



RESOLUTION NO. U-11190

1 A RESOLUTION related to the adoption of the Advanced Metering
2 Infrastructure (AMI) Customer Side Repair Policy and development of a
3 Tacoma Water grant and loan program related to conservation.

4 WHEREAS the City of Tacoma, Department of Public Utilities (TPU)
5 plans to deploy Advanced Metering Infrastructure (AMI) across its entire water
6 and electric service territories, replacing or upgrading all non-communicating
7 power and water meters with advanced two-way communicating technology,
8 and

9 WHEREAS advanced meter infrastructure will modernize utility
10 operations and be a cornerstone to deliver customers improved services and
11 benefits, and

12 WHEREAS to ensure both customer wellbeing and the success of this
13 critical project, TPU has researched and identified solutions to potential
14 customer impacts that may arise throughout the AMI project, and

15 WHEREAS to address these impacts, Tacoma Power and Tacoma
16 Water have developed an Advanced Meter Customer Side Repair Policy
17 (Policy) on file with the Clerk of the Board, and

18 WHEREAS additionally TPU intends to develop grant and loan programs
19 specific to customer owned water infrastructure repairs and/or replacement,

20 WHEREAS the adoption of this policy will authorize the utility to develop
21 grant and loan programs specific to customer-owned water infrastructure
22 repairs and/or replacement, and
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WHEREAS these specific grant and loan programs are intended to
extend beyond the scope and duration of the AMI program and will have a
nexus with water conservation; Now, therefore,

BE IT RESOLVED BY THE PUBLIC UTILITY BOARD OF THE CITY OF TACOMA:

Sec. 1. That the proposed Advanced Meter Customer Side Repair Policy
as on file with the Clerk of the Board is hereby approved; and

Sec. 2. That the appropriate TPU staff are hereby authorized to develop
a grant and loan program specific to customer- owned water infrastructure
repairs and/or replacement to be brought back for approval by the Board.

Approved as to form:

_____	_____
/s/	Chair
Chief Deputy City Attorney	_____
_____	Secretary
Clerk	Adopted _____



Board Action Memorandum

TO: Jackie Flowers, Director of Utilities
COPY: Charleen Jacobs, Director and Board Offices
FROM: Chris Robinson, Power Superintendent/COO
Scott Dewhirst, Water Superintendent/COO
MEETING DATE: August 26, 2020
DATE: August 14, 2020

SUMMARY: Tacoma Public Utilities (TPU) requests a resolution to adopt the proposed Advanced Metering Infrastructure (AMI) Customer Side Repair Policy to make specific customer owned infrastructure repairs in support of the Advanced Metering Project. In addition, TPU requests that this resolution authorize the utility to develop grant and loan programs specific to customer owned water infrastructure repairs and/or replacement. This water specific grant and loan programs are intended to extend beyond the scope and duration of the AMI program and will have a nexus with water conservation.

BACKGROUND: Tacoma Public Utilities (TPU) plans to deploy Advanced Metering Infrastructure (AMI) across its entire water and electric service territories, replacing or upgrading all non-communicating power and water meters with advanced two-way communicating technology. Advanced metering is a foundational element of Tacoma Public Utilities' Utility Modernization Strategy and will deliver customers new key benefits over time related to their power and water usage. Advanced metering technology will capture interval data, enable two-way communications, include remote capabilities, and provide advanced outage/issue detection, and verification. Advanced metering will modernize utility operations and be a cornerstone to deliver customers improved services and benefits.

As a transformative initiative, the Advanced Metering Project has and continues to require a significant effort across TPU to implement the new processes, applications, technologies, and integrations needed to fully enable the functions and features of the solution. As part of this initiative, TPU has reviewed existing utility policies, procedures, and practices for essential changes required to implement advanced metering or to make other essential updates as needed.

The meter deployment phase of the Advanced Metering Infrastructure (AMI) Project will exchange nearly 180,000 electric meters and 107,000 water meters over the course of 18-24 months. During this period, there is the potential for a small percentage of "Customer Impacts." Customer Impacts result from (1) disruption or damage to infrastructure or customer equipment during the meter exchange or (2) customer equipment being identified as unsafe or to have preexisting damage by the meter installer. The anticipated number of Customer Impacts is relatively low, estimated to only affect approximately 0.5-1.0% of all customers based on advanced meter deployments at similar utilities. Nevertheless, it is essential that these Customer Impacts be handled promptly so that a customer's service is restored as quickly as possible.

To ensure both TPU customers' wellbeing and the success of this critical project, TPU has researched and identified solutions to potential Customer Impacts that may arise throughout the project. To address these impacts, this policy has been developed. This policy outlines Power and Water customer owned infrastructure repairs to be completed by TPU during the Advanced Meter Project. This includes Power Repair Criteria to replace customer owned equipment required to facilitate the meter exchange and safely provide the customer with electrical service and Water Repair Criteria to replace up to approximately 3 feet of customer owned pipe or other minor, related repairs.



Board Action Memorandum

In addition, TPU intends to develop grant and loan programs specific to customer owned water infrastructure repairs and/or replacement. Since this water specific customer grant and loan resource extends beyond the breadth of the Advanced Metering Infrastructure Project and has a unique nexus with water conservation, it will be addressed separately.

Lastly, the existing TPU claims process is also available to all customers if damage or claimed Customer Impact is disputed or exceeds the repair criteria listed in this policy.

ARE THE EXPENDITURES AND REVENUES PLANNED AND BUDGETED?

Yes, funds for the customer owned infrastructure repairs outlined in this policy are budgeted within the planned and approved 2019-2020 biennium Advanced Meter Program and its contingency. Funds for the 2021-2022 biennium are planned and subject to budget approval.

IF THE EXPENSE IS NOT BUDGETED, PLEASE EXPLAIN HOW THEY ARE TO BE COVERED.

N/A.

IF THE ACTION REQUESTED IS APPROVAL OF A CONTRACT, INCLUDE LANGUAGE IN RESOLUTION AUTHORIZING \$200,000 INCREASE IN ADMINISTRATIVE AUTHORITY TO DIRECTOR?

N/A.

ATTACHMENTS: Proposed Advanced Metering Infrastructure (AMI) Customer Side Repair Policy and Explanatory Comments

CONTACT: Andre' Pedefferri, Utility Technology Services, Advanced Meter Program Manager, (253) 502-8997; Matt Hubbard, Utility Technology Services, Power Engineer, (253) 345-1662



Advanced Meter Program Policies Package 1 Proposed Changes

Advanced Meter Customer Side Repair Policy **Explanatory Comments for Proposed Policy** **August 14, 2020**

Tacoma Public Utilities (TPU) will deploy advanced metering across its entire water and electric service territories, replacing or upgrading all non-communicating power and water meters with advanced two-way communicating technology.

The meter deployment phase of the Advanced Metering Infrastructure (AMI) Project will exchange nearly 180,000 electric meters and 107,000 water meters over the course of 18-24 months. During this period, there is the potential for a small percentage of "Customer Impacts." Customer Impacts result from (1) disruption or damage to infrastructure or customer equipment during the meter exchange or (2) customer equipment being identified as unsafe or to have preexisting damage by the meter installer. The anticipated number of Customer Impacts is relatively low, estimated to only affect approximately 0.5-1.0% of all customers based on advanced meter deployments at similar utilities. Nevertheless, it is essential that these Customer Impacts be handled promptly so that a customer's service is restored as quickly as possible.

To ensure both TPU customers' wellbeing and the success of this critical project, TPU has researched and identified solutions to potential Customer Impacts that may arise throughout the project. To address these impacts, this policy has been developed. This policy outlines Power and Water customer owned infrastructure repairs to be completed by TPU during the Advanced Meter Project. This includes Power Repair Criteria to replace customer owned equipment required to facilitate the meter exchange and safely provide the customer with electrical service and Water Repair Criteria to replace up to approximately 3 feet of customer owned pipe or other minor, related repairs.

In addition, TPU intends to develop grant and loan programs specific to customer owned water infrastructure repairs and/or replacement. Since this water specific customer grant and loan resource extends beyond the breadth of the Advanced Metering Infrastructure Project and has a unique nexus with water conservation, it will be addressed separately.

Lastly, the existing TPU claims process is also available to all customers if damage or claimed Customer Impact is disputed or exceeds the repair criteria listed in this policy.



Tacoma Public Utilities

Advanced Metering Infrastructure (AMI) Customer Side Repair Policy

Month 2020

Adopted by Public Utility Board Resolution U-XXXXX on Month XX, 2020



1. POLICY DURATION:

- 1.1. This policy shall be in effect during the period that the Advanced Metering Infrastructure (AMI) Project is designated as a Special Project of Limited Duration, which is currently through December 31, 2022, as established by Public Utility Board Resolution No. U-11055.
- 1.2. For clarity, if the Advanced Metering Infrastructure Special Project of Limited Duration is extended by the Public Utility Board, the duration of this policy will be extended automatically to match the new Project resolution end date.
- 1.3. During the policy duration, this Policy shall supersede and be controlling over any other conflicting Tacoma Public Utilities (TPU) customer service policies, procedures, and practices. Following the Project, customer owned infrastructure repairs will revert to existing TPU customer service policies, procedures, and practices.



2. BACKGROUND:

- 2.1. Advanced meters are a foundational element of Tacoma Public Utilities' Utility Modernization Strategy and will deliver customers new key benefits over time related to their power and water usage. TPU will deploy advanced metering across its entire water and electric service territories, replacing or upgrading all non-communicating power and water meters with advanced two-way communicating technology. Advanced metering technology will capture interval data, enable two-way communications, include remote capabilities, and provide advanced outage/issue detection, and verification. Advanced metering will modernize utility operations and be a cornerstone to deliver improved services and benefits to customers.
- 2.2. The meter deployment phase of the Advanced Metering Infrastructure Project will exchange nearly 180,000 electric meters and 107,000 water meters over the course of 18-24 months. During this period, there is the potential for a small percentage of "Customer Impacts." Customer Impacts result from (1) disruption or damage to infrastructure or customer equipment during the meter exchange or (2) customer equipment being identified as unsafe or to have preexisting damage by the meter installer. The anticipated number of Customer Impacts is relatively low, estimated to only affect approximately 0.5-1.0% of all customers based on advanced meter deployments at similar utilities. Nevertheless, it is essential that these Customer Impacts be handled promptly so that a customer's service is restored as quickly as possible.
- 2.3. To ensure both TPU customers' wellbeing and the success of this critical project, TPU has researched and identified solutions to potential Customer Impacts that may arise throughout the project. To address these impacts, criteria is outlined in this policy for Power and Water customer owned infrastructure repairs to be completed by TPU during the Advanced Meter Project.
- 2.4. In addition to this policy, TPU intends to develop grant and loan programs specific to customer owned water infrastructure repairs and/or replacement. Since this water specific customer grant and loan resource extends beyond the breadth of the Advanced Metering Infrastructure Project and has a unique nexus with water conservation, it will be addressed separately.
- 2.5. Lastly, the existing TPU claims process is available to all customers if damage or claimed Customer Impact is disputed or exceeds the criteria listed.



3. POWER REPAIR CRITERIA:

- 3.1. As specified in the Tacoma Power Customer Service Policy and Tacoma Power Electric Service Handbook, the customer is responsible for maintaining customer owned equipment, compliance with up-to-date electrical codes, and Tacoma Power policies (Figure 1, attached). This ensures both customer and utility staff safety when working in and around the meter. If customer owned equipment is impacted by a meter exchange, TPU staff will make a reasonable attempt to re-establish the service connection.
- 3.2. Tacoma Power expects minimal customer owned equipment impacts during advanced meter deployment.
- 3.3. During the Advanced Metering Infrastructure Project, TPU may, at its discretion, replace customer owned equipment required to facilitate the meter exchange and safely provide the customer with electrical service. Customer owned equipment related to electrical service is identified in Figure 1. TPU at its discretion may replace or repair items such as:
 - I. The meter socket, jaws, and/or enclosure (including minor related incidental repairs, as determined in the field)
 - II. Miscellaneous nuts/bolts related to the meter socket, jaws, and/or enclosure
 - III. The meter post
- 3.4. Items that TPU will not replace or repair include, but are not limited to the following:
 - I. Service panels
 - II. Tampering
 - III. Code violation repairs

4. WATER REPAIR CRITERIA:

- 4.1. As specified in the Tacoma Water Customer Service Policy, the customer is responsible for the integrity of the water service line (Property Side Pipe) between the meter setter/yoke outlet and the exterior wall of the first structure after the meter (Figure 2 and Figure 3, attached). If the customer owned service line (Property Side Pipe) is impacted by a meter exchange, TPU will make a reasonable attempt to re-establish water service.
- 4.2. Tacoma Water expects minimal customer owned service line impacts during advanced meter deployment. It is rare to impact the customer pipe connection when exchanging a meter, since the meter is typically not directly connected to the customer owned pipe (it is typically connected to the meter setter/yoke within the meter box).
- 4.3. During the Advanced Metering Infrastructure Project, TPU may replace up to approximately 3 feet of customer owned pipe (Property Side Pipe). This is subject to the discretion of the utility and consultation with the property owner. In addition, TPU may at its discretion:
 - I. Perform meter box adjustments
 - II. Perform minor repairs to hard surfaces (concrete, sidewalks, driveways, retaining walls, etc.)
 - III. Perform minor landscaping restoration (lawns, bark, gravel, etc.)
 - IV. Repair or replace a customer owned pressure reducing valve (PRV)
 - V. Install a property side shutoff valve to facilitate a temporary water service installation
 - VI. Install a temporary service line



4.4. Items or conditions that TPU will not replace or repair include, but are not limited to:

- I. Inaccessibility of the pipe
- II. Structures over or near the pipe
- III. Major repairs to hard surfaces (concrete, sidewalks, driveways, retaining walls, etc.)
- IV. Major landscaping restoration (plants, trees, gardens, etc.)
- V. Excessively deep or long runs of pipe
- VI. Sprinkler system repairs
- VII. Repair of plumbing fixtures, piping, etc. within a dwelling
- VIII. Backflow prevention assembly installation or repairs
- IX. Repair or replacement of an outdoor hose bib

5. TPU DISCRETION AND DISCLAIMER.

5.1. Repairs or replacements are strictly at the discretion of TPU. This policy does not require or obligate TPU to make or complete any repairs or replacements. In making said repairs, TPU or its contractors will exercise the degree of skill and care required by good practice and procedure followed in the utility industry. However, TPU cannot warrant or guaranty that replaced equipment will be without defect.

5.2. By enacting this policy or making any repairs or replacements, TPU does not assume or offer any ongoing replacement, repair, or maintenance obligation. TPU may make repairs or replacements to the equipment as specified herein solely at its discretion. However, TPU will have no other obligation or duty to make other repairs or to maintain the equipment.

6. ATTACHMENTS: Customer Owned Infrastructure Figures, Figures 1-3



Figure 1. Power Owned vs. Customer Owned Equipment

(<https://www.mytpu.org/wp-content/uploads/new-electric-service-handbook.pdf>, page 9)

(blue is non-utility owned equipment, typically cable, phone, or internet providers)

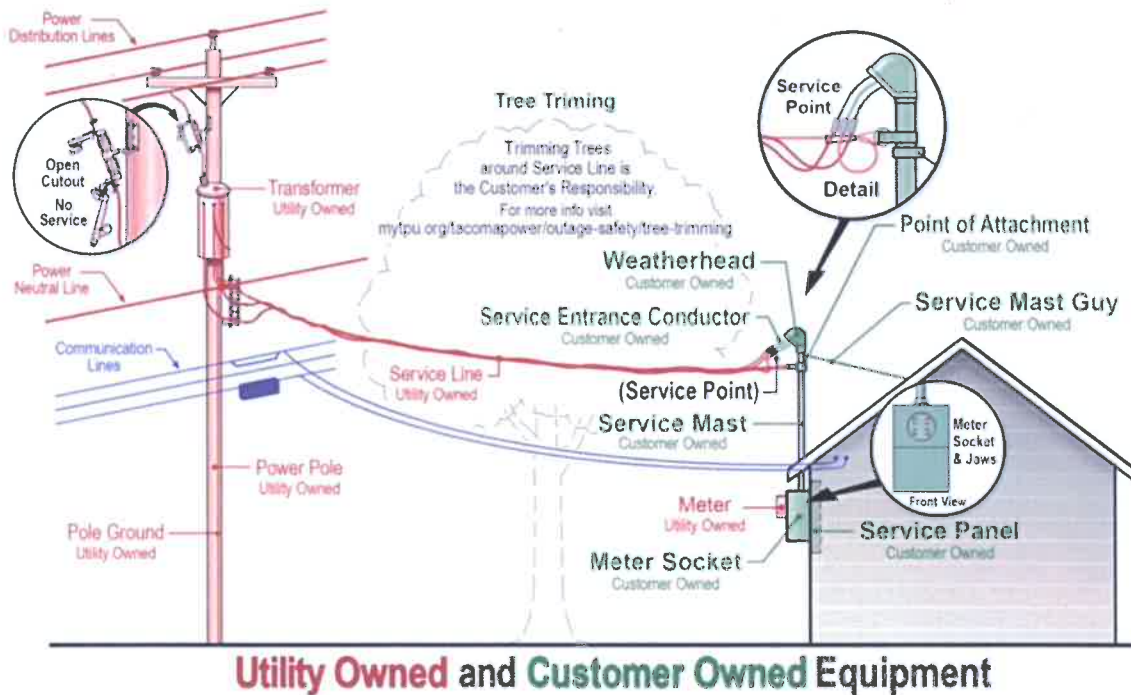
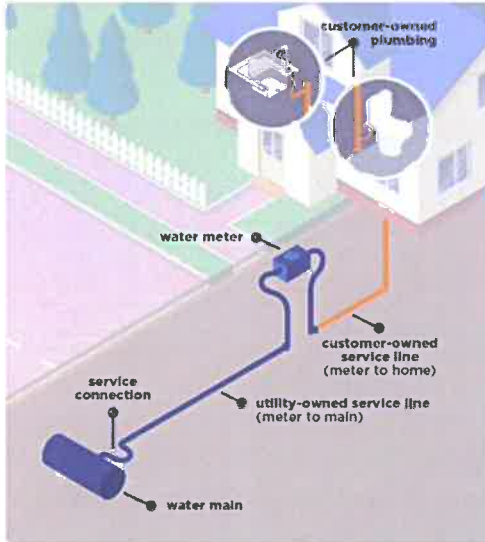




Figure 2. Water Owned vs. Customer Owned Equipment:
<https://www.mypu.org/outages-safety/water-trouble/>

Ever wondered what's underground?



In blue, the utility owns the service line and water meter and makes any repairs to the property side of the service line at the landing shown above and on page 6.

Figure 3. Detailed drawing of water service line, meter box, and customer owned pipe:

