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Shareholder Performance Incentive Design for Energy Efficiency Resources

Best Practices, Pitfalls and Guidelines

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Overview

- Why have Performance Incentives (PIs)?
- Do they work?
- Existing models
- Purpose of PIs and importance of the regulatory context
- What are you trying to encourage?
- Key features for a comprehensive and effective framework
- Common problems that should be avoided
- Appropriate levels of reward

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Objectives and Purpose for PIs

- PIs primary purpose is to better align societal/ratepayer interests with those of utility (program administrator (PA)) shareholders.
  - Lack of alignment under traditional regulatory structures creates disincentives for utility pursuit of efficiency
    - Lost revenue
    - Lost earnings from building ratebase

- Therefore, **regulatory context can drive factors in PI design.**

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Considering the Regulatory Context

- Overarching policy goal should be to ensure:
  - PA is highly motivated to achieve exemplary performance, *while also*
  - Minimizing costs to ratepayers to no more than necessary to achieve above outcome
- This will be different depending on situation:
  - Does decoupling exist?
  - What is ROE?
  - What kind of load growth exists?
  - What is financial health of PA?
  - What mandates exist (legislative or regulatory)?
  - What are stakeholder perspectives?
  - Do rates embed DSM plans within forecasts?
  - How aggressive are goals?
  - What is PA capability and experience?

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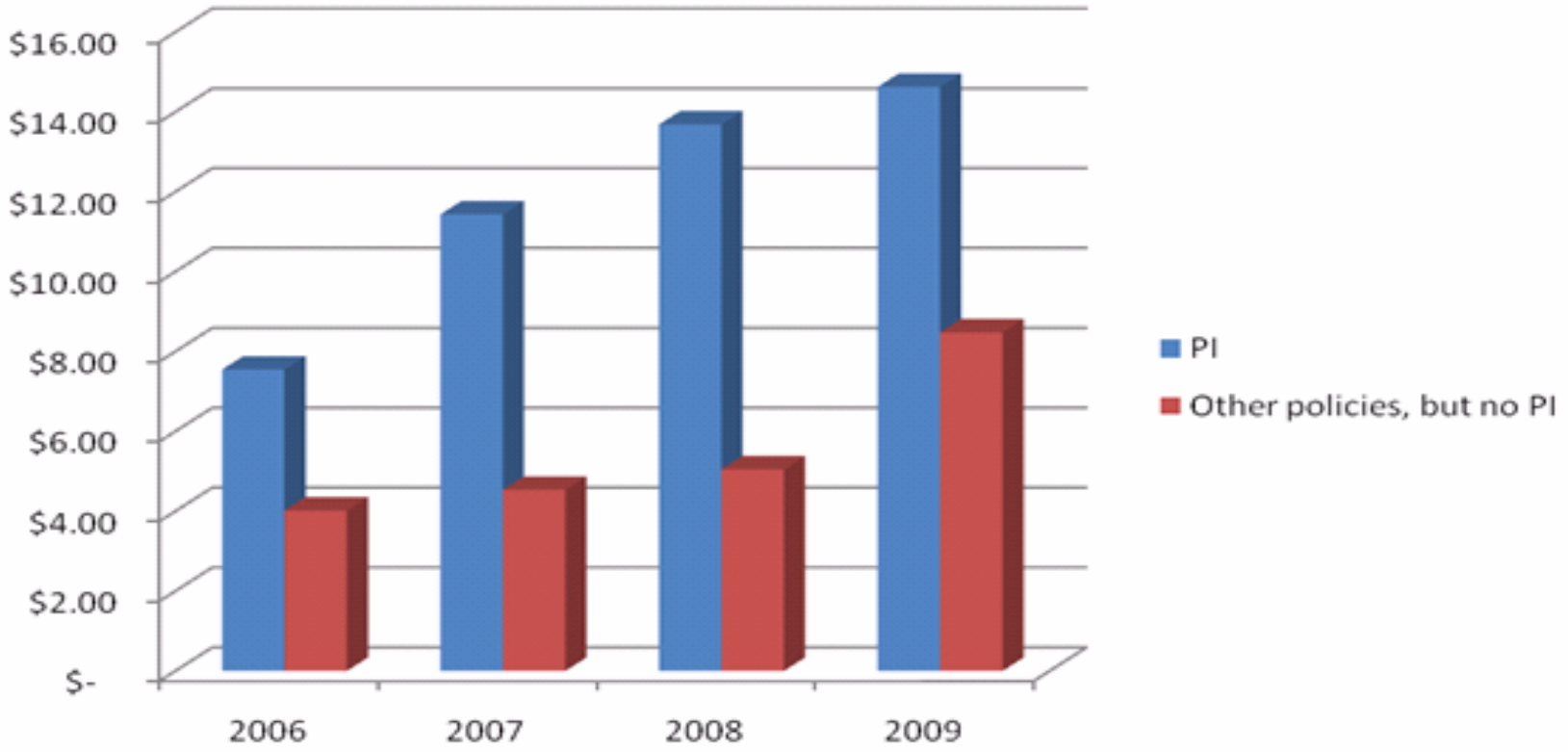
Does the Rat Smell the Cheese?



Hayes, Sara, et al. Carrots for Utilities: Providing Financial Returns for Utility Investments in Energy Efficiency. ACEEE. January 2011.

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What Are The Most Important Desired Outcomes? — Tying PIs to Desires

- Need to understand what you want to motivate or discourage in terms of performance
- Virtually all PIs focus heavily and in some cases solely on savings/benefits…..but….
  - Is that the only outcome we care about?
- Importance of multivariate framework
- Distinguish objectives between:
  - Correlated outcomes
  - Reinforcing outcomes
  - Independent outcomes
  - Competing outcomes

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Guiding Principles…PIs Should Be:

- Performance-based — outcomes not activities (at least mostly)
- Objective, unambiguous, measurable, verifiable and achievable but aggressive
- Scalable
- Multivariate
- Supported by but not driving EM&V

And, for extra credit…

- Long term (greater than annual)

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Types of PIs

Type	Description	# of States
Shared Savings	Incentive is given as a percentage of net benefits from EE	12
Performance Target	Incentive is given as a percentage of EE program, dependent on Utilities' ability to meet one or more performance metric	5
Rate of Return	EE costs are capitalized over the life of the installed measures, and the utility is allowed to earn a rate of return similar to that of supply-side investments	2
Save-a-Watt	Allows the utility to earn a percentage of their authorized rate of return on avoided supply-side costs due to EE programs.	1

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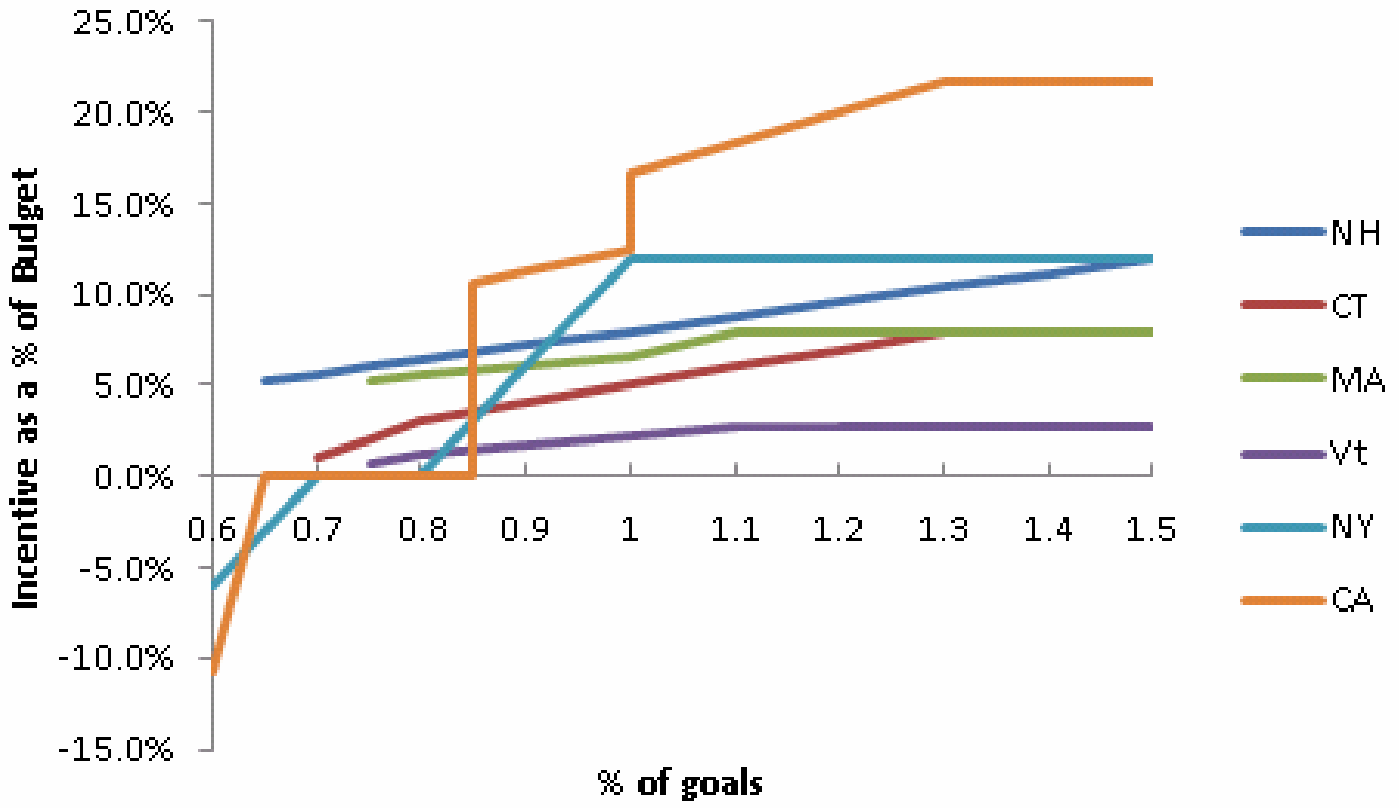
Examples of Primary Metric – Selected States



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Performance-Based

- Avoid rewarding activities, focus on outcomes
  - Allow PAs flexibility regarding activities, while focusing on results
  - Don’t want to lock in activities that may turn out to be ineffective

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Objective, Unambiguous, Measurable, Verifiable -- “Perfection Can Be The Enemy of the Good.”

- Is performance measurement subject to contentious debates?
  - Can a highly correlated metric eliminate contention while creating similar incentives?
- Clarity of language is essential
- Define up front how will be measured, issues of retroactive vs. prospective adjustments, deeming, NTG ratios, etc.

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Scalable

- Scalability should encourage continued performance focus no matter what expectations are for year end
- Without scalability, perverse incentives can result
  - If know can't meet target or will definitely meet, may stop trying hard if no incremental rewards for better performance
- Need to think about threshold levels, inflection points, caps, and overall levels of reward at each step.

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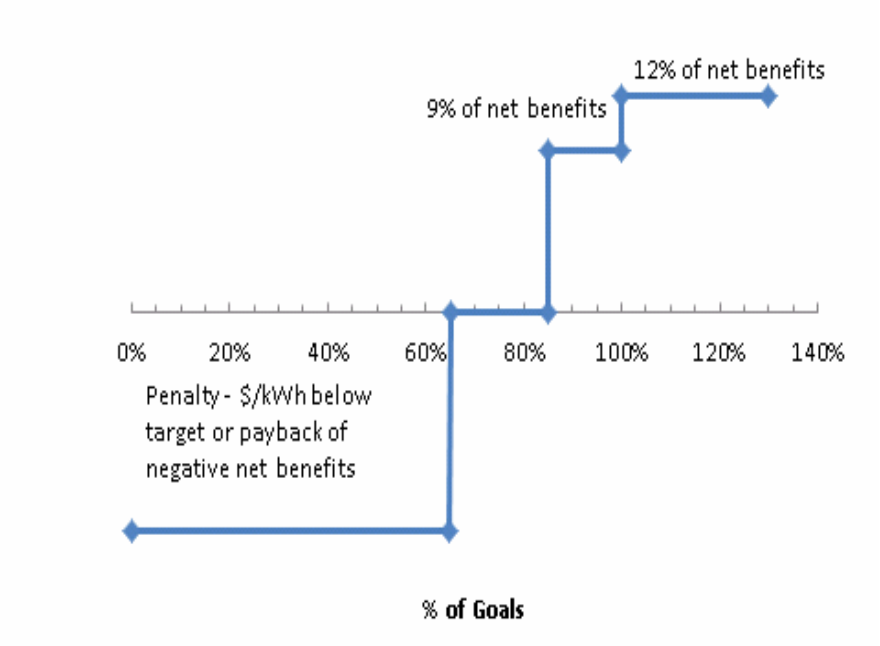
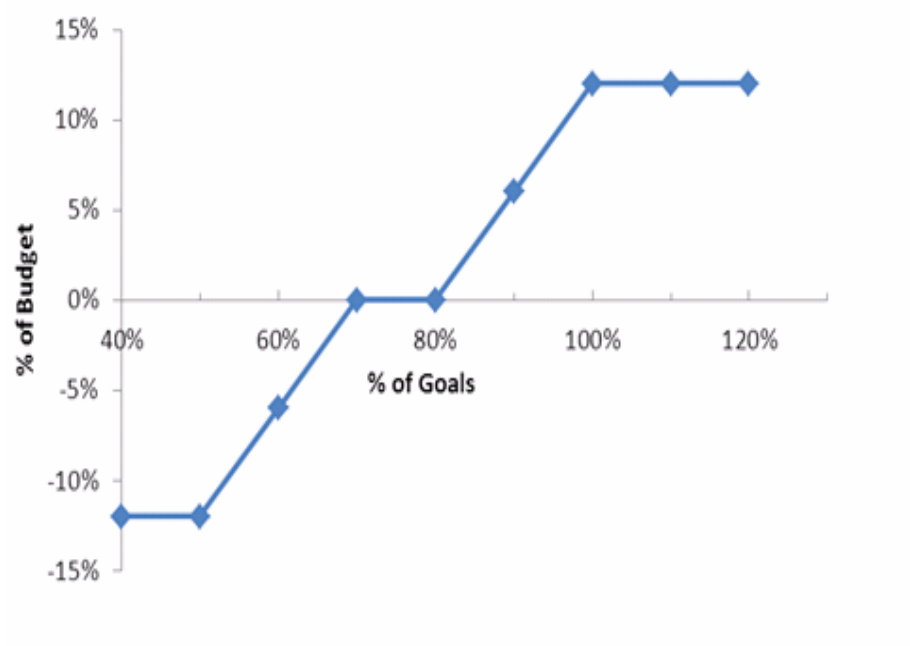
Scalable – A Tale of Two States





California

No upside cap until 130% of goal

New York

No benefit to over achieve goal

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Life is Multivariate – We *Can* Juggle Multiple and Competing Priorities

Do we care only about resource acquisition?

- Single savings or benefits metrics can create perverse incentives that may discourage other important objectives (e.g., equity, comprehensiveness, market transformation, etc.)

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Multivariate, cont.

- PIs should reflect the complex basket of key objectives for long term successful and sustainable DSM – but be limited in number and still performance-based where possible
- Pitfalls of highly correlated metrics – (e.g., savings and net benefits metrics). Are they improving overall incentives or just adding complexity?
- Important countervailing objectives are most critical to include to provide a healthy tension between goals
- Minimum Qualifying Criteria are an option – Should be things considered critical to overall success, in control of program administrator, and low risk. Activities may be appropriate here.

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Multivariate – Illustrative Example

			Targets/Rewards		
Metric	**Description**	**Financial Weight**	**Threshold**	**Design**	**Exemplary**
Savings Goal	Achieve X KWh annual savings	70%	80% of goal	100% of goal	125% of goal
Minimum Qualifying Criteria - Low Income Equity	Allocate minimum of X% of portfolio budget to LI programs	0%	X=??		
Depth of Savings	Achieve an average of 20% whole building savings among participants in program X	10%	X=0.8*Y	X=Y	X=1.25*Y
Cost Efficiency	Achieve reductions in portfolio cost/first year savings	10%	20% of ratepayer savings (calculated based on goal $/KWh and actual achievements)		
Penetration among hard to reach in ProgramA	Capture X projects in tenant-occupied space in program A	10%	X=0.8*Y	X=Y	X=1.25*Y

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Financial Levels

- Balancing reward and risk – Establish level in local financial and regulatory context
- Most PIs target 3-14% of program spending
- Levels can be made equivalent under any model, *but do the math*
- You don’t need large rewards for effective incentive – 5-10% usually plenty
- Existence of PI metrics often more important than $ amount.
- Penalties vs. Rewards -- Is a $ lost = a $ not gained?
- Setting threshold eligibility and inflection points – can be structured with progressive rewards

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A Word on Timing

- Most PIs are annual targets, aligned with annual goals and budgets
- Benefit is primarily identification and provision of annual earnings to Shareholders
- Disadvantages include:
  - Inordinate focus on short-term actions and artificial deadlines
  - Little incentive for spending on longer term market transformation, building pipelines, etc.
  - Increased EM&V costs may be driven by PI framework. Can result in less resources for other EM&V research that may provide more benefits?
  - Regulatory burden

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Thank You

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