



The link between decoupling and success in utility-led energy efficiency



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ABSTRACT

What is the connection between the success of utility-run energy efficiency programs and decoupling in the face of a rapidly transforming electric sector? As decoupling grows in popularity to realign the increasingly outdated utility business model with investments in energy efficiency, robust data establishing a link to program performance is more critical than ever.

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1. Introduction

The electric utility sector is experiencing a time of rapid transformation, expanding customer options, shifting public policy goals, and a broader and more diverse electricity service marketplace than ever before. For more than a decade, the rate of growth in U.S. electricity sales has lagged well behind that of the population, a trend expected to continue or even accelerate, largely as a result of increased energy efficiency.¹ State-level energy efficiency requirements are also ramping up in dozens of states, with utilities seeking to deploy more sophisticated technologies and roll out more targeted efficiency programs that enable their customers to cut energy use.² New non-utility entities entering the marketplace are also offering these new technologies and services.

Meanwhile, federal limits on the power plant pollution fueling climate change is expected to accelerate the trend toward cleaner, more efficient electricity service. Energy efficiency is already one of the lowest-cost and most accessible tools to achieve these critical pollution reductions in many states.³

In the face of all this change, the traditional utility business model and the regulatory system that supports it are in need of realignment. Rate mechanisms – such as decoupling – are more critical than ever to square utility interests with state and federal energy and environmental policies, changing customer opportunities and expectations, and the need to maintain and modernize our electric grid in a way that supports reliability, affordability, innovation, and a low-carbon future. Decoupling is one step toward accommodating these developments.

What does decoupling do? It remedies the outdated business model that ties the sale of increasing amounts of energy to a

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¹ US Energy Information Administration, Annual Energy Outlook 2015 (EIA projects 0.7% national average electricity sales growth per year over the 2014–2040 period, which is about half of the 1.3% compound annual growth rate that occurred over the 1990–2014 period), <http://www.eia.gov/forecasts/aeo/>

² National Renewable Energy Laboratory, State Energy Efficiency Resource Standards: Design, Status, and Impacts (May 2004), <http://www.nrel.gov/docs/fy14osti/61023.pdf>.

³ United States Environmental Protection Agency, FACT SHEET: Energy Efficiency in the Clean Power Plan, (August 2015), <http://www.epa.gov/cleanpowerplan/factsheet-energy-efficiency-clean-power-plan>.

HOW DECOUPLING WORKS

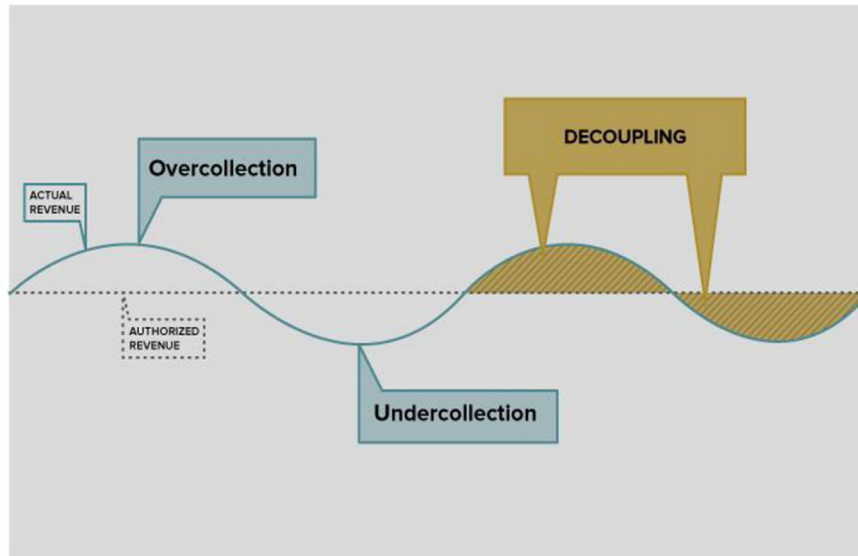


Fig. 1. Decoupling adjusts rates to smooth out fluctuations over time to match the approved revenue requirement—no more and no less. Source: Fresh Energy.

utility's financial health. Traditionally, the industry has been at odds with energy conservation, clean distributed generation, and many other important choices that allow customers the ability to manage their energy costs.⁴ Decoupling steps in to remove this conflict, rendering utilities indifferent to fluctuations in sales, and freeing them to run more effective programs that yield deep energy savings that last, year in and year out.

1.1. What does the data tell us?

But as decoupling becomes an increasingly prominent approach, more regulators are seeking data demonstrating that it is a factor contributing to the success of conservation and customer choice goals. Decoupling is an effective means to remove the utility *disincentive* to help customers save energy, but what about the next step of actually making these savings a reality? Unlike performance incentives, for example, decoupling is not meant to be an *affirmative* driver for energy savings. But is it, nonetheless, an essential factor that adds to a package of policies that yield the promised success?

This is the question we encountered just this last year in Minnesota. NRDC and Fresh Energy were co-intervenors in Xcel Energy's 2013 rate filing in which, among other issues, the largest electric utility in the state was seeking to implement Minnesota's first electric decoupling mechanism. Xcel asserted (and we agreed) that decoupling was essential for the utility to continue to support an aggressive energy efficiency portfolio.⁵ Xcel was also (rightfully) concerned that because of its business model conflict, the utility

may be motivated in subsequent years to work against energy efficiency, even despite state policies promoting it.

As with any rate case, questions abounded. Several intervenors asked if there were data establishing a link between decoupling and actual program performance.⁶ The problem was that Minnesota only had a few years of gas decoupling under its belt, and no prior experience with electric decoupling. Xcel and other parties presented ample evidence that decoupling would effectively remove its disincentive to promote conservation in Minnesota and that the rider would have minimal rate impacts on customers. The parties also negotiated reasonable customer protections around the annual adjustment while the state gained experience implementing the mechanism. But little research was available that actually answered the call of that initial question of the linkage between decoupling and increased energy savings.

This is the purpose of the present inquiry: a preliminary review of the link in a subset of states between the success of energy efficiency programs just prior to and following implementation of a decoupling mechanism.

As decoupling becomes a more widely adopted regulatory tool, it is imperative that we continue to examine its impacts on utilities and their customers. Importantly, decoupling policies do not inherently guarantee greater energy efficiency investments or savings achieved by utilities that implement them; additional policies are needed to affirmatively drive these outcomes. However, a common expectation of approving decoupling mechanisms is an increase in investments and achievements in energy efficiency as the disincentive for saving energy is removed. Therefore, careful analysis of whether decoupling has met these expectations is useful to better inform regulators as they move forward in adopting these mechanisms.

⁴ See Dylan Sullivan, Devra Wang, Drew Bennett, "Essential to Energy Efficiency, but Easy to Explain: Frequently Asked Questions about Decoupling," *Electricity Journal* 2011; 24(8):56–70; see also Natural Resources Defense Council, "Removing Disincentives to Utility Energy Efficiency Efforts," <http://www.nrdc.org/energy/decoupling/files/decoupling-utility-energy.pdf>.

⁵ Minnesota Public Utilities Commission, In the Matter of the Application of Northern States Power Company for Authority to Increase Rates for Electric Service in Minnesota, Docket No. E-002/GR-13-868, Direct Testimony of Xcel Energy Witness Daniel Hansen (Nov. 4, 2013).

⁶ Minnesota Public Utilities Commission, In the Matter of the Application of Northern States Power Company for Authority to Increase Rates for Electric Service in Minnesota, Docket No. E-002/GR-13-868, Direct Testimony of Minnesota Department of Commerce Witness Christopher Davis (Filed June 6, 2014).

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