

PAY FOR PERFORMANCE (P4P) DRAFT

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PAY FOR PERFORMANCE – DEFINITION

- ▶ **Generally, P4P refers to payment for energy savings that have been confirmed through metering or demonstrated through modeling**
 - There are many flavors of this that we will be reporting on
- ▶ **There is no standard definition of pay for performance in energy efficiency**



P4P TERMS



- ▶ **Components of P4P**
 - Operations & Maintenance (O&M)
 - Behavior
 - Capital (describe standard offer)

- ▶ **Difference from typical programs**
 - Deemed/estimated vs Verified savings

- ▶ **Design incentive**

- ▶ **Capital incentive**

- ▶ **Commissioning incentive**

TYPES AND HISTORY OF P4P



► Variations in P4P

- Residential and C&I
- When payment occurs
- What is needed in most cases—metering infrastructure, M&V, data in general—many types can be included
- TA and market-based implementers

► ESCo have been doing these kind of projects for a long time

- \$5B per year in retrofit projects across US
- \$50B in verified savings since 1990

STANDARD OFFER HYBRID EXAMPLE

- ▶ **Excel Energy Colorado - Standard Offer Program**
- ▶ **Designed to accommodate the ESCo process**
- ▶ **Description:**
 - A retrofit efficiency program where studies are eligible for 50% cost share
 - Savings are also eligible for incentives based on kW, kWh or therms when equipment is installed, based on estimated savings.
 - Monitoring for three years verifies performance. Variation from the estimated savings greater than 10% results in adjustments to the incentive.
 - This could include customers refunding dollars initially paid out

MA REFERENCES

► MassSave P4P

– Description:

- Promotes commissioning on an ongoing, multi-year basis
- Co-funding for technical resources

– Process:

- After an audit, customer commits to 3 years of monitoring based on projected savings
- Vendor implements measures/changes
- Monitoring for 1 year to be eligible for incentives
- Incentives also available for project management to help move the project forward

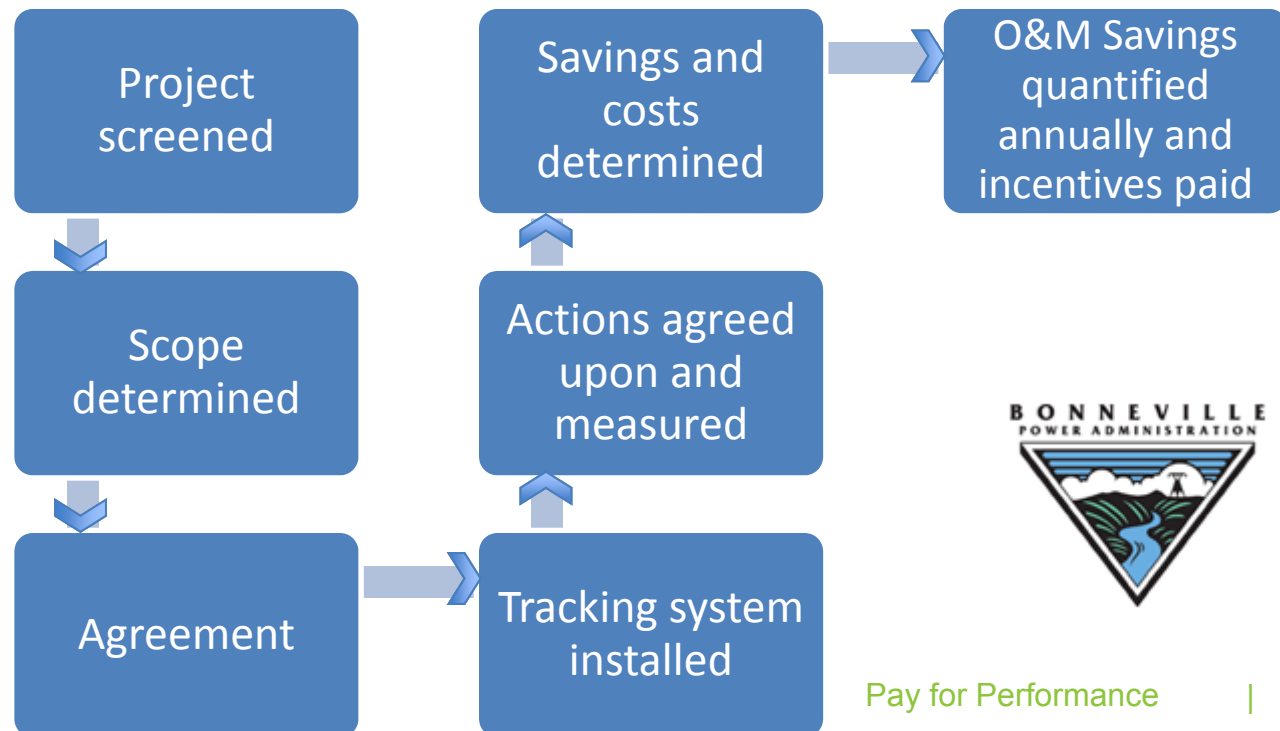


BONNEVILLE POWER ADMINISTRATION - TRACK AND TUNE

► Description:

- Promotes improvements to operations and equipment settings for individual industrial customers
- No capital expense required to receive savings or incentive
- Co-funding for technical resources and metering equipment

► Process:

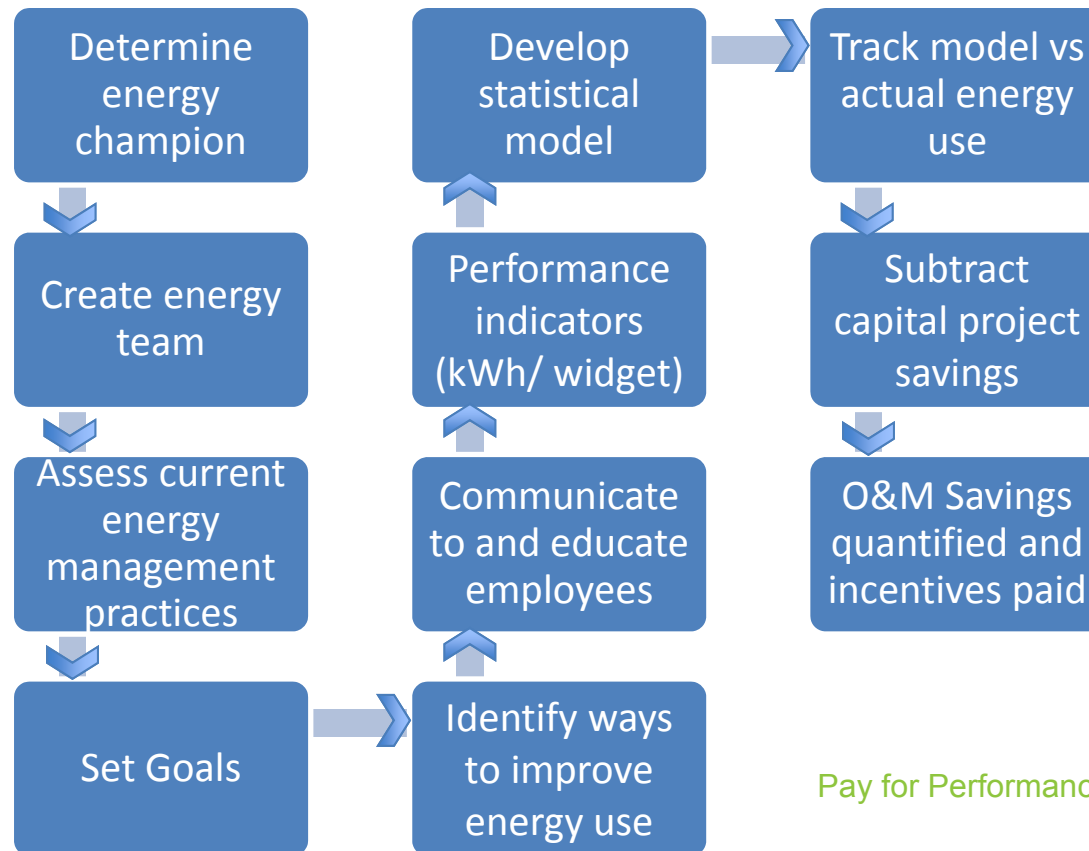


BPA HIGH PERFORMANCE ENERGY MANAGEMENT

► Description:

- Promotes improvements to operations and settings for a cohort of industrial customers
- Integrates energy efficiency as a core business practice

► Process:



PAY FOR PERFORMANCE IN NEW CONSTRUCTION—NJ CLEAN ENERGY

► Description:

- Offers incentives to C&I and institutional customers with buildings > than 50k SF for comprehensive, whole-building approach to saving energy

► Process:

Incentive #1

- Submittal of proposed energy reduction plan
- Incentives based on \$0.10 per square foot up to \$50,000

Incentive #2

- Submittal of as-built energy reduction plan
- Incentives based on \$1.00 per square foot

Incentive #3 – P4P

- Submittal of complete commissioning report
- If threshold of 15% better than code achieved, incentives based on \$0.35 to \$0.65 per square foot

RESIDENTIAL PAY FOR PERFORMANCE—NY MULTIFAMILY PERFORMANCE PROGRAM

► Description:

- **Performance based** whole-building, fuel blind program targeting 20% source energy savings per building
- Market based delivery model: “Program Partners” set prices for services with incentives available at key stages
- “Pay for performance” optional kicker incentive

► Results

- 17% average savings per building
- No statistical correlation between P4P applicants and achievement of savings goals

Building Type	Realization Rates		NTG	
	Electric	Fossil Fuel	Electric	Fossil Fuel
All Retrofit	0.78	0.57	0.55	0.58
Market Rate Retrofit	0.88	0.78		

RESIDENTIAL EXAMPLE— PENDING PROPOSAL FROM CA

► **Goals:**

- Develop scalable model for residential retrofits leveraging rapidly emerging market actors and products
- Minimize administrative and implementation costs

► **Services provided by aggregators who bid for funding through power savings agreements, e.g.:**

- PACE loan providers
- Smart thermostat vendors
- Vertically integrated contractors
- Program implementers

► **PG&E would pay for aggregators' portfolio kWh and therm savings measured through AMI**

- Payments made annually one and two years after initial intervention based on aggregators' total portfolio

RESIDENTIAL EXAMPLE— PENDING PROPOSAL FROM CA

- ▶ **Advantages to model according to PG&E:**
 - Allows participation by more market actors
 - Provides flexibility for contractors to choose services and products that customers want and that save energy
 - Combines measure installation with operational and behavioral interventions
 - Limits risk to ratepayer funds by paying incentives only for energy savings that materialize at the meter
- ▶ **Initial enrollment period: 2016-2019**
 - \$6 million total budget, \$5 million incentive budget
 - 2,100 customers/year
 - \$1,500/home
 - 3-5 aggregators, 50 active contractors

CONSIDERATIONS



Measurement	Customer Impact	EM&V
<ul style="list-style-type: none">• Performance not always a product solely of better practice• Numerous factors can skew performance• Combination of capital projects and O&M/behavior might need to be separated• Does not work as well when dual baselines exist	<ul style="list-style-type: none">• Shifts the risk of failed projects more onto the building owners• Some owners may not have the time or money to invest more comprehensive projects	<ul style="list-style-type: none">• Requires longer-term/multi-year M&V involvement• Naturally occurring EE needs to be part of the conversation• Attribution is harder to determine

QUESTIONS?

Thank you

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