Integrated Utility Service Model

- What is it?
  - Easy, scalable home and business efficiency and renewable solutions delivered with savings
  - Enhancing our ability to meet customer needs and community goals in an evolving utility landscape
  - Strengthening the utility’s financial health
How we developed this approach?

Started with question, “What if we aim for 100% participation?”

– Engaged national experts through eLab
– Visioned potential utility roles with community leaders at a charrette
– Commissioned two independent analyses of economics
– Conducted focus groups (survey pending)
– Reviewed peer program benchmarks
Why IUS, Why now?

- Customer interest in efficiency, conservation, renewable energy, electric vehicles, smart homes, etc.
- Community policies and goals for climate and energy policy
- Evolving utility landscape, risks to long term utility financial health
- Local investment in our building stock and energy resources
- Ability to equitably serve all customers
## What’s Different? Part One

<table>
<thead>
<tr>
<th></th>
<th>Now</th>
<th>IUS</th>
<th>Means</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scale</strong></td>
<td>300-500 homes annually</td>
<td>Ramp to 2500 – 5000 homes annually</td>
<td>Go large!</td>
</tr>
<tr>
<td><strong>Depth</strong></td>
<td>1-2 measures per project</td>
<td>Multiple measures</td>
<td>Bundling, packages</td>
</tr>
<tr>
<td><strong>Ease</strong></td>
<td>Many customer decisions</td>
<td>One customer decision</td>
<td>Auto-enrollment</td>
</tr>
<tr>
<td><strong>Speed</strong></td>
<td>Months</td>
<td>Weeks</td>
<td>Delivery</td>
</tr>
<tr>
<td><strong>Accessibility</strong></td>
<td>Investment by customers who are able</td>
<td>Paid for by savings over time</td>
<td>On-bill repayment</td>
</tr>
<tr>
<td><strong>Utility</strong></td>
<td>Rebates, subsidies</td>
<td>Reduce project costs</td>
<td>Scale without increasing costs, net benefits</td>
</tr>
</tbody>
</table>
### What’s Different? Part Two

<table>
<thead>
<tr>
<th>Means</th>
<th>Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scale</strong></td>
<td>Go large!</td>
</tr>
<tr>
<td><strong>Depth</strong></td>
<td>Bundling, packages</td>
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<tr>
<td><strong>Ease</strong></td>
<td>Auto-enrollment</td>
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<tr>
<td><strong>Speed</strong></td>
<td>Delivery</td>
</tr>
<tr>
<td><strong>Accessibility</strong></td>
<td>On-bill repayment</td>
</tr>
<tr>
<td><strong>Utility expenditures</strong></td>
<td>Scale without increasing costs, net benefits</td>
</tr>
</tbody>
</table>

- **Strategic, scaled investment**
  - Now >> $1.5M
  - IUS >> $20-40M annually*

- **Mobilization**
  - Delivery, procurement, contracting
  - Now >> lots of contractors, few projects
  - IUS >> few contractors, lots of projects

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* Total capital, not Utilities funds
Primary Elements of IUS Model

Utility Economics

Program Administration (and design)

Customer Adoption

Customer Savings and Economics

Pilot the model to refine the approach
Customer Economics/Benefits

Average Annual Energy Bill For Pre-1945 Single Family Home

Customers receive lower bills today and protection from future price increases while receiving significant investments in efficiency that improve the value and comfort of their home.
Utility Economics

Note: This analysis is for single family homes, efficiency measures only

- Roughly constant revenue
- Additional ~$1M in system administration costs offset by financing fees
- Ability to contribute to utility distribution system and other costs in lieu of net income
Community Economics

Analysis model

- Single family homes and small business
- Fort Collins data
- Efficiency and solar included, 5 year ramp
- Model outputs include
  - Total investment
  - Indirect benefits
    - Business sales
  - Taxes
  - Carbon
  - Reserve margin
  - Jobs

<table>
<thead>
<tr>
<th>Result</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Size</td>
<td>$221m</td>
</tr>
<tr>
<td>IRR</td>
<td>6%</td>
</tr>
<tr>
<td>Payback (years)</td>
<td>12</td>
</tr>
</tbody>
</table>
Why Fort Collins Matters?

• Innovative solutions at community scale
• Representative demographics
• Replicable, if it works here…
• Demonstrate leadership
• Community support
• It’s a great place
Program Development (building analogy)

Conceptual Design (eLab)  
Nov 2012 - June 2013

Schematic Design  
(FC, RMI, BG, Schneider)  
June 2013 - July 2014

Design Development  
(FC lead)  
Aug – Dec 2014

“Construction”  
– Pilot (~150 homes)  
– Pro-forma for scale  
Jan–June 2015 pilot
What’s in place, What’s next?

• Experience with over 2,500 homes using traditional process (installation standards, audits, rebates, etc)
• Efficiency Works for Homes
  • Leading national vendor for audits, advising, contractor management and quality assurance
  • Phase two focus on IUS design elements
• APPA DEED grant for pilot
• On-bill repayment re-design (Council WS Oct 28)

Need your support for pilot development, scale pro-forma and investment strategies