Submetering MultiFamily Dwellings & Residential Irrigation Meters

September 13, 2018
Public Works Commission
Submetering

• One Master Meter installed by the City
  -- Maintained, read, and billed by the City

• Property Owner responsible for submeter system on property
  -- Installed on each water line serving individual units
  -- Property owner responsible for maintenance, reading, and billing
  -- Third party vendors available for this service
Discussion 2016

- PWC supported individual meters for each unit
- Support for code revision:— Individual meters for 6 units or less; submeter for 7 or more (ref: Santa Monica code)
Senate Bill 7 (Lois Wolk)

• Housing: water meters: multiunit structures
• Requires owners of multi-unit rental properties constructed after January 1, 2018 to submeter all multifamily units
• Proposed BH ordinance more stringent
Submetering

Other Cities:

- San Diego, 2010
- Long Beach, 2012
- Santa Monica, 2015
Submetering – Summary

Staff proposes the following:

1. Only for new multifamily residential
2. Individual meters for each unit for new projects 6 units or less
3. Master meter and Submeters for buildings 7 units or more
4. Separate meter for outdoor and/or common area water use
Dedicated Irrigation Meters

1. One meter for indoor use and one meter for outdoor usage
2. For larger residential properties
Benefits for the City include:

- Accurate independent measurement of outdoor use
- Better ability to manage peak demands driven by irrigation – interruptible
- Ability to offer alternative pricing structures for domestic and irrigation water use
- Improved price signaling for outdoor water use
- Additional drought management tool
Benefits for the Customer include:

- Accurate measurement of outdoor water use
- Separate shutoff for the irrigation system
- Lower bills resulting from increased availability of lower priced (tiers 1 to 3)
Key Considerations:
• Interruptible supply – drought management
• Water pricing structure
• Backflow prevention
• Customer cost
Installation Details

• Customer would have to use at least 119 units of water inside to get entire "savings" (avg. is 30-40 units)
• ROI appx. 1.7 to 6.3 years
• ROI does not include costs associated with retrofits on the customer's side of the meter
## Irrigation Meters

### Scenario 1 (max {119 units} example, not realistic)

<table>
<thead>
<tr>
<th>Tier</th>
<th>Cost/Unit</th>
<th>Diff from Tier 4 $</th>
<th># of Units</th>
<th>Savings</th>
<th>Mo. Fixed Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1</td>
<td>$ 4.02</td>
<td>$ 12.13</td>
<td>10</td>
<td>$ 121.30</td>
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</tr>
<tr>
<td>Tier 2</td>
<td>$ 5.30</td>
<td>$ 10.85</td>
<td>45</td>
<td>$ 488.25</td>
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<tr>
<td>Tier 3</td>
<td>$ 8.36</td>
<td>$ 7.79</td>
<td>64</td>
<td>$ 498.56</td>
<td></td>
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<tr>
<td>Tier 4</td>
<td>$ 16.15</td>
<td>-</td>
<td>119</td>
<td>$ 1,108.11</td>
<td>$ 1,063.45</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Units</th>
<th>Total Savings</th>
<th>Net Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$ 1,108.11</td>
<td>$ 1,063.45</td>
</tr>
</tbody>
</table>

Meter connection fee (1") = $11,030.63
When ROI hits = 1.7 years
### Scenario 2 (50 units indoor)

<table>
<thead>
<tr>
<th>Tier</th>
<th>Cost/Unit</th>
<th>Diff from Tier 4 $</th>
<th># of Units</th>
<th>Savings</th>
<th>Mo. Fixed Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1</td>
<td>$ 4.02</td>
<td>$ 12.13</td>
<td>10</td>
<td>$121.30</td>
<td></td>
</tr>
<tr>
<td>Tier 2</td>
<td>$ 5.30</td>
<td>$ 10.85</td>
<td>40</td>
<td>$434.00</td>
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</tr>
<tr>
<td>Tier 3</td>
<td>$ 8.36</td>
<td>$ 7.79</td>
<td>0</td>
<td>$-</td>
<td></td>
</tr>
<tr>
<td>Tier 4</td>
<td>$ 16.15</td>
<td></td>
<td></td>
<td>$-</td>
<td>$44.66</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Units</th>
<th>Total Savings</th>
<th>Net Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>$ 555.30</td>
<td>$ 510.64</td>
</tr>
</tbody>
</table>

| Meter connection fee (1") = | $11,030.63 | 1 time fee |
| When ROI hits = | 3.6 years   |            |
### Scenario 3 (40 units indoor)

<table>
<thead>
<tr>
<th>Tier</th>
<th>Cost/Unit</th>
<th>Diff from Tier 4 $</th>
<th># of Units</th>
<th>Savings</th>
<th>Mo. Fixed Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1</td>
<td>$4.02</td>
<td>$12.13</td>
<td>10</td>
<td>$121.30</td>
<td></td>
</tr>
<tr>
<td>Tier 2</td>
<td>$5.30</td>
<td>$10.85</td>
<td>30</td>
<td>$325.50</td>
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</tr>
<tr>
<td>Tier 3</td>
<td>$8.36</td>
<td>$7.79</td>
<td>0</td>
<td>$-</td>
<td></td>
</tr>
<tr>
<td>Tier 4</td>
<td>$16.15</td>
<td>$-</td>
<td>40</td>
<td>$446.80</td>
<td>$402.14</td>
</tr>
</tbody>
</table>

**Total Units** 40  **Total Savings** $446.80  **Net Savings** $402.14

**Meter connection fee (1") =** $11,030.63  **1 time fee**

When ROI hits = 4.6 years
## Irrigation Meters

### Scenario 4 (30 units indoor)

<table>
<thead>
<tr>
<th>Tier</th>
<th>Cost/Unit</th>
<th>Diff from Tier 4 $</th>
<th># of Units</th>
<th>Savings</th>
<th>Mo. Fixed Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1</td>
<td>$ 4.02</td>
<td>$ 12.13</td>
<td>10</td>
<td>$ 121.30</td>
<td></td>
</tr>
<tr>
<td>Tier 2</td>
<td>$ 5.30</td>
<td>$ 10.85</td>
<td>20</td>
<td>$ 217.00</td>
<td></td>
</tr>
<tr>
<td>Tier 3</td>
<td>$ 8.36</td>
<td>$ 7.79</td>
<td>0</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>Tier 4</td>
<td>$ 16.15</td>
<td>$</td>
<td>30</td>
<td>$ 338.30</td>
<td>$ 293.64</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Units</th>
<th>Total Savings</th>
<th>Net Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>$ 338.30</td>
<td>$ 293.64</td>
</tr>
</tbody>
</table>

**Meter connection fee (1") =** $11,030.63 1 time fee

**When ROI hits =** 6.3 years
Irrigation Meters

Incentivizing Irrigation Meters – The Carrot

1. Increase number of customer class
   (presently only 3%)

2. Options for installation fees
   a) No cost, offer subsidy?
   b) Where would subsidy come from?
   c) Offer multi-year payback option?

3. Other Questions?
Forced Compliance - The stick
1. All new development (MWELO)
   a) Presently in effect
2. Excessive water users
3. Start with education and assistance
   a) Pricing signal, higher water cost
   b) Forced installation is last resort
4. Questions?
Recommendation

Approval from PW Commission

1. Bring proposed ordinance for submeters to the Ad Hoc
2. Develop framework for Irr. Meters w/ Ad Hoc
3. Bring results from Ad Hoc back to Commission for discussion
Water Efficiency Update

September 13, 2018
Public Works Commission
86% of CA is abnormally dry
One of the worst fire seasons
Anticipated hotter Fall season
Water Efficiency Efforts

August 2018

• 6.1% reduction
• Connected with residential customers 212 times
• Connected with commercial customers 41 times
• Almost 383 water related calls, emails and letters
• Performed 13 on-site audits
Outdoor Watering Changes

REMINDER

As of October 1st: - TWO (2) DAYS ONLY!

North of Santa Monica Bl. = Monday, & Friday

South of Santa Monica Bl. = Tuesday & Saturday