



# North County Reclaimed Water Master Plan Improvements & Advanced Metering Infrastructure

Megan Ross, PE, ENV SP

Pinellas County Utilities Director



# Master Plan Recommendations



## Phase 1: Operational Improvements

### Pumps and Piping



Enhance existing  
supply capabilities

## Phase 2: Demand Management

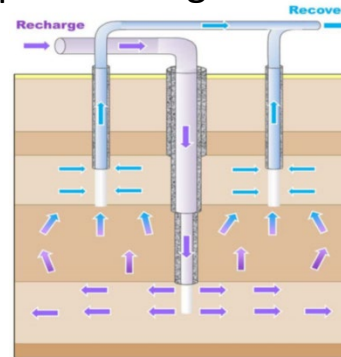
### Reclaimed Water Meters



Education & billing

## Phase 3: Supply & Storage

### Aquifer Storage Recovery



Future demand  
planning



Improved Availability

# Phase 1, 2 and 3 Progress Update



## Phase 1: Operational Improvements



Current system  
enhancements  
under design  
Construction in  
FY23

## Phase 2: Demand Management



Advanced Meter  
Infrastructure (AMI)  
FY22-FY25

## Phase 3: Supply and Storage

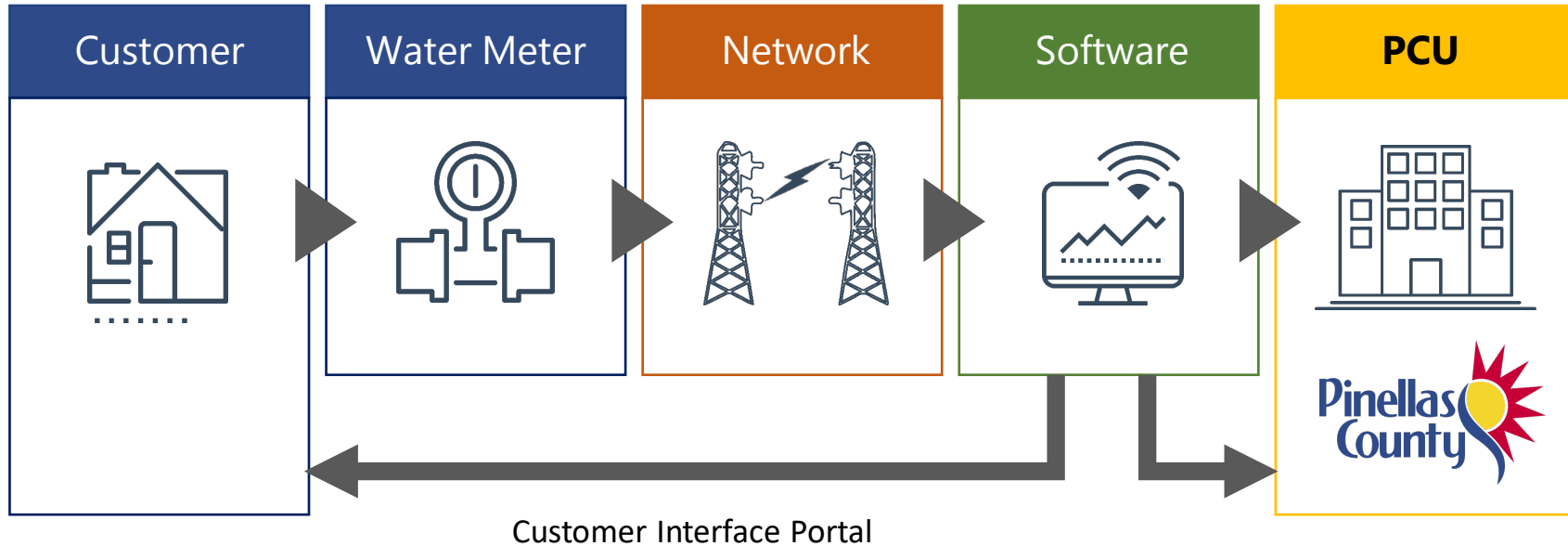


Aquifer Storage  
Recovery (ASR)  
FY21-FY26

# Phase 2 Demand Management through AMI



# How Advanced Metering Infrastructure (AMI) Works





# AMI Benefits - Reclaimed Water



Monitoring  
and analyzing  
customer usage



Understand and address  
customers violating water  
restriction rules and educate  
heavy users



Remove staff  
from road and  
customer property



Shift overnight field  
staff into analysis  
and education roles



Charge for actual  
usage rather than  
unlimited usage



Customers can monitor  
their own usage  
avoiding overwatering



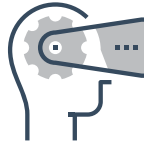
# Current Drinking Water Meter Reading Process



80% of Meters are at the End of their Useful Life.



Manual Reading



Transposition of Numbers



60-Day Latency



No Leak Detection



Driving/Safety Concern



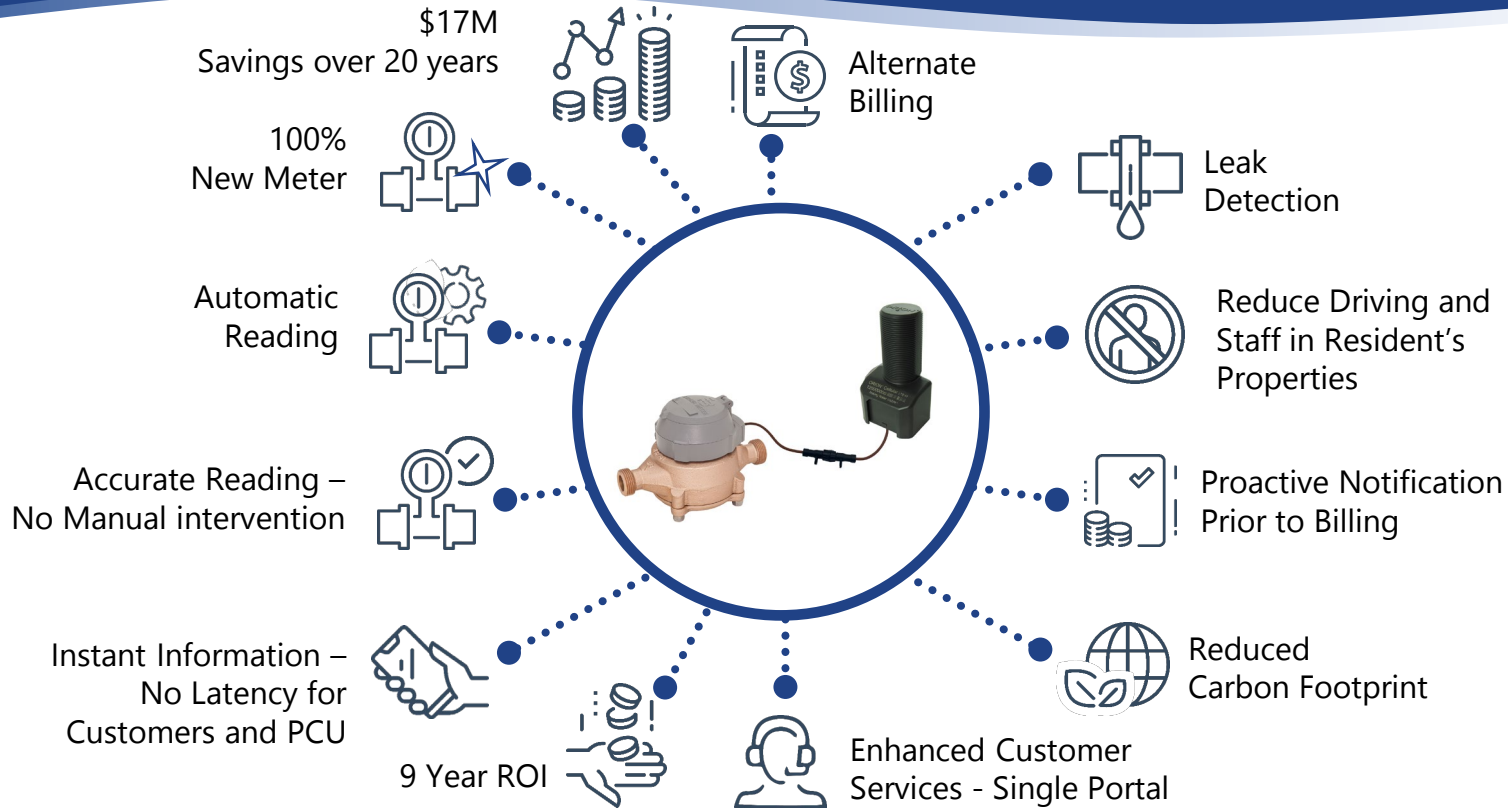
No Proactive Notifications



Carbon Footprint



# AMI Benefits for Drinking Water



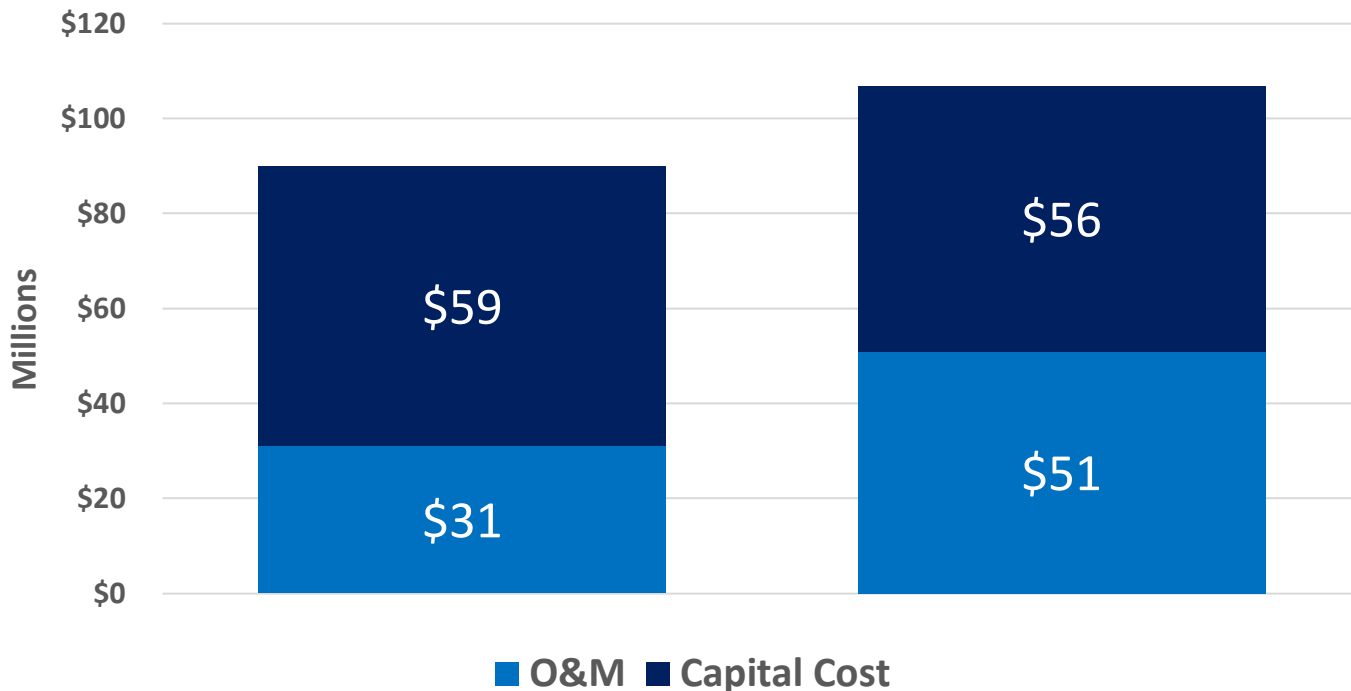


# AMI Cost Savings



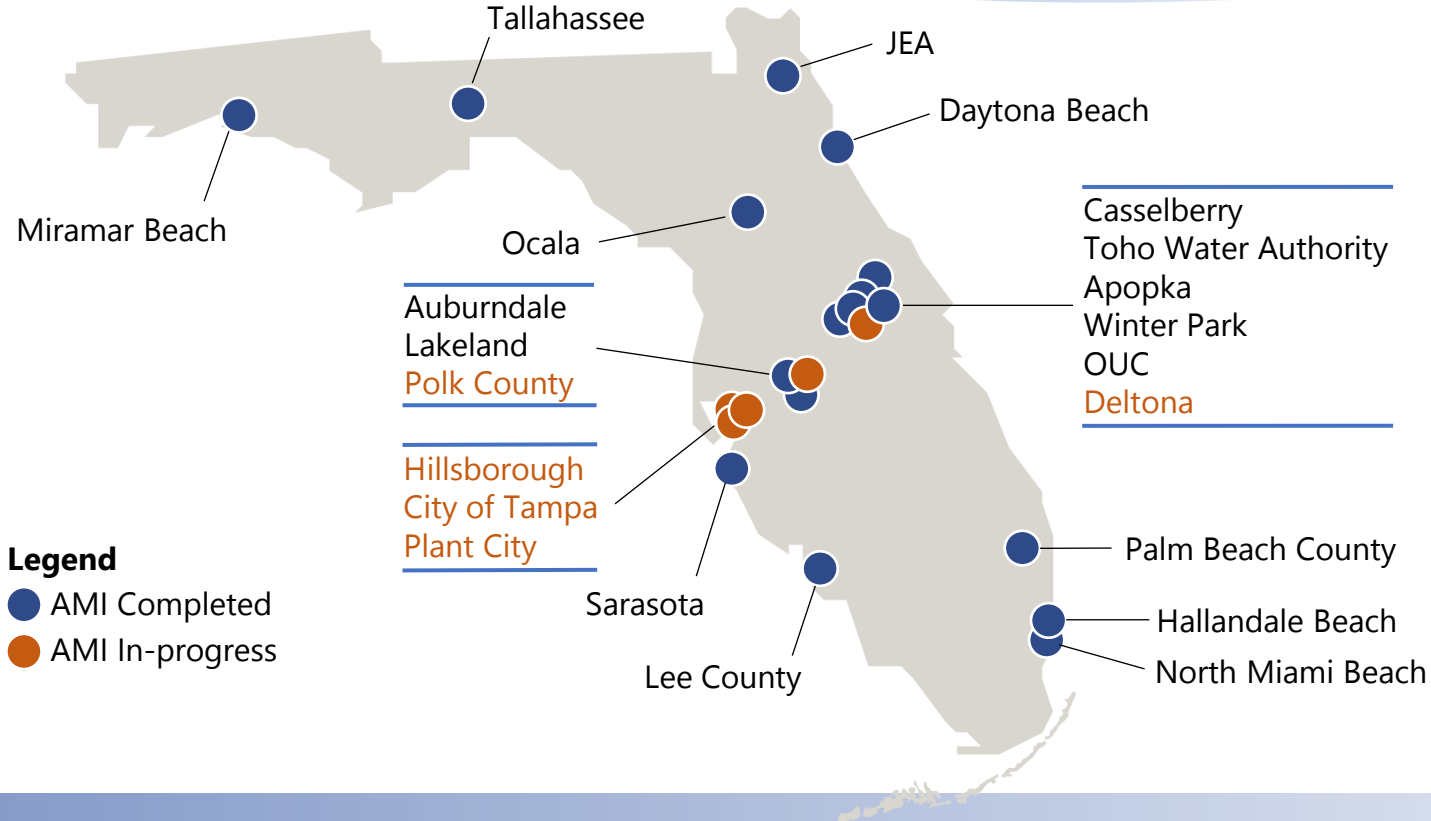
AMI Implementation

Non-AMI Implementation

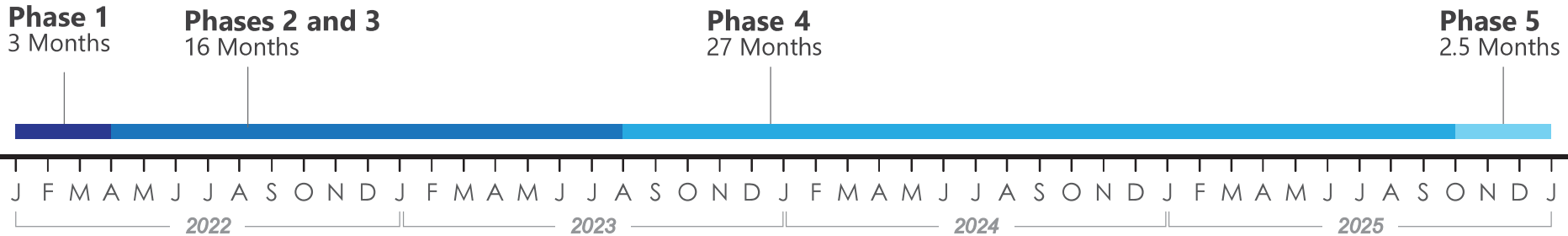


- **\$17 Million Savings**
- **9-Year ROI**

# FL Water Utilities with AMI



# Project Timeline



**Phase 1: Integration Stage**

**Phase 2: Initial Proof of Concept Installation**

**Phase 3: Initial Ramp Up of Installations**

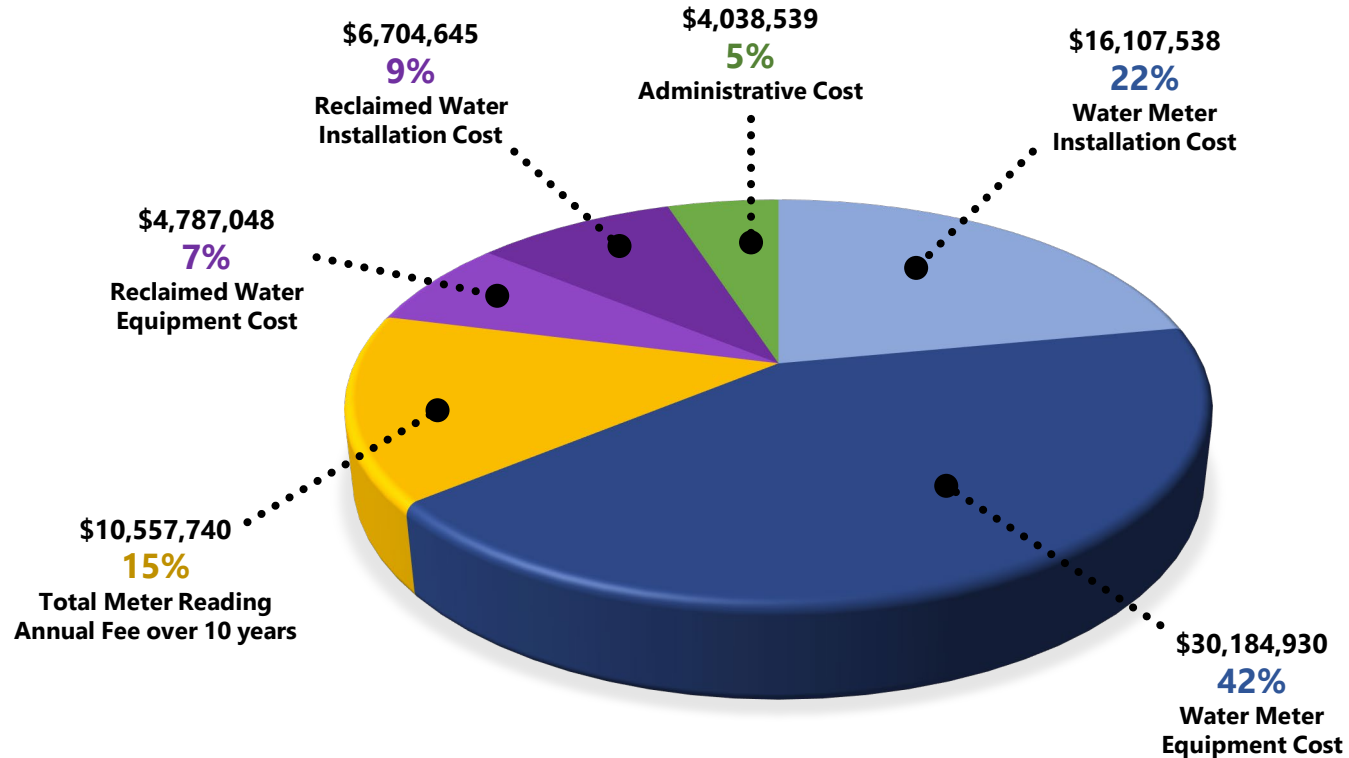
**Phase 4: Full Installation Deployment**

**Phase 5: Final Project Cleanup**

# Estimated Cost Breakdown



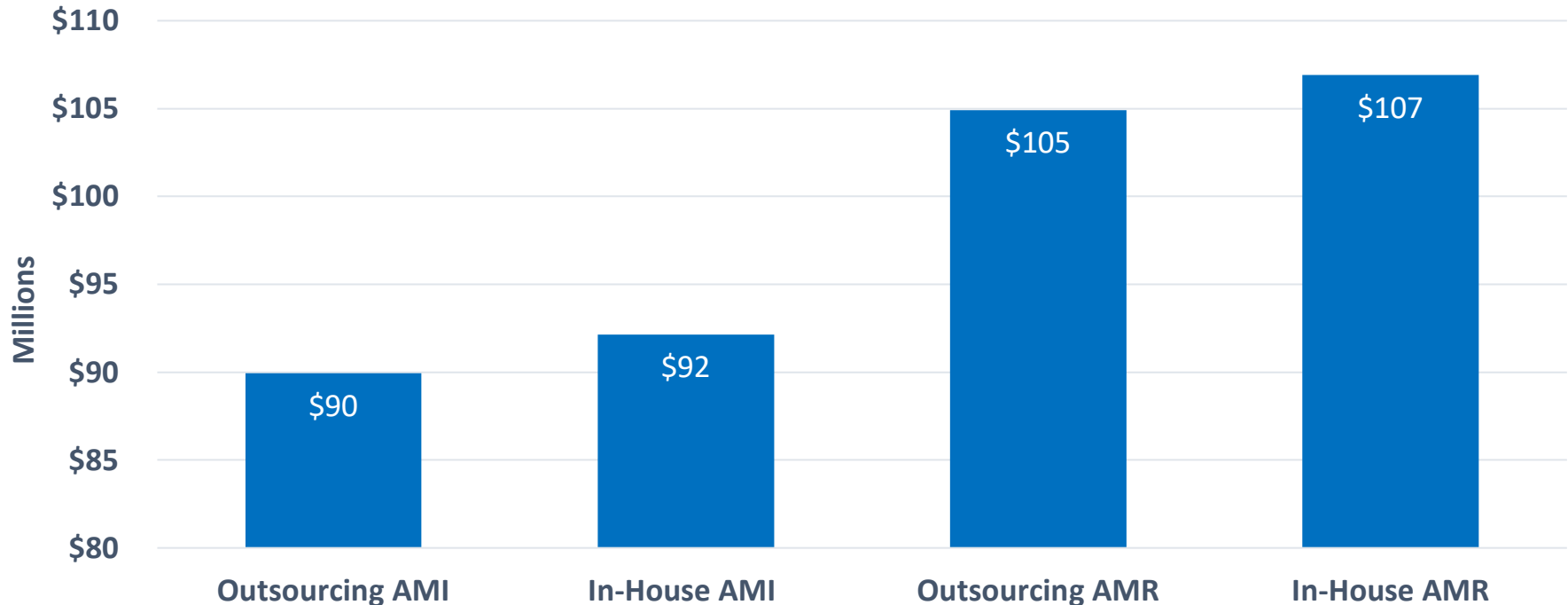
- **Selected Vendor:**  
Badger Meter, Inc.
- **Estimated project total:** \$72.3 million over 10 years
- **No. of meters:**  
128,000



# Analysis of Alternatives



## 20-Year Net Present Value Analysis





# Questions?