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Improving Utility Performance Incentives in the United States: A Policy, Legal and Financial Framework

RAP Webinar

Mark LeBel, Senior Associate
mlebel@raponline.org

Steve Kihm, Chief Economist
Citizens Utility Board of Wisconsin
kihm@cubwi.org

Richard Sedano, President and CEO
rsedano@raponline.org

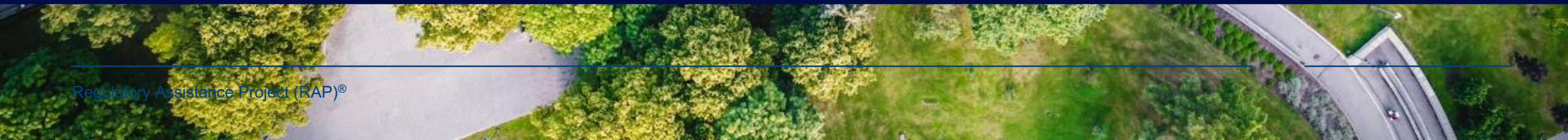
Damali Harding, U.S. Director
dharding@raponline.org

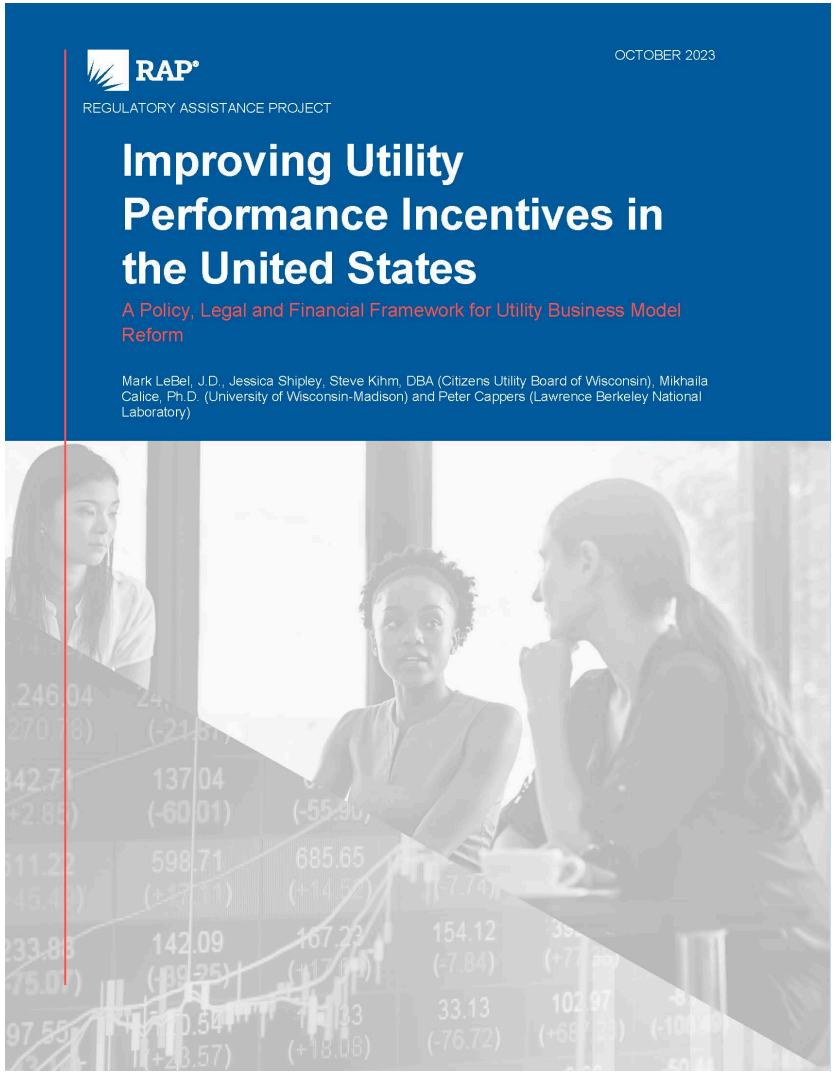
Today's Webinar

- Our panel:
  - Mark LeBel, Senior Associate, RAP
  - Steve Kihm, Chief Economist, Citizens Utility Board of Wisconsin
  - Richard Sedano, President and CEO, RAP
  - Moderator: Damali Harding, U.S. Program Director, RAP
- The session:
  - Examining the policy, legal and financial frameworks underpinning a new approach to performance incentives metrics
  - Q&A and "bonus time"

How do we get a monopoly investor-owned utility to strive for the public interest?

And not solely maximize shareholder value?





https://www.raponline.org/knowledge-center/improving-utility-performance-incentives-in-the-united-states-a-policy-legal-and-financial-framework-for-utility-business-model-reform/

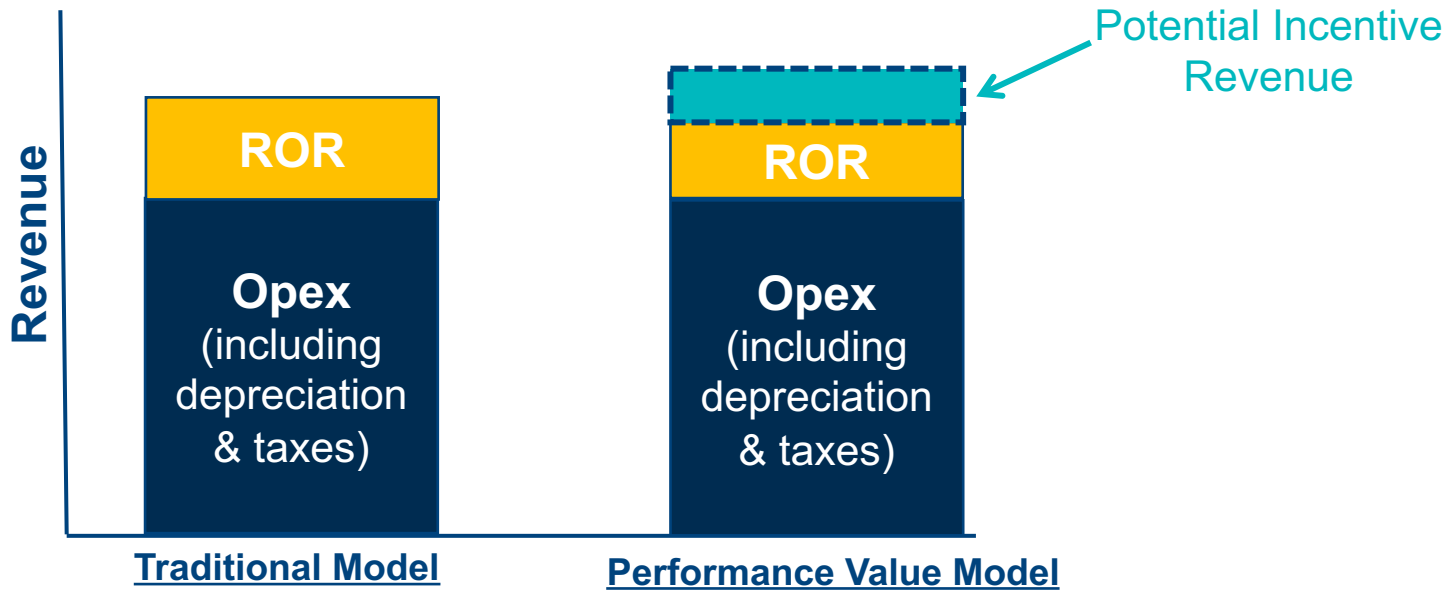
Framework to Illuminate the Path Forward

- Policy
  - What are the issues with cost-of-service utility ratemaking and how can PIMs help?
- Legal
  - What are the limits and guidelines for utility ratemaking, including financial rewards and penalties?
- Finance
  - How are utilities motivated and how can PIMs change that?

Each of these three areas has important linkages to the other two and must be understood as a package to implement policy improvements.

One Possible Solution

- Pair larger positive-only performance incentives with reduction in base return on equity



Key Takeaways From Today's Session

- Zooming out to look at performance incentives and ratemaking holistically can broaden the scope of reasonable options
- Larger performance incentives, either penalties or rewards, should motivate more significant responses from utility management
- Shareholder value is the key criterion for evaluating choices faced by utilities
- Legal concerns should be satisfied if utility has reasonable opportunity to earn market cost of equity
- Excess return on equity is key source of flexibility for reforms

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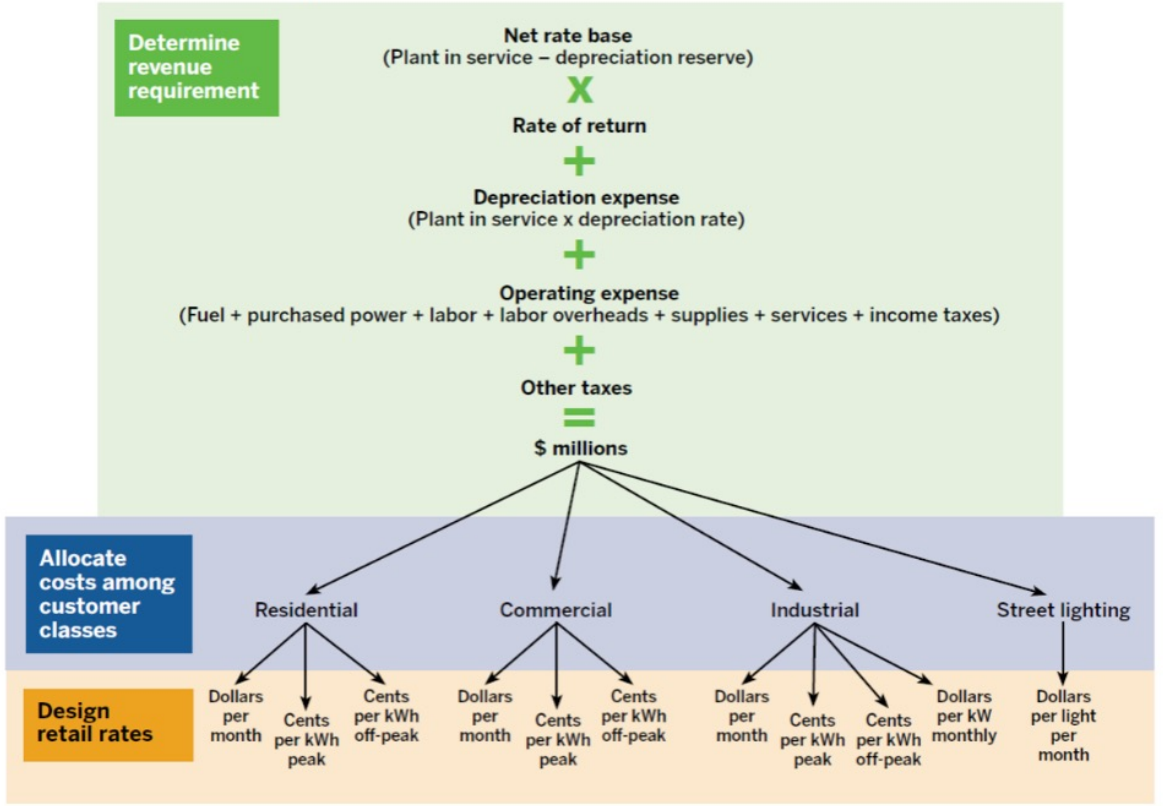
Policy Context of PIMs

Traditional Utility Ratemaking



Rate of return = (Debt % * Return on debt) + (Equity % * Return on equity)

Concerns with Utility Performance

- Inattention to traditional goals including:
  - Failure to control costs
  - Poor customer service
  - Outages, reliability, or generator maintenance issues
- Failure to pursue cutting-edge goals, such as equity or decarbonization
- Advancing their own financial interest, including inappropriate cost savings measures, increased sales or capital bias

Many Proposed Solutions

- Ratemaking solutions
  - Example: Decoupling and revenue regulation reduces the throughput incentive to increase sales
- Structural solutions
  - Example: Planning measures increase confidence that utilities make reasonable capital investment decisions
- Performance incentives have both structural and ratemaking aspects!
  - Informal regulatory monitoring and oversight
  - Data reporting requirements – “metrics”
  - Rankings and targets
  - Performance-based financial rewards and penalties

History of Performance Incentives

- Started in 1970s and 1980s for generator availability, reliability, and customer service
- EE performance incentives became common in late 2000s
- Rigorous evaluations of PIMs have been limited
  - Counterfactuals are difficult
- New efforts in this area in the past decade
  - Peak demand reductions, GHGs, electrification

The Opportunity and Challenge of Performance Incentives

- Outcome-based performance incentives, rewards or penalties, encourage utility management to strive for the best possible results without micromanaging the means to get there
- Performance incentives to date have primarily been small add-ons to existing ratemaking practices, hemmed in by conflicting objectives from significant stakeholders, notably consumer advocates and utilities.

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Legal Constraints

Different Kinds of Legal Requirements for Ratemaking

- Procedural
- Evidentiary
- Substantive – just and reasonable rates
  - Broad discretion to balance interests with deference from reviewing courts
  - State court cases have found generous revenue determinations faulty for procedural and evidentiary reasons
  - Bottom limit is identical to constitutional takings test under *FPC v. Natural Gas Pipeline* (1942)
- Property protections – Takings clause of 5th Amendment

Takings Clause of Fifth Amendment

"Nor shall private property be taken for public use, without just compensation"

- If rates are too low, they are "confiscatory" and thus taking the utility's property without just compensation
- *Smyth v. Ames* (1898) adopted "fair value of the property" rule for rate regulation, borrowing the concept from traditional takings law
  - This includes "a fair return upon the value of that which it employs for the public convenience."
- Justice Brandeis concurrence in result in *Southwestern Bell* (1923)
  - "The so-called rule of *Smyth v. Ames*, is, in my opinion, legally and economically unsound. The thing devoted by the investor to the public use is not specific property, tangible and intangible, but capital embarked in the enterprise. Upon the capital so invested the Federal Constitution guarantees to the utility the opportunity to earn a fair return."
- *Hope Natural Gas* (1944) overturned *Smyth v. Ames* (1898)
  - Flexible "end results" test – enabled, but did not require, cost-of-service ratemaking
  - Citing Brandeis in *Southwestern Bell*, test for minimum permissible equity return has been summarized as: (1) comparability, (2) creditworthiness and (3) capital attraction
  - Must include reasonable allowances for expenses or else opportunity to earn fair return is meaningless
  - *Hope* reaffirmed in opinion written by Chief Justice Rehnquist in 1989

Takings Clause Takeaways for PIMs

1. The “end result” of the rates set and the “overall impact” on utility investors is what matters and there is substantial flexibility in the methods that can be utilized by utility regulators.
2. The standard for “capital attraction” is consistent with the notion that there are a range of permissible returns and that a constitutional minimum might be a return that merely compensates investors for the risks they are taking and nothing more.
3. The standard for returns “comparable” to other companies with similar risks is not a requirement to compare with companies of the exact same type but rather a broader comparison across the economy.
4. Shareholders do not receive absolute protection from the consequences of poor management or adverse changes in markets.

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Financial Foundations

Why haven't incentives been as effective as they could be?

Conventional utility regulatory finance policies and practices are **inconsistent with basic corporate finance principles**.

Why haven't incentives been as effective as they could be?

Conventional utility regulatory finance policies and practices are inconsistent with basic corporate finance principles.

This prevents regulators from seeing the shareholder value creation process.

Key financial message—these are different returns

Return on equity—the **accounting return** the **utility** earns on its **books**

Cost of equity—what **investors** expect to earn on the **utility's stock** in the **financial market**

Key financial message

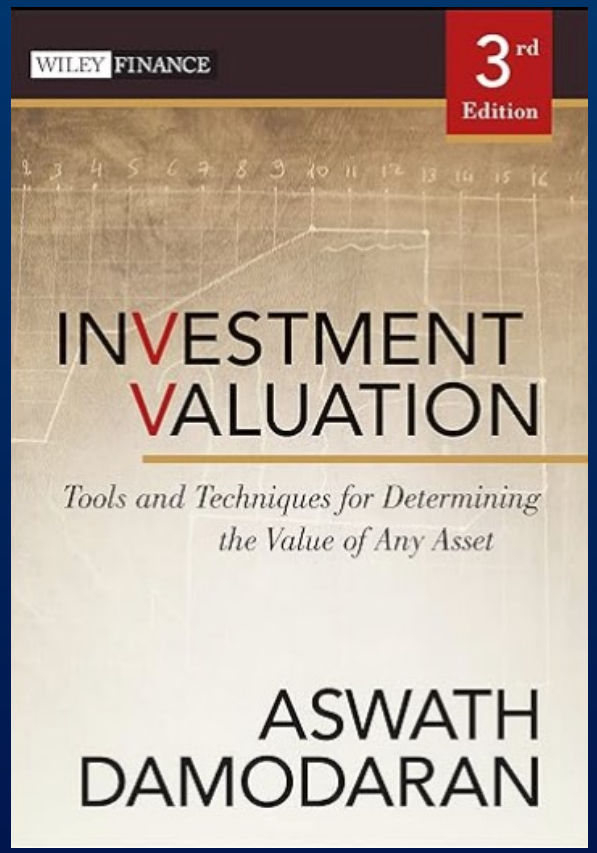
Cost of equity—**also** what investors **require** to be compensated for the risk **they** face (not the risk the **utility** faces)

Investors face much less risk than the utility itself experiences (**portfolio diversification**).

Reframing the finance issues

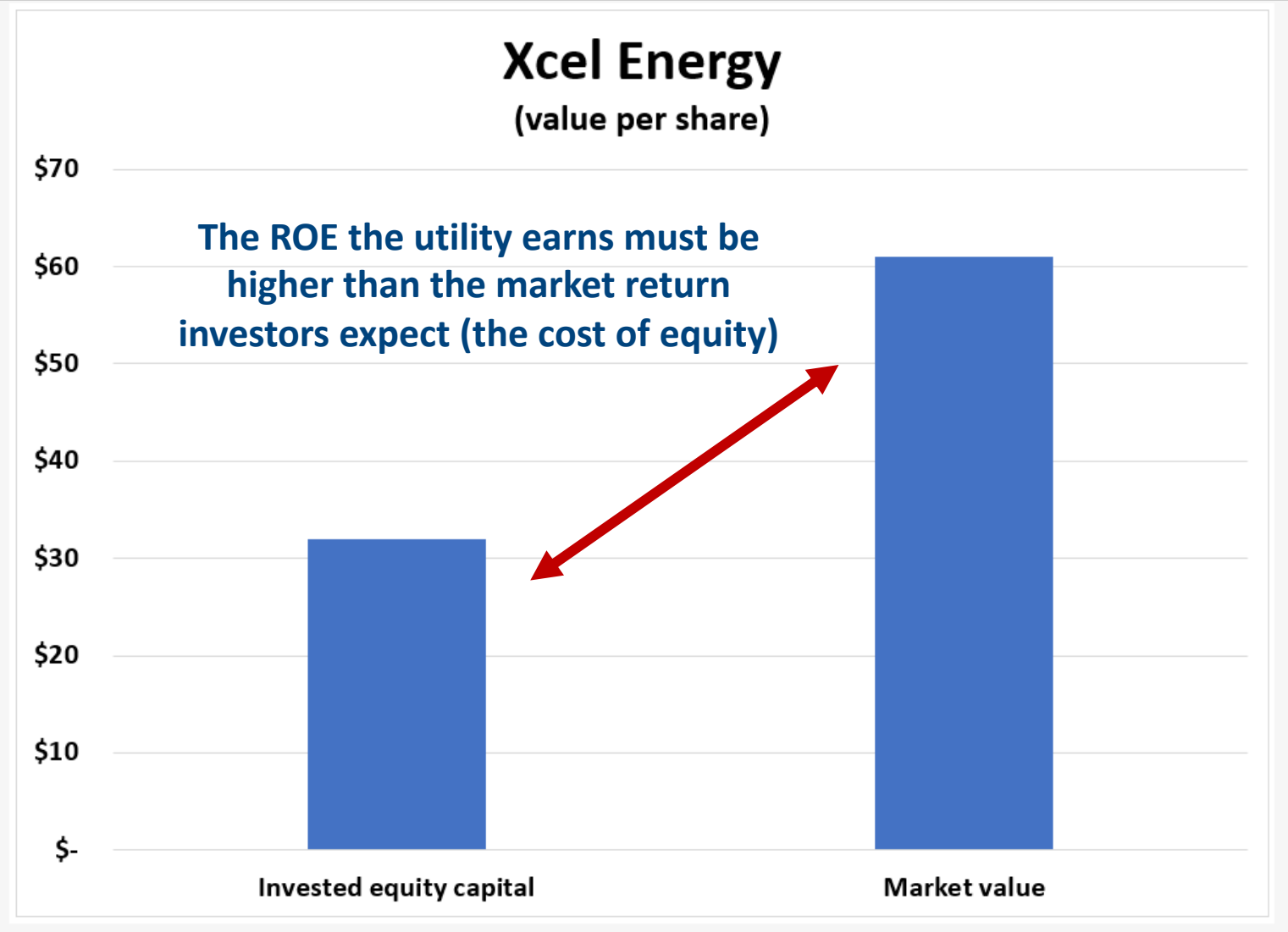
- The return on equity and the cost of equity are distinct returns
- It is the difference between those returns that drives value for shareholders
- For the past three decades, there has been a tendency to set the ROE above the cost of equity without necessarily knowing it because regulation has not framed the problem correctly

Value Principle



The price-book value ratio of a stable firm is determined by the differential between the return on equity and its cost of equity. If the return on equity exceeds the cost of equity, the price will exceed the book value of equity; if the return on equity is lower than the cost of equity, the price will be lower than the book value of equity.

Utility Example



Investors do not conflate the return on equity and the cost of equity.

Allowed **returns on equity** for Xcel's 14 state-level rate jurisdictions range from 9.1% to 10.75% with a 9.5% systemwide weighted average allowed ROE.

Xcel's Growth Depends on Public Support for Clean Energy Infrastructure

Morningstar (December 2023)

We use a 7.5% **cost of equity** in our discounted cash flow valuation.

THE REPORT DISTINGUISHES BETWEEN A RISK PREMIUM AND A RETURN PREMIUM

Risk-free rate	4.0%
Risk premium	3.5%
Return premium (**not risk related**)	2.0%
Return on equity	9.5%

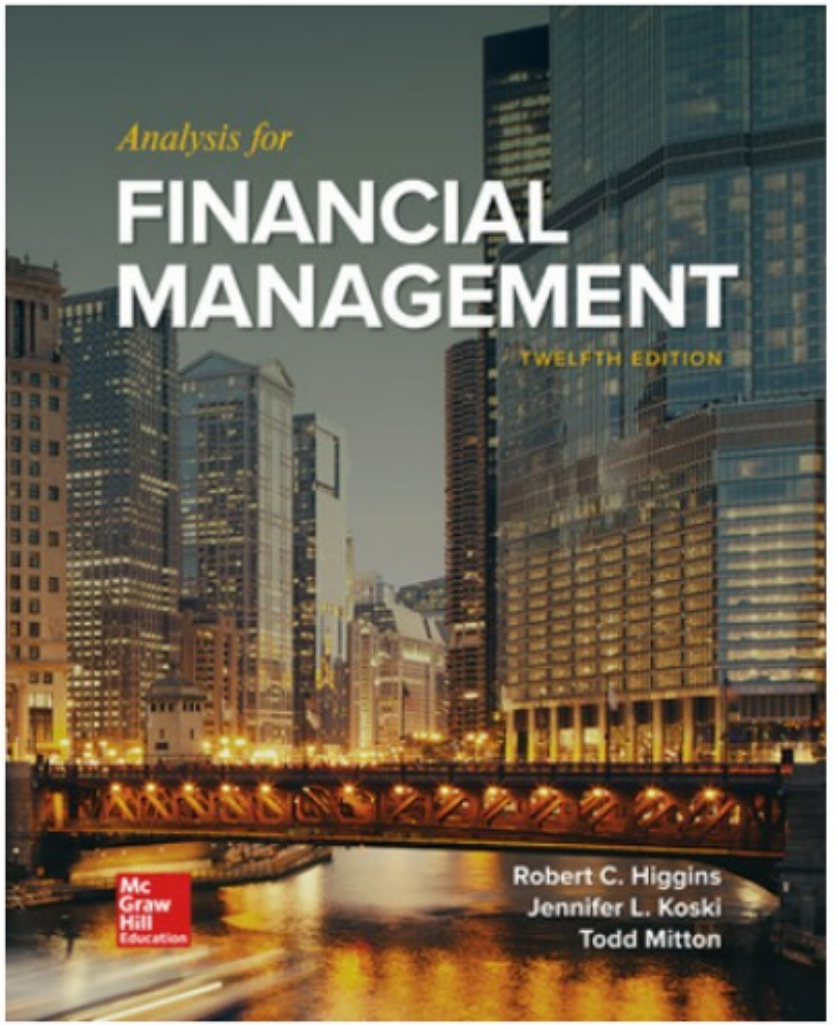
cost of equity

THE REPORT DISTINGUISHES BETWEEN A RISK PREMIUM AND A RETURN PREMIUM

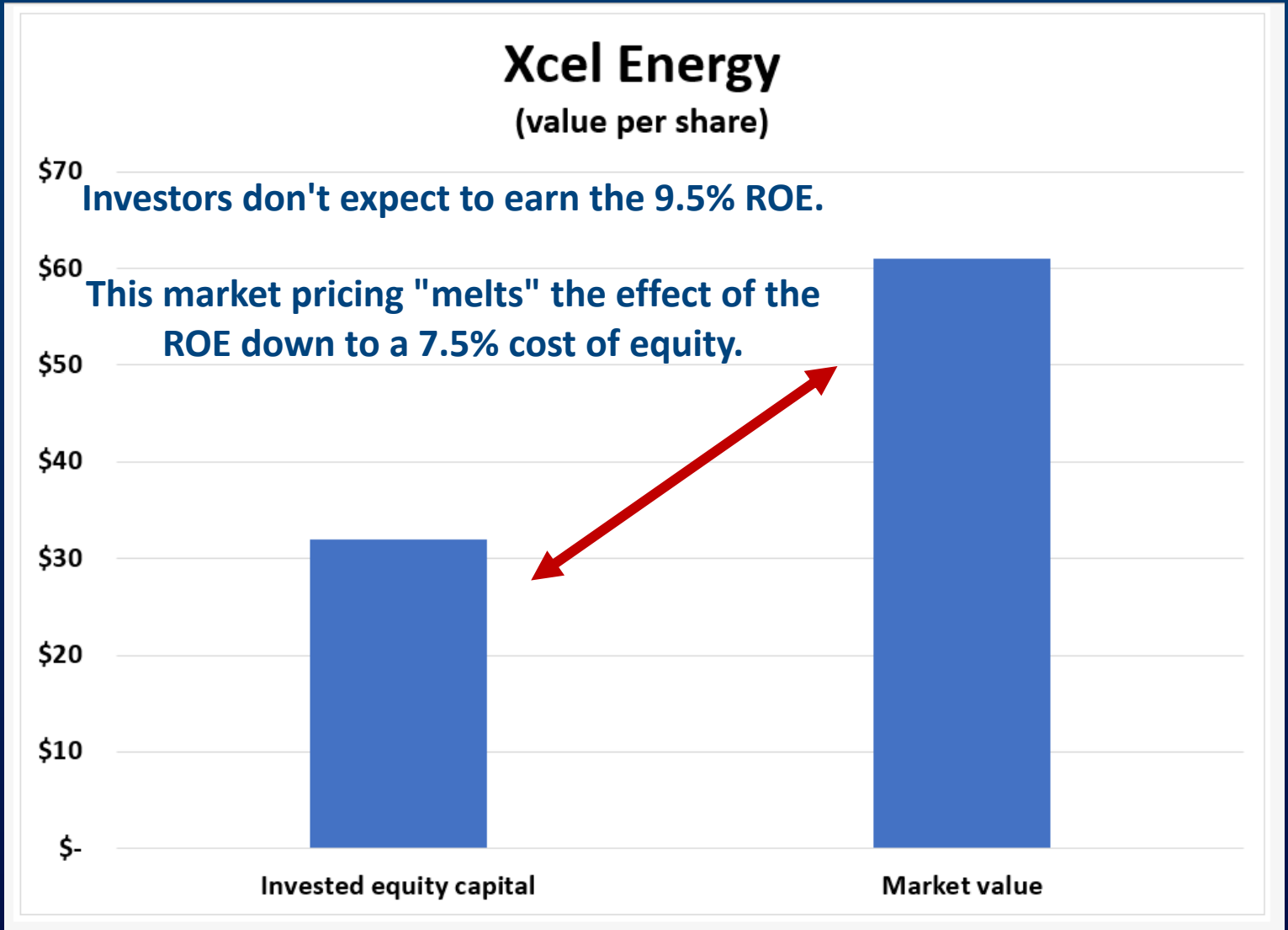
Risk-free rate	4.0%	cost of equity
Risk premium	3.5%	
Return premium (**performance**)	2.0%	**This is where incentives are considered**
Return on equity	9.5%	

Higgins, Koski, & Mitton, 2019, *Analysis for Financial Management*

It is not enough for investors to find companies capable of generating high ROEs; these companies must be unknown to others, because once they are known, **the possibilities of high returns to investors will melt away in higher stock prices.**



Utility Example



HIGHER ROEs ARE ABOUT CHANGING STOCK PRICE, NOT ATTRACTING NEW CAPITAL

Raising ROEs pushes stock prices higher so when the utility raises capital new investors will expect to make a **7.5% market return**

Lowering ROEs suppresses stock prices so when the utility raises capital new investors will expect to make a **7.5% market return**

The ROE is important to those who already own the stock

- Incentives create opportunities to make a utility's existing investors wealthier (push the stock price higher)
- It does not affect the ability of the utility to attract capital

When should utilities earn incentive rewards?

- Any incentives-based increased value should be based on utility **performance**

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Integrating Performance Incentives into Rates

Overarching Considerations

- How much can incentives change utility behavior?
  - What are the costs and benefits to the utility?
  - Are there underlying “culture” issues?
- Is it possible to find a triple win?
  - Better deal for consumers
  - Better achieve regulatory and public policy outcomes
  - Net financial benefits for well-run utilities
- Four step process
  - Determine the market cost of equity
  - Set base revenue levels for expected performance
  - Identify policy goals, prioritize outcomes, and create metrics
  - Set incentive formulas

Determine the Market Cost of Equity Using Reasonable Method

- Reasonable methods
  - DCF or CAPM using reasonable assumptions
  - Risk premium method
  - Possibly others
- Unreasonable methods
  - Comparable earnings method, particularly using other utilities as proxies
  - DCF or CAPM using unreasonable assumptions

Identify Policy Goals, Prioritize Outcomes, and Create Metrics

Goal	Outcome	Metric
Ensure affordable utility bills	Reduce number of customers in arrears	Track number of customers in arrears by ZIP code
Improve system reliability	Reduce customer outage frequency and duration	Track SAIDI and SAIFI by ZIP code
Advance public policy	Increase DER adoption levels	Track monthly distributed solar project interconnections in MW Track average total number of days to interconnect distributed solar projects


Opex (including depreciation and taxes)
Rate of return
Potential rewards
Potential penalties
Revenue
Traditional model
Rewards-only
Penalties-only

About RAP

Regulatory Assistance Project (RAP)® is an independent, global NGO advancing policy innovation and thought leadership within the energy community.

Learn more about our work at raponline.org

U.S. Office:

50 State Street
Suite 3
Montpelier, VT 05602