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Three Empire State Plaza, Albany, NY 12223-1350
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February 28, 2018

Ms. Kathleen Burgess, Secretary
New York State Public Service Commission
Three Empire State Plaza
Albany, NY 12223-1350

Re: Case 18-M-0084 – In the Matter of a Comprehensive Energy Efficiency Initiative.

Dear Secretary Burgess:

On February 23, 2018, the Department of Public Service and the New York State Energy Research and Development Authority jointly convened a stakeholder forum regarding Pay-for-Performance: Next Steps in New York. Please find the presentation provided during the forum enclosed.

Sincerely,

/s/

Colleen Gerwitz
Director
Office of Markets and Innovation

Enc.



NYSERDA

Pay-for-Performance Pilot Conceptual Framework

Pay-for-Performance: Next Steps in New York Stakeholder Forum

February 23, 2018

Recent History of P4P Discussions in NY

Two Clean Energy Advisory Council (CEAC) working groups included piloting P4P programs in NY in their report recommendations:

- REV Energy Efficiency Best Practices
- Energy Efficiency Procurement and Markets

NYSERDA held a meeting with stakeholders September 15, 2017 to discuss early design ideas.

NYSERDA presented a conceptual P4P pilot framework at the Home Performance Contracting Conference on February 14, 2018.

What is Pay-for-Performance?

- The Pay-for-Performance (P4P) Pilot is a flexible approach that allows solution providers to innovate, reduce costs, and increase customer value by:
 - Investing in realized savings based on weather-normalized meter data
 - Enabling multi-year revenue streams for delivered energy efficiency
 - Allowing for technology agnostic solutions – it is not a prescriptive program
 - Focusing on achievements at the portfolio level
 - Valuing energy efficiency in a manner comparable to other distributed energy resources (DERs)
 - Minimizing transaction costs and administrative burden
 - Allowing for private market innovation and scale

What is Advanced Measurement & Verification (M&V)?

- Also known as M&V 2.0
- Two key features:
 1. Automated analytics that can provide ongoing, near-real time savings estimates
 2. Increased data granularity in terms of frequency, volume, or end-use detail
 - Another key term: Advanced metering infrastructure (AMI) systems
- May offer opportunities to lower M&V costs through automated calculation of savings

Who will be involved?



Program Administration

RFQ

- Those interested invited to seek qualification as Aggregators

RFP

- Qualified Aggregators submit proposals
 - Estimated savings, market intervention plan, and bid price

Projects

- Selected Aggregators work with contractors to install projects
- 2-year window to install

Data

- Customers authorize release of utility consumption data
- Aggregators provide project data

Advanced M&V

- NYSERDA and/or Utility Partner(s) compares pre-and post-intervention models
 - Models are weather normalized, and total savings are calculated

Payment

- Aggregators paid based on total calculated savings for up to 5 years
- Can re-intervene during payment period to improve performance and install other measures

NYSERDA/Utility Roles: Co-design, Co-implement

Item	Role
Overall design	NYSERDA leads, in close coordination with utility partner(s)
Data platform	NYSERDA procures, in consultation with utility partner(s)
Develop RFQ and RFP	<ul style="list-style-type: none"> • NYSERDA leads, in consultation with utility partner(s) • Jointly issued and marketed
End user/program marketing	Utility partner(s) lead, with NYSERDA support
RFQ/RFP Process	Jointly implemented with evaluation and scoring
Counterparty with aggregators	Option 1: NYSERDA phase 1; utility partner(s) subsequent phases Option 2: Utility partner(s) all phases
Contract management	Utility partner(s) or NYSERDA, depending on counterparty options
Implementation and scaling	Utility partner(s)

Pilot Approach

- NYSERDA intends to pursue a three-phased approach by issuing RFPs on an annual cycle during the 2018-2020 timeframe
- The phases are intended to test different approaches and use cases and learn what method(s) are most effective
- Phase 1 pilot will likely be geographically targeted with utility partners

Pilot Elements

Eligible sectors

Initially targeting mass market customers:

- Small-to-medium commercial (under 300 kW)
 - Potential budget = \$30 million for multi-phase pilot (~5,000-15,000 projects*)
 - Phase 1 utility partner = Con Edison
 - Initial territories = Westchester & Staten Island

- Single family residential
 - Potential budget = \$20 million for multi-phase pilot (~2,500-10,000 projects*)
 - Phase 1 utility partner = National Grid
 - Initial territories = Clifton Park & Half Moon, possibly Capital District

*heavily dependent on solution provider measure packages and business models

Customer Eligibility

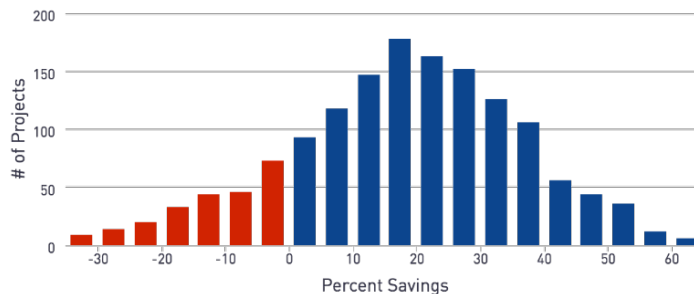


- Conceptual Requirements:
 - Defined service classes
 - Located in the defined pilot territories
 - Willing to release utility data to NYSERDA and aggregators
 - One year of electric and gas account history
 - At least two years of oil delivery records if using fuel oil
 - Cannot have multiple meters at one house
 - Solar panels need to have been installed at least one year prior
- NOTE: Participating customers will not be able to receive NYSERDA or utility energy efficiency rebates/incentives

Investment Approach

- Payment will flow to aggregators
- Proposed incentive formula = EE rate * estimated useful life (EUL) / payment term
- Paying for the lifetime benefits of energy efficiency over multiple years
 - Designed to encourage deeper measures
- Project performance will be assessed for all fuels (i.e. energy savings calculations will be fuel agnostic)
- Individual project savings (positive and negative) will be rolled up and aggregators will be paid on portfolio performance
- Frequency of payments:
 - Aiming for quarterly

Natural Gas Savings Distribution



Energy Efficiency Rate

For the initial phase of the pilot, the EE rate will be arrived at after considering relevant benchmarks, taking into account participant costs and early risk premiums.

Benchmarked EE rates (levelized)	VDER Carbon Value	ConEd Small Business Direct Install (2016)	ConEd Commercial Portfolio (2017)
\$/MWh	\$24.24	\$31.07	\$28.89
\$/MMBtu	N/A	N/A	\$5.89

* Values above are calculated and may be adjusted if background assumptions are updated in the future

Phase 1 Portfolios

- Two-year installation period
- NYSERDA & utility partner will assess progress at the end of Year 1 and Year 2
- Contract adjustments under consideration include:
 - Installed portfolio variances – For example, if the weighted average EUL materially varies (e.g. 10%) from the proposal
 - Performance – For example, if a portfolio falls short of expectations
- Funding will be available for overachievement
- No bonding or insurance required for portfolio performance
 - Insurance will be looked upon favorably in scoring process
- Strict rules to prevent gaming

Advanced M&V Methodology

Dedicated computing infrastructure is a requirement to deploying a metered efficiency program/market. Procure enterprise software to implement CalTRACK.

CalTRACK:

- A set of tested and accepted methods that determine energy savings by comparing weather normalized pre- and post-retrofit energy use for a given customer or portfolio of customers
- The full set of CalTRACK methods and code are available online and open source
- Aggregators may develop their CalTRACK-based tools to better manage their energy portfolios

Procurement Approach

RFQ, then RFP

Looking for ...

- Demonstrated track record of implementing comparable projects
- Strong financial standing
- Mutually beneficial partnerships
- Customer offerings/packages with high likelihood of customer adoption
 - Multi-measure approaches will be considered more favorably
- Minimum portfolio size = 250
- Desired number of aggregators in Phase 1 = 3 per sector

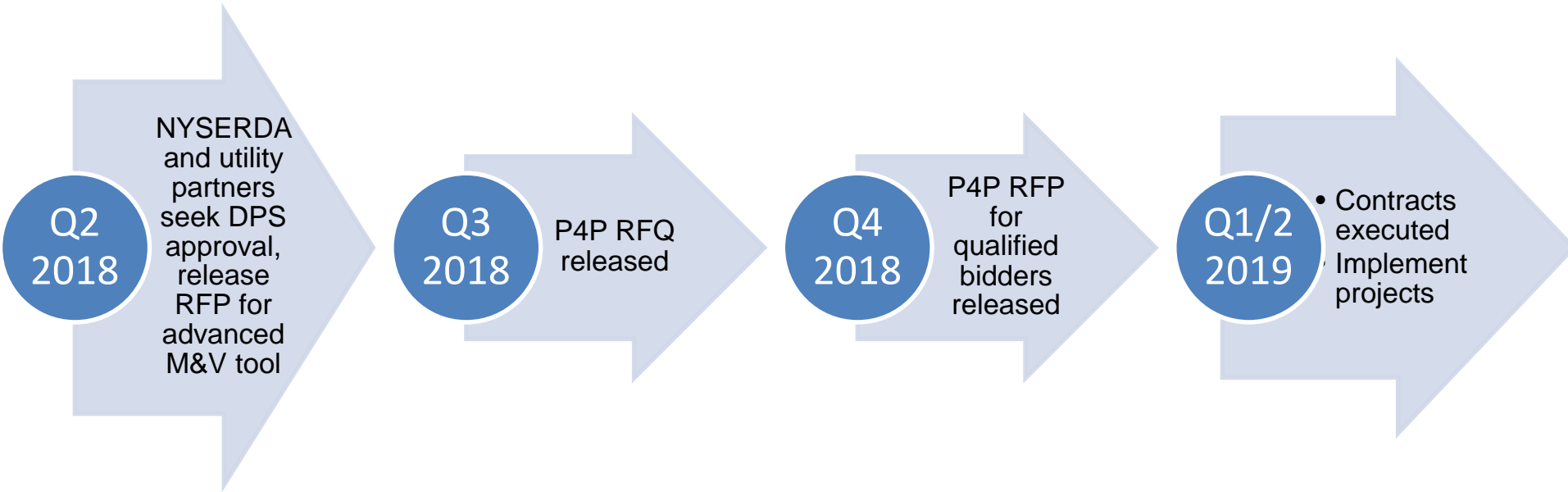
- NYSERDA and utility partner will provide anonymized past program data with consumption data to qualified aggregators

Data

NYSERDA will be releasing a residential data set (2007-2012) on Open NY in near future. This anonymized data set includes:

- Project-level data:
 - Actual weather-normalized, project-level electric and natural gas savings
 - Baseline period energy usage
 - Reporting period (post-retrofit) energy usage
 - Location (county, city, and zip code)
 - Building Characteristics (year built, number of units, square footage, utility provider(s), etc.)
- Measure-level data:
 - General and sub-category of installed measures, cost of measure, quantity of measure installed, etc.
 - Included in separate table that can be joined to project-level data

Timing



Expectation For Stakeholder Forums

- Identify issues **and** associated possible solutions
- Focus as much on **how** to pursue an action as on **whether**
- Work towards shared understanding, even when consensus is elusive
- Bring your insights to the conversation, as well as an open mind

Pay-for-Performance: Next Steps in New York

Roundtable Participants:

David Hepenstall, AEA

Jeff Perlman, Bright Power

Mike Burke, CLEAResult

Raghusimha Sudhakara, Con Edison

Peter Dotson-Westphalen, Cpower
Energy Management

Ben Samways, Ecosave

Elizabeth Freeman, Engie

Sammy Chu, Edgewise Energy

Tim Guiterman, Energy Savvy

Clarke Doody, Franklin Energy Group

Hal Smith, Halco Energy

David Tine, HSB

Maria Fields, Joule Assets/Joule Smart

Lloyd Kass, Lime Energy

Fouad Dagher, National Grid

Miles Farmer, NRDC

Alfred Griffin, NY Greenbank

Matt Golden, Open EE

Andy Frank, Sealed

Scott Clark, SmartWatt

Bob Callendar, TRC

Zak Suttile, Willdan Energy

Moderator: Scott Johnstone



Discussion Questions: Pay-for-Performance: Next Steps in New York

1. What is your top concern regarding the Pay-for-Performance (P4P) concept based on this presentation?
2. Are there other P4P models that NYSERDA should consider piloting?
3. Can M&V 2.0 bring better confidence to customers that energy savings are real and lead to increased adoption of EE?
4. How will market actors use P4P to reduce customer acquisition costs and deliver value to the customer?
5. What data are required to support a successful launch?
6. What is the need/role for Green Bank financing and how could it be effectively structured?