This presentation premiered at WaterSmart Innovations

watersmartinnovations.com
**Advanced Meter Infrastructure:** Enables two way communication between customer and utility

- **AMI Project**
  - June 2010: SGIG Funding Awarded
  - March 2012: Began Meter Installation

- **Operations**
  - April 2014: Monitor My Use Launched
Potential benefits

- Improved information about high and irregular use
- Help with resource conservation goals
- Provide early water leak detection
- Provide enhanced voluntary programs
- Read meters remotely
- Quick start/stop of service
"Let's say you want to save millions of dollars — you just push this button here..."
Electric Use

Use is down 31%

Current average daily use compared to last bill period.

What should I be looking for?

Use the detail graph below to zoom out to view your use over multiple bill periods. Need help? See FAQs or Info Page.

My Use Details

Weather: Temp  Off

Zoom: 1 Day  1 Bill  1 Year

Residential Energy: Tier 1

Average Temp (°F)

<table>
<thead>
<tr>
<th>Date</th>
<th>0 - 500 kWh</th>
<th>Total</th>
<th>Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>09/01/17 - 10/01/17</td>
<td>89.032</td>
<td>89.032</td>
<td>65° F (average)</td>
</tr>
</tbody>
</table>
My Cost Details

Residential Single Family Water:

- Tier 1
- Tier 2
- Tier 3

Dollars $/

Jul 17, 2015 - Aug 9, 2015

<table>
<thead>
<tr>
<th>Date</th>
<th>0 - 7,000 GAL</th>
<th>7,001 - 13,000 GAL</th>
<th>&gt; 13,000 GAL</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>07/17/15 - 08/09/15</td>
<td>$17.70</td>
<td>$17.44</td>
<td>$66.93</td>
<td>$102.07</td>
</tr>
</tbody>
</table>

Total with Base Charge

$118.40

Note: Totals may not add up due to rounding.
Water customer accounts

- Single Family: 93%
- Duplex: 3%
- Commercial: 3%
- Multifamily: 1%

20% of all eligible customers have created an account.

93% = ~6,000 customers
Histogram of MMU sign-ups over time
Fort Collins Utilities, as of 2/10/2017

Take-away: Customer sign-ups have been higher in late summer.
Number of Unique Logins by Date

**Take-away:** Daily access has been higher in late summer.
Average Days of Access by Customer Type

25% ≤ 3
50% ≤ 11
75% ≤ 20

25% ≤ 5
50% ≤ 20
75% ≤ 91

Take-away: Large variation in how often customers access the portal.
Take-away: Customers don’t access the website on their phones.

Create a mobile app if you want mobile device access.
Send Me a Summary...

Every seven days and at the end of the bill period
Send me a report with my Cost, Usage, and Environmental impact.

Note: To receive alerts, be sure to set up your delivery settings in the tab above.

Email

Just at the end of a bill period
Send me a report at the end of my bill period with my Cost, Usage, and Environmental Impact.

Note: To receive alerts, be sure to set up your delivery settings in the tab above.

Email

Save
845 customers as of 2/17

Alert Sign-ups

Alerts

Take-away: Consider an opt-out approach for non-customized alerts.

Only 55% signed up on date of portal enrollment
Continuous Consumption

Leak started

On 7/28: staff called & left a vm, Customer signed up for MMU

Leak stopped before end of day

NOT TO BE CONSIDERED AN EXACT REPRESENTATION OF BILL OR CONSUMPTION
Subset of customers contacted for Continuous Consumption in 2016
Subset of customers contacted for Continuous Consumption in 2016

**Take-away:** Customer access varies regardless of when/why they signed up for the portal.
Effect of MMU Enrollment on Water Use

Take-away: Water use reductions are correlated with having a web portal account.

Consider an opt-out approach for non-customized alerts.

Signups from September 2014 to December 2016
Regression controls for weather, prior usage, and billing period days of service
Average use is 7,300 gallons per billing period
Program analysis example

Reduced from 840 to 380 gallons per run day

10:30am audit, 7/11
no controller changes made during audit
80% reduction in weekly water use from pre-audit pattern

7/11, audit

600 gal
Observations

Single sign-on = great, but overall accessibility is a bit clunky

Access habits = reduction in usage?

Need to easily combine AMI data with other data sets

Useful for program analysis

Potential to be very useful to customers…
Take-away: Make it easy and intuitive. Digest the data into actionable notifications and insights.

Message convenience and value around potential pain points.
Chase Mobile® Banking
Banking at your fingertips – virtually anywhere

Peace of mind with real-time alerts.

Freeze It℠ takes the worry out of a misplaced card

Just Freeze It℠ from our mobile app to prevent new purchases, cash advances and balance transfers. Then, unfreeze your account when you find your card.²
Thank you!

Liesel Hans
lhans@fcgov.com
Alerts Sent by Type

- Usage spike: 11%
- Budget exceeded: 7%
- Projected budget exceeded: 9%
- Billcycle report: 1%
- Weekly report: 72%
Of the notified customers in 2016 with MMU accounts

Days between CC call and MMU sign up

- Had MMU prior to CC call
- Signed up for MMU on the day of CC call
- Signed up within 25 days of CC call
<table>
<thead>
<tr>
<th>Service Type</th>
<th>unique premises with MMU account</th>
<th>percent of unique by type</th>
<th>percent of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elec &amp; Water</td>
<td>5,689</td>
<td>20.2%</td>
<td>7.4%</td>
</tr>
<tr>
<td>Electric only</td>
<td>6,542</td>
<td>18.6%</td>
<td>8.5%</td>
</tr>
<tr>
<td>Water only</td>
<td>353</td>
<td>8.8%</td>
<td>0.5%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>12,584</strong></td>
<td><strong>19%</strong></td>
<td></td>
</tr>
</tbody>
</table>

Signups as of 2/10/2017
## Alerts sent in 2016

<table>
<thead>
<tr>
<th>Type of Alert</th>
<th>Freq.</th>
</tr>
</thead>
<tbody>
<tr>
<td>USAGE_SPIKE</td>
<td>3,691</td>
</tr>
<tr>
<td>BUDGET_EXCEEDED</td>
<td>2,280</td>
</tr>
<tr>
<td>PROJECTED_BUDGET_EXCEEDED</td>
<td>2,951</td>
</tr>
<tr>
<td>BILLCYCLE_REPORT</td>
<td>204</td>
</tr>
<tr>
<td>WEEKLY_REPORT</td>
<td>14,400</td>
</tr>
</tbody>
</table>
• Population about 155,400
• Customers:
  - ~68,000 electric;
  - ~34,000 water;
• Educated community
• High rental community
• Median Household Income - $53,359
• Persons 18 to 64 years - 71.34%