ENERGY NEW ENGLAND

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Energy Outlook

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ECHO[SM] Analytics Delivers

Taunton Municipal Customers Reduce Demand Charges by Nearly $175,000

In 2011, Taunton Municipal Light Plant (TMLP) worked with ECHO[SM], the sustainability enterprise of Energy New England, on a pilot program to help three of the utility's primary metered customers monitor and reduce their facility demand. Using ECHO[SM] Analytics as the program platform, TMLP was able to provide the participating customers with state-of-the-art solutions to help monitor their load, enable curtailment actions and, most important, deliver significant and quantifiable demand savings.

ECHO[SM] Analytics is a proprietary load monitoring and management system that provides participating customers with real-time visibility on both energy usage and demand, coupled with demand alerts and real-time cost data. The three participating customers were assigned to a new interruptible tariff, and as a consequence, they had agreed to monitor their usage and to curtail their demand when requested by the utility. ECHO[SM] Analytics provided the "platform" to support and enable program goals. Each customer was able to monitor their usage on a real-time basis, and they were also provided with periodic updates on when they would be required to curtail their usage and demand.

TLMP PILOT PROGRAM RESULTS 2011-2012

Annual	Rate 31	Rate 31i	Savings	%	Peak Reduction kW
Customer A	$274,773.31	$156,928.43	$117,844.88	-43%	1208
Customer B	$119,742.67	$79,658.45	$40,084.22	-33%	108
Customer C	$98,333.25	$81,712.41	$16,620.84	-17%	169

"Our goal was to not only help the three participating customers, but to also reduce our coincident peak both monthly and annually," said Michael Horrigan, General Manager of TMLP. "The results for both the customers and TMLP were truly significant, and the ECHO[SM] team and ECHO[SM] Analytics made these savings possible. Indeed, the peak reduction for the three participants approached 1.5 MW and the demand savings were nearly $175,000 over the course of the one-year pilot."

To learn more about how ECHO[SM] Analytics can help you and your customers, please contact John Muro, Executive Vice President, ECHO[SM], at jmuro@echo4us.com or call John at 860-906-6454.

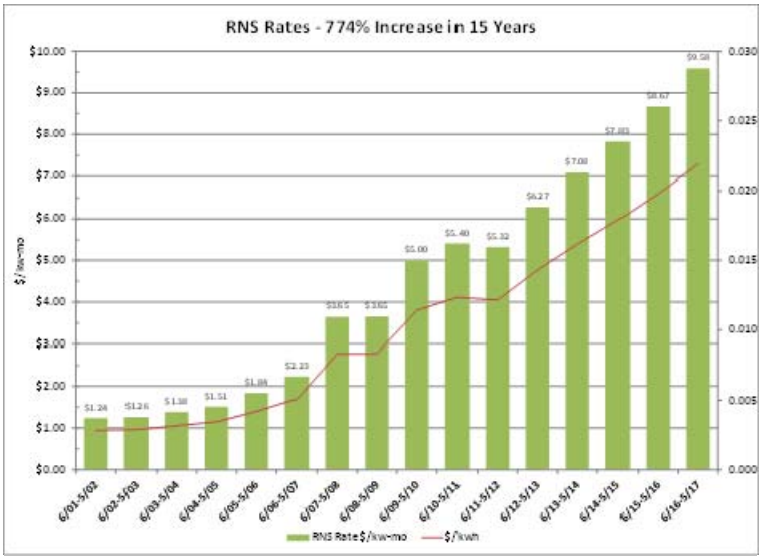
Regional Transmission Costs - *"…we're gonna need a bigger boat"*

The New England transmission system was relatively unconstrained for a number of years. Congestion was rarely an issue, coming off several decades of joint system planning by New England's utilities. Over time, load growth has caught up to the infrastructure to a degree. The advent of deregulation brought about a major build out of highly efficient, natural gas fired generating capacity, and various state renewable portfolio standards encouraged the development of intermittent generation sources like wind power. The gas generation build out added thousands of MW to the system, and not all of them in or near load pockets. These have led to an era of substantial transmission infrastructure build out.

Wholesale deregulation largely addressed the generation sector, but the transmission arena is still regulated. Transmission projects are still built by regulated utility companies with costs borne regionally by rate payers throughout the region. Those costs are rate-based, meaning the project owners earn a healthy 11-12.5% regulated return on those assets over the very long-term, really the life of the assets, up to 40 years. A number of projects have been put into service in the last several years and a number more are in the pipeline. Regional transmission costs are becoming an ever-increasing component of total electric costs. Declining natural gas and electricity prices have helped mask the impact of this trend in retail rates. However, future potential increases in either or both electricity and capacity prices could create substantial increases in costs for wholesale and retail energy.

A few statistics: the 10 year June 2002 – May 2012 period exhibited a 19% average annual increase from 0.3 to 1.2 c/kWh. Over the next 5 years, that average increase is projected to be around 13%, adding another 1.0 c/kWh to retail rates, irrespective of what happens to energy and capacity prices. The graph below illustrates what 15 years and many billions in investment will do to rates. The key point – transmission costs are and will be here to stay, and won't boom/bust the way the generation markets have. Rising fixed costs for wholesale and retail power markets will increase the value of taking steps to mitigate their impact. While capacity market prices aren't expected to increase dramatically regionally until later this decade (local pockets like Northeast Massachusetts may jump sooner), this will pancake with the impact of rising transmission costs. So too would the impact of even a modest rise in gas prices over the next several years. Forewarned is forearmed.

This includes looking at all avenues to ensure energy is delivered efficiently as more $ will be at risk. This would include power factor evaluations, energy audits and evaluations to highlight opportunities for energy to be consumed more efficiently, and whether loads can be shifted to improve load factor. Demand response and peak shaving opportunities will hold increasing value, whether via demand management via an ISO program, a local utility program, or voluntary by the end user, as well as on site peak shaving or cogeneration. ENE and ECHO[SM] can help assess and implement opportunities across the spectrum, with customized demand and supply solutions to mitigate these impacts.



YTD Energy Efficiency Sales Exceed $2M; $7.5M since 2010

Since October of this year, ECHO[SM] has secured a "bountiful harvest" of energy efficiency projects with some $800,000 of projects sold in two states. This result brings the year-to-date total for energy efficiency sales to more than $2M. Moreover, this total excludes energy auditing and consulting services provided on behalf of a growing number of public power systems throughout the region, and it also excludes more than 20 engineering studies performed for National Grid.

ECHO generated energy efficiency sales of $ 800K over past two months.

The energy efficiency projects were secured on behalf of numerous investor owned utilities, including NStar, United Illuminating (UI), Connecticut Light & Power (CL&P), and Western Massachusetts Electric Company (WMECO). Indeed, over the past few weeks energy efficiency projects sold on behalf of WMECO alone exceeded $500,000. ECHO[SM] has been a leading broker of energy efficiency programs in the region for nearly a decade, and has secured some $7.5M in energy efficiency projects since 2010.

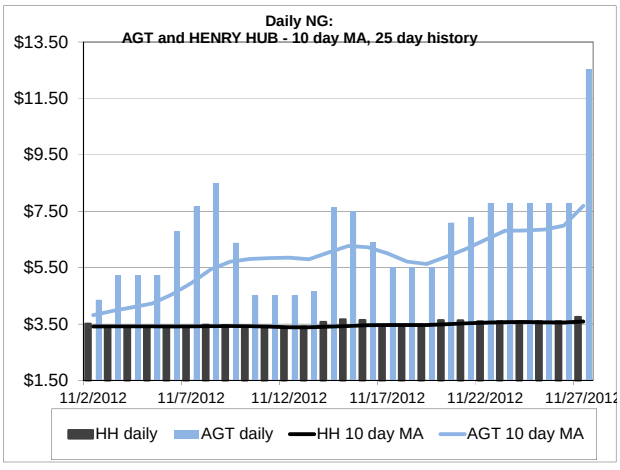
The scope of conservation projects sold includes wireless energy management systems, lighting systems, sensors, mechanical equipment and controls. ECHO[SM] works with dedicated electrical contractors to promote the investor owned utilities' conservation and load management programs to a range of commercial, industrial, institutional and municipal accounts in multiple states. Incentives range from approximately 20% to 70% of the project value, depending upon the sponsoring utility. Investor owned utilities in Massachusetts typically provide higher incentives than do the utilities in Connecticut, for example, and ECHO[SM] is also able to leverage interest-free financing on project balances, as well.

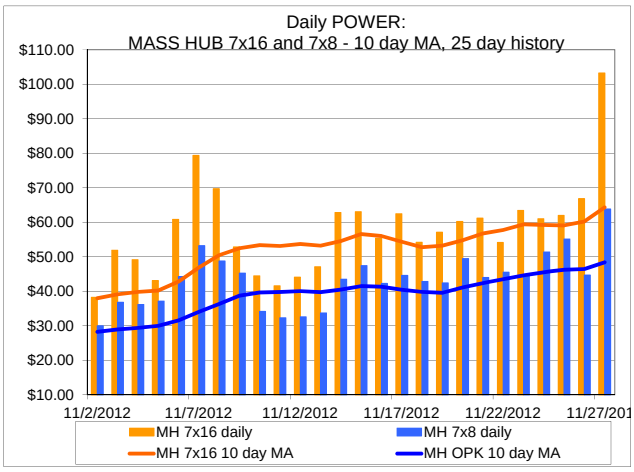
ENErgy Corner

Henry Hub is NOT in New England – it's actually about 1,500 miles away

Since the beginning of November, there has been a material increase in both the price and volatility of the daily ISO-NE spot market. For example, on November 1st, the 10-day moving average of the Day Ahead "Mass Hub" LMP, hour ending 8-23, was about $40.00/MWh; on November 19th the 10-day moving average had moved up to about $55.00/MWh, or a 38% increase, with the prices for November 6-8th averaging $70.00/MWh. The very end of the month brought a surprise with spot prices breaking $100/MWH for the first time in months. These sudden large jumps in price certainly got everyone's attention and several of our customers have asked us why the daily power prices were so high.

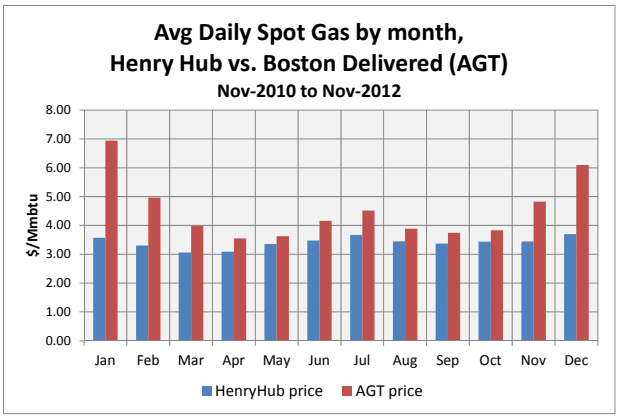
As you can see in the charts below the sudden increase in spot power prices (right side, orange bars) corresponds to the large jump in daily delivered natural gas prices (left side, blue bars). In New England, we have seen this type of price volatility in the gas markets before, but generally only when the temperatures fall well below freezing and not so much when the low for the day barely gets below 40, as is the case so far in November 2012.



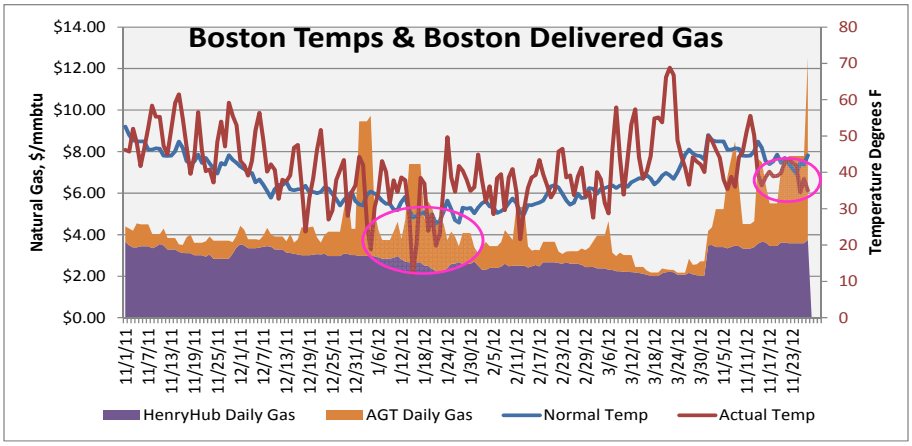


ENErgy Corner (continued page 3)

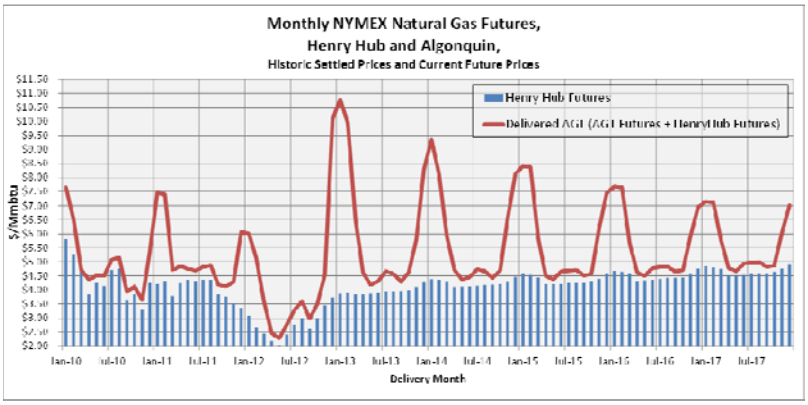
In New England, the price and volatility of electricity is directly a function of the price of delivered natural gas – not the Henry Hub NYMEX price, but the Algonquin City Gate (AGT), which is physically located near Boston. Historically, prices for winter Algonquin gas have been over 55% higher than the Henry Hub price, with January Algonquin prices usually double those of January Henry Hub prices. The chart on the right shows the average monthly prices and the relative difference between Henry Hub and Algonquin.



In the natural gas market, the "winter" refers to November through March. An increase in power prices starting in November should be somewhat expected, but based on historic price behavior it is not common for the increase to be as large as we are currently seeing, especially without any significant cold weather. The chart below shows the Boston temperature and AGT gas prices for last winter and the first part of Nov-12. As you can see, last winter AGT prices broke above $6.00 only when the temperature dropped well below freezing; this month, the temperature barely broke 40 and AGT prices jumped to $12.00. Unfortunately, this could be a sign that this winter will continue to be volatile and spot power prices will likely be higher than expected.



Going forward, the price picture reflects the substantial potential risk that remains in the winter months. Burgeoning shale gas production and the downward pressure that has on Henry Hub gas prices gets a lot of attention. The cost of locking gas delivered to New England tells a different story. The cost to get gas from Louisiana to New England more than doubles between December and February. Thus, buyers who want to reduce price risk ahead of time must be willing to pay for the transport costs, too. These delivered to New England, or city gate, gas prices are the ones that drive the cost of forward power. Like NYMEX, they are subject to change and gauge what price buyers and sellers agree is appropriate for the risk associated with a given delivery period. A winter like 2011-2012, with anomalously mild temperatures, shows the potential for low prices. Fast forwarding 9 months, November 2012 has shown the potential for higher prices despite seasonally average to mild temperatures. A customized risk management plan should include an understanding of these factors, and a decision process for defining what degree of many risks – including this discussion about price risk, are tolerable. From there, specific hedging strategies can be considered to meet the risk management goals.



Letting it Snow (Economically) in Stowe, Vermont



Energy New England (ENE) has enjoyed a relationship with the Town of Stowe Electric Department (SED) since 2008. Each year, ENE and SED work together to structure a cost-effective seasonal market purchase and conduct a cost of service study and design an appropriate rate structure for snowmaking load at the Mount Mansfield ski resort. This substantial and intermittent load to the electric department needed to be managed closely due to local transmission constraints for a number of years. The snowmaking demand by itself can swing the electric department's annual sales by well over 10%. A recent local transmission upgrade has allowed the mountain to increase its snowmaking considerably, depending upon weather conditions. This has only made the right contract and rate structure more important to enabling Stowe to provide relative rate certainty to this major account and cost certainty to the utility, without encumbering its remaining customers.

ENE looked at several contract structures to meet this challenge, since the snowmaking requirements generally materialize opposite to the typical drivers of winter demand. A dry winter with low snow fall and/or mild temperatures drives greater snowmaking demand. While longer term and seasonal weather forecasts are available, projecting the timing and amount of potential snow fall is well-nigh impossible. ENE worked with Stowe to evaluate several alternatives, and selected a contract that meets the variable hourly snowmaking requirements exactly. This provides coverage to both the mountain and Stowe Electric whether we have a severe or very mild winter, and stretches out for more than half the year, given the potential for an extended ski season in the area.

Ellen Burt, General Manager of SED, notes "This contract has provided greater price certainty for the Mountain and comfort for SED that the costs of providing service would be adequately and fairly recovered. The Mountain can build the cost of snowmaking into their budget, which helps in their planning. The annual procurement process has led to near-term, market-based pricing that reflects the appropriate cost to provide the service with no impact to the remainder of Stowe's customers." The annual true up to actual, realized costs has been greatly reduced, providing more predictable cash flows to both entities. This exercise compresses several ENE services into a dynamic annual process that includes approval by the state Department of Public Service– analyzing intermittent load requirements, competitive energy procurement, cost of service analysis, rate design, all with open communication to ensure all parties' expectations are met.

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