



NATURAL RESOURCES DEFENSE COUNCIL

November 23, 2009

By Email and Regular Mail

Chairman Sara Kyle  
c/o Ms. Sharla Dillon  
Dockets and Records Office  
Tennessee Regulatory Authority  
460 James Robertson Parkway  
Nashville, TN 37243

filed electronically in docket office on 12/03/09

***Re: Petition of Piedmont Natural Gas Company, Inc. for Approval of Service  
Schedule No. 317 and Related Energy Efficiency Programs  
Docket No. 09-00104***

Dear Chairman Kyle:

The Natural Resources Defense Council (NRDC) respectfully submits these comments on behalf of our more than 14,700 members and online activists in Tennessee, regarding the Petition of Piedmont Natural Gas Company, Inc. (PNG) to implement a decoupling mechanism and proposed energy efficiency programs filed with the Tennessee Regulatory Authority (TRA), on July 16, 2009. NRDC is a national nonprofit environmental organization dedicated to the protection of public health and the environment, with over 30 years of experience working on state energy policy, including utility regulation and energy efficiency. Combating global warming and building a clean energy economy through increased energy efficiency and other solutions are among NRDC's top environmental priorities.

As such, NRDC is supportive of PNG's effort to institute a decoupling mechanism and implement energy efficiency programs in its service territory, which will not only help to address climate change, but will also provide its customers with associated multiple benefits, including lower energy bills, increased electric system reliability, job creation and cleaner air.

Implementation of decoupling will also further the goals of the American Recovery and

Reinvestment Act of 2009<sup>1</sup> and Section 65-4-126 of the Tennessee Code Annotated, which states that the TRA "will seek to implement, in appropriate proceedings for each electric and gas utility, with respect to which the State regulatory authority has ratemaking authority, a general policy that ensures that utility financial incentives are aligned with helping their customers use energy more efficiently and that provide timely cost recovery and a timely earnings opportunity for utilities associated with cost-effective measurable and verifiable efficiency savings, in a way that sustains or enhances utility customers' incentives to use energy more efficiently." Therefore, we applaud PNG's current initiative, but hope that their decoupling efforts and energy efficiency programs will expand beyond residential customers as soon as possible.

Utilities are vital partners in energy efficiency efforts. Yet the regulatory status quo unintentionally undercuts utility engagement, by penalizing their shareholders for any reductions in customers' natural gas or electricity use, regardless of the cost-effectiveness of any contributing energy efficiency measures. By linking utilities' financial health to retail gas or electricity use, increased retail sales produce higher fixed cost recovery and profits, and reduced sales have the opposite effect. This creates a direct financial disincentive for utilities to support energy efficiency and clean distributed generation.

Revenue decoupling removes the disincentive for utilities to support energy efficiency and thereby aligns shareholder interests with those of consumers in order to (i) promote investments that reduce energy costs as well as the environmental and public health impacts of energy use, and (ii) prevent either over- or under-recovery of approved fixed costs. Over the long-term, all customers will benefit from decoupling, combined with ambitious energy efficiency targets, through reduced costs and improved reliability.

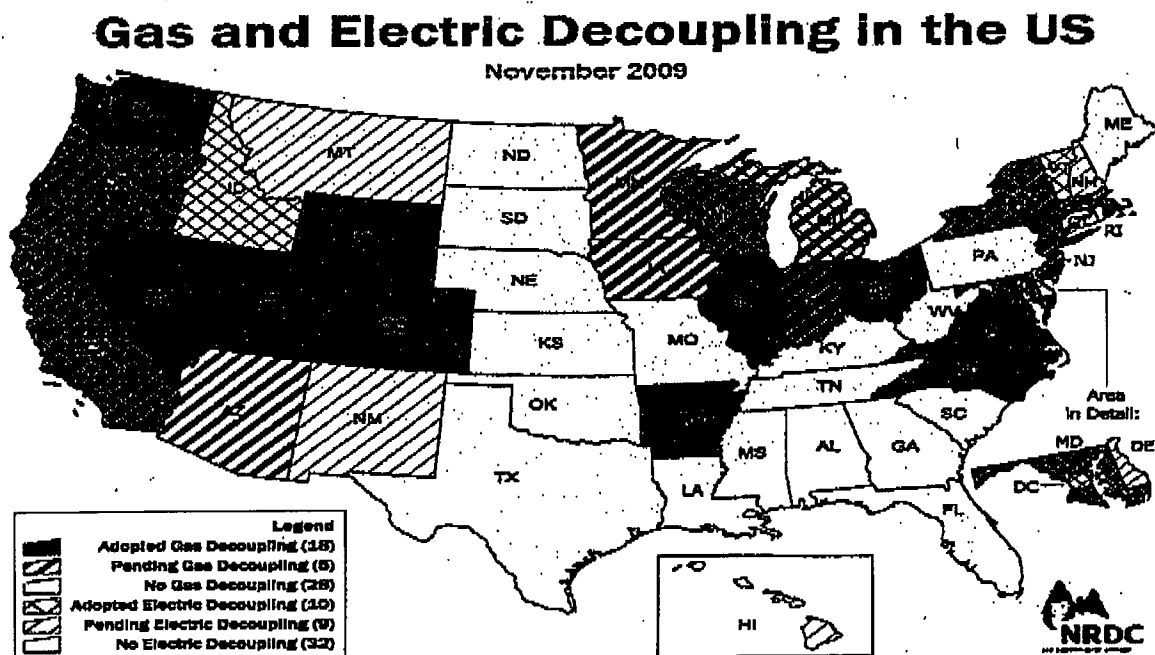
Decoupling mechanisms involve the use of modest, regular true-ups in rates to ensure that any fixed costs recovered in terms of kilowatt hour charges are not held hostage to sales volumes. Such mechanisms involve a simple comparison of actual revenues to authorized revenues, followed by an equally simple true-up calculation to reconcile the difference. The result is then either refunded to customers or restored to the utility. Note that the true-up can go in either

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<sup>1</sup> The American Recovery and Reinvestment Act of 2009 requires governors of states receiving stimulus funds to certify that the "applicable State regulatory authority will seek to implement, in appropriate proceedings for each electric and gas utility, under its rate-making authority a general policy that ensures that utility financial incentives are aligned with helping their customers use energy more efficiently and that provide timely cost recovery and a timely earnings opportunity for utilities associated with cost-effective measurable and verifiable efficiency savings, in a way that sustains or enhances utility customers' incentives to use energy more efficiently." Title IV, Section 410 of the American Recovery and Reinvestment Act, Pub. L. 11-5 (Feb. 17, 2009).

direction, depending on whether actual revenues are above or below the authorized level. Thus, revenue decoupling removes the risk to utilities that they will under-recover fixed costs at the same time it removes the risk to consumers that utilities will over-recover. Instead of increasing profits by increasing sales, utilities are only able to increase profits by improving performance, specifically by reducing total energy costs and improving reliability and service. (Although different mechanisms are sometimes described as “decoupling”, the use of the term herein strictly refers to the mechanism described above.)

In addition, since a decoupling mechanism adjusts rates more frequently, any changes to rates that are approved under a formal proceeding are likely to be much less dramatic than those that many states have witnessed in recent years. For example, average annual rate impacts of decoupling in California over the policy’s first decade were less than half of one percent annually.<sup>2</sup> Many states, such as California, Wisconsin, Oregon, New York, New Jersey, Maryland and Massachusetts have implemented revenue decoupling mechanisms for both their gas and electric utilities. A large number of other states have implemented revenue decoupling mechanisms for either their gas or electric service or are considering doing so, including North Carolina, Virginia, and Arkansas which have adopted revenue decoupling for gas. The following chart depicts the decoupling movement in the United States:



<sup>2</sup> Revenue decoupling mechanisms can readily be designed with built-in rate impact safeguards, as well.

Furthermore, a large number of Public Utility Commissions around the country are studying the benefits of implementing revenue decoupling mechanisms. A recent study performed by the Regulatory Assistance Project<sup>3</sup> for the Minnesota Public Utilities Commission, available at [http://www.raponline.org/Pubs/MN-RAP\\_Decoupling\\_Rpt\\_6-2008.pdf](http://www.raponline.org/Pubs/MN-RAP_Decoupling_Rpt_6-2008.pdf) clarified that:

[D]ecoupling takes aim at one of the critical barriers to increased investment in cost-effective energy efficiency and other clean energy resources located "behind the customer's meter"—namely, the potentially deleterious impacts that such investment can have on utility finances under traditional cost-of-service regulation. Traditional regulation, which is an exercise in price-setting, creates an environment in which revenue levels are a function of sales—kilowatts, kilowatt-hours, or therms. Consequently, a utility's profitability depends on maintaining or, more often, increasing sales, even though such sales may be, from a broader societal perspective, economically inefficient or environmentally harmful.

All regulation is, in one way or another, incentive regulation. A question all policymakers should ask is: how does a regulated company make money? What are the incentives it faces and do they cause it to act in a manner that is most consistent with, and most able to advance, the state's public policy objectives? And, if not, how should regulatory methods be reformed to correct such deficiencies?

Traditional regulation does not set a utility's revenues, only its prices. Once prices are set, the utility's financial performance depends on two factors: its levels of electricity sales and its ability to manage its costs. Because, under most circumstances, a utility's marginal revenue (i.e., price) significantly exceeds its short-run marginal costs, the impacts on profits from changes in sales can be profound. Moreover, the change in profits is disproportionately greater than the change in revenues. A utility therefore typically has a very strong incentive to increase sales and, conversely, an equally strong incentive to protect against decreases in sales. [footnote omitted] This is referred to as the "throughput incentive," and it inhibits a company from supporting investment in and use of least-cost energy resources, when they are most efficient, and it encourages the company to promote incremental sales, even when they are wasteful.

The solution to the throughput problem is to adopt a means of collecting a utility's revenue needs that is not related to its actual volumes of sales. Decoupling, whereby the mathematical link between sales volumes and revenues is broken, eliminates the throughput incentive and focuses a utility's attention on its customers' energy service requirements and the economic efficiency of its own operations.<sup>4</sup> It renders revenue levels

<sup>3</sup> The Regulatory Assistance Project (RAP) is a non-profit organization, formed in 1992 by experienced utility regulators, that provides research, analysis, and educational assistance to public officials on electric utility regulation. RAP workshops cover a wide range of topics including electric utility restructuring, power sector reform, renewable resource development, the development of efficient markets, performance-based regulation, demand-side management, and green pricing. RAP also provides regulators with technical assistance, training, and policy research and development. RAP has worked with public utility regulators and energy officials in 45 states, Washington D.C., Brazil, India, Namibia, China, Egypt, and a number of other countries. RAP principals and associates have also written and spoken extensively on energy policy and regulation. RAP issues letters, published quarterly, and RAP's many in-depth reports and conference presentations provide serious and thoughtful discussion of cutting-edge issues in industry restructuring (e.g. market power, stranded costs, system benefits charges, customer choice, and consumer protection), and other current topics (e.g. resource portfolio management, policies for distributed generation and demand-side resources, distribution system regulation, reliability and risk management, rate design, electrical energy security, and environmental protection). [www.raponline.org](http://www.raponline.org).

<sup>4</sup> "This point deserves emphasis. Decoupling breaks the link between unit sales and revenues, not profits. Decoupling does not assure the utility a

immune to changes in sales. Of equal importance, decoupling allows for the retention of volumetric, unit-based pricing structures that reflect the long-term economic costs of serving demand and preserves the linkage between consumers' energy costs and their levels of consumption.<sup>5</sup>

**I. Tennessee should adopt a regulatory framework that will promote investment in all cost-effective energy efficiency.**

NRDC respectfully suggests that the overarching goal of the TRA should be to establish a regulatory framework that will drive investment in all cost-effective energy efficiency in order to further lower energy bills for residential, commercial and industrial consumers and reduce the myriad environmental impacts from energy production and use. We believe that such a framework should include three key elements:

- A mechanism that removes the utilities' disincentive to support energy efficiency by assuring recovery of approved fixed costs;
- A specific energy efficiency target for utilities; and
- An incentive structure that ties utility profits to *performance*, rather than to sales, including scaled incentives, with higher incentives for higher achievement and penalties for poor performance.

This approach has been enormously successful in other states, and could deliver the same benefits to Tennessee's energy consumers.

Numerous studies have established the enormous potential for energy efficiency, as well as the broad economic benefits it can deliver. A recent analysis by McKinsey & Company shows that the potential for efficiency is enormous,<sup>6</sup> and that the economic benefits of investing in efficiency roughly cover the cost of reducing global warming pollution on the scale and timeframe needed to avert potentially catastrophic warming. Tennessee has yet to take advantage of this abundant resource, as demonstrated in ACEEE's most recent 2009 State Energy Efficiency Scorecard, in which Tennessee, though listed as one of the most improved states, still ranks 38<sup>th</sup>.<sup>7</sup>

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fixed level of earnings but rather a pre-determined level of revenues; the actual level of profits will still depend on the company's ability to manage its costs." [footnote in original]

<sup>5</sup> Regulatory Assistance Project, "Revenue Decoupling, Standards and Criteria, A Report to the Minnesota Public Utilities Commission" (June 30, 2008), pp. 4 - 5.

<sup>6</sup> McKinsey & Company, *Reducing U.S. Greenhouse Gas Emissions: How Much at What Cost?* (December 2007), Exhibit B, P., xiii. See also Nadel, Steven, Anna Shipley and R. Neal Elliott, *The Technical, Economic and Achievable Potential for Energy-Efficiency in the U.S. - A Meta-Analysis of Recent Studies*, published by the American Council for an Energy-Efficient Economy (2004).

<sup>7</sup> American Council for an Energy-Efficient Economy, *The 2009 State Energy Efficiency Scorecard* (October 2009), Table ES-1. Summary of Overall State Scoring on Energy Efficiency, p. v.

Though energy efficiency is prevalent and cheap, a host of persistent market barriers prevent residential, commercial and industrial consumers from tapping into this resource. These include:

- *split incentives* those ultimately responsible for paying energy costs are not the ones making up-front decisions regarding the purchase and installation of energy-using products (e.g. landlords purchase refrigerators but tenants pay the energy bills; developers build homes and commercial buildings without concern for the energy costs of future occupants);
- *end-user limitations* (e.g. consumers may balk at paying \$100 more for a high efficiency appliance even if they will save more than that in the first year or two of using it; others simply don't have access to that \$100; commercial and industrial efficiency investments save money, but not enough to meet a company's internal rate of return requirements); and
- *limited access to high efficiency products* (e.g. my plumber does not have high efficiency hot water heaters on his truck and I need to replace the broken heater immediately).

Because it is much cheaper to avoid the use of therms and kilowatt-hours by helping consumers overcome these barriers than it is to generate or purchase and deliver those therms and kilowatt-hours, it makes sense to adopt regulations that require utilities to do this, reward them for doing it well and penalize them for doing it poorly.

Utilities are well-positioned to overcome these barriers by offering programs and incentives to manufacturers, distributors and consumers. In a sense they would be purchasing energy efficiency from customers whenever doing so is cheaper than generating or purchasing and delivering gas and electricity. Unfortunately, current regulation does not encourage utilities to deliver energy services to their customers at least cost; it effectively directs them to sell as many therms and kilowatt hours as possible, since it ties utilities' recovery of fixed costs and profits to sales and doesn't provide direction to invest in lower cost efficiency whenever possible. A better regulatory framework would break that tie and provide the needed direction.

## **II. Common Questions and Answers Regarding Decoupling**

Below are our responses to commonly asked questions and concerns regarding decoupling. These responses outline the reasons that we believe decoupling, in conjunction with realistic efficiency targets, will provide substantial economic and environmental benefits for consumers.

*"Isn't decoupling putting the cart before the horse? Shouldn't we wait to see if utilities deliver robust energy efficiency programs and then adopt a decoupling mechanism?"*

It is certainly necessary for the utility to be interested in delivering energy efficiency and shifting its business model from one focused on commodity sales to one focused on delivery of least cost energy services. But it is not reasonable to expect utilities to make substantial investments in energy efficiency under a regulatory framework that penalizes them financially for doing so. Therefore, we think the best approach is for the TRA to align shareholder and consumer incentives through decoupling at the same time it directs the utilities to scale up investment in low-cost efficiency.

*"Decoupling does not address the underlying problem that fixed costs, which efficiency does not reduce, are collected through variable rates."*

While there is an appealing symmetry to use fixed charges to cover fixed costs, efficiency does in fact reduce transmission and distribution costs over the long term, for example by delaying the need for new substations and other upgrades, reducing strain on the system and improving reliability. Efficiency also reduces the overall cost of delivering energy services to Tennessee customers. Therefore, it makes sense to use the entire energy bill, including the T&D portion, to reward consumers who reduce consumption.

*"It isn't possible to separate efficiency from the other causes of revenue erosion, and therefore it doesn't make sense to try to reward the utility for efficiency improvements."*

It is precisely the complexity of factors affecting energy use that make decoupling mechanisms appealing in their simplicity. The mechanisms do not attempt to disentangle all these intertwined causes and effects: decoupling merely ensures that recovery of authorized fixed costs is not affected by fluctuations in sales that regulators did not anticipate when they set the utility rates that are intended to recover those costs.

*"With decoupling, the utility retains the upside opportunity to increase its margins."*

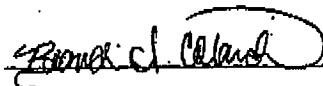
This is not correct. One of the most appealing features of decoupling is that it protects consumers against over-recovery from increased energy sales. Under decoupling, the TRA sets a specific revenue requirement (approved fixed costs and margin) and if the utility over-collects, the TRA

would automatically reduce rates and return any overage to customers.

*"Decoupling lowers the utility's incentive to reduce its own costs e.g., by improving the efficiency of its operations."*

This is not correct. The utility's incentive to reduce its own costs is the same under decoupling and traditional regulation, since with or without it, the company keeps any operating savings that it achieves between rate cases and absorbs any cost overruns. The true-ups associated with decoupling guarantee only recovery of an authorized revenue requirement.

Respectfully submitted,



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