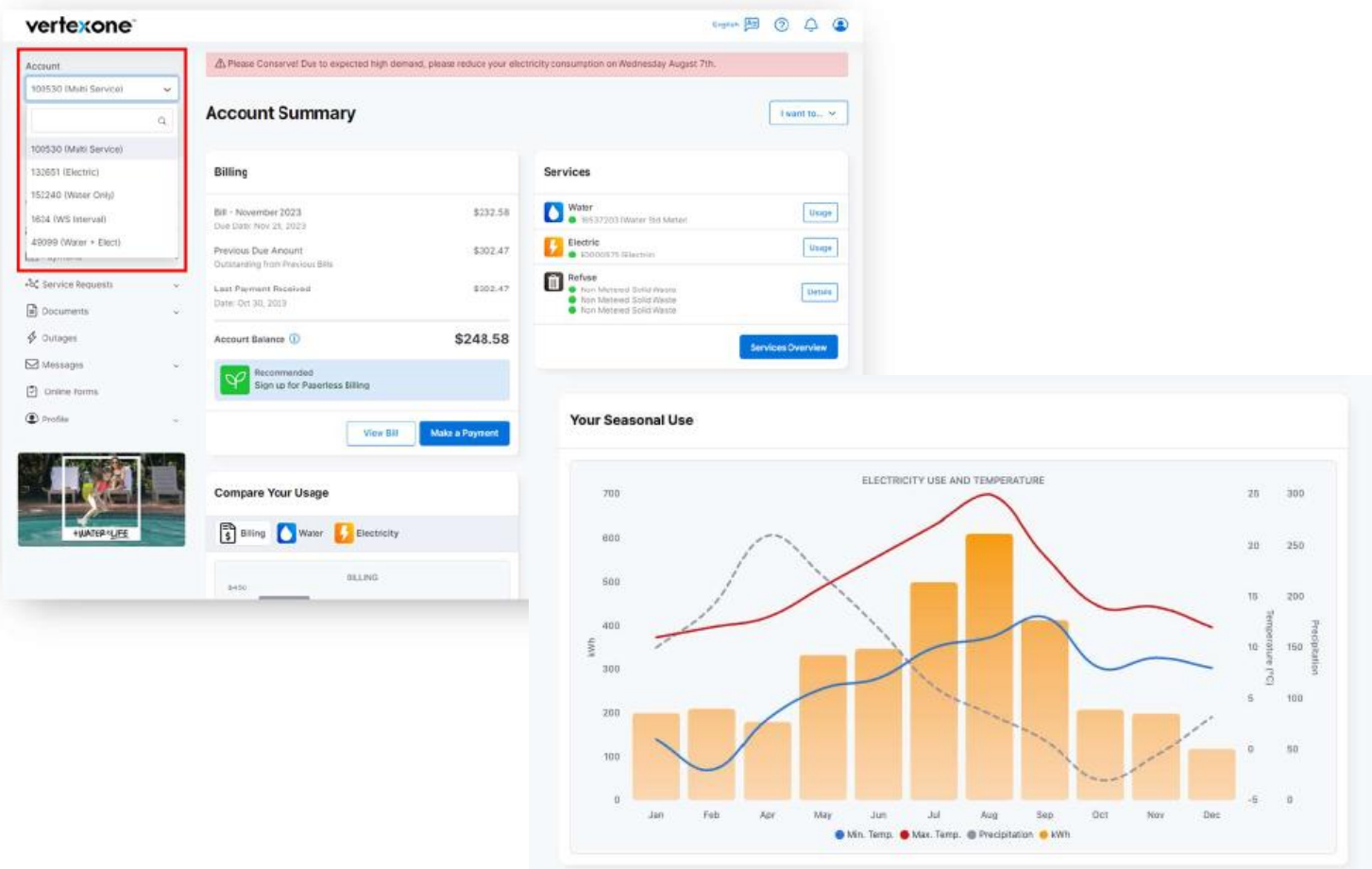


Overview Advanced Metering Infrastructure

AMI is an integrated system of communication networks, meters & sensors, data management systems, and people & processes that enables two-way communication between the utility and the customers.



Overview AMI Benefits – Customer Portal



- New web-based Customer Portal provides information and self-service capabilities to utility customers
- Detailed water usage information empowers customers to effectively manage water usage
- Proactive leak detection tools

Overview AMI Benefits - Utility

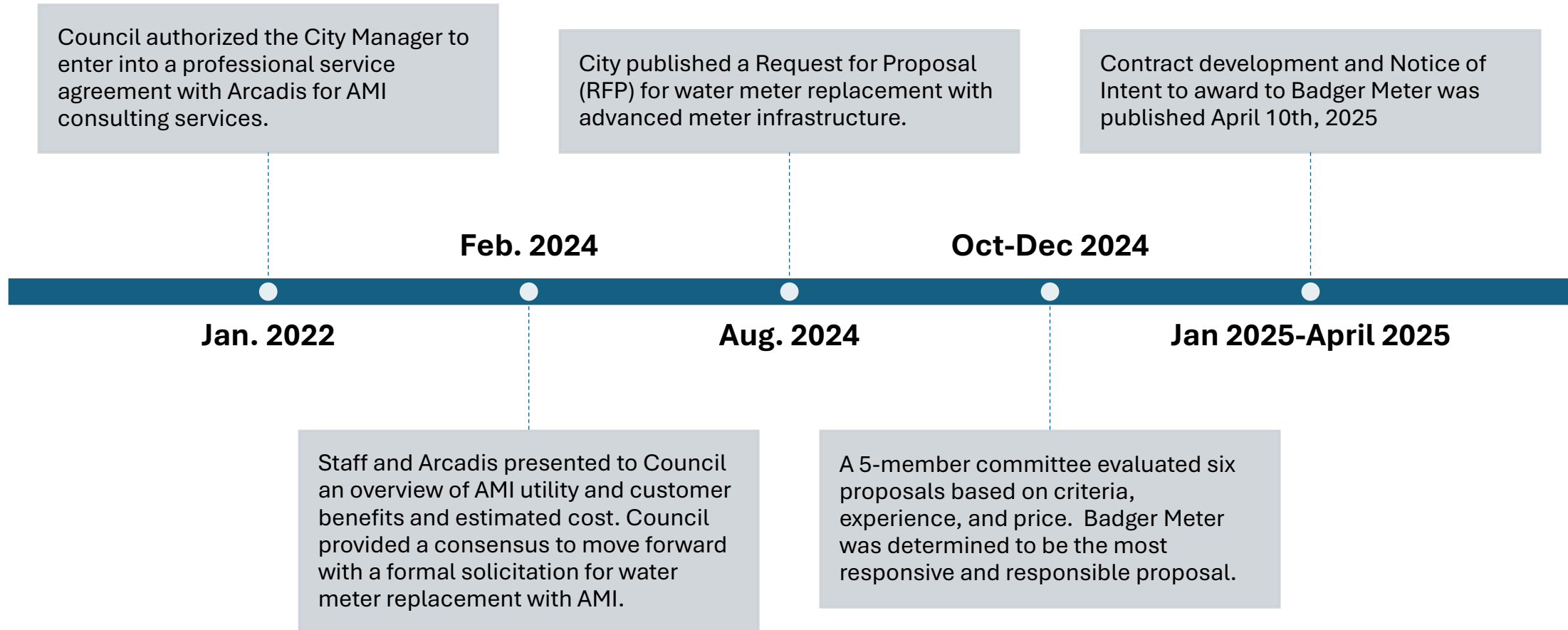
AMI helps utilities become more effective.



- More precise water usage measurements from state-of-the-art meters
- Reduces bill complaints, rebills, and adjustments
- Vehicle cost and carbon footprint reduction
- New data analytics capabilities will drive water conservation programs



Project Overview To-Date

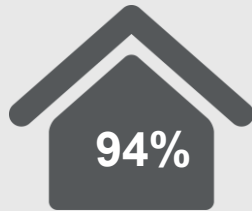




Current and Future Water Metering

CURRENT

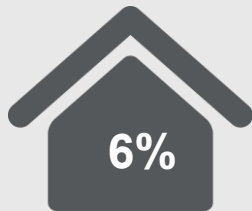
Approximately 65,000 total water meters, located outdoors in water meter boxes.



Visual Read Mechanical Meters



Walk By Meter Reading



Radio Read Mechanical Meters

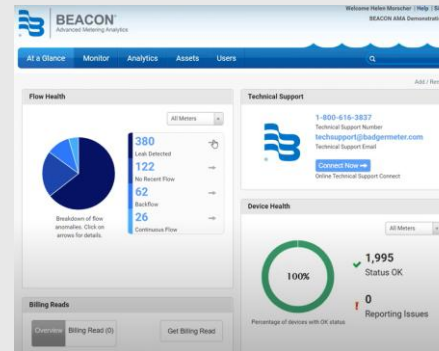


Drive By Meter Reading (AMR)

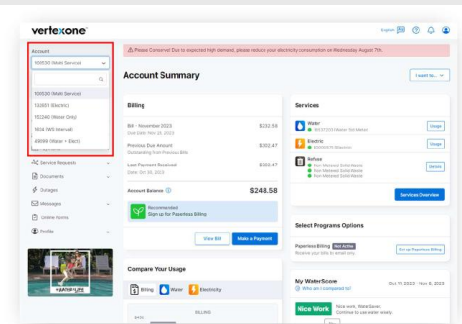
FUTURE WITH AMI



Badger Meter E-Series Ultrasonic Water Meters with Orion Cellular AMI Endpoints



Badger Beacon AMI Software-as-a-Service



VertexOne Customer Portal Software-as-a-Service



Project Funding

- Project costs are included in the water rates
- Approximately \$33M is included in the Capital Improvement 5-Year Plan (CIP)
- Bureau of Reclamation, WaterSMART Water and Energy Efficiency Grant is available
 - Awards up to \$5M
 - Grant Application Submitted Nov 2024
 - Award Notifications Are Pending



Summary of Project Cost and Benefits Estimate

Project Cost Estimate (15-Year)

Scope Item	Cost
Water Meters Meter Box Lids	\$ 12,548,000
AMI Hardware	\$ 5,655,000
Meter and AMI Installation Services	\$ 5,606,000
Software Integration and Project Management	\$ 2,484,000
AMI SaaS and Network Monitoring (Year 1-3)	\$ 937,000
Program Management Consultant	\$ 750,000
Subtotal	\$ 27,980,000
Contingency @ 10%	\$ 2,798,000
Total Acquisition Cost With Contingency (1-Time)	\$ 30,778,000
Contractual Costs for 12-Years (Years 4-15)	\$ 8,087,000
Total 15-year Lifecycle Cost	\$ 38,865,000

Project Benefits Estimate (15-Year)

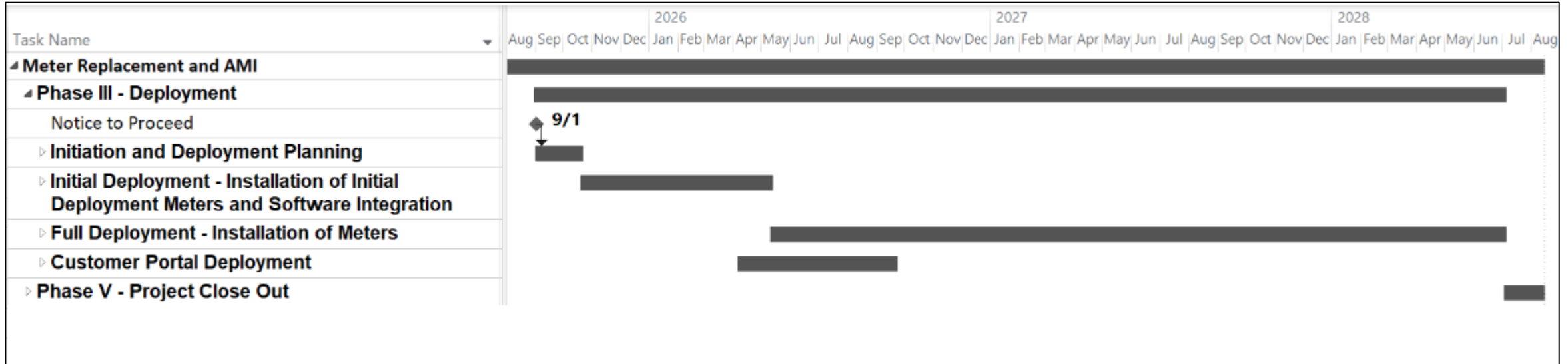
Benefit Item	Benefits
Improved Meter Registration (Water and Sewer)	\$ 43,870,000
Labor Productivity	\$ 4,930,000
Operational Cost Reductions	\$ 1,200,000
Total Net Present Value (Lifecycle Benefit)	\$ 50,000,000
Total Net Present Value (Lifecycle Cost)	\$ 35,994,000

Benefit/Cost Ratio	1.39
Simple Payback Period (years)	9.67
Internal Rate of Return	7%

Acquisition costs based on contract values



AMI Project Schedule





Project Next Steps

- Council contract approvals:
 1. Badger Meter
 2. VertexOne
- Developing Customer Communication Plan
- Project Notice-to-Proceed targeted for Sept. 1.



Thank You!

