



# Watt's Up?

The ComEd Residential Real-Time Pricing Program Monthly Newsletter



## Factors Affecting Electricity Pricing (Part 2: Market Conditions)

Several factors affect the price of your electricity. The most basic relates to simple supply and demand (i.e., less supply + more demand = higher prices). There are also variables that affect that equation, too. To gain a better understanding of price changes and volatility, you must consider the mechanisms in place to maintain pricing equilibrium.

### A little background

In 1997 the Federal Energy Regulatory Commission (FERC) initiated independently administered markets, known as ISOs (independent system operators) or RTOs (regional transmission operators). ISOs / RTOs serve as neutral and independent third-party operators of the transmission system, facilitating markets in which utilities (like ComEd) can purchase electricity for customers. Currently, there are seven ISOs / RTOs in the U.S. ComEd is part of the PJM market that covers a region from the Mid-Atlantic states, through West Virginia, to parts of the Midwest.

Savings have been realized from improved efficiencies over the long term. However, the flip side to the broad market approach is that heat waves in one part of the ISO or RTO region can result in higher demand days throughout the entire ISO or RTO market. Weather is a major cause of sudden short-term price increases.<sup>1</sup> This is generally due to increased air conditioner use on hot summer afternoons.

RRTP participants like you would immediately notice the real-time increase in hourly prices due to the increased demand.

In fact, weather is just one of the many external factors that influence the price of power. ComEd no longer owns generating plants - they buy electricity and pass it through to you (and me) without markup. Electric generators schedule time for routine maintenance and repair. During these times, the generators produce less electricity than normal. Because of this reduced electric production, generators have to schedule these "planned outages" with PJM in advance to ensure that there is sufficient electricity generated to meet projected customer demands. For instance, generators can't "plan" an outage during summer months when we're all running our air conditioners. And PJM staggers these "planned outages" by fuel source, generating capacity, location, etc. Accordingly, most "planned outages" occur in non-summer months, like October through April.

"Unplanned outages," caused by factors such as operational or mechanical problems, can occur as well and, depending upon when they occur, can affect electricity prices. As a result of unplanned outages, many customers can face higher prices in real time. The reason prices would increase is that the more expensive generators must be used to serve load rather than the less expensive generators that are experiencing the outage. These unexpected events can happen after the day-ahead prices have been forecast (in other words, in real time) resulting in less predictability and difficulty in alerting customers to these high-price events.

Also affecting pricing is energy transmission congestion. This sporadically occurs as regional generators move their electricity to utility distribution companies (or even as utilities sell surplus to other utilities). Congestion results when there is not enough transmission to allow distant, less expensive generation to serve load and thus local, more expensive generation must be used to serve that load. Like automobile traffic at rush hour, the delays cost time and ultimately dollars and cents.

Finally, 90 percent of U.S. electricity is generated from three non-renewable fuels: coal, nuclear, and natural gas.<sup>2</sup> The cost of the raw materials is subject to market conditions. For instance, as the costs of fossil fuels, like natural gas, increase, you might expect a corresponding increase in electricity prices. As an RRTP customer, you will be immediately aware of the price change, whether it's an increase or decrease. Price changes will be experienced over a longer period with the fixed-price rate.

Though pricing variability is inevitable, the obvious conclusion is that RRTP participants are closer to those changes than those who are participating on a fixed-price rate. By equipping you with this information, we hope that the knowledge empowers you to respond to real-time prices more quickly and effectively, utilizing the program to your best advantage.

Information is power, and the power is yours.

Thank you for your continuing participation in the RRTP program.

Sincerely,

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### Sources:

- <http://www.appanet.org/aboutpublic/index.cfm?ItemNumber=17756>
- Energy Information Administration, Form EIA-826, "Monthly Electric Sales and Revenue with State Distributions Report."

*Next month: A summary of this summer's Summer Readiness Workshops*



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## Did you know...

- According to the Energy Information Administration (E.I.A.), coal fueled almost half the electricity generation in America in 2007.<sup>2</sup>
- Also from the E.I.A.:
  - The state with the highest average price for electricity in 2007 was Hawaii at 24.13 cents per kWh because the primary fuel used to produce electricity was oil.
  - The state with the lowest average price at 6.35 cents per kWh was Idaho because of its use of hydroelectric power.
  - The average price for electricity throughout the U.S. in 2007 was 10.64 cents per kWh.

