



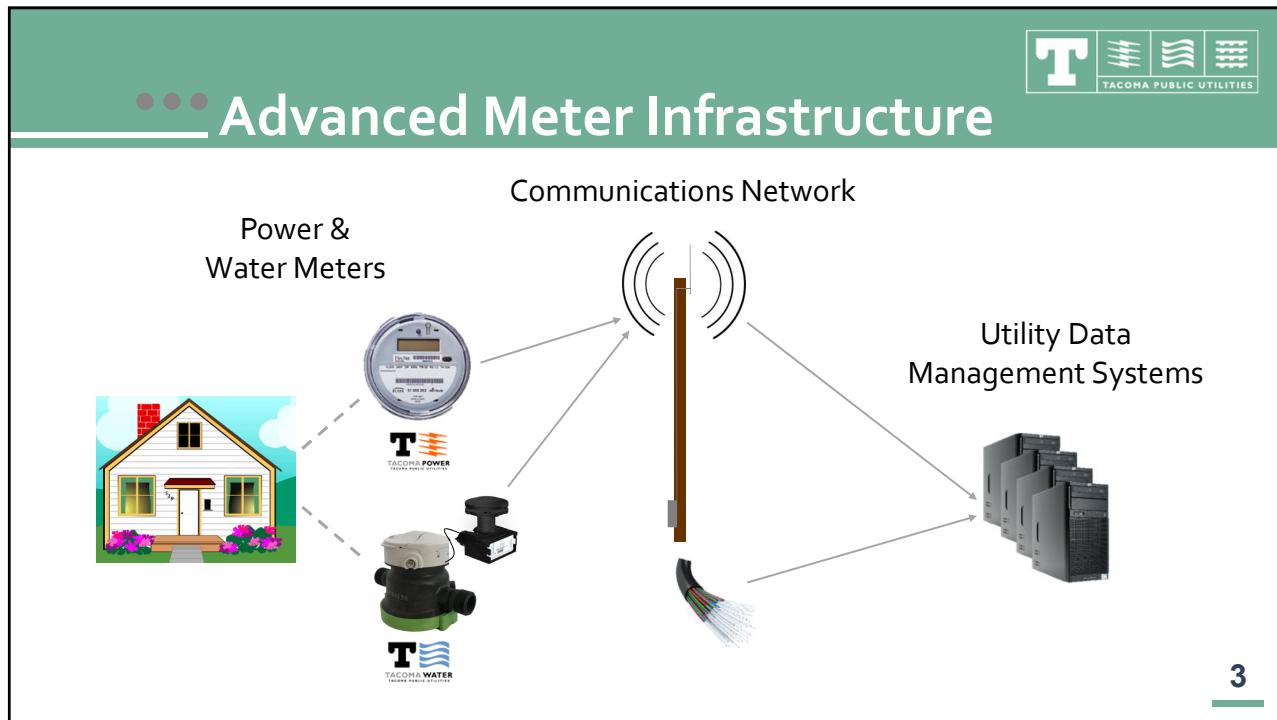
# Advanced Electric and Water Meters: Program Update and Customer Benefits

Tacoma City Council and Public Utility Board  
Joint Study Session  
March 3<sup>rd</sup>, 2020

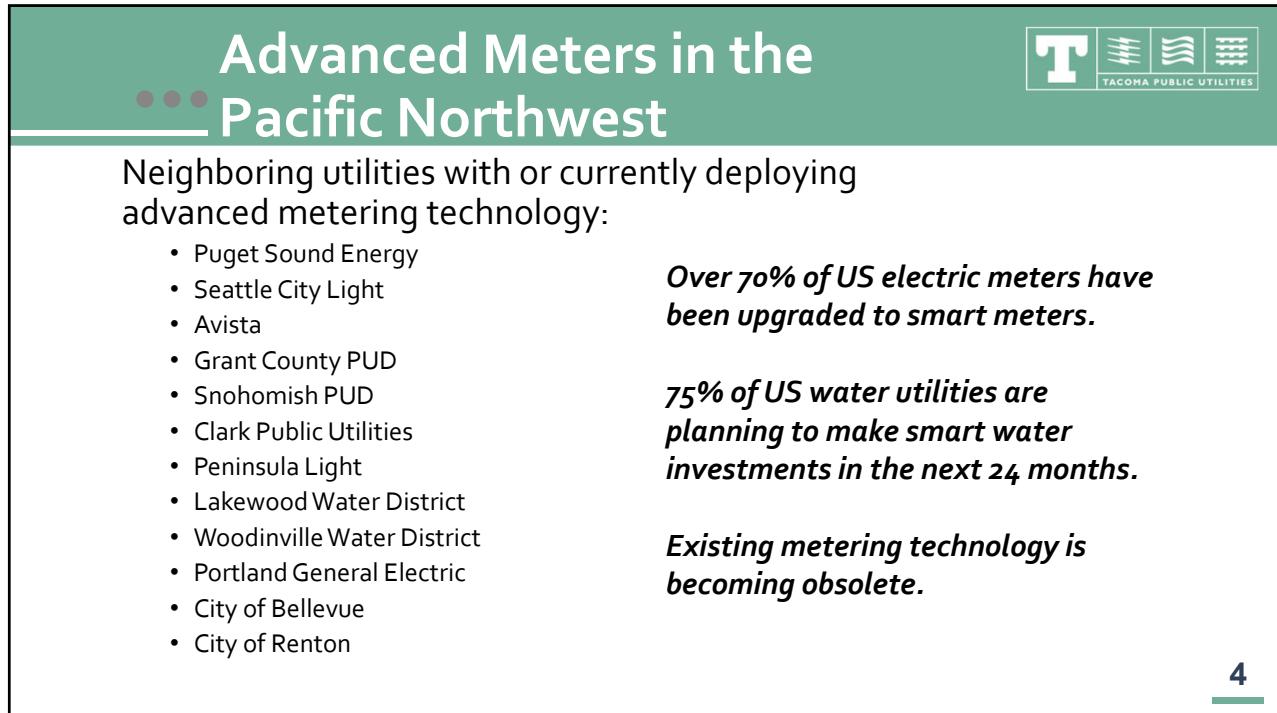


## ••• Agenda

1. Program Update
  - Scope
  - Milestones
  - Schedule
  - Budget & Rates Impact
2. Customer Benefits
  - Customer Benefits Timeline
3. Meter Deployment Readiness
  - Readiness Scorecard
  - Communications



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## ••• Program Scope

### Infrastructure

- Installation of approximately:
  - 180,000 electric meters
  - 107,000 water meters & modules
- Installation of the Advanced Meter Communication Network, approximately:
  - 65 base stations (radio communication units)

Power &  
Water Meters



TACOMA POWER  
TACOMA WATER

Base  
Stations



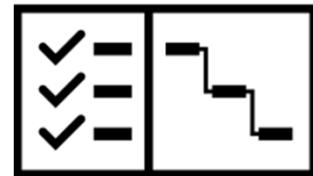
TACOMA WATER

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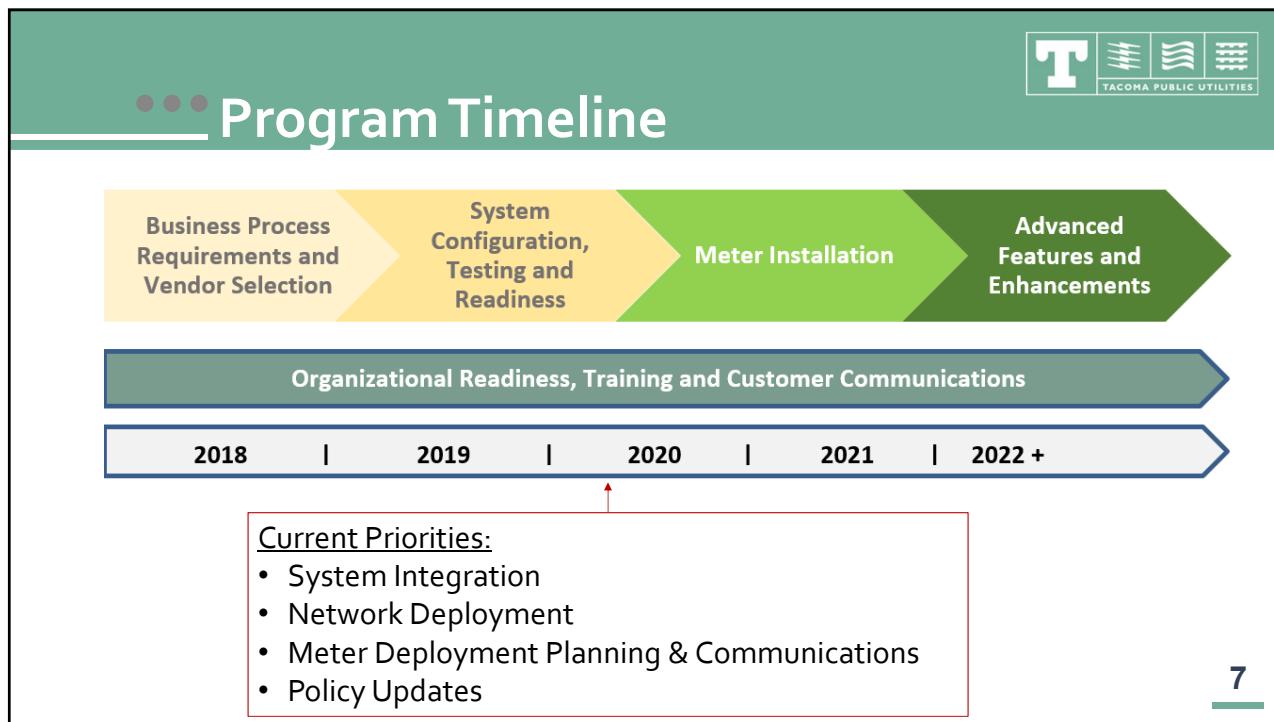
## ••• Program Scope

### Software

- Utility Data Systems:
  - Advanced Meter System to SAP integration
  - Meter Data Management System (MDMS)
- Transition to monthly billing
- Deployment of a customer usage portal
- All applications and functionality associated with Phase 1 of the AMI roadmap



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## Utility Modernization Strategy

*Integrate technology & foster innovation to deliver affordable, flexible, secure, resilient, and sustainable power & water services for our customers*

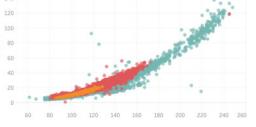
**Advanced metering deployment**



**Customer digital engagement**



**Advanced data analytics**



**Mobile workforce mgmt.**



**Cybersecurity maturity**



**Energy imbalance market**



**Geospatial systems**



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### Customer Benefits Timeline

**2020**

- Automated Meter Reading
- Enhanced Personal Privacy
- Easier Move In & Move Out
- Remote Reconnect/Disconnect for Electric
- Abnormal Consumption Notifications
- Emergency Water Leak Notifications

**2021**

- Monthly Billing
- Basic Prepay for Electric

**2022**

- Enhanced Customer Web Portal
- Expanded Ways to Save: AMI Data Available on Web Portal
- Enhanced Prepay Via Web Portal for Electric
- Choose Your Own Bill Date
- Enhanced Customer Outage Notifications

**Advanced Meter Customer Benefits**



Benefits Available As Customers Receive New Meters Over Time:  
2020-2022

DRAFT: Revised 2/21/2020

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## ••• Budget & Rates Impact

Category	Current Forecast <sup>1</sup>
Electric Meter Deployment	\$ 26,059,039
Water Meter Deployment <sup>3</sup>	\$ 21,363,073
Communications Network Deployment	\$ 3,280,816
System Integration	\$ 8,891,422
Capital Internal Labor	\$ 2,043,167
Professional Services	\$ 3,788,946
Operations & Maintenance (O&M) Costs	\$ 9,491,736
AMI Customer Engagement Portal <sup>4</sup>	\$ 250,000
<b>Projected Total \$</b>	<b>75,168,200</b>
Contingency \$	6,597,243
<b>Total With Contingency \$</b>	<b>81,765,443</b>

<sup>1</sup>Actual costs through November 2019.

<sup>2</sup>TPU Internal Support Costs, in addition to business case costs shown above, are tracked separately and do not incrementally impact rates.

<sup>3</sup>Complementary budget for replacing end of life water meters is budgeted within the Water Division.

<sup>4</sup>Budget for AMI specific web portal integration requirements.

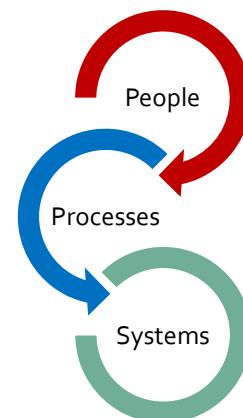
### Rates Impact:

- Costs for advanced meters are already factored into current rates.
- The additional cost each year for the next ten years is about:
  - 8 cents per month for the average residential power customer
  - 11 cents per month for the average residential water customer in the City of Tacoma
  - 13 cents per month for the average residential water customer outside the City of Tacoma

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## ••• Meter Deployment Readiness

- Learn from industry and neighboring utility experiences
- Understand areas of strength and risk before beginning deployment
- Readiness Scorecard
  - TPU Readiness
  - Program Readiness
  - Technical Readiness
  - Communications Readiness



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# Customer Communications

**TACOMA PUBLIC UTILITIES**  
**Advanced Meter Project**

The Tacoma Public Utilities (TPU) Advanced Meter Project will provide you with greater control, choice, and convenience. Starting in mid 2020, TPU will begin upgrades to its electric and water systems to support the installation of advanced meters. Advanced meters use wireless technology, including monthly billing, remote service reconnection, more options to control your costs, improved reliability through faster outage and leak detection, and more flexible payment options.

**Your benefits over time**

- Your Control, Choice, and Convenience
- Monthly Billing
- Enhanced Personal Privacy
- Faster Outage and Leak Detection
- Improved Operational Efficiency

[MyTPU.org/AdvancedMeters](http://MyTPU.org/AdvancedMeters) 

**TACOMA PUBLIC UTILITIES**

**Facts about Advanced Meters and Radio Frequency Emissions**

Your concerns about radio frequency (RF) emissions are important. The installation of advanced meters will not affect your health or safety. Advanced meters measure your usage throughout the day just like your current meter. Advanced meters do not emit RF when you are using electricity. The meters emit RF only when they transmit data, which is typically less than one minute per day.

**How do advanced meters work?**

Advanced meters measure your usage throughout the day just like your current meter. Advanced meters do not emit RF when you are using electricity. The meters emit RF only when they transmit data, which is typically less than one minute per day.

**Radio Frequency (RF) Exposure Values (in microWatts)**

(based on average usage)

FOR RADIO / TELEVISION / METER	WIRELESS 2 FEET AWAY	ADVANCED METER 2 FEET AWAY	MICROWAVE OVEN 2 FEET AWAY	CELL PHONE AT EAR
0.000-1 microWatts	0.0-1 microWatts	4 microWatts	30-400 microWatts	100-1000 microWatts

[MyTPU.org/AdvancedMeters](http://MyTPU.org/AdvancedMeters) 

**TACOMA PUBLIC UTILITIES**

**New Advanced Meters on the horizon**

Monthly billing, remote service reconnection, faster outage and leak detection, and more.

[EXPLORE THE BENEFITS](#)

**PAYMENT & BILLING** **OUTAGES & SAFETY** **WAYS TO SAVE** **COMMUNITY & ENVIRONMENT** **CUSTOMER SERVICE**

**Public Process**

We host several outreach events to provide an opportunity for members of the community to learn more about the Advanced Meter project.

**Public Utility Board Meetings**  
View agendas and minutes from the Public Utility Board Meetings online.

**Neighborhood Council Meetings**

- April 10, 5:30 p.m. - New Tacoma Neighborhood Council - Tacoma Municipal Building
- April 10, 5:30 p.m. - South Tacoma Neighborhood Council - Tacoma Nature Center
- June 17, 6 p.m. - North End Neighborhood Council
- June 17, 7 p.m. - South End Neighborhood Council
- June 24, 6 p.m. - South Hill Neighborhood Council
- June 26, 6 p.m. - Northeast Neighborhood Council

**Customer communications before, during, and after meter installation.**

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# Deployment Customer Communications Plan - DRAFT

General Awareness	Initial Deployment Area	Residential Deployment	Commercial Deployment
Web Content - Constant	Open House Invite - Letter	45, 30, 14 Days - Install Letter	90 Days - Meeting with Account Executive
Web Banner Ads	45, 30, 14 Days - Install Letter	7 Days - Install Reminder Postcard	60 Days - Install Letter
U* Article, Jan 2020 issue	7 Days - Install Reminder Postcard	2 Days - Auto Dial Call (from MIV)	35 Days - Install Letter Reminder
Tacoma T-Town Expo	2 Days - Auto Dial Call (TBD)	Completed Door Hanger	14 Days - Reminder From Account Executive
E-newsletter	Completed Door Hanger		2 Days - Reminder From Account Executive
U*Articles, July & Sept 2020 Issues			
Bill Insert July/Aug 2020			
Bill Insert Sept/Oct 2020			
Community Outreach			
Social Media		Communication materials will be available in multiple languages.	

**5 specific customer communications before meter installation.**

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# Questions?

[MyTPU.org/AdvancedMeters](http://MyTPU.org/AdvancedMeters)

