

**BASS, BERRY & SIMS PLC**

A PROFESSIONAL LIMITED LIABILITY COMPANY  
ATTORNEYS AT LAW

ERIN M. EVERITT  
TEL: (615) 742-7997  
eeveritt@bassberry.com

150 THIRD AVENUE, SOUTH, SUITE 2800  
NASHVILLE, TN 37201  
(615) 742-6200

www.bassberry.com

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December 4, 2009

VIA EMAIL AND HAND DELIVERY

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

filed electronically in docket office on 12/04/09

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

Dear Chairman Kyle:

Enclosed please find an original and five (5) copies of Piedmont Natural Gas, Inc.'s Pre-Filed Direct Testimony of Frank Yoho for filing in Docket No. 09-00104. An electronic copy of the filing has also been transmitted electronically to the Tennessee Regulatory Authority Docket Manager, Sharla Dillon. Please stamp one copy as "filed" and return to me by way of our courier.

Should you have any questions concerning any of the enclosed, please do not hesitate to contact me.

Sincerely,



Erin M. Everitt

Enclosures

cc: Hon. Mary Freeman (*w/o enclosure*)  
Hon. Eddie Roberson, Ph.D. (*w/o enclosure*)  
Hon. Kenneth C. Hill (*w/o enclosure*)  
Ryan McGehee, Esq.  
James H. Jeffries, Esq.

**Before the  
Tennessee Regulatory Authority**

**Docket No. 09-00104**

**Petition of Piedmont Natural Gas Company, Inc.  
to Implement a Margin Decoupling Tracker (MDT)  
and Related Energy Efficiency and Conservation Programs**

**Testimony and Exhibit  
of  
Frank Yoho  
  
On Behalf Of  
Piedmont Natural Gas Company, Inc.**



December 4, 2009

1 **Q. Mr. Yoho, please state your name and business address.**

2 A. My name is Frank Yoho. My business address is 4720 Piedmont Row  
3 Drive, Charlotte, North Carolina.

4 **Q. By whom and in what capacity are you employed?**

5 A. I am employed by Piedmont Natural Gas Company, Inc. ("Piedmont") as  
6 Senior Vice President – Commercial Operations.

7 **Q. Please describe your educational and professional background.**

8 A. I have a Bachelor of Arts degree in Economics from Washington &  
9 Jefferson College and a Masters of Business Administration degree from  
10 Ohio State University. Prior to coming to work at Piedmont in 2002, I was  
11 Vice President for Business Development at CT Communications, a  
12 diversified telecommunications provider headquartered in Concord, North  
13 Carolina. Prior to that, I served as Senior Vice President for Marketing and  
14 Gas Supply for Public Service Company of North Carolina, Inc., a local  
15 natural gas distribution company headquartered in Gastonia, North Carolina.

16 **Q. Please describe the scope of your present responsibilities for Piedmont.**

17 A. I am the corporate officer responsible for Piedmont's commercial  
18 operations, which includes gas supply, transportation, sales and marketing.  
19 I am also responsible for the Company's state and federal regulatory  
20 matters.

21 **Q. Mr. Yoho, have you previously testified before the Tennessee**  
22 **Regulatory Authority or any other regulatory authority?**

23 A. I have not previously testified before the Tennessee Regulatory Authority

1 but I have testified a number of times before the North Carolina Utilities  
2 Commission and the Public Service Commission of South Carolina.

3 **Q. What is the purpose of your testimony in this proceeding?**

4 A. The purpose of my testimony is to provide support for Piedmont's proposed  
5 Margin Decoupling Tracker ("MDT") mechanism from a policy perspective.  
6 Specifically, my testimony addresses Issues 1, 3, and 4 identified in the  
7 Hearing Officer's October 13, 2009 *Order Granting Intervention,*  
8 *determining Issues, and Establishing Procedural Schedule* in this  
9 proceeding.

10 **Q. Do you believe Piedmont's proposed Margin Decoupling Tracker**  
11 **mechanism is sound from a policy perspective?**

12 A. Yes. Piedmont's proposed margin decoupling tracker mechanism is a form  
13 of revenue decoupling that aligns customer and utility interests around the  
14 issue of variations in customer usage from all causes other than weather. It  
15 is a logical and sound mechanism from a ratemaking perspective and is also  
16 consistent with the articulated public policy of the United States and the  
17 State of Tennessee. Finally, it supports Piedmont's ability to actively  
18 promote actions that will reduce the amount of natural gas consumed by its  
19 customers and thereby reduce both the costs to customers of using natural  
20 gas and the amount of greenhouse gas emissions associated with such usage.

21 **Q. Why is decoupling sound from a ratemaking policy perspective?**

22 A. Piedmont is a regulated public utility. As a result, its earnings and rates in  
23 Tennessee are directly controlled (and limited) by the Tennessee Regulatory  
24 Authority. The Authority controls such rates and earnings through periodic  
25 rate case proceedings in which it determines Piedmont's just and reasonable



1 revenue requirement. That revenue requirement represents Piedmont's  
2 operating costs plus a return on the undepreciated portion of its investment  
3 in rate base. This revenue requirement is then spread across its various  
4 customer classes and reduced to discrete and primarily volumetric rates for  
5 each class of customer based upon an assumed annual level of customer  
6 usage. Under this model, Piedmont's earnings vary with customer usage but  
7 Piedmont's costs, including infrastructure investment and Operations and  
8 Maintenance expenses focused primarily on safety and quality of service, do  
9 not vary with customer usage. In practice, Piedmont's earnings invariably  
10 differ from the revenue requirement established by the Authority in  
11 Piedmont's general rate proceedings. Because of this variance, volumetric  
12 rate structures pit the economic interests of Piedmont (higher usage) against  
13 the economic interests of its customers (lower usage).

14 **Q. Do Piedmont's volumetric rates create an opportunity for winners and**  
15 **losers?**

16 A. Yes. If Piedmont's rates are established on the assumption that an average  
17 residential customer will use 65 dekatherms of natural gas per year (on a  
18 normalized basis) and that customer actually uses 70 dekatherms during that  
19 period (on a normalized basis), then Piedmont will gain the economic  
20 benefit of the margin associated with those 5 additional dekatherms with no  
21 offsetting increase in costs. If an average customer actually uses 60  
22 dekatherms of natural gas during that period (on a normalized basis), then  
23 Piedmont will under-recover its approved margin by a like amount and the  
24 customer will pay less than it should for the service received.

1 **Q. Does Piedmont currently have any control over the usage patterns of its**  
2 **customers?**

3 A. No, not directly. Customer usage is determined solely by the consuming  
4 public and Piedmont has no direct control over it. This inability to control  
5 customer usage patterns is another reason a decoupling mechanism like the  
6 MDT makes sense.

7 **Q. Even if Piedmont cannot directly control customer usage, does**  
8 **Piedmont have the ability to influence customer usage patterns?**

9 A. We believe that we do have the ability to influence customer usage in some  
10 circumstances through education efforts and directly through interaction  
11 with customers by promoting weatherization and other energy efficiency  
12 measures.

13 **Q. What is Piedmont's position with respect to these matters?**

14 A. As an energy company, we strongly believe that it is in the public's best  
15 interest to conserve energy and use it efficiently. We are inhibited in acting  
16 on this belief in Tennessee, however, because in doing so we would be  
17 taking actions directly contrary to the economic interests of our  
18 shareholders. The entire purpose of our filing in this docket is to align our  
19 shareholder's interests with those of our customers so that Piedmont can  
20 proactively promote conservation and energy efficiency measures such as  
21 those we have proposed in this proceeding.

22 **Q. Why doesn't the historical rate model continue to work for Piedmont?**

23 A. Because the context has changed. When that model was developed, natural  
24 gas wholesale markets were not volatile in the way they are today and  
25 average per customer usage was not declining in the way it has in the recent  
26 past. Nor was there a national focus on reducing emissions of greenhouse

1 gases through energy efficiency programs, as outlined in the letter sent to  
2 the Authority by the Natural Resources Defense Council on November 23,  
3 2009, a copy of which is attached hereto as Exhibit \_\_\_\_ (FHY-1). In other  
4 words, when the wholesale gas markets and customer usage patterns were  
5 relatively stable, and there was no particular public interest associated with  
6 energy efficiency, the kind of “usage risk” I have been discussing (stabilized  
7 for weather variations) made some sense because the risk was balanced and  
8 relatively small. We are simply not in the same environment today as we  
9 were when that model was developed. In today’s environment, there is no  
10 reason Piedmont should be artificially constrained from actively promoting  
11 energy efficiency by an outmoded rate design model and there also is no  
12 logical reason that Piedmont and its customers should bear an economic risk  
13 simply because customer usage over future periods cannot be predicted with  
14 precision. Moreover, there is nothing sacrosanct about the utilization of  
15 projected customer volumes to calculate rates when we know those  
16 projections will be wrong in the end. Finally, clinging to an outmoded rate  
17 model based on the notion that “we have always done it that way” provides  
18 no rational basis to reject a more logical, accurate, and appropriate  
19 mechanism, such as decoupling, which results in customers paying the pre-  
20 determined share of margin responsibility allocated to them by the  
21 Authority, rather than some other amount that may be either more or less  
22 than this approved amount.

23 **Q. Are there other examples of situations where this type of usage risk has**  
24 **been eliminated in the natural gas industry?**

25 A. Yes, the Federal Energy Regulatory Commission moved away from a usage  
26 risk model some time ago in adopting straight-fixed variable rate design for



1 interstate pipelines. This “SFV” model ensures that interstate natural gas  
2 pipelines recover their approved level of fixed costs irrespective of the usage  
3 patterns of their customers. Ironically, most of those customers are local  
4 distribution companies like Piedmont whose variations in usage are simply  
5 the aggregate effect of usage variations by their end-use customers.

6 **Q. Has there been a trend toward eliminating usage risk in other States in**  
7 **recent years?**

8 A. Yes. As Mr. Feingold discusses in his direct testimony, there has been a  
9 significant movement toward decoupling at the State level in the past few  
10 years, primarily for the reasons I have discussed.

11 **Q. Are the reasons to support margin decoupling cited above dependent**  
12 **upon the implementation of utility sponsored energy efficiency plans?**

13 A. No. While decoupling enables natural gas utilities to engage in energy  
14 efficiency programs by eliminating the negative impact such programs can  
15 have on company revenues, decoupling is fully justified on a stand alone  
16 basis for the reasons discussed above.

17 **Q. Does decoupling nonetheless help utilities to promote customer**  
18 **conservation?**

19 A. Absolutely. By ensuring that Piedmont has a reasonable opportunity to  
20 recover its approved margin, decoupling removes a significant impediment  
21 to utility sponsorship of or assistance to customer conservation efforts.

22 **Q. What other reasons support implementing Piedmont’s proposed**  
23 **Margin Decoupling Tracker mechanism in this docket?**

24 A. Federal and state legislative statements of policy strongly support adoption  
25 of Piedmont’s proposed MDT mechanism.



1 **Q. Please explain.**

2 A. As part of the American Recovery and Reinvestment Act of 2009, the  
3 Congress required, as a condition to the receipt of federal stimulus funds,  
4 that the Governor of each state certify to the United States Secretary of  
5 Energy that their respective state regulatory authority would seek to  
6 implement “a general policy that ensures that utility financial incentives are  
7 aligned with helping their customers use energy more efficiently.”  
8 Governor Bredesen provided the requested certification for the State of  
9 Tennessee by letter dated March 23, 2009. Further, on June 25, 2009,  
10 Governor Bredesen signed into law Section 53 of Public Chapter 531 in  
11 which the general assembly of the State of Tennessee declared that it is the  
12 policy of this State that the Authority will seek to implement a general  
13 policy that ensures utility financial incentives are aligned with helping their  
14 customers use energy more efficiently. These clear statements of policy by  
15 the federal government (once) and the state government (twice) strongly  
16 support implementation of some form of decoupling.

17 **Q. Does Piedmont’s MDT mechanism align Piedmont’s financial incentives**  
18 **with helping Piedmont’s customers use energy more efficiently?**

19 A. Yes. The proposed MDT mechanism removes the economic incentive to  
20 discourage conservation inherent in a volumetric rate structure and permits  
21 Piedmont to actively promote reductions in customer usage without creating  
22 potential harm to Piedmont. Without such a mechanism, Piedmont’s  
23 interests would otherwise be in promoting increased consumption of natural  
24 gas, in direct conflict with powerful arguments for increased efficiency by  
25 its customers.

1 **Q. Is Piedmont's Proposed Margin Decoupling Tracker the most**  
2 **appropriate mechanism for aligning Piedmont's financial incentives**  
3 **with Tennessee's energy policies as articulated in Section 53 of Public**  
4 **Act 531?**

5 A. Yes, we believe it is. While you could largely reach the same result through  
6 a straight-fixed variable rate design, where 100% of Piedmont's fixed costs  
7 are recovered from its customers through a fixed monthly fee, our  
8 experience suggests that an MDT mechanism better serves the interests of  
9 Piedmont's customers by preserving the volumetric nature of their rates.  
10 Natural gas customers prefer volumetric rate designs. Further, bills based  
11 on volumetric rates send the proper price signals to customers with respect  
12 to their gas usage. And while it is also possible to design forms of partial  
13 decoupling, those mechanisms do not align customer and utility interests  
14 around customer usage and, therefore, do not comply with the policy  
15 established by the ARRA and Section 53 of Public Act 531.

16 **Q. Has the Authority previously approved any similar type of mechanism**  
17 **in the past?**

18 A. Yes. Piedmont's Weather Normalization Adjustment mechanism can be  
19 viewed as a limited form of decoupling mechanism in that it adjusts  
20 customer's bills for the effects of weather. The MDT can be seen as a  
21 complement to the WNA mechanism in that it adjusts customers bills for the  
22 combined effect of all other factors that impact customer usage patterns.

23 **Q. Have there been significant issues with implementation or operation of**  
24 **the WNA mechanism by Piedmont in Tennessee?**

25 A. No.

1 **Q. Do you believe that Piedmont's earnings should be examined before the**  
2 **margin decoupling tracker is implemented?**

3 A. No. The beauty of the MDT mechanism is that over time it collects exactly  
4 the correct amount of margin per customer approved by this Authority in  
5 Piedmont's last general rate case. If excess margin (i.e. margin in excess of  
6 that approved by the Authority in Piedmont's last rate case) is collected by  
7 the Company during any period, the MDT mechanism returns that excess to  
8 Piedmont's customers. As such, it is literally impossible for the MDT  
9 mechanism to cause Piedmont to "overearn" its allowed rate of return.

10 **Q. Is it possible for Piedmont to exceed its allowed overall rate of return**  
11 **with a margin decoupling mechanism in place?**

12 A. Yes, but not as a result of the margin decoupling mechanism itself. For  
13 example, just as is the case today, Piedmont can increase its overall return  
14 by lowering its operating expenses and/or lowering the equity component of  
15 its capital structure, both of which will have the effect of increasing its  
16 overall rate of return, all other factors being equal. Conversely, if  
17 Piedmont's operating expenses increase and/or the equity component of its  
18 capital structure increases, its overall rate of return will decrease, just as it  
19 does today. These facts will remain true after approval of the MDT  
20 mechanism.

21 **Q. If Piedmont does overearn, what remedies does the Authority have at**  
22 **its disposal to address the issue?**

23 A. The Authority has the ability at any time to invoke its show cause powers to  
24 bring Piedmont in for a rate review should it over-earn its allowed rate of  
25 return for a meaningful period.



1 **Q. Do you anticipate that Piedmont will overearn if the Margin Decoupling**  
2 **Tracker is approved?**

3 A. No. Piedmont is currently earning below its allowed rate of return and is  
4 investing substantial dollars for construction of new infrastructure in  
5 Tennessee, the result of which will be to further reduce its overall rate of  
6 return at least until its next rate filing. One of the advantages of Piedmont's  
7 MDT proposal is that it is likely to actually prolong the time period between  
8 Piedmont rate cases because it stabilizes one component of its earnings  
9 structure at the level approved by the Authority at the same time it facilitates  
10 Piedmont's ability to implement energy efficiency programs, including low-  
11 income weatherization.

12 **Q. Do you believe it is necessary or appropriate to reduce Piedmonts**  
13 **allowed rate of return as a consequence of approving its MDT**  
14 **mechanism?**

15 A. No. Piedmont's existing approved overall rate of return in Tennessee is not  
16 high (and Piedmont is earning below that rate in any event) and there is  
17 nothing about the rate design modification proposed by Piedmont – which is  
18 effectively neutral as between customers and Piedmont – that necessitates a  
19 change in return.

20 **Q. Does this conclude your testimony?**

21 A. Yes it does.



**BEFORE THE TENNESSEE REGULATORY AUTHORITY  
NASHVILLE, TENNESSEE**

IN RE:

PETITION OF PIEDMONT NATURAL GAS  
COMPANY, INC. TO IMPLEMENT A  
MARGIN DECOUPLING TRACKER (MDT)  
AND RELATED ENERGY EFFICIENCY AND  
CONSERVATION PROGRAMS

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Docket No. 09-00104

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**AFFIDAVIT**

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**STATE OF NORTH CAROLINA**

)

**COUNTY OF MECKLENBURG**

)

)

Frank Yoho, being duly sworn, deposes and says that he is the Frank Yoho whose Testimony accompanies this affidavit; that such testimony was prepared by him; that he is familiar with the contents thereof; that the facts set forth therein are true and correct to the best of his knowledge, information and belief; and that he does adopt the same as his sworn testimony in this proceeding.

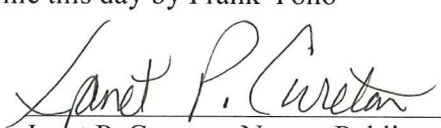
  
\_\_\_\_\_  
Frank Yoho

Mecklenburg County, North Carolina

Signed and sworn to before me this day by Frank Yoho

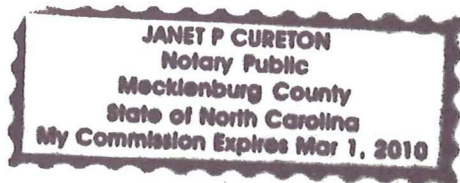
Date:

Dec. 2, 2009

  
\_\_\_\_\_  
Janet P. Cureton, Notary Public

(Official Seal)

My commission expires: March 1, 2010



**EXHIBIT\_\_\_\_(FHY-1)**



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

*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 therms or 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

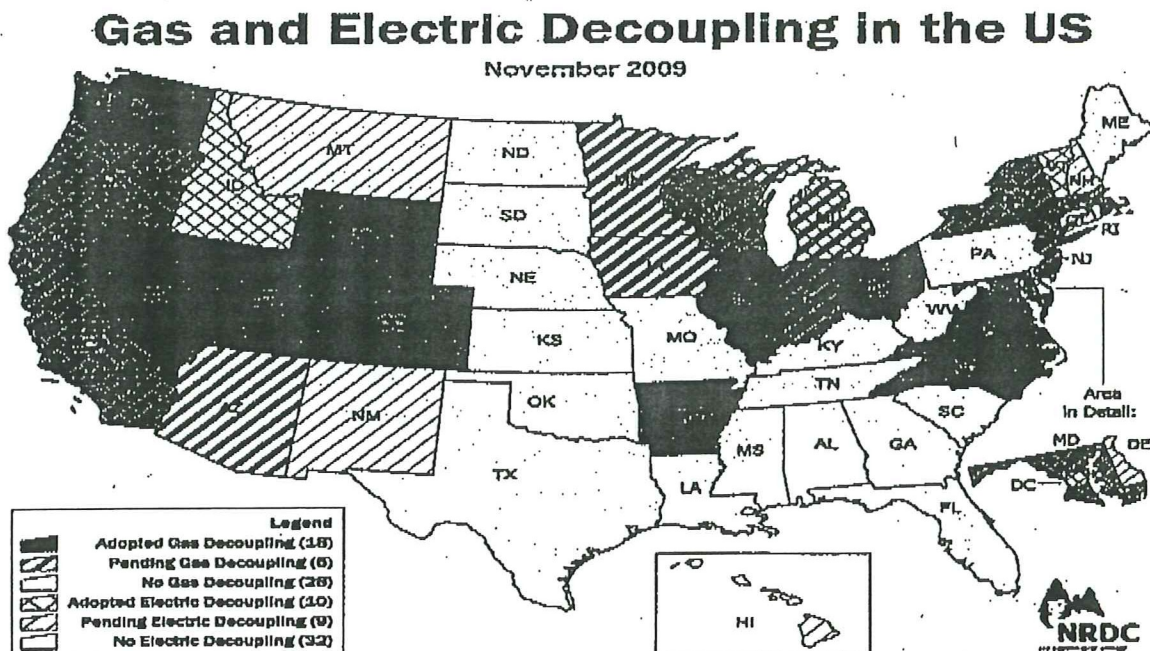
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<sup>1</sup> The American Recovery and Reinvestment Act of 2009 requires governors of states receiving stimulus funds to certify that the “applicable State regulatory authority will seek to implement, in appropriate proceedings for each electric and 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,



Brandi Colander  
Attorney  
Natural Resources Defense Council  
40 West 20<sup>th</sup> Street, 11<sup>th</sup> Floor  
New York, NY 10011  
(tel) 212-727-4480  
(fax) 212-727-1773

cc: Hon. Mary Freeman  
Hon. Eddie Roberson, Ph.D.  
Hon. Kenneth C. Hill, DRE  
Attorney General Robert E. Cooper, Jr.  
Asst. Attorney General Ryan L. McGehee  
R. Dale Grimes of Bass, Berry & Sims PLC  
Becky A. Olsen of Moore & Van Allen  
Jane Lewis-Raymond of Piedmont Natural Gas Company, Inc.

## CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing Pre-Filed Direct Testimony was served via U.S. Mail upon:

Ryan L. McGehee  
Assistant Attorney General  
Office of the Attorney General  
Consumer Advocate and Protection Division  
PO Box 20207  
Nashville, Tennessee 37202-0207

C. Scott Jackson  
Senior Counsel  
Office of the Attorney General  
Consumer Advocate and Protection Division  
PO Box 20207  
Nashville, Tennessee 37202-0207

This 4th day of December, 2009.

  
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