

Putting Into Perspective the Public Utility Law Project's Testimony on Electricity Prices in New York

October 18, 2012



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Appendix: About Hudson River Energy Group

Summary

The Hudson River Energy Group¹ was engaged by the Retail Energy Supply Association to perform an independent review of the testimony submitted by the Public Utility Law Project of New York, Inc. (PULP) in the ongoing rate case of the Niagara Mohawk Power Corporation² (Niagara Mohawk) before the New York State Public Service Commission (PSC or Commission). Upon review of the testimony, the raw data relied upon in preparing the testimony, public information on offers from energy service companies (ESCOs), the information on residential commodity prices, and historic market data, we have determined that PULP does not recognize several critical elements that must be considered in an objective study of this matter. The testimony is predicated on the faulty premise that ESCOs' only role in the market place is to guarantee savings to customers, so the analysis offers only a simplistic comparison of ESCO prices versus the variable prices offered by the utility. The testimony reveals a lack of understanding of the products offered by ESCOs and, upon close examination, does not stand up to rigorous scrutiny.

Our review found that not only are PULP's findings about ESCOs' "extra costs" misleading, but a fair review of the Niagara Mohawk data shows many ESCOs (both electric and gas) are providing savings to customers. As to the ESCO rates that are above the variable rates offered by Niagara Mohawk, our review found three main reasons why there would be a perceived "extra cost" in the study period. First, many customers prefer fixed-price options as a way of managing their expenses and protecting themselves from price increases. This is true for both low-income customers and higher-income customers alike. A fixed-price offering contains a premium for obtaining price certainty and protection against increases in market prices. Second, PULP is incorrect in its

¹ See Appendix 1

² Case 12-E-0201, Proceeding on the Motion of the Commission as to the Rates, Charges, Rules and Regulations of Niagara Mohawk Power Corporation d/b/a National Grid.

assumption that the study period was “normal”. It was not: wholesale energy prices dropped dramatically over the course of the study period due to low natural gas prices, which would have a significant impact on any comparison between a fixed-price and a variable price service offering. This is true for both electric and gas service and for low-income and higher-income customers alike. Third, some ESCOs specialize in offering “green plans” where the customer agrees to pay a premium in order to get clean-energy or energy-efficient products. All of these factors provide necessary context to the comparison of ESCO pricing versus variable pricing, and the PULP testimony ignores all of them.

PULP Testimony

In Niagara Mohawk’s rate proceeding, PULP submitted testimony of Mr. William Yates, who is a certified public accountant and a PULP employee. Mr. Yates begins his analysis with selected quotes from the Commission website, where the Commission states that competition can lower energy prices and that the consumer will benefit as a result (Yates testimony at page 3, line 1). Mr. Yates then goes on to state the Commission advises customers to compare prices (Ibid).

Mr. Yates then provides his own price comparison analysis. His testimony is based on his review of a report provided by Niagara Mohawk showing the difference between Niagara Mohawk’s bills to customers who had bought supply from ESCOs and what their charges would have been had the customer not switched to the ESCO. The comparison was done for all residential customers. The time period for the assessment was a 24-month span from August 2010 to July 2012.

Based on his review of the data, Mr. Yates states that ESCO service has not provided bill reductions for customers (Yates testimony at page 6, line 6). He goes on to say that each and every

total and average cost/savings metric shows an “extra cost” associated with choosing ESCO supply for both electric and gas customers (Ibid at line 8).

Analytical Approach

To review PULP’s claims the Hudson River Energy Group adopted an analytical approach consisting of five discrete steps: (1) analyze the raw data from Niagara Mohawk; (2) review material published by the Public Service Commission regarding competition; (3) assess publicly available data regarding ESCO offerings; (4) compare pricing options available to residential customers for other commodity purchases that they make on a regular basis; and (5) review historic market price data for electricity and natural gas.

Niagara Mohawk Data

The data supplied by Niagara Mohawk was for the 24-month period of August 2010 through July 2012. The data showed the difference or “delta” (positive or negative) between what the customer paid the ESCO versus what the customer would have paid to Niagara Mohawk if they had received default service from the utility. Each ESCO was provided a supplier number so that they would be anonymous, but no other information was provided about the supplier or the type or types of services provided.

The Niagara Mohawk data was analyzed by ESCO, by customer type, for changes in price difference over time, by ESCO size, and by overall price difference. The main findings from this review are as follows:

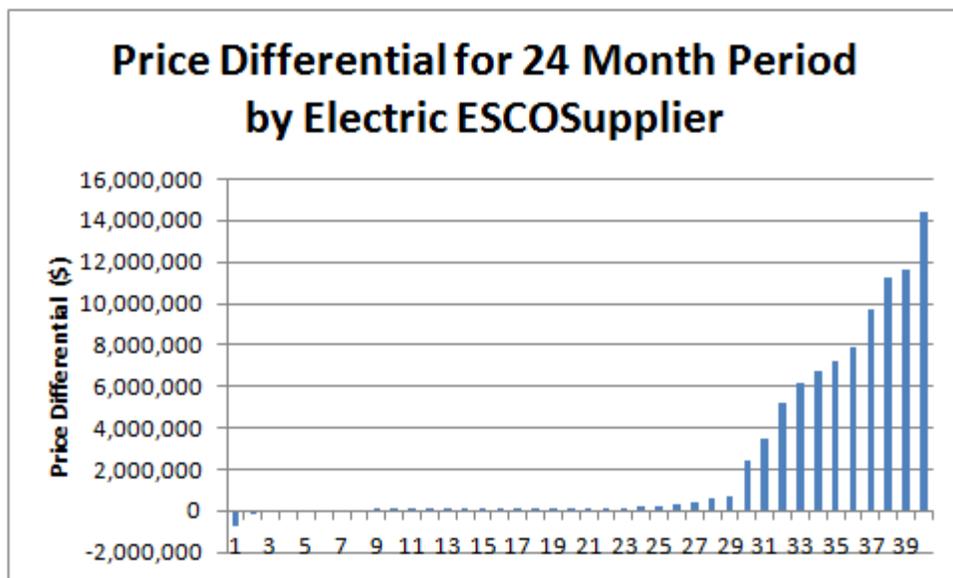
- 1) There are 40 ESCOs serving electric customers and 33 ESCOs serving gas customers.

For regular residential customers the size of ESCOs varies widely, with some having as

little as one customer and some with an average of approximately 50,000. The average ESCO serving electric customers has approximately 5,400 customers and the average ESCO serving gas customers has approximately 3,000 customers.

- 2) Buying service from ESCOs is an increasingly popular choice. In the beginning of the study period there were approximately 277,000 regular electric and gas customers buying service from ESCOs. At the end of the study period there were approximately 331,000, a 19% increase.
- 3) Some ESCOs provided savings every month to customers while others did not. For example, there are eight ESCOs out of 40 that serve regular residential electric customers that did provide savings over the time period studied and most of these provided savings in almost every month of the time period. These eight ESCOs serve almost 27% of all regular residential customers. Also, the ESCO serving the largest number of customers provided the most savings.
- 4) For ESCOs serving gas customers, four of the 33 ESCOs provided savings to customers. For the ESCO serving the largest numbers of customers, approximately 27,000 in July 2012, the bill differential is approximately \$2.18 per month, or about 1% higher than the price paid by a Niagara Mohawk customer using 150 therms per month.
- 5) For ESCOs serving residential customers, the differential between the ESCO price and the Niagara Mohawk price decreased over the 24-month time period. This is true for the group as a whole and for the ESCO with the largest price differential. As a whole, ESCOs charged on average \$18.48 more than Niagara Mohawk in the time period studied in the first month. In the last month studied, the differential decreased to \$9.81. For the ESCO with the largest amount of price differential, the differential in the first month of the study was \$22.47 and in the last month \$10.32.

- 6) For ESCOs serving gas customers the price differential has fluctuated widely with no discernible trends.
- 7) The price differentials between ESCOs and Niagara Mohawk are concentrated with a few suppliers. On the electric side, 11 of the 40 ESCOs make up 95% of the total price differential but only serve 67% of the customers. On the gas side two suppliers represent 22% of the total price differential, yet only serve 10% of the customers.



- 8) There is no noticeable difference in results when electric and gas customers in general are compared to the subset of low-income customers. Pricing and customer concentration is the same for both groups, so any findings apply equally to low-income customers as well as higher-income customers. This demonstrates that the purchasing behavior is the same for all customers and is not a low-income customer-specific issue. All customers exercised purchasing strategies to limit their exposure to price risk.
- 9) The Niagara Mohawk price to which the ESCO products are compared is a variable-

priced product that decreases when wholesale prices decline and increases when wholesale prices go up. A similar two-year snapshot in time when natural gas prices are on the rise would likely yield a very different result.

Public Service Commission Material

The PSC has a great deal of information on choosing energy suppliers. Below are some excerpts from the PSC website on what it says competition means and what customers should know before choosing an energy supplier.

- 1) Changes in the electric market have allowed customers to choose their supplier of electricity.
- 2) More than a million business and residential customers in New York State are now purchasing their electricity and natural gas from an energy service company (ESCO).
- 3) You could save money by shopping for lower cost power from an ESCO. It is important to compare the prices offered by any supplier who sells electricity and to know what you are signing up for.
- 4) There are many ESCOs providing a wide variety of products and price options. Some provide long-term fixed prices; others offer variable rates that change with market conditions; others give the option for customers to lock in a rate during certain peak months of energy use. Some ESCO service is provided at a variable price on a month-to-month basis that can be cancelled at any time. In other cases, ESCOs require customers to enter into a contract for their purchase of electricity and natural gas. In some instances the contract requires the customer to commit to purchasing its energy from the ESCO for a specified period of time. The consumer selects the choice that's best for them.
- 5) Before choosing an ESCO you should:
 - Compare* prices and services offered.
 - Review* terms which may cover special fees, deposits, renewals and switching procedures.
 - Consider* customer service features including complaint handling, hours of operation, and toll-free numbers.

Research the company's background. You may want to know how long the company has been in business, the company's location or if it is affiliated with a utility or any other company.

Always review the terms and conditions before committing to an ESCO offer.

Niagara Mohawk Supply Offerings

During the study period customers who took electric supply service from Niagara Mohawk had two options: Standard Rate Service, a supply product that partially protects customers from market price fluctuations (60% in the study period), or Market Rate Service, with which customers are fully exposed to fluctuations in the market price of electricity. Both services are variable rates and have monthly adjustments to the charge.

ESCO Offerings

According to information published on the PSC's web site and on individual ESCO web sites, ESCOs offer a much wider variety of options and rates, with certain rates being "variable only", others being "fixed" for the term of the contract and some being a blend of fixed and variable. The term of service is also variable, with some having a minimum term of as little as one month and fixed-price terms of one or two years. There are a number of ESCOs who offer rates based on clean- or renewable-energy sources. Customers can choose specific fuel sources such as New York hydropower, New York wind, solar, or more generically sourced renewable energy plans. Most often these "green plans" can be purchased in percentage increments, the higher percentages reflecting a higher level of environmentally friendly implementation, i.e., fewer pollutants, by-products, and waste. Most frequently the customer is presented with a choice between 25%, 50%, or 100% green plans (sometimes alternatively named for the type of energy generation utilized, like a "wind plan" or "solar plan").

Fixed rates are most often set for 12 or 24 months. For customers taking fixed-price service, ESCOs generally ask for a higher price for the added risk of locking in a rate. Variable rates differ in that they are frequently offered to the customer on a month-by-month basis, or are set on much shorter term lengths, like three or six months. However for both variable and fixed rates, some terms can be found that are as high as three years. Quoted variable rates are often lower than a fixed average, although they bring with them the risk of frequent rate changes. Based on public data, the premium for locking in prices at time of enrollment is on the order of 1.4 cents per kilowatt-hour, which would add approximately \$10.92 to the bill of a typical residential customer.

The so called “green plans” are also priced at a premium; the more green energy customers want in their fuel supply, the larger the premium paid. Public data indicates that the premium for green products is priced above either the fixed- or variable-rate offers, in a range between 1.44 cents and 2.5 cents per kilowatt-hour. A two-cent premium would add \$21.84 per month to the average Niagara Mohawk bill.

Offers on natural gas pricing are voluminous and most suppliers limit their offers to fixed or just variable rates. For suppliers that offer both, it appears that the pricing offer is more tied to timing of purchase, as most offers have the caveat that the price varies monthly or at the time of submission.

Residential Commodity Purchases

Residential customers make purchasing decisions on a day-to-day basis and are very familiar with having multiple options for a single product. They can buy milk at the local convenience store or in large quantities at the local warehouse store depending on their needs and amounts consumed. Likewise, many of these warehouse stores have gasoline stations where there is little or no mark-up,

but is only available to members.

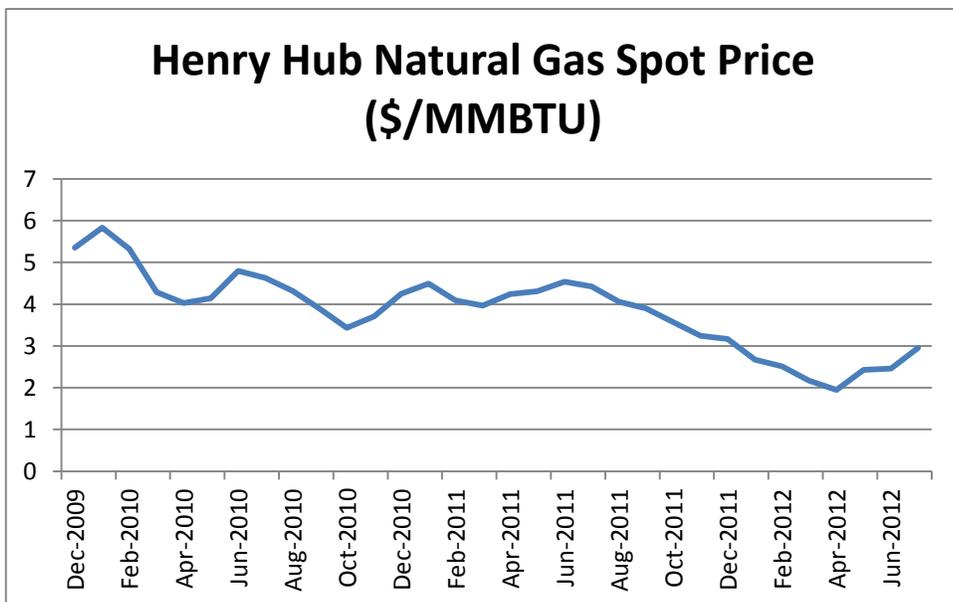
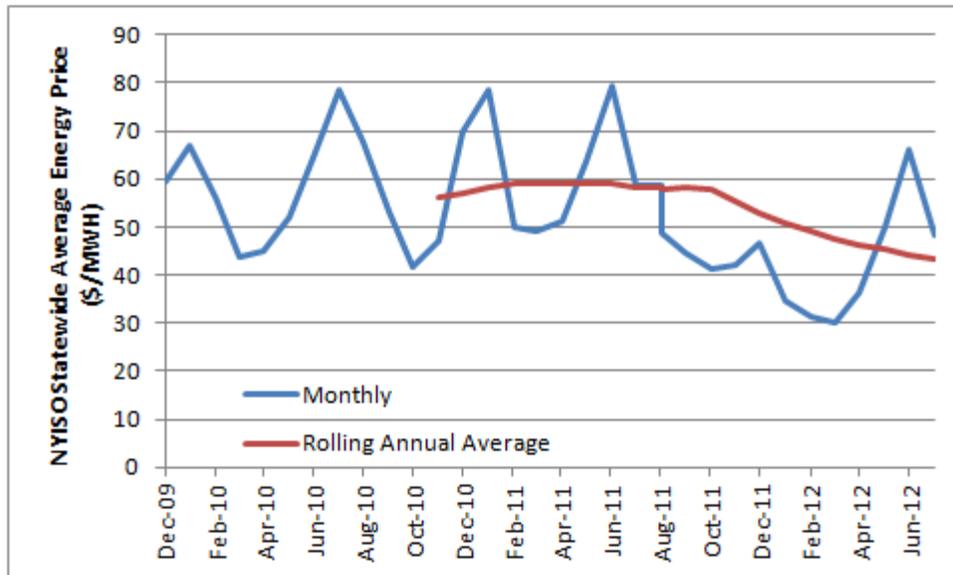
One comparable commodity that residential customers may buy is home heating oil. Based on a review of publically available information, oil distributors offer a wide variety of options very similar to what is being offered by ESCOs for electric and gas supply. You can choose a fixed-priced supply plan where your fuel price is fixed; no matter where fuel prices go or how much you use, your unit price remains the same. You could also take variable pricing, where you pay the current market price at the time of delivery. You could also purchase pre-buy, where you pre-pay for a set number of gallons and the fuel supplier gives a discount for assured delivery. Finally, you could purchase downside protection where, in exchange for a fee, you pay no more than the fixed price, but you have downside protection if the market price goes down.

There is also one data point of customer choice in choosing electricity supply, and that is the experience of New York State Electric and Gas Corporation. Beginning on January 31, 2003, electric customers were offered choice on buying electricity. They could buy it from the utility or an ESCO when both suppliers offered fixed and variable price options. As of November 9, 2005, 89% of NYSEG customers took fixed price service (86% from NYSEG and 3% from ESCOs) and 11% took variable price service (5% from NYSEG and 6% from ESCOs).

Market Price Data

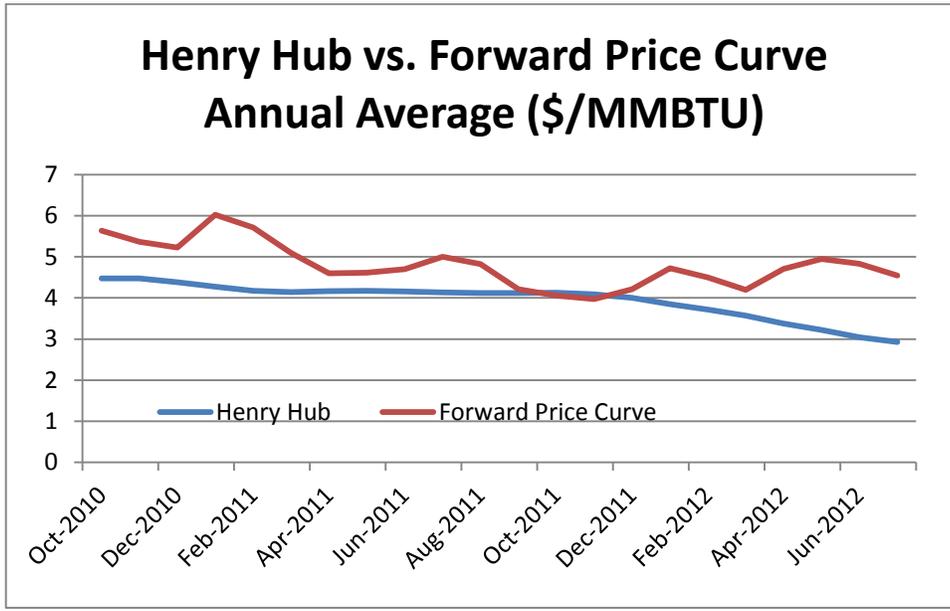
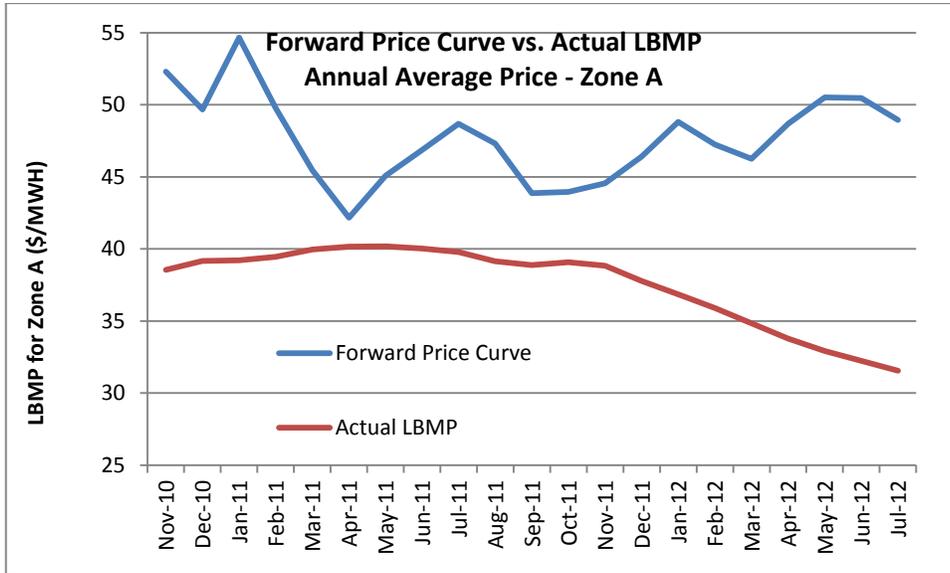
Below are graphs of the historic prices of electricity and natural gas. The first is the NYISO statewide average of energy and ancillary costs from the LBMP (Locational Based Marginal Pricing) Customer Point of view. The source data is the New York State Independent System Operator (NYISO). The second graph is the spot price at the Henry Hub in Erath, Louisiana. The source data

is from the United State Energy Information Administration. Since many ESCOs offer fixed price terms of one year or more, the graphs included some data before the beginning of the study period to provide a sense of prices at the time when fixed-price contracts might have been entered into.



One other piece of information that is critical when comparing fixed-price offers to variable-price offers: perception of future market prices at the time the contract was entered into. This is done through examination of forward price curves and historic market prices. Forward price curves are the cost to the ESCO to supply the customer's energy (electric or gas) over the term of the contract. The ESCO would normally lock in prices to serve the customer and thereby quote a price when queried. Forward price curves are estimates of what the future price of energy will be and they change monthly. The price level changes in accordance with perceptions of what the future price will be. It should be noted that ESCOs do not set the price level of the forward price curve. In the futures market, the price set is what all market participants should expect from wholesale energy prices.

One RESA member provided the historic price curves for electric and gas it used to price contracts during the study period. The two graphs below show how the forward price curves (i.e. perception of the market) for a one-year contract compared to actual wholesale prices. While both curves have a downward trend, the forward price curves were above actual wholesale energy prices for almost every month of the study period. This indicates that the energy market, not just ESCOs, did not expect energy prices would decline as rapidly as they did. For the ESCO it is perfectly understandable that any comparison of their pricing to one that is total dependent on monthly changes in the wholesale market will show a perceived "extra cost".



Discussion

Based on available data, PULP’s testimony and conclusions are grounded on an erroneous assumption that ESCOs must only provide service options that guarantee savings to customers. The testimony begins by observing that the Commission has stated competitive markets can lower prices, which PULP seems to interpret as “ESCOs must offer price savings”. On the contrary, a fair reading

of the material published by the Commission simply observes there are many different options available from ESCOs, even as it cautions customers to learn as much as possible about their suppliers and pricing before signing up.

A fair review of the Niagara Mohawk data shows some ESCOs (both electric and gas) are providing savings to customers. A review of the data also shows the alleged “extra cost” PULP refers to is concentrated on only a few ESCO companies and this extra cost might, and most likely is, due to the type of pricing options that customers seek. While no public information is available as to whom these select ESCOs are or what type of product customers are buying from them, the NYSEG experience noted previously overwhelmingly confirms customers prefer price certainty, and that the majority choose fixed-price options. Price certainty comes at a premium in order to compensate for the risk assumed in protecting the customer from price increases. The ESCOs, just like home heating oil distributors, are quite open about this trade-off, and publish what the premium will be.

In addition, a review of ESCO price offerings show that many are providing “green plans” where customers choose their fuel supply, knowing they pay a premium to do so. Again, there is no public information on how many customers actually take this type of service, but there are some ESCOs that specialize in it, so clearly many customers seek such product offerings. This form of premium product would certainly explain why there is a perceived “extra cost” when one compares it against a variable rate. For customers choosing fixed-price options, any comparison to a supply tied to the market price, such as Niagara Mohawk’s, would be perceived as “extra cost” in such a 24-month period of unprecedented declines in natural gas prices.

To reiterate: there are two other main reasons why there would be a perceived “extra cost” in the study period. First, customers often prefer fixed-price options as a way of managing their expenses and protecting themselves from price increases. This is true for both low-income customers and higher-income customers.

Second, PULP incorrectly assumes that the study period was “normal” when a review of historical price information shows that the study period was not typical at all. The annual average wholesale price of electricity decreased 25% between the beginning of the study period and the end. For natural gas, the annual average price decreased 32% between the beginning of the study period and the end. Thus, the chosen study period was one where the wholesale price of both electricity and natural gas was dropping dramatically. This would have a significant impact on any comparison between a fixed-price and a variable-price service offering.

***Appendix 1: About Hudson River Energy Group**

The Hudson River Energy Group (HREG) is an engineering consulting firm specializing in the fields of rates, planning, economics and utility operations for the electric, natural gas, steam and water utility industries. HREG was founded by a former New York State Department Service Department valuation engineer in 1998 and has served a wide variety of clients including municipal utilities, government agencies, state commissions, consumer advocates, law firms, industrial companies, power companies and environmental organizations. HREG conducts rate design and cost of service studies, designs performance based rate plans. HREG also assists clients in dealing with the complexities of deregulation and restructuring, including OATT pricing, unbundling of rates, resource adequacy, and transmission planning policies and power supply. HREG has provided expert testimony on over 100 occasions before the Federal Energy Regulatory Commission and Public Utility Commissions across the country.