



RAP

Energy solutions
for a changing world

Performance Incentives and Utility Regulation

Keystone EEA

Presented by Richard Sedano

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Introducing RAP and Rich

- RAP is a non-profit organization providing technical and educational assistance to government officials on energy and environmental issues. RAP staff have extensive utility regulatory experience.
 - Richard Sedano directs RAP's US Program. He was commissioner of the Vermont Department of Public Service from 1991-2001 and is an engineer, starting at PECO in 1979.

Incentives – Why?

- All regulation is incentive regulation
– Alfred Kahn

Incentives – Why?

- How does the state get the results it wants?
- Is Pennsylvania getting the results it wants?

Incentives – Why?

- Does regulation promote **compliance**?
- Or does it also promote **innovation**?
- **Excellence**?
- **Inspiration**?

Incentives – Why?

- What does the utility CEO think of upon getting up in the morning?
- The CFO?
- The engineering VP?
- The customer service VP?
- The rank and file utility worker?
- **Does the state want to influence these?**

Incentives – Why?

- Get results in outcomes important to the public and the public interest
- Motivate better outcomes
 - Through innovation, etc.
 - Reward responsible employees
- Convey clear signal to regulated company
- Correct bad or misguided behavior
- Generally not to pay for BAU behavior

Incentives – How?

- Answer to the question:
 - How does regulation pay attention to my needs as a customer and our needs as a population being served?
 - Invites debate about whether chosen indicies and metrics effectively motivate results.

Incentives – How?

- Stretch targets
 - Improve existing performance

Incentives – How?

- Mechanism should be based on “value for money”
 - The value to the public or the public interest should be well in excess of the reward to the utility

Incentives – How?

- The mechanism should provide incentives that are enough to prompt the desired results
 - And no more

or as little more as possible

Incentives – How?

- Incentive Categories
 - Representative (enough metrics)
 - Not comprehensive (not too many metrics)
 - Correct chronic and important deficiency
 - Advance in key performance category
 - Go beyond the statutory metrics
- Reassess and possibly change categories periodically

Incentives – How?

- Symmetry, the issue of rewards and penalties
 - Conventional regulation: Penalties only
 - Performance regulation: Rewards only? Or **both?**
 - And where should the ranges start?
 - Deadband around current performance?
 - At the target level?

Incentives – How?

- Role of the regulator
 - Umpire is not interested in performance
 - **Interpreter of public policy** is interested in performance
 - **Active regulator** needed to motivate alignment of utility performance with public policy
 - Statute can help regulator by explicitly permitting this course, though “general good of the state” language probably permits incentives already if “value for money” can be shown, as it should be

Incentives – What?

- Sample list of performance areas for energy efficiency
 - First year savings (statute)
 - Lifetime savings
 - Capacity savings **# PARTICIPANTS**
 - Savings by customer class
 - Market share changes
 - Whole building counts (i.e. schools)

Incentives – How?

- Common Methods for energy efficiency
 - Performance Bonus – hit a target, get a reward, can have progressive targets
 - Shared savings – above a threshold, win a percentage of the value of saved energy, percentage may change at milestones, may be capped
 - ROI – requires capitalizing of EE investment, may be capped

Figure 1: Profiled States by Program Type



ACEEE 2011

Incentives – How much?

- How to measure?
 - % of program spending
 - % of net benefits
 - Basis points
- Experience offers a very wide range
 - Intuition on the “Front Page Test”

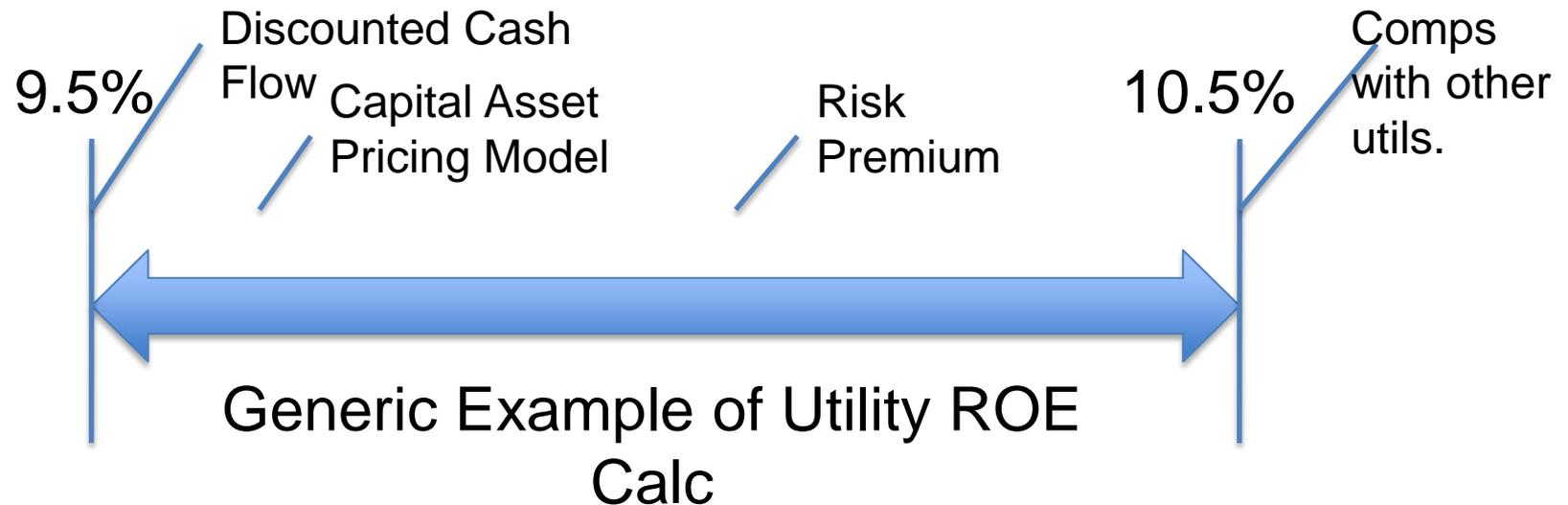
Status of Incentives

- Current models are good, value-based
 - Still looking for “better” and “best”
 - Fit better into regulatory system
 - More targeted motivation of administrator
 - Resolve “CFO – chief resource officer” struggle
 - Better address multi-year planning
 - Vexing issues remain
- Clear that an “avoided profits” approach as Duke proposed is not acceptable

A new idea(s)

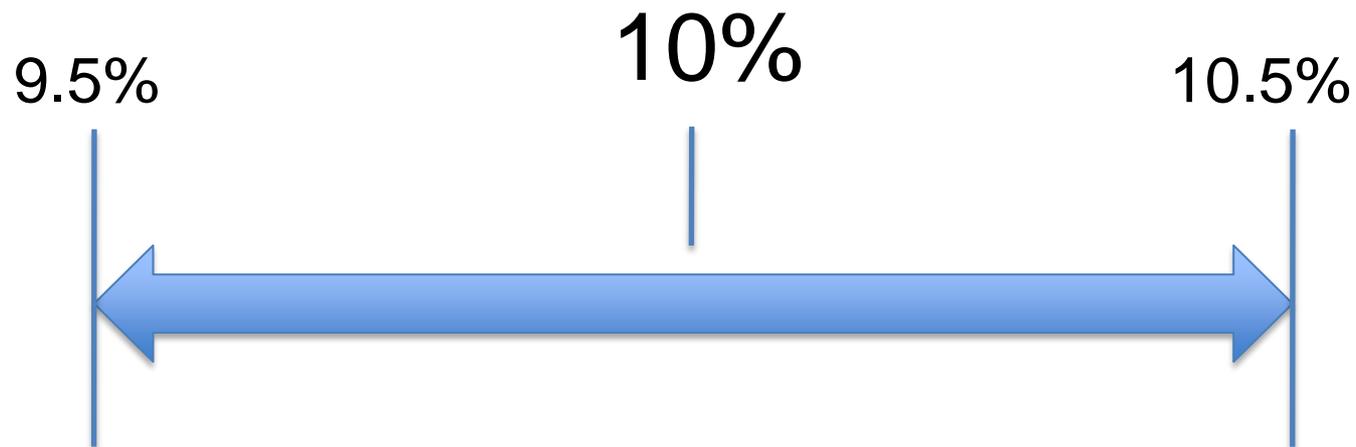
Possible Improvement -- Tiered Return Rewarding Publicly-Favored Clean Energy

- Utility ROE calculation in a rate case is based on multiple methods creating a range
 - The range is generally 50 – 100 basis points (0.5 – 1.0 %)



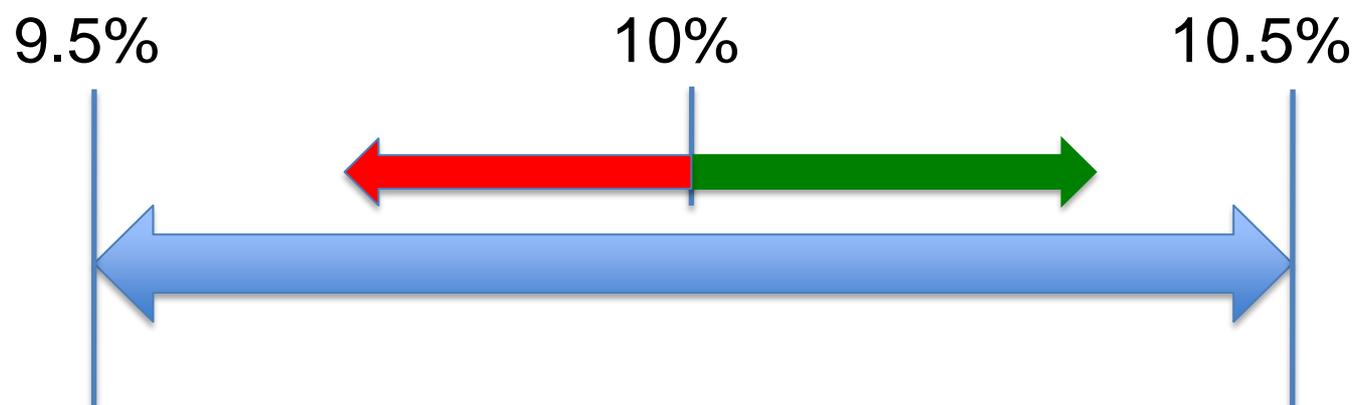
With a Range How Does the Regulator Decide?

- Regulators often find sense in the middle



Use the Range to Reward Performance for Energy Efficiency (and other Clean Energy)

- Using the middle as a starting point
 - Regulators can create a range of opportunity for rewards and penalties
 - In the proper magnitude (10-30 b.p.)



Calibrating Performance and Reward

Performance level relative to targets	ROE bump (basis points)	ROE Result
Less than 80%	-10	9.9%
80% to 100%	0	10%
100% to 110%	+10	10.1%
110% to 120%	+20	10.2%

Adjustment can be implemented with a true-up of the ROE without the need for a new rate case for instant effect after performance period results are available

Justifying (rationalizing?) an ROE Bump

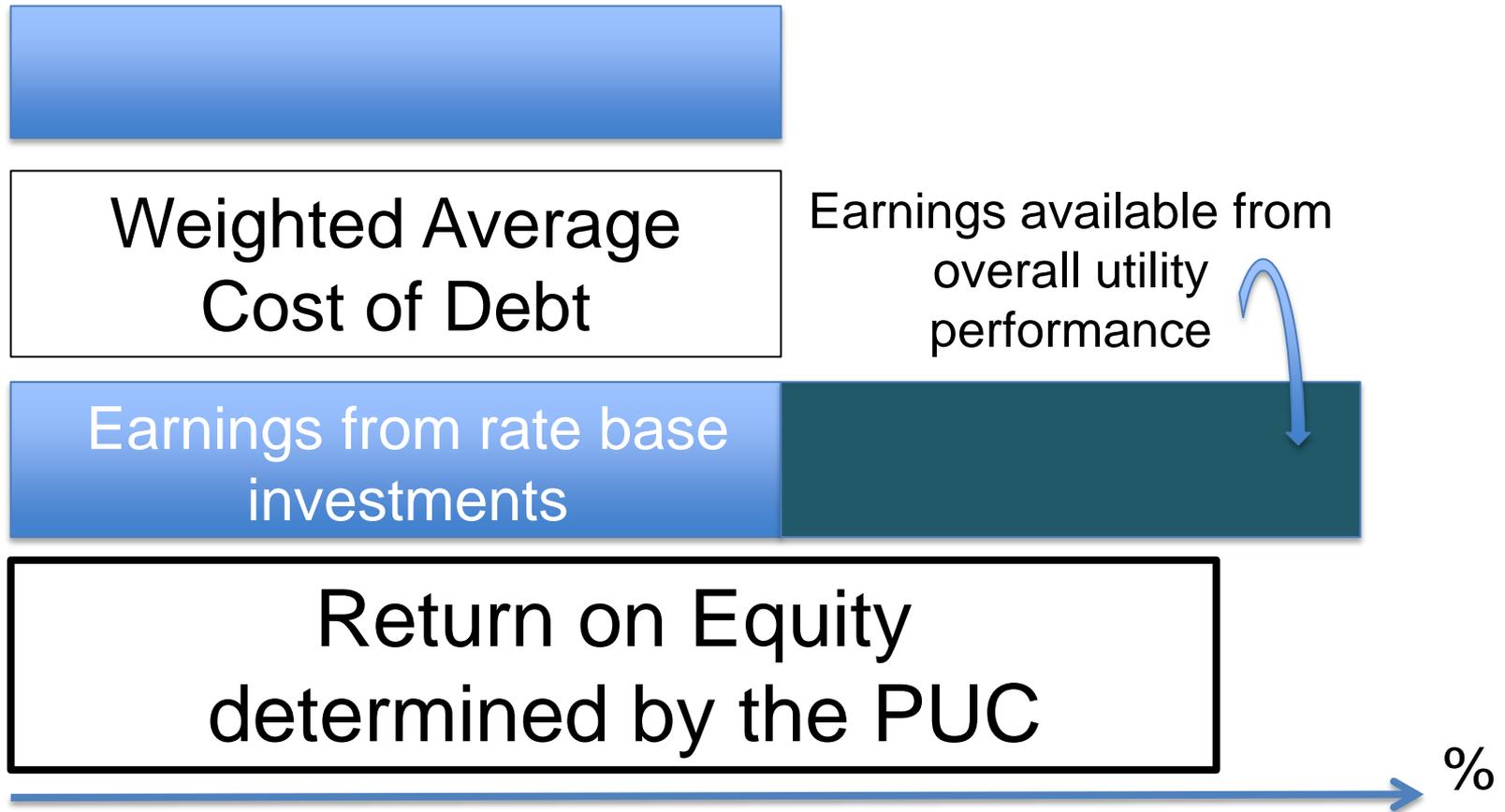
- The public wants the utilities to do a good job and will pay something for that
- Encourage the PUC to manage expectations
- Motivate, but be judicious and coherent
- Performance follows the cheese

A roster of potential public interest metrics

- Energy Efficiency
- Distributed Energy
- ...
- Reliability
- Service Quality
 - Differentiated geographically

• Performance metrics in the context of a **Performance-Driven Utility**
Reconcile periodically for learning, process improvements

Performance-Oriented Earnings



Multi-Year Goals

- Promotes long term planning and market transformation
 - Roll over yr 1 and 2 results
 - Rewards at the end of multi-year period
 - Both annual and cumulative rewards

Cautions

- Paying too much
 - Utilities tend to respond to incentives. Period.
 - Front page test on total
 - Keys: % of total savings, effective ROE increase
- Measuring savings
 - Utility sense of entitlement
 - **Attribution** to utility efforts
 - Measuring “**spillover**” effect on society

Good Data and Further Insights Here

- Carrots for Utilities: Providing Financial Returns for Utility Investments in Energy Efficiency
 - <http://www.aceee.org/sites/default/files/publications/researchreports/U111.pdf>

About RAP

The Regulatory Assistance Project (RAP) is a global, non-profit team of experts that focuses on the long-term economic and environmental sustainability of the power and natural gas sectors. RAP has deep expertise in regulatory and market policies that:

- Promote economic efficiency
- Protect the environment
- Ensure system reliability
- Allocate system benefits fairly among all consumers

Learn more about RAP at www.raonline.org

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