

# Policy Pathways to Pay-for-Performance

Carmen Best, Recurve  
Ben Brown, PG&E  
Megan Fisher, NYSERDA  
Mark Wyman, Energy Trust of Oregon

*\*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*

Denver, 2019

# Why Pay-for-Performance?

The promise of accountability  
and market growth

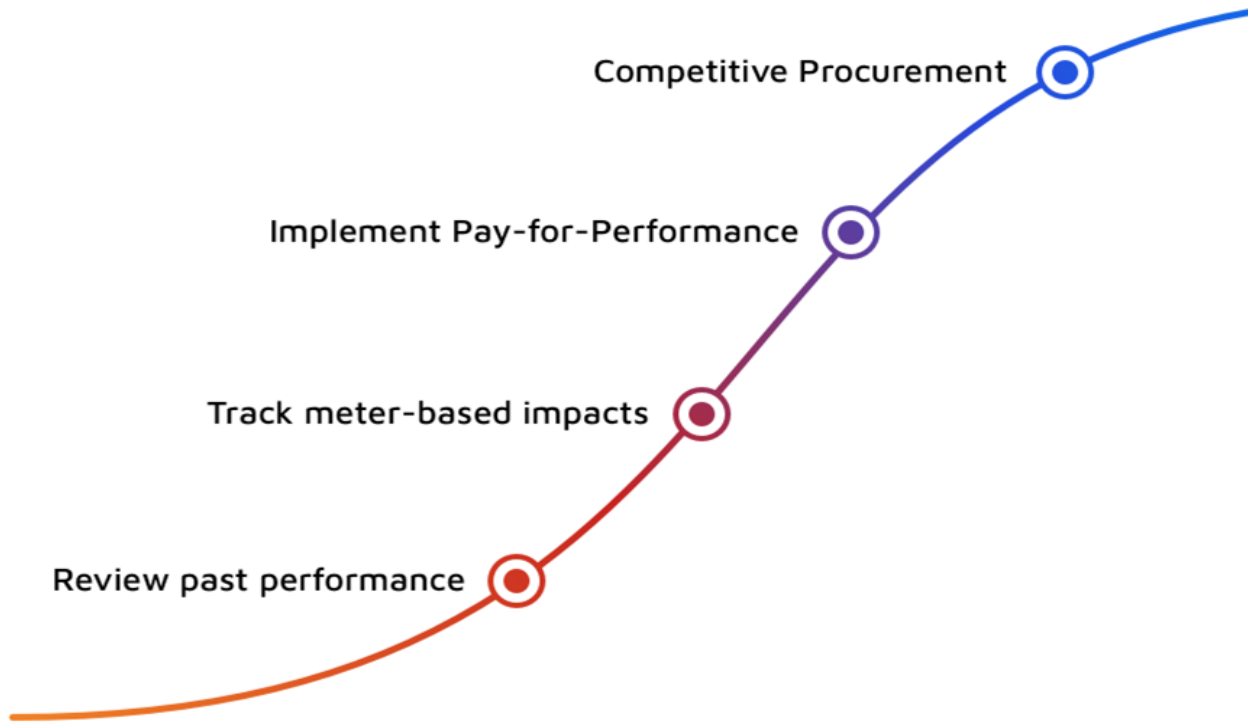
- Aligning incentives
  - Improving customer satisfaction
  - Reducing administrative oversight
  - Creating markets that are flexible, technology-agnostic, and focus on savings at the meter
-

# 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



# Three Generic Categories of Adoption

## Market Focus

Large scale pilot with focus on market development

**New York:** *Business Energy Pro, a Payfor-Performance initiative*

Executive direction for grid level improvements, coupled with State Authority leadership

## Scaled Pilots & 3P

Large scale pilots and third-party procurements

**California:** *Pacific Gas & Electric Residential Payfor-Performance, and Third-party Solicitations*

Legislation, regulatory authorization, and utility administrator leadership

## Contractor Focus

Step-wise testing with contractors delivering existing programs

**Oregon:** *Energy Trust Pay for-Performance Pilot*

Third-party administrator initiative coupled with Governors executive order

# Market Focus

---

*NYSERDA – Pay-for-Performance Pilots*

*Co-Author: Megan Fisher, Senior Project Manager*

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

# 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

*“The [P4P] program design and service provider contract need to address key features to best ensure performance, cost-reduction, and meaningfulness of savings.” (New York 2018, p35).*



NYSDA  
Department  
of Public Service



New Efficiency:  
**New York**

April 2018



# 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



Photo by skeeze



# Current Status

- Advanced M&V Contractor in place:
  - Utilizing CalTRACK Methods and OpenEEmeter
  - Green Button Connect build out underway
- 1<sup>st</sup> 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!
- 2<sup>nd</sup> Phase: Residential w/ National Grid
  - Onondaga, Oneida, and Oswego counties.



Photo by Pixabay

# Scaled Pilots – 3P

---

*California High Opportunity Programs and Projects  
Third Party Solicitations*

*Co-Author: Ben Brown, PG&E*

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

# 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

## PG&E's Pay-for-Performance Pilot Is a Big Deal for Energy Efficiency

Pacific Gas & Electric is getting closer to making efficiency a resource that can be procured when needed.

KATHERINE TWEED | DECEMBER 01, 2015

## New Programs Put California's Pay-for-Performance Efficiency Paradigm to the Test

California's utilities are rolling out the first tests measuring the real-world effectiveness of energy efficiency spending.

JEFF ST. JOHN | MARCH 28, 2019

Unparalleled flexibility to pursue a range of improvements and activities over time to achieve residents' savings goals

### Retrofit

- Whole House
- HVAC
- Lighting
- Outdoor/Pool Deck

### Operational

- Smart Thermostats
- Home Energy Management Systems
- Smart Appliances

### Behavioral

- Homeowner Incentives
- Demand Response
- Other specially designed programs



# 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



Photo by Noel Ross

# Energy Trust of Oregon

---

*Pay-for-Performance Pilots*

*Co-Author: Mark Wyman, Program Manager*

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

# 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

Office of the Governor  
State of Oregon



*...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



Photo by PublicDomainPictures



# 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 2. Similarities and Difference in Establishing Pay for

Performance	New York: NYSERDA/ConEd Business Energy Pro	California: Pacific Gas & Electric Residential	Oregon: Energy Trust Pay for Performance Pilot
Automated M&V platform for performance payment	✓	✓	✓
Offer solicitations for market vendors to propose new program designs	✓	✓	○
Offer existing program vendors modification to payment structure	○	○	✓
Market outreach to shape program design	✓ (public input)	○	✓ (current contractors)
Rules and guidelines established at the program/initiative level	✓	✓	✓
Regulatory rules and guidelines	○	✓	○

# Staged Creation of Market Environment

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

# Staged Implementation with Existing Contractors

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

# 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
-