



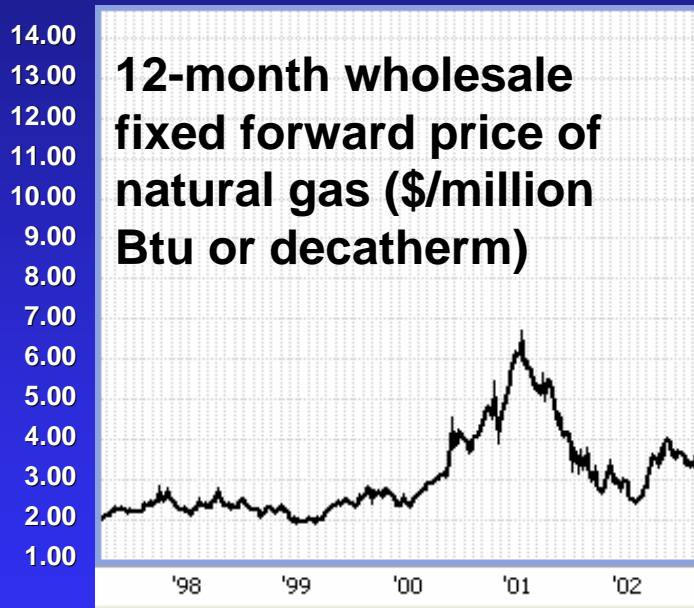
***Power & Gas Pricing:
Are We Seeing...
A 'Perfect Calm' ?***

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The Bottom Line

Trends in the economy and energy markets have combined to yield the lowest wholesale prices for natural gas & power in almost 7 yrs.



That condition may soon reverse itself. Those wishing to take advantage of it need to act before it's gone – for perhaps another 7 yrs.

Six Key Points

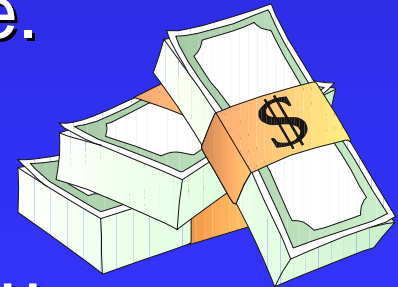
- a) Wholesale market pricing & its drivers account for much of your energy bill and its volatility.
- b) Your load profile may also impact your cost.
- c) Energy may be bought in various ways, through tariffs and from non-utility suppliers.
- d) Opportunities now exist to capture forward price savings for power and natural gas.
- e) We will focus on electricity pricing options, but similar choices exist for natural gas.
- f) You can take steps now to control your future energy pricing, but you need to act soon.

Market Pricing Impacts Retail

Retail energy pricing (whether based on tariffs or contracts) has essentially four components:

- the wholesale market price
- capacity charges (for electricity)
- energy delivery charges
- regulated adders and taxes

While the last three are relatively stable, wholesale pricing can be quite volatile. It's affected by short-term factors like weather, supply outages/congestion, and international conflicts. Also note...



Natural Gas Is A Commodity

Price maneuvering by hedge funds and others can magnify supply and demand trends. But that activity is based more on expectation than reality.



The spike in natural gas pricing up to July 2008 has been linked to such market turmoil.

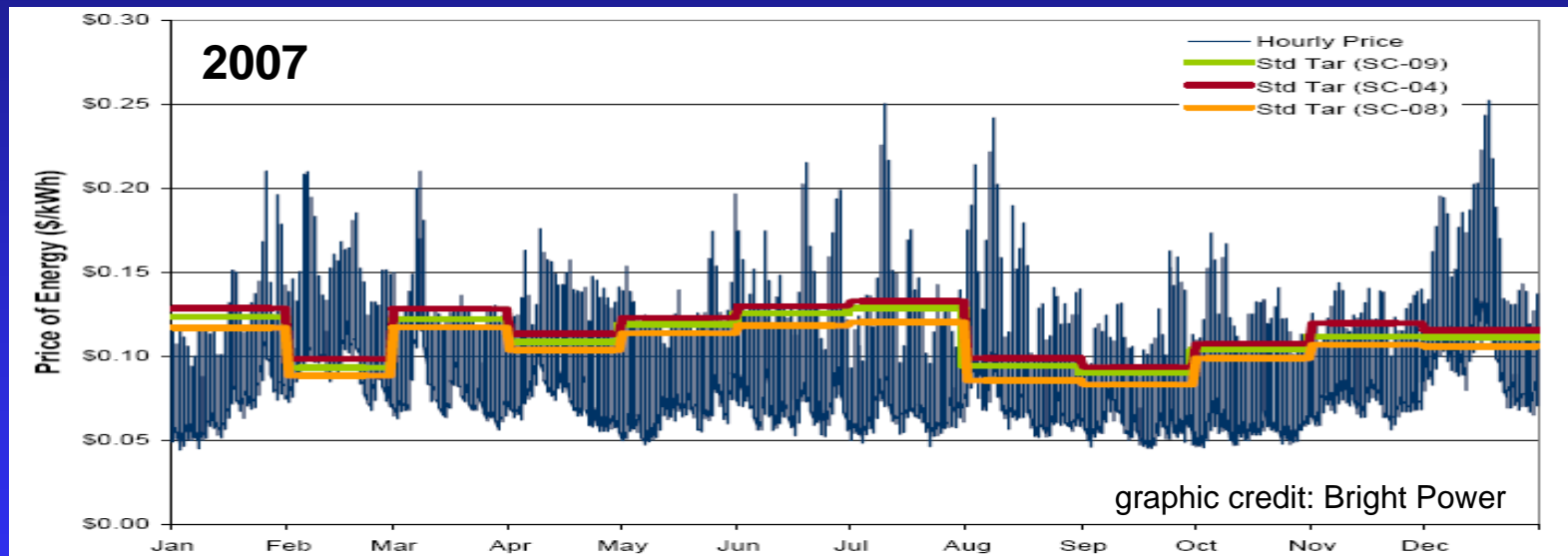
The downside of that spike was also magnified by a sudden “shorting” of commodity investments.

Expectations of economic recovery may cause a rise in pricing long before a recovery is obvious.

Nat. gas pricing is the foundation of power pricing.

Market Vs. Tariff Pricing

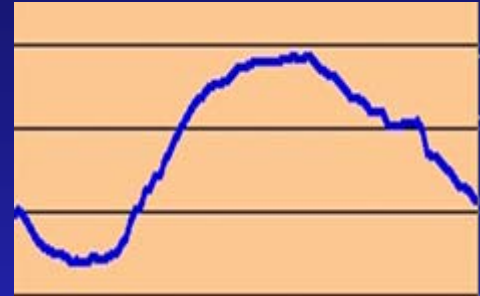
Power may be bought by the year, month, or hour. Monthly tariffs mute market price volatility, but include costs (e.g., hedging) that raise price.



Hourly pricing, on average, is often lower than tariff. Some have learned to tolerate sporadic price hikes and save money, relative to tariff.

Load Profile Impacts Price

If one knows his load profile (e.g., via an interval meter), he may better control his usage when prices are high, saving more \$\$.



Tariff pricing, however, is based on rate class load shapes, not on a given customer's hourly load profile. That makes tariff pricing less sensitive to when electricity is used.

As a result, hourly pricing may, more than tariff, reward (or punish) how energy is used.

Con Ed offers 2 electricity purchasing options...

MSC And MHP

Con Ed's monthly Market Supply Charge (MSC) is a set of weighted hourly prices based on rate class load profiles. Many customers aren't happy with the MSC and instead buy power from others.

Since '06, users \geq 1500 kW still buying from Con Ed have been under Rider M, a/k/a Mandatory Hourly Pricing (MHP). MHP will soon apply to smaller (\geq 500 kW) users buying from Con Ed.

As with the MSC, many dislike MHP: over 80% of users subject to it "fled" to others offering less volatile pricing.



ESCo Pricing 101

Since ~'90, energy services companies (ESCOs) have been selling retail nat. gas (and, since '98, electricity in NYC) via fixed and floating price contracts.



Many facilities now buy nat. gas under monthly or annual contracts. Many also buy power in various ways, including hourly, that best suit their needs.

Some find that a fixed price, based on their interval meter data, may serve them better than being charged simply by their rate class.

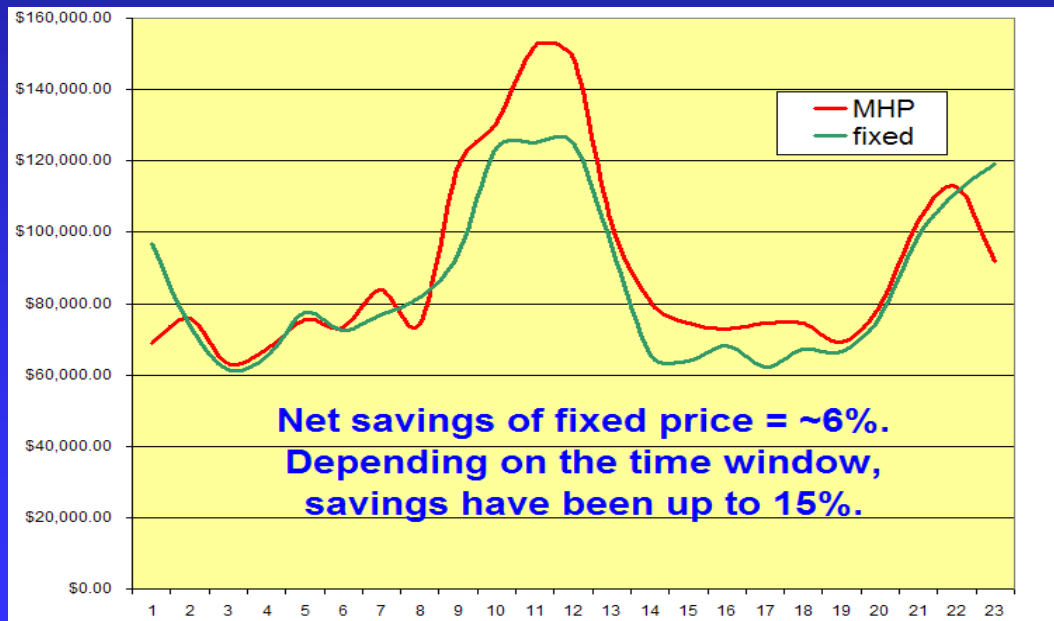
But care is needed to avoid a multi-year blunder.

An Opportunity With Risks

In the 1st half of '08, some who did 2 or 3-year deals suffered when all forms of pricing crashed, leaving them holding a rather expensive bag.

Others were too confused to take any action.

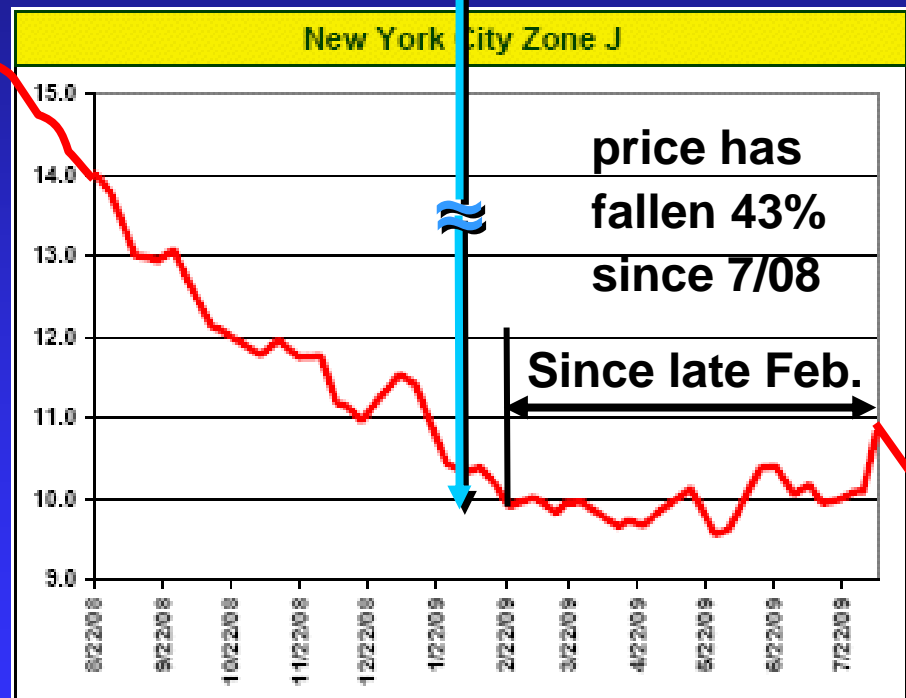
But when done properly (e.g., buy forward at the right time), risk may yield rewards. Saving 6% to 15% is not unusual.



Now May Be That Right Time

Since late winter, various conditions have combined to yield low fixed forward prices, low hourly pricing, and low volatility. It's been that way for ~6 months, offering a great opportunity to take hourly pricing or to lock in exceptional forward pricing.

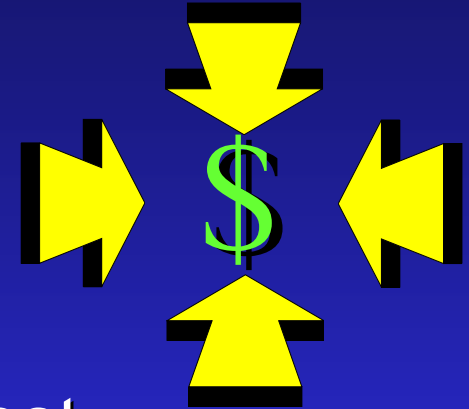
Was this due only to the economy?



12-month fixed forward price (¢/kWh) @
60% LF, no OH&P, delivery, tax, or tip

A Confluence of Forces

- gas usage down due to economy
- quiet El Niño (don't confuse with La Niña) caused essentially no damage to Gulf gas or oil wells
- same weather pattern lowered most US summer temps, cutting kWh, peak kW, and gas consumption at power plants
- that lowered hourly pricing and its volatility
- extra generating capacity (incl. wind) has been coming on line while grid load is flat or dropping; that also helps limit or cut pricing and volatility



But Wait – There's More

- gas storage is full, limiting winter price impact
- drilling costs for gas wells have been dropping
- gas recoverability % up (more gas boosts supply and limits future price spikes)
- shale gas being found in large volumes in U.S. (e.g., Marcellus shale gas in NY Southern Tier)

And now something we've never seen before:

- gas sellers are trying to push gas prices down to compete with coal so power suppliers will switch to gas-fired units, boosting gas sales

Interesting Side Effects

- overall drop (probably temporary) in CO₂ (per Btu, gas combustion yields ~½ CO₂ of coal)
- depressed pricing for carbon allowances (i.e., RGGI), RECs, carbon offsets (so buy them now?)
- the price spread between oil and gas widens
- while power prices are down, so are dollar savings for power from renewable sources
- financing of new power plants is being frozen or slowed until power prices rise again
- if/when the economy recovers, that may lead to tighter margins, causing pricing to spike

So What's A Customer To Do?

Don't panic, call the first ESCo you see, and sign a 3-year fixed price power contract (as some did in early '08).

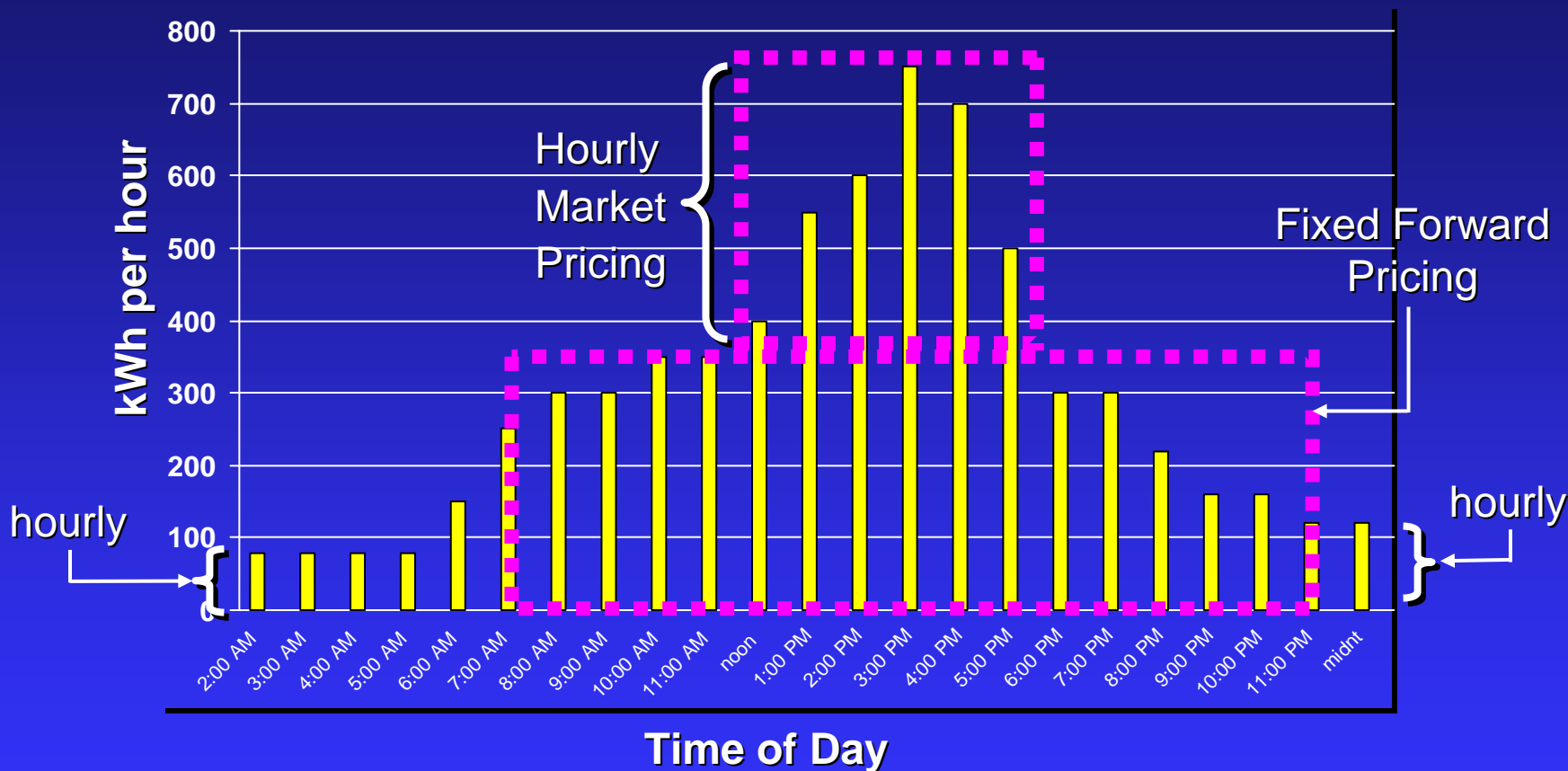
Organize your power & gas accounts and use an experienced consultant to analyze your costs and supply options.



If you have (or are expecting) an interval meter at your site, use its data to better grasp (and maybe control) the causes of your peak time usage.

If you're new to buying power, use a consultant with a good track record (and a competitive fee) to bid out your load. If you've already bought fixed...

Mixing Fixed & Hourly Pricing



A 'Block-And-Index' contract fixes the price for part of the load, and lets the rest float with the market.

What If I Do Nothing?

If you're taking MSC or MHP, such pricing will likely remain low for a while – until the economy improves and/or the market turns around.

At that point, pricing – including fixed forward pricing – may start to rise rapidly.

You may then be stuck with whatever pricing the market hands you. Locking in at that point will likely be at a higher price. Forward markets often anticipate (rather than follow) higher short-term market pricing, based on expectations.



Energywiz's Action Checklist

- ✓ If new to buying energy, consider locking in fixed price power/gas for 1 to 2 years.
- ✓ If you're ready to accept some price risk, use a block-and-index contract to take hourly pricing for part of your load, and lock in a fixed price for the rest of it.
- ✓ For buildings that still use fuel oil, convert to gas or dual fuel (choose the cheaper fuel while also cutting the gas delivery charge).
- ✓ Going 'green'? Buy & bank RECs/offsets.
- ✓ Don't wait until it's too late - act now.

**Thank you for your
time and attention.**

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