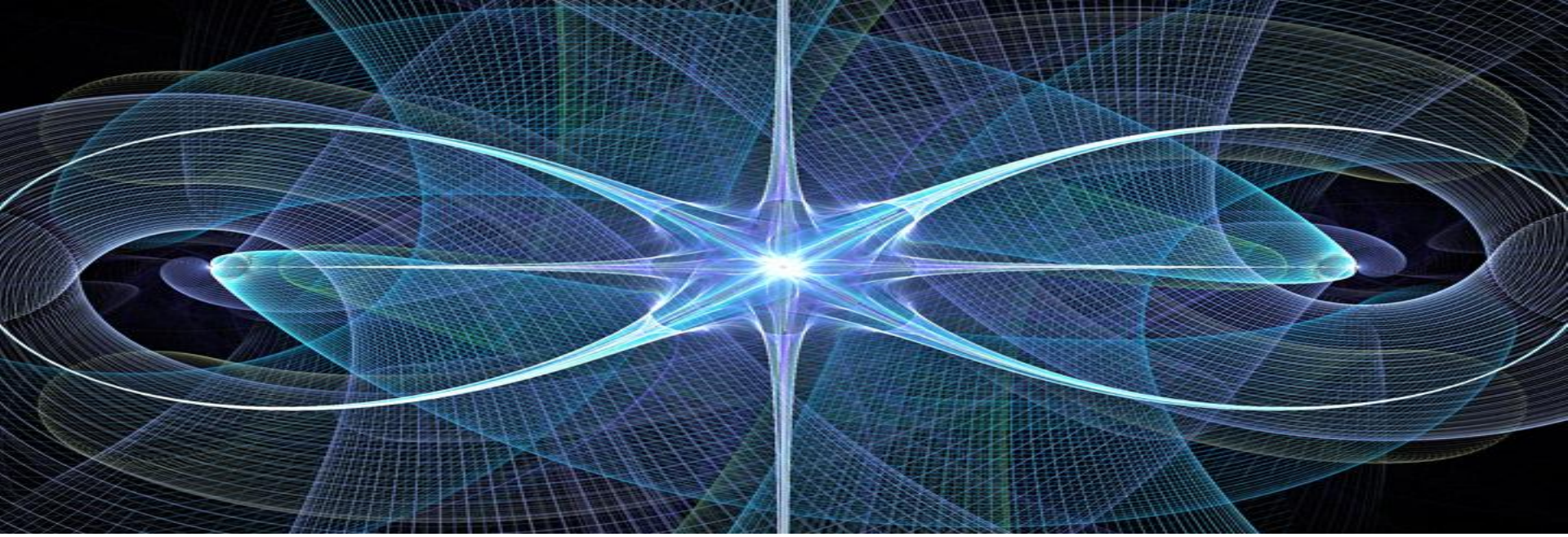


Understanding Decoupling

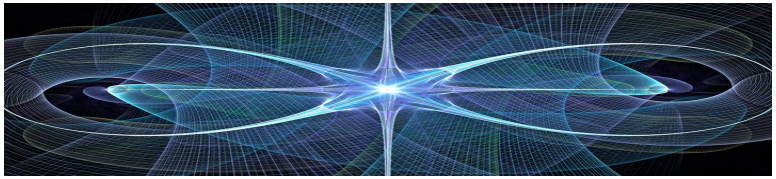
Presented by Jill Steiner, Cadmus Group

At the 2013 ACEEE National Conference on Energy Efficiency as a Resource

Based on the work of Pamela Morgan

Graceful Systems LLC, www.gracefulsystems.com

September 23, 2013



About Graceful Systems

Graceful Systems focuses on the strategic questions facing the energy utility industry, helping stakeholders in the industry identify the key questions and the outcomes those question implicate, locate and assemble data about outcomes, converse about assumptions, and collaboratively develop paths to reach better outcomes.

Pam Morgan is President and Principal Consultant

About Cadmus

Covering the entire spectrum of energy, water, and sustainability consulting, Cadmus offers technical, policy, and managerial services to governments, utilities, and other businesses. Cadmus' Energy Services Division (formerly Quantec) has provided energy efficiency evaluation and performance measurement services for over two decades.

Jill Steiner is a Principal and Regulatory Policy Team Lead

Pam's Paper

- A Decade of Decoupling for US Energy Utilities: Rate Impacts, Designs, and Observations
- www.gracefulsystems.com/register.php

Regulatory decoupling mechanism study

- Rate impacts
- Designs
- Decisions regarding effect of a decoupling mechanism on return on common equity

Challenges and Caveats

- Moving targets and hard to see/find sources
- Data overload!
- How to do rate impacts?

The Top Line

The data, and the patterns shown by organizing it various ways, are not meaningful unless we converse about what it all means.

The slides with the study's results all include questions that could support a conversation about meaning.

The Bottom Line

Decoupling is a bridge to help us get from where we are (the current state of outcomes) to where we want to be (a better state of outcomes). The bridge serves little purpose if we are not clear about either where we are – the outcomes we observe now and their pattern over time – or where we want to go – what we would observe if those outcomes were “better.”

What and Why?

Decoupling Defined

- A periodic rate adjustment that ensures that fixed cost recovery by a utility is no more or no less than its authorized revenue

Impact of Decoupling

- Changes the driver of revenue utility revenue collection from level of energy use or sales to regulatory approved or authorized revenue requirements

Under standard ratemaking:

$$\uparrow\downarrow \textit{Fixed Cost Recovery per kWh or } MCF_n = \frac{\textit{Authorized Revenue Requirement}_n}{\textit{Expected Sales}_n \uparrow\downarrow}$$

With Decoupling

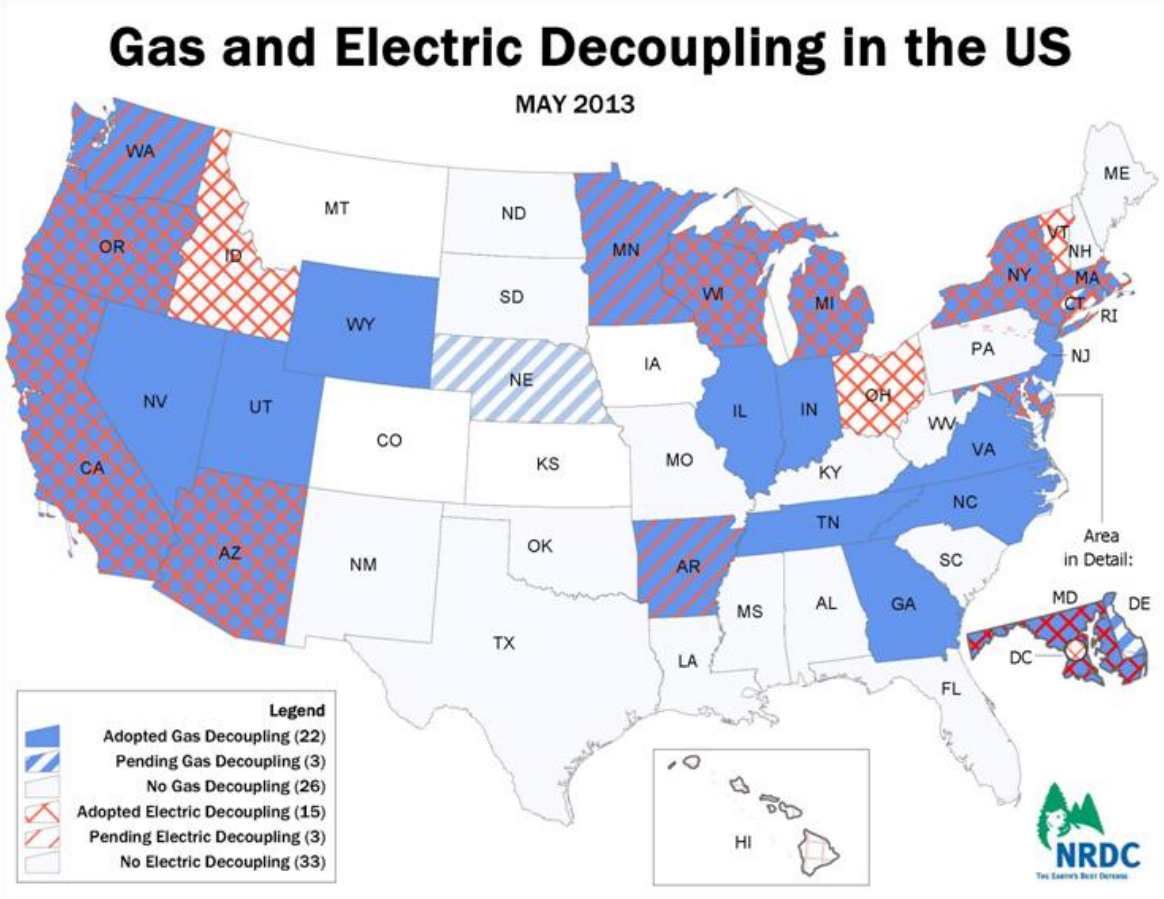
$$\textit{Fixed Cost Recovery per kWh or } MCF_n = \frac{\textit{Authorized Revenue Requirement}_n}{\textit{Expected Sales}_n} + \frac{\textit{Over or under collection of Revenue Requirement}_{n-1}}{\textit{Expected Sales}_n}$$

Factors Impact Expected Sales

- Economic conditions
- Implementation of energy efficiency programs
- Weather

Scope

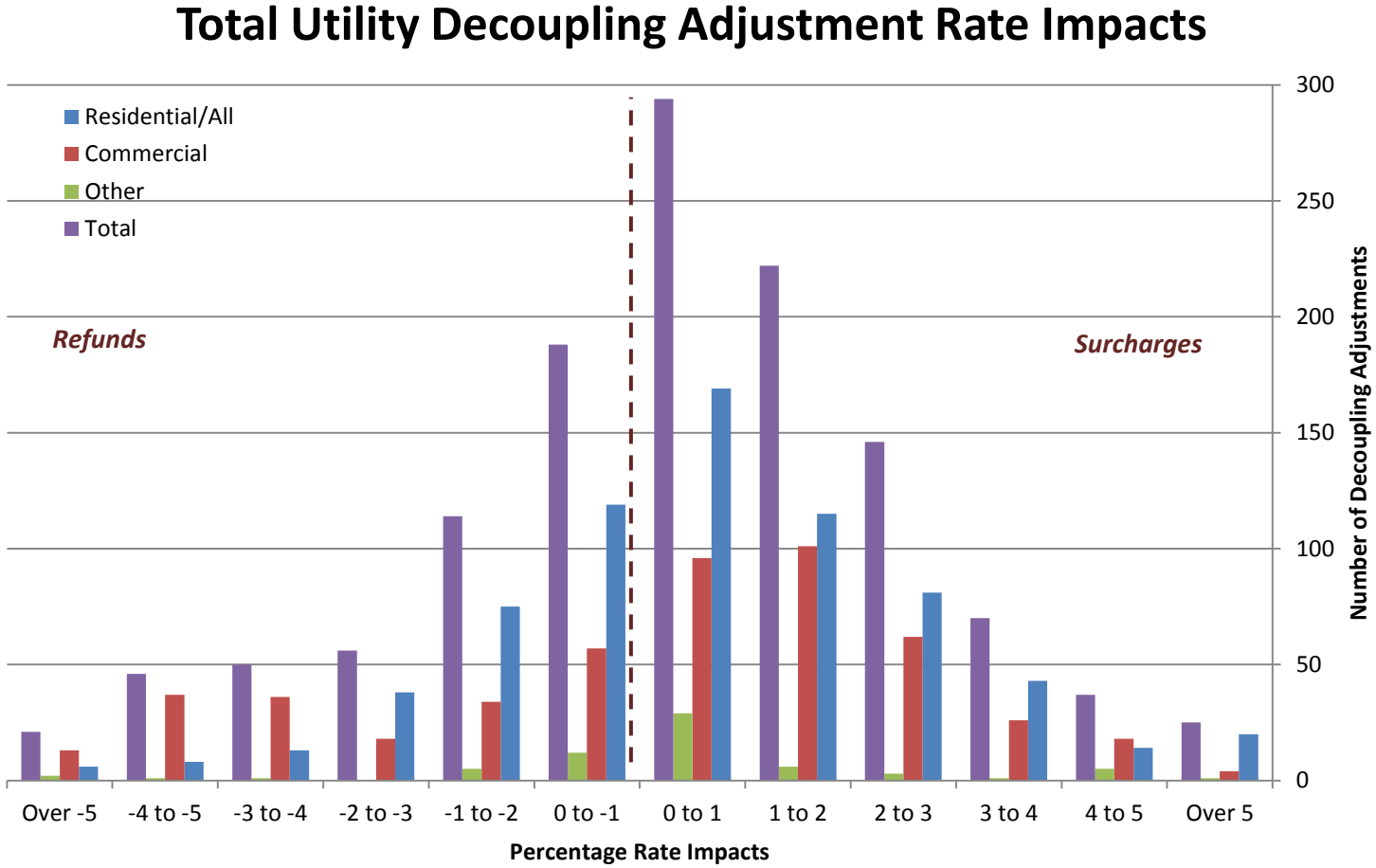
- 26 states and the District of Columbia
- 50 natural gas local distribution companies
- 27 electric utilities
- The number of decoupling rate adjustments from 2005 through 10/2012 totaled ***1,269***



Why are there more LDCs than electric utilities?

Why have the numbers doubled since 2009?

Why so many adjustments?

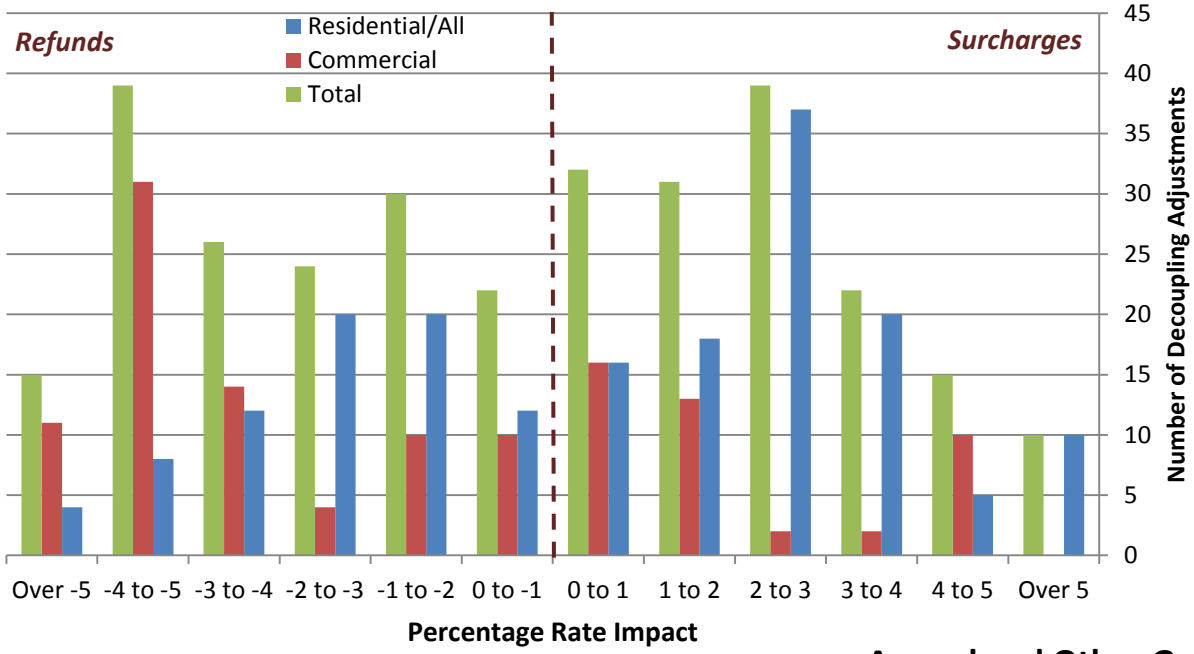


Why do adjustments go both ways?

Why are most adjustments small?

Why are there more surcharge adjustments than refund adjustments?

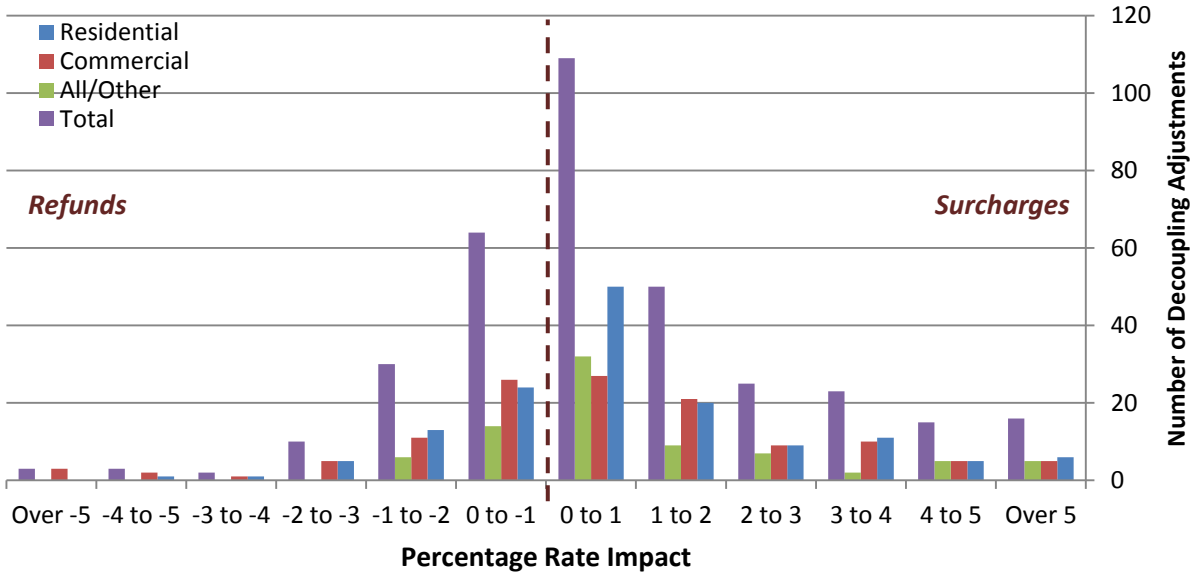
Monthly Gas Utility Decoupling Adjustment Rate Impacts

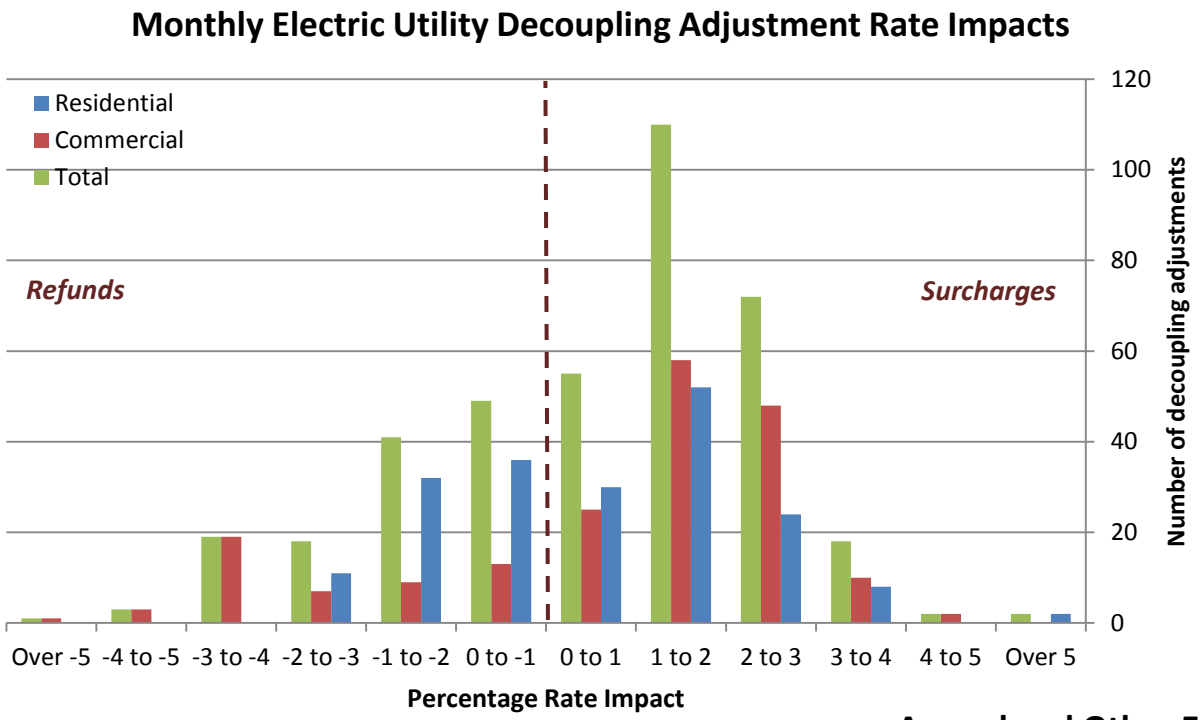


Why do monthly gas decoupling adjustments show a wider distribution than annual and other (semi-annual or seasonal)?

Why are gas LDC surcharges distributed more widely than refunds?

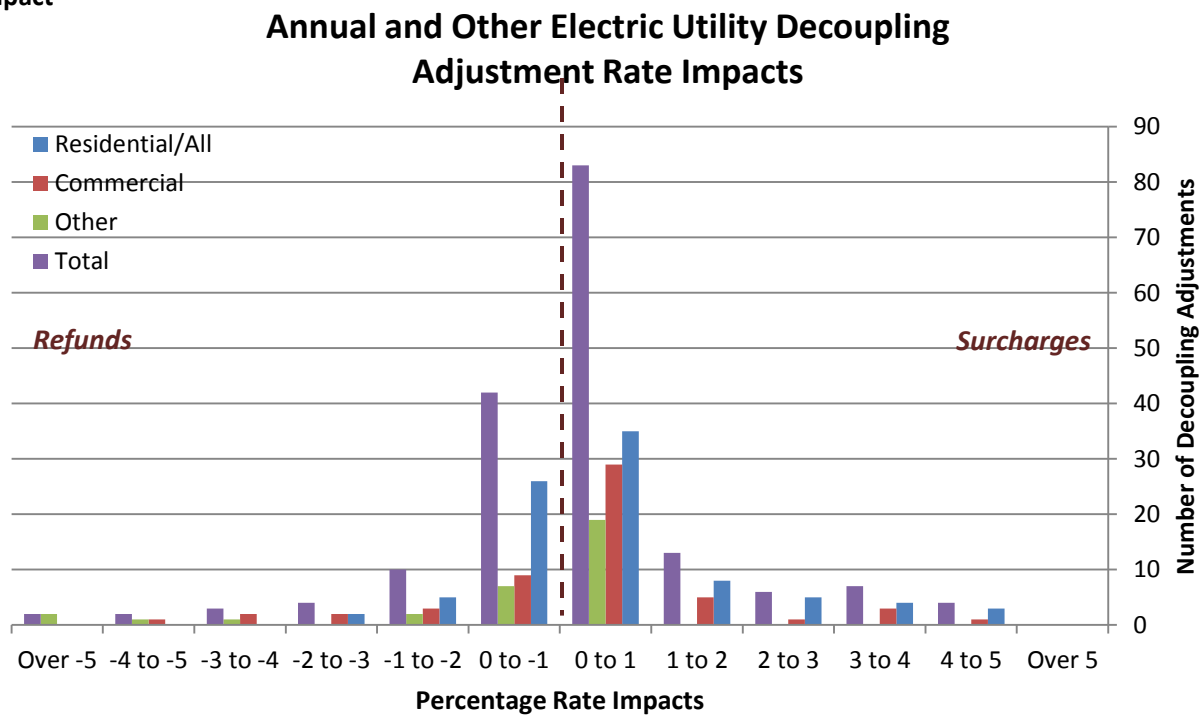
Annual and Other Gas Utility Decoupling Adjustment Rate Impacts



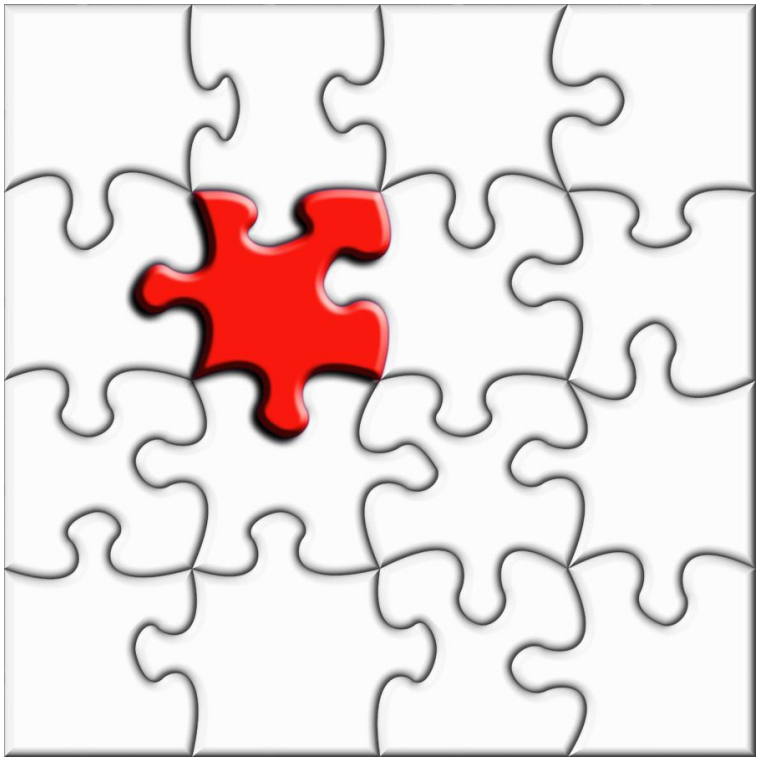


Why do the bulk of monthly electric decoupling adjustments fall between 1-3%?

Why are there more electric decoupling surcharges than refunds?



Six Design Questions



- Posed for policy makers, regulators, utilities or other stakeholders
- Decoupling is part of the ratemaking puzzle to achieve objectives
- Clear objectives are needed to make sure the decoupling mechanism employed meets those objectives

Six Design Questions

Should the authorized revenue used to calculate the decoupling adjustment (actual revenue less authorized revenue) change from year to year by any means other than a general rate case?

What are reasons to do this? For what other purposes do we change revenue without a general rate case?

What are reasons not to do this?

Why would it make sense to choose revenue-per-customer? And why not?

Under what circumstances might an attrition adjustment of some sort make sense?

Six Design Questions

How often should we make a decoupling adjustment?

From a customer perspective, what difference do the various frequency choices make?

From a utility perspective, what difference do the various frequency choices make?

Are there any other perspectives that should be considered?

Six Design Questions

Should the actual revenues used in the mechanism be adjusted to remove the revenue effects of sales resulting from weather that is warmer or colder than the weather assumed in setting rates?

What are reasons to make this adjustment? What consequences should we observe if it is made?

What are reasons not to make this adjustment? What consequences should we observe if it is not made?

How does this design choice relate to the frequency choice?

Six Design Questions

Should we include all classes?
When we compare actual revenues to authorized revenues, should we do that on an overall utility basis or by customer class or rate schedule?

What are reasons to include all classes?

If we exclude some classes or tariffs, why would we do so?

What are reasons to calculate and apply adjustments evenly across all customer classes/rate schedules included in the mechanism?

What are reasons to calculate and apply adjustments on either a customer class basis or a rate schedule basis?

Six Design Questions

Should there be any limits on the size of decoupling adjustments that occur and, if there are limits, what should happen to refund or surcharge amounts in excess of the limits? Should the decoupling apply to the full difference between actual and authorized revenues or only some part of it?

What are the considerations that apply to deciding between hard limits or limits that simply affect timing?

What might be the consequences of hard limits?

The ROE Question

ROE Reduction	Number of Decisions	Result of Settlement Agreement?
None	60	29
10 basis points	8	4
25 basis points	3	1
50 basis points	4	
Total	75	34

Why do you think these were the results of the decisions so far on the ROE issue and decoupling?

What are the risks energy utilities take, and how do we measure those risks?

How do we usually translate risks into cost of capital determinations?

How should we translate the revenue risk affected by a decoupling mechanism into a cost of capital determination?

What performance metrics can be instituted with decoupling to more fully achieve objectives? For example, as a result of decoupling decision, PSE has agreed to increase savings achievement.

What role for EM&V

The Two Most Critical Questions

What Is Service?

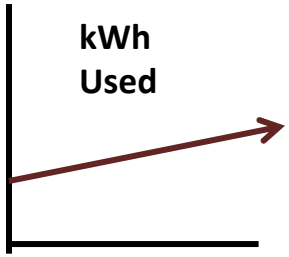
POTS?

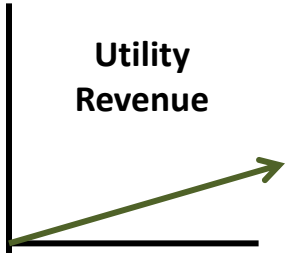
or

PANS?

or

What Is Success?





What will it mean if overall electricity use (delivered through the grid) and/or use per customer drop for a number of years?

How will we know rates are just and reasonable if customers use less and less?

Thank You!

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