Mastering Advanced Metering Infrastructure:
Keys to a successful implementation for utility staff and customers

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Moderated by Dominique Gómez | WaterSmart Software
Agenda

- Brief AMI Trends Overview
- Introduce our Panelists
- Brief Background on AMI Journey in:
  - Fort Collins
  - Eagle River
- Moderated Q&A
Who is working on AMI?

Table 9. Utilities reporting fully implemented technologies and/or implementation is in progress (n = 676)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Technology</th>
<th>% of Utilities Fully Implemented</th>
<th>% of Utilities With Implementation in Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SCADA</td>
<td>79</td>
<td>17</td>
</tr>
<tr>
<td>2</td>
<td>GIS</td>
<td>64</td>
<td>28</td>
</tr>
<tr>
<td>3</td>
<td>Hydraulic models</td>
<td>53</td>
<td>25</td>
</tr>
<tr>
<td>4</td>
<td>Billing services</td>
<td>46</td>
<td>31</td>
</tr>
<tr>
<td>5</td>
<td>Maintenance management system</td>
<td>40</td>
<td>33</td>
</tr>
<tr>
<td>6</td>
<td>AMR</td>
<td>37</td>
<td>24</td>
</tr>
<tr>
<td>6</td>
<td>Productivity (e.g., email, file sharing)</td>
<td>37</td>
<td>33</td>
</tr>
<tr>
<td>7</td>
<td>Treatment plant</td>
<td>34</td>
<td>43</td>
</tr>
<tr>
<td>8</td>
<td>Customer information systems</td>
<td>33</td>
<td>31</td>
</tr>
<tr>
<td>9</td>
<td>Cyber intrusion</td>
<td>31</td>
<td>29</td>
</tr>
<tr>
<td>10</td>
<td>Enterprise management software</td>
<td>30</td>
<td>27</td>
</tr>
<tr>
<td>10</td>
<td>Mobile-based applications</td>
<td>30</td>
<td>38</td>
</tr>
<tr>
<td>11</td>
<td>Meter reading</td>
<td>29</td>
<td>47</td>
</tr>
<tr>
<td>12</td>
<td>Data management</td>
<td>22</td>
<td>49</td>
</tr>
<tr>
<td>13</td>
<td>Distribution / collection system operation and optimization</td>
<td>21</td>
<td>43</td>
</tr>
<tr>
<td>14</td>
<td>AMI</td>
<td>17</td>
<td>25</td>
</tr>
<tr>
<td>14</td>
<td>Cloud-based applications</td>
<td>17</td>
<td>30</td>
</tr>
</tbody>
</table>

Source: AWWA State of the Water Industry Report 2018

AMI—advanced metering infrastructure, AMR—automatic meter reading, GIS—geographic information system, SCADA—supervisory control and data acquisition
What are they hoping to achieve?

- Detecting leaks and occurrences of water theft
- Promoting education on conservation at the residential and commercial levels
- Building a sense of ownership and accountability among customers
- Reducing operational costs from outdated methods of data collection and billing
- Revenue realization through accurate billing
- Targeted water efficiency messaging
- Overcoming billing shock or surprise

Will they be able to use the data?

Source: State of Advanced Metering Infrastructure and Data Analytics Adoption in the US Water Utility Industry, West Monroe Partners, 2017
What we’ve learned...

- If you define a leak as 24 hours of continuous use, on average account will have 2 “leak” events per year on average.
- If you define a leak as 168 hours of continuous use, on average account will have 1 “leak” event every other year.
- Either way, enormous burden for alerting compared to monthly data.

*Source: WaterSmart Software*
Meet our Panelists

- Dr. Liesel Hans, Water Conservation Manager
  - 3 years at Fort Collins Utilities
  - Serves 35,500 accounts

- Maureen Mulcahy, Customer Service Manager
  - 2.5 years at Eagle River
  - Serves 9,800 water accounts
AMI & the Colorado Energy Office

Statute change in July 2017:
Allows public jurisdictions in Colorado use performance contracting to finance new water meter projects.

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Thank you!

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