Policy Pathways to Pay-for-Performance

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*Any opinions expressed, explicitly or implicitly, are those of the authors and do not necessarily represent those of their organizations.

Informing Innovation: Research and Evaluation in a Changing Energy Landscape

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Why Pay-for-Performance?

The promise of accountability and market growth

- Aligning incentives
- Improving customer satisfaction
- Reducing administrative oversight
- Creating markets that are flexible, technology-agnostic, and focus on savings at the meter
What is Meter-based Pay-for-Performance?

Not your parent’s performance contract program model

- Whole building analysis at customer meter
- Hourly interval meter data enables time valuation
- Aggregated portfolio savings are the basis of payment not individual buildings
- Performance settlement is between administrators and aggregators not direct settlement with customers
A Path to Scaling Efficiency

- Review past performance
- Track meter-based impacts
- Implement Pay-for-Performance
- Competitive Procurement
### Three Generic Categories of Adoption

<table>
<thead>
<tr>
<th>Market Focus</th>
<th>Scaled Pilots &amp; 3P</th>
<th>Contractor Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large scale pilot with focus on market development</td>
<td>Large scale pilots and third-party procurements</td>
<td>Step-wise testing with contractors delivering existing programs</td>
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<tr>
<td><strong>New York</strong>: Business Energy Pro, a Pay-for-Performance initiative</td>
<td><strong>California</strong>: Pacific Gas &amp; Electric Residential Pay-for-Performance, and Third-party Solicitations</td>
<td><strong>Oregon</strong>: Energy Trust Pay-for-Performance Pilot</td>
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<tr>
<td>Executive direction for grid level improvements, coupled with State Authority leadership</td>
<td>Legislation, regulatory authorization, and utility administrator leadership</td>
<td>Third-party administrator initiative coupled with Governors executive order</td>
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Market Focus

NYSERDA – Pay-for-Performance Pilots
Co-Author: Megan Fisher, Senior Project Manager

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Background for Adoption

Several years of preparation and public processes:
• Reform Energy Vision
• Energy Advisory Groups
• Energy Efficiency Best Practices Guide
• New Efficiency: New York

Early Lessons Learned

- High degree of coordination required – between NYSERDA, investor-owned utilities, market actors, and the Department of Public Service
- Data standards & pilot in concurrent development is challenging
- Exploring specific use cases revealed limitations of tools and models
- Communication with and input from market actors is critical to understand the process and risk profile
- Designed to test different approaches and use cases to create broad learnings to enable utility adoption at scale
Current Status

• Advanced M&V Contractor in place:
  • Utilizing CalTRACK Methods and OpenEEmeter
  • Green Button Connect build out underway
• 1st Phase: Small to Medium Businesses (SMB) w/ Con-Ed
  • Westchester and Staten Island
  • Concurrent with deployment of AMI meters in these areas.
  • RFP Launched August 1!
• 2nd Phase: Residential w/ National Grid
  • Onondaga, Oneida, and Oswego counties.
Scaled Pilots – 3P

California High Opportunity Programs and Projects
Third Party Solicitations
Co-Author: Ben Brown, PG&E

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Background for Adoption

Sparked in Legislation:
• SB350 and AB802 (2015)
  • Re-defined baseline
  • Called for performance
• High Opportunity Programs and Projects (HOPPs)
  • PG&E Residential P4P approved
• Energy Efficiency Rolling Portfolio
  • Preference for Performance
  • Third-Party solicitations

“...incorporate a pay-for-performance element that not only provides adequate motivation to pursue metered savings, but also provides such motivation to the market actors that have access to performance information and the ability to improve or affect performance as it evolves.” p43 (CPUC, 2018)
Lessons Learned

- Diversity and creativity in implementers’ programs evident, even with low numbers
- Implementer business models are shifting in design to succeed in this model
- All actors are leveraging direct feedback from impact analysis to adapt
- Embedded meter-based measurement & verification being adopted even if pay-for-performance is not
- Savings claims and aggregate NMEC still pending direction from CPUC
Current Status

- PG&E program has continued to expanded Res P4P
- 4 Investor Owned Utilities have solicitations in the field
  - CPUC is on a path toward 80% of energy efficiency being delivered by third parties
  - Most proposals have embedded meter-based M&V many also have a P4P delivery contract
- BayREN (Regional Energy Network) has a Small Medium Business P4P program in San Francisco
- MCE is launching a Residential P4P program
Energy Trust of Oregon

Pay-for-Performance Pilots

Co-Author: Mark Wyman, Program Manager

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Background for Adoption

- Internal interest in advanced M&V approaches at Energy Trust
- Executive Order on climate goals supported pilot inquiry
- Detailed research questions informed pilot design
  - Comparing M&V results with deemed savings impacts
  - Testing boundaries of automating impact evaluation activities
- Existing contractors creates “control” on aspects of program delivery and test specific innovations

...expand meter-based savings pilot programs, including pay for performance pilot programs by January 1, 2019. (Executive Order No 17-20, Accelerating Energy Efficiency in Oregon’s Built Environment)
Lessons Learned

• Familiarity with the measurement and verification tools and methods is the focus

• Incremental adjustment to existing program models allows for discrete questions re: value propositions.

• The side-by-side comparison of methods, will require reconciliation

• This test may reveal some key stress points to applying meter-based methods at scale like missing data, non routine event adjustments and limits of existing program designs
Current Status

- Program is up and running
- Three contractors are delivering services to customers
  - HVAC installations
  - Whole home retrofits
- Automated comparison groups are providing feedback on progress
- Robust review process

Photo by Snapwire
Summary of Findings
<table>
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<tbody>
<tr>
<td>Automated M&amp;V platform for performance payment</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Offer solicitations for market vendors to propose new program designs</td>
<td>✓</td>
<td>✓</td>
<td>O</td>
</tr>
<tr>
<td>Offer existing program vendors modification to payment structure</td>
<td>O</td>
<td>O</td>
<td>✓</td>
</tr>
<tr>
<td>Market outreach to shape program design</td>
<td>✓ (public input)</td>
<td>O</td>
<td>✓ (current contractors)</td>
</tr>
<tr>
<td>Rules and guidelines established at the program/initiative level</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Regulatory rules and guidelines</td>
<td>O</td>
<td>✓</td>
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## Staged Creation of Market Environment

<table>
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<tr>
<th>Step</th>
<th>Description</th>
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<tbody>
<tr>
<td>Step 1</td>
<td>Get high level, legislative, regulatory, or utility <strong>commitments to pay-for-performance, including meter-based savings</strong>, as a core principle to achieving goals.</td>
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<tr>
<td>Step 2</td>
<td>Designate an agency or entity to <strong>deploy staged pilots at scale</strong> to build market experience and work through specific enabling rules and infrastructure.</td>
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<td>Step 3</td>
<td>Adopt <strong>open and transparent, meter-based measurement and verification methods</strong> such as CalTRACK to set consistent expectations for measuring performance.</td>
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<td>Step 4</td>
<td>Issue <strong>solicitations for meter-based pay-for-performance as a primary path</strong> for capturing changes in meter-based consumption, and track performance.</td>
</tr>
<tr>
<td>Step 5</td>
<td>Leverage insights and intelligence gained in the process and from others to <strong>initiate, iterate and improve</strong>.</td>
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## Staged Implementation with Existing Contractors

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<tr>
<td>1</td>
<td>The existing program implementer would <strong>start tracking savings at the meter</strong> using consistent, transparent, meter-based methods such as CalTRACK, and develop data infrastructure that allows them to project and monitor performance in real time.</td>
</tr>
<tr>
<td>2</td>
<td>The program implementer would work with the administrator to set appropriate <strong>performance targets</strong> and agree to a percentage of payment that will be based on reaching desired performance goals.</td>
</tr>
<tr>
<td>3</td>
<td>The administrator will be able to <strong>choose whether or not to competitively solicit bids</strong> from a variety of program implementers under a pay-for-performance framework or continue working with a single implementer with performance-based incentives.</td>
</tr>
<tr>
<td>4</td>
<td>Leverage insights and intelligence gained in the process and from others to <strong>initiate, iterate and improve</strong>.</td>
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Conclusion

One size does not fit all (But it’s close!)

The common denominator is finding the right path for managing the transition for the range of market actors involved.

- Market Engagement
- Education & Communication
- Practice through pilots
- Incremental Testing
- Robust evaluation measurement & verification approaches