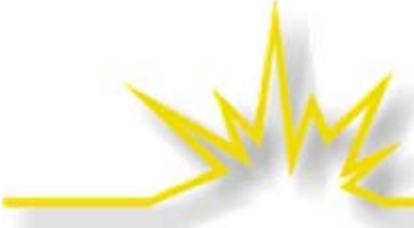


# Decoupling Programs: Gas and Electric Utilities in the Eastern US

Minnesota Public Utilities Commission

14 April 2008

Frederick Weston



---

## *The Regulatory Assistance Project*

50 State Street, Suite 3  
Montpelier, Vermont USA 05602  
Tel: 802.223.8199  
Fax: 802.223.8172

27 Penny Lane  
Cedar Crest, New Mexico USA 87008  
Tel: 505.286.4486  
E-Fax: 773.347.1512

110 B Water St.  
Hallowell, Maine USA 04347  
Tel: 207.623.8393  
Fax: 207.623.8369

Website: <http://www.raonline.org>



# Some Decoupling in the East:

---

- Maryland – BG&E, PEPCO
- Mid-Atlantic Distributed Resources Initiative – Model Revenue Stability Rider
- North Carolina – gas utilities
- New Jersey – NJ Natural Gas
- Vermont – GMP
- Massachusetts – National Grid proposal



# Decoupling: Maryland Baltimore Gas & Electric

---

- Decoupling mechanism for residential and general service gas customers
- Full Decoupling: straight revenue-per-customer method
  - Calculated as average-use-per-customer
- Based on prior rate case test year for base revenue per customer
- Monthly adjustment mechanism similar to traditional fuel and purchase power adjustments
- BG&E program formed the basis of the MADRI Model Rate Rider



# Maryland: BG&E

---

- Allowed Revenues = Test Year Average Use per Customer \* Delivery Price \* No. of Customers
  - Note: Test Year Avg. Use/customer \* Delivery Price = RPC
    - Can also be calculated as Total Revenue Requirement ÷ No. of Customers
- Adjustment to Delivery Price = (Allowed Revenues - Actual Revenues) ÷ Estimated Sales
- Any difference between actual and estimated sales is reconciled in a future month
- Calculated separately for each class
- Calculations of the billing adjustments are filed monthly with the Public Service Commission



# PEPCO Maryland

---

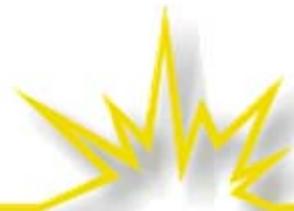
- Bill Stabilization Adjustment approved July 2007
- Full revenue-per-customer decoupling mechanism like that of BG&E and the MADRI Model
  - Monthly adjustments based on number of customers and weather-normalized usage (i.e., revenue)/customer
    - Adjustments capped at 10%, excess carried over to months when below 10% (hasn't occurred yet)
- 50 basis-point reduction in otherwise allowed ROE



# MADRI Model Revenue Stability Rider

---

- Mid-Atlantic Distributed Resources Initiative
  - Aimed at developing state and regional policies and programs to increase deployment of distributed energy resources (EE, DG/CHP, other demand response) in 5 mid-Atlantic states
  - Developed model decoupling approach, based on BG&E program
    - PEPCO proposals based on the model
  - Makes use of a “K” factor to possibly adjust for other factors that policymakers may deem important
    - E.g., trends that would have affected revenues that utility would have experienced under traditional regulation
    - “K” factor could be linked to expected changes in average use per customer. It doesn’t reward or penalize the utility for changes in usage—instead, it is intended to eliminate the risk of a predictable windfall or loss

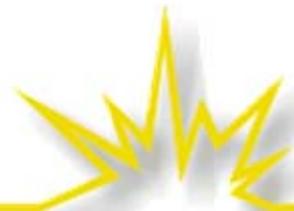


# Decoupling: North Carolina

## An Interesting Read

---

- North Carolina's three major gas utilities are decoupled, November 2005
- PUC recognized the importance of volumetric rate structures and lower fixed customer charges
  - Rejected the “straight fixed-variable” rate design proposal, with its higher fixed charges, as unpopular with customers
  - Rejected Attorney General's argument that decoupling would penalize customers for conserving



# North Carolina: Decoupling for Select Classes

---

- Approved as an experimental tariff—the Customer Utilization Tracker (CUT)—limited to no more than three years unless reauthorized by the PUC
  - Full revenue-per-customer decoupling mechanism for residential and commercial customer classes
    - Semi-annual adjustments
  - “Different usage patterns and tariffs of industrial customers” provide good cause to exclude class from mechanism
- Required utility contribution toward conservation programs (e.g., \$500,000 per year for Piedmont)
- Required utility to work with the Attorney General and the Public Staff to develop appropriate and effective conservation programs to assist its residential and commercial customers



# North Carolina Rationale for Decoupling

---

- Recognized conservation has potential for financial harm to the utility and its shareholders
- Cited number of benefits: Improved opportunities for conservation of energy resources, savings for customers, downward pressure on wholesale gas prices, helping utility recovery of margin and a reasonable return
- Decoupling better aligns interests of Company and customers with respect to conservation
- Commission on Shareholder Risk: “In a period of declining per-customer usage, a mechanism that decouples recover of margin from usage, without requiring the utility to file frequent rate cases or increase unpopular fixed charges, clearly reduces shareholder risk.”



# MADRI Model Rule

---

- Used BG&E Rate Rider as starting point
- Model Rule is product of collaborative stakeholder process
- Available at: <http://www.raponline.org/Feature.asp?select=78>
- Tracks on demand and energy basis
- Currently 60-day lag between consumption & recovery – may present rate design issue
- Lag can be eliminated with a “use and file” approach
- As written, places weather risk on customer – but this is not a policy position *per se*



# New Jersey Natural Gas and South Jersey Gas

---

- Companies' proposal: Full revenue-per-customer decoupling
  - The difference between actual revenues and allowed revenues (the product of number of customers, average usage/customer, and price) is recovered (or credited) through the Conservation and Usage Adjustment (CUA) clause in the following year
  - Covers the revenue impacts of deviations from normal weather, energy efficiency, and other factors (e.g., economy)



# New Jersey Natural Gas and South Jersey Gas

---

- Settlement in 2006: limited revenue-per-customer decoupling for non-weather-related changes
  - Called the Conservation Incentive Program (CIP)
    - Three-year pilot program
  - Revenue adjustments cannot exceed the amount by which the company reduces total costs of Basic Gas Supply Service (i.e., commodity savings that result from company investments in energy efficiency)
    - Excesses can be recovered in later periods, to the extent that there is room under the cap to do so
  - Company-sponsored energy efficiency programs greatly expanded
    - Costs of EE programs taken “below the line” as part of settlement



# Vermont: Green Mountain Power

---

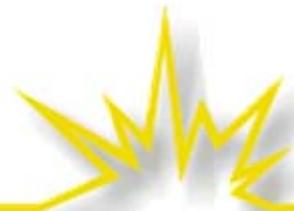
- A modified revenue cap (partial decoupling) for a vertically integrated electric company
  - Base Rates (non-power costs)
    - Future test year: Allowed revenues calculated for each year of program, in accordance with terms of an MOU
      - Maximum possible changes: \$1.25 mn in 2008, \$1.5 mn in 2009
        - » Cap can be exceeded for adjustments, if necessary, for specified exogenous factors
    - Earnings bounded by sharing collars
      - First 75 basis points, up or down, borne by GMP
      - Next 50 basis points, shared 50/50
      - Thereafter, borne by customers
  - Power Costs
    - A quarterly fuel adjustment clause
      - Variances in costs of committed resources borne entirely by customers
      - Variances up to \$400,000 for non-committed resources (market) borne by company, after that by customers
      - If the total variance will result in an adjustment of  $> \$0.01/\text{kWh}$ , the excess will be carried over to a following quarter



# Massachusetts: National Grid Proposal

---

- Three-year revenue cap for wires-only distribution company, full decoupling
  - Allowed revenues for each year of the program are set before start of the first year
    - Traditional revenue requirements calculations
  - Over-collections or under-collections are credited or surcharged in the following year
  - Actually capital spending for replacement of aging distribution facilities tracked and recovered separately
    - As a pass-through, this could bias the company against cost-effective alternatives to wires and substations



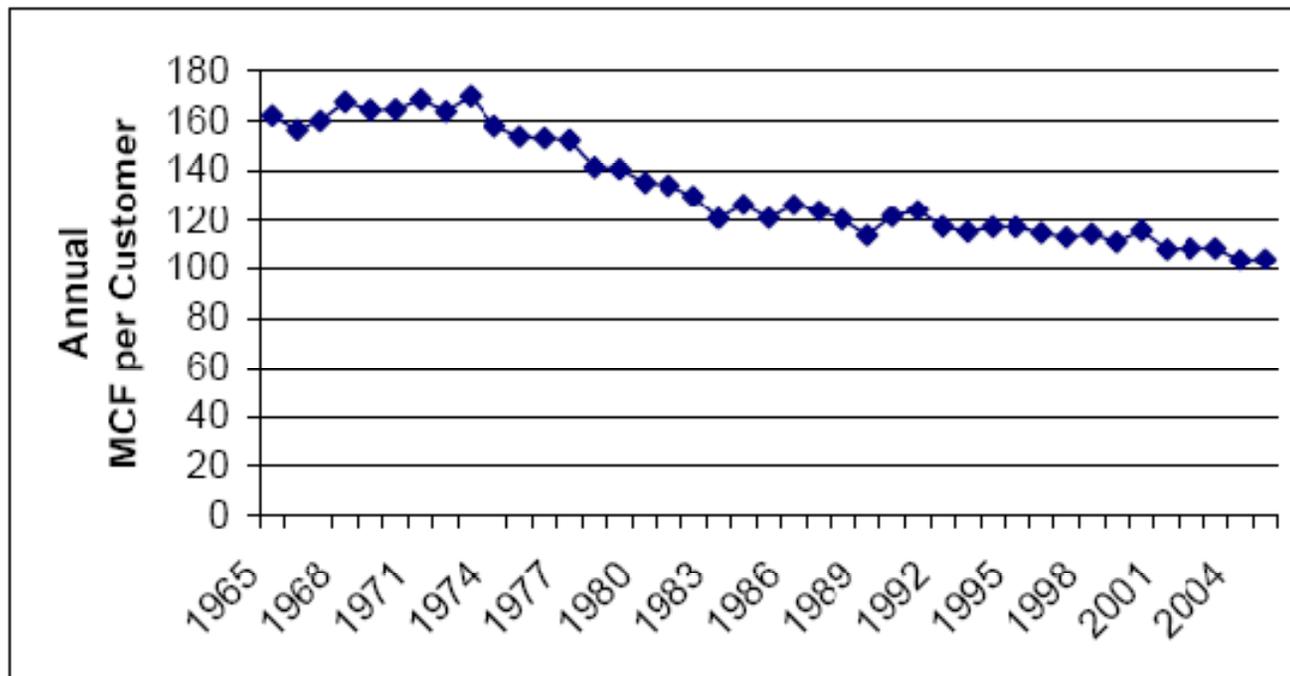
# Which Brings Us To: A Policy Tale of Two Utilities

---

- Rising revenue-per-customer utilities:
  - Experience rising earnings between rate cases
  - Typical of many electric utilities
- Declining revenue-per-customer utilities:
  - Experience declining earnings between rate cases
  - Typical of many gas utilities
- Under reasonable assumptions, not symmetric between rising and declining cases
- Usually driven by differences in the average consumption between new and old customers
- Policy question: Should decoupling be “profit neutral” relative to future such profit expectations?

# In Minnesota

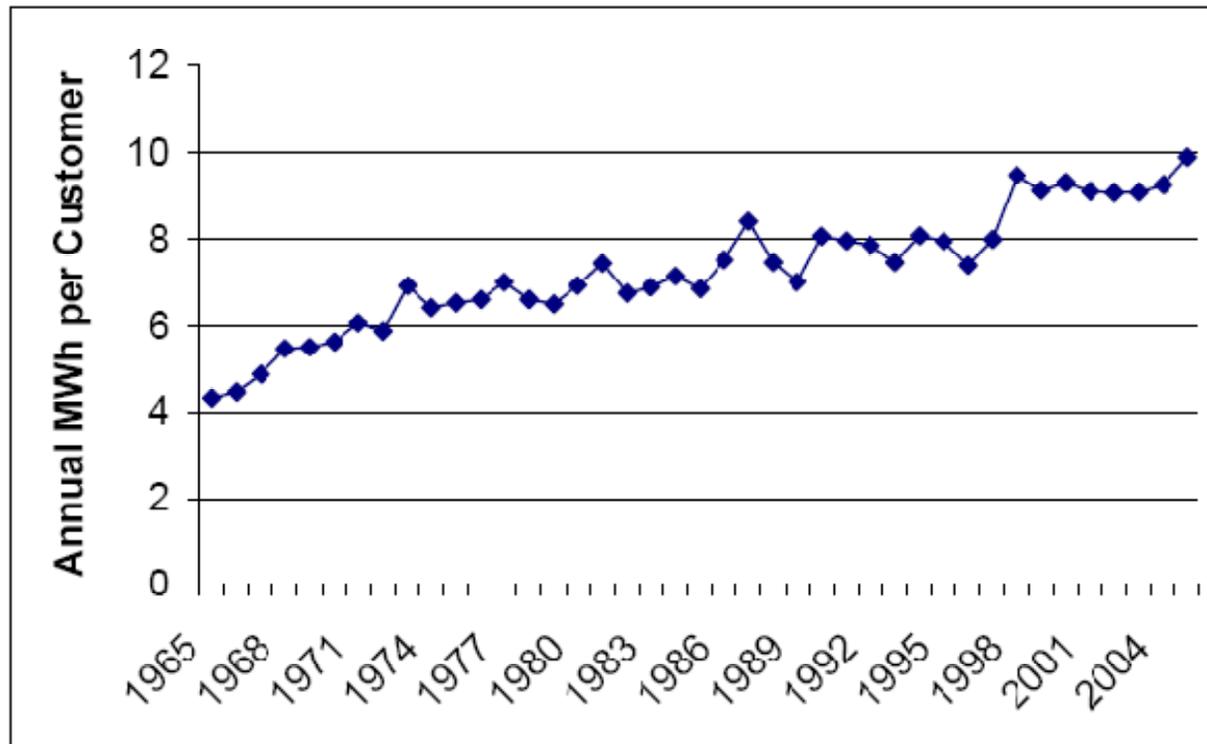
Figure 5: Weather-Normalized Natural Gas Use Per Residential Customer



Source: The Minnesota Utility Data Book, 1965-2005

# In Minnesota

Figure 2: Weather-Normalized Electric Use Per Residential Customer



Source: The Minnesota Utility Data Book, 1965-2005