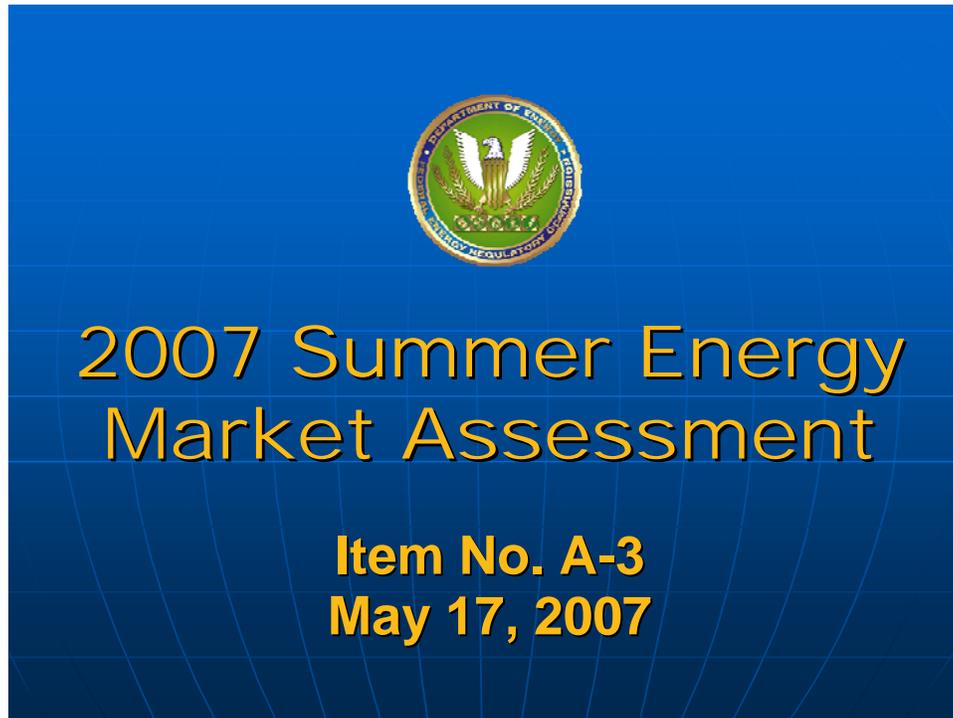


A-3 (Summer Market Assessment)



Good morning Mr. Chairman and Commissioners. Today I am pleased to present the Summer Energy Market Assessment for 2007.

Last summer was extraordinary; the nation's second warmest as recorded by the National Oceanic and Atmospheric Administration – second only to the Dust Bowl summer of 1936. NOAA reported that average temperatures in the United States from June through August 2006 were almost 2½ degrees Fahrenheit above the 20th century average. More than 50 local all-time high temperature records were set in late July and early August.

September brought relief with cooler-than normal temperatures, but only after the nation established new load records across the country in every Regional Transmission Organization, as well in many other areas.

Nevertheless, in 2006 most wholesale electricity prices declined due to lower natural gas prices during the summer and abundant Northwest hydroelectric generation. There were no real failures of the interstate power grid in 2006, though 3 million Americans lost power last year due to failures of local distribution systems, including outages in the Saint Louis area and in New York City.

The summer of 2006, consequently, is not a typical comparison point for our look forward to summer 2007. Though many significant variables remain the same, the outlook is different.

Summer 2007: Higher Electric Prices But Some New Flexibility

- **Summer 2007 prices likely to increase because of higher natural gas prices**
- **Regional ability to manage peak loads improved with targeted transmission investments**

First, wholesale prices for electricity are likely to be higher this summer in all regions of the United States, regardless of regional market structure. The main reason is higher expected prices for natural gas. Natural gas currently functions as the most significant price-setting fuel in U.S. electric generation.

Second, generation additions over the past year have not been as robust as in the past years, leaving many regions with tight supply and demand balances. However, some regional transmission and natural gas transportation investments appear to have increased the flexibility to meet load in areas including Southern California, New England and Florida.

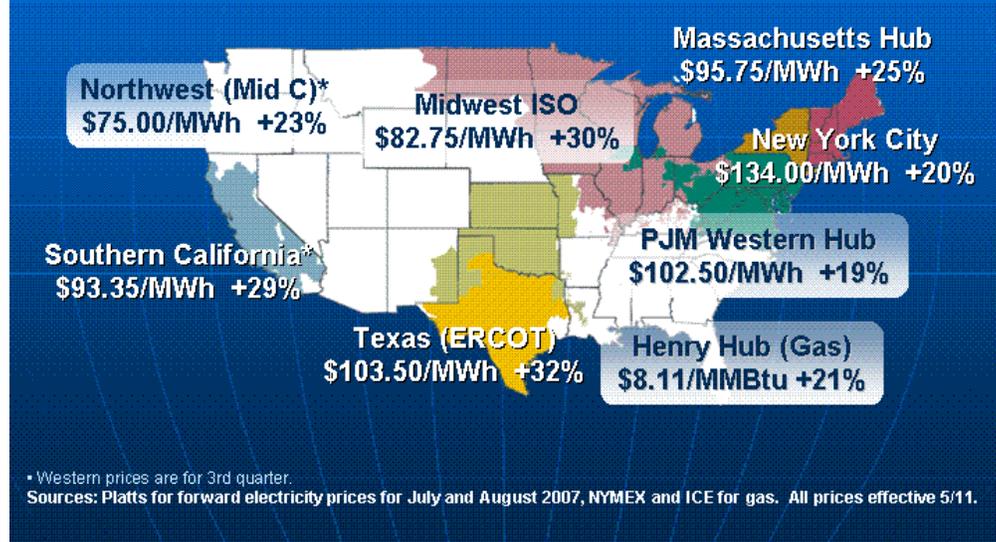
I'd like to explore these two core ideas in a little detail today.

Important Forces Acting on Summer 2007 Electricity Prices

- **Forward prices**
- **Natural gas and oil markets**
- **Coal and emissions markets**
- **Hydroelectricity and snow pack**
- **Demand forecasts**
- **Weather**
- **Demand response**

To explain why prices are likely to be higher for wholesale electricity in the United States this summer, I will review current levels of electric forward prices, the natural gas, oil, coal, and emissions markets, the current prospects for hydroelectric generation in the Northwest, forecast demand, expectations for weather, and estimates of available demand response.

Summer 2007 Forward Prices Now Higher Than 2006 Actual Prices



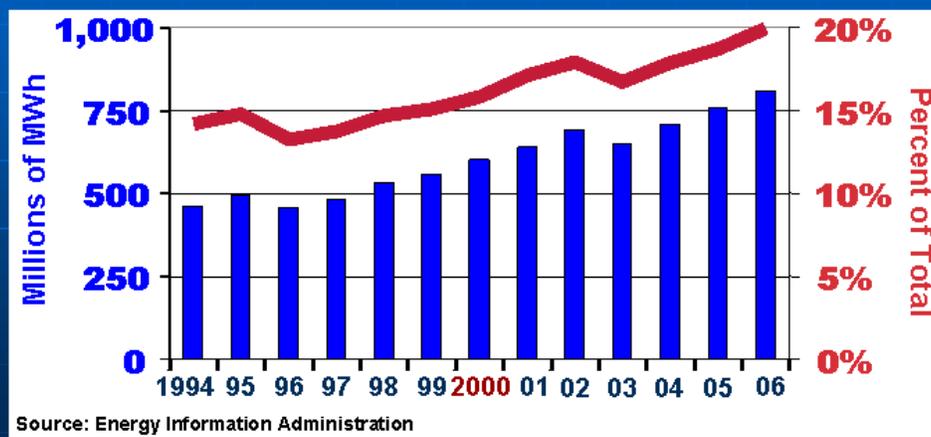
Forward electricity prices are a straightforward signal of anticipated price pressures this summer. The map illustrates recent key summer 2007 forward electricity and natural gas prices. In all, markets are signaling double-digit electricity price increases this summer over last, with natural gas as a clear driver.

Forward electric prices for summer 2007 are higher than those we actually saw in electricity spot markets last summer. Using recent assessments from Platts *Megawatt Daily*, we see a range of forward increases from almost 20 to more than 30 percent. I should note that these price assessments are not the result of transactions in particular venues, but are Platts' independent assessments of physical electric power trading based on actual transactions, bids and offers. They are a helpful signal of expectations.

Summer 2007 futures prices from NYMEX for natural gas at Henry Hub, Louisiana are up 21 percent over last summer's actual average prices traded on the IntercontinentalExchange. These NYMEX and ICE prices are not assessments, but prices actually produced on those two trading systems.

Let's examine the drivers of current natural gas prices for just a moment.

Natural Gas Grows as Generation Fuel in Size and Share

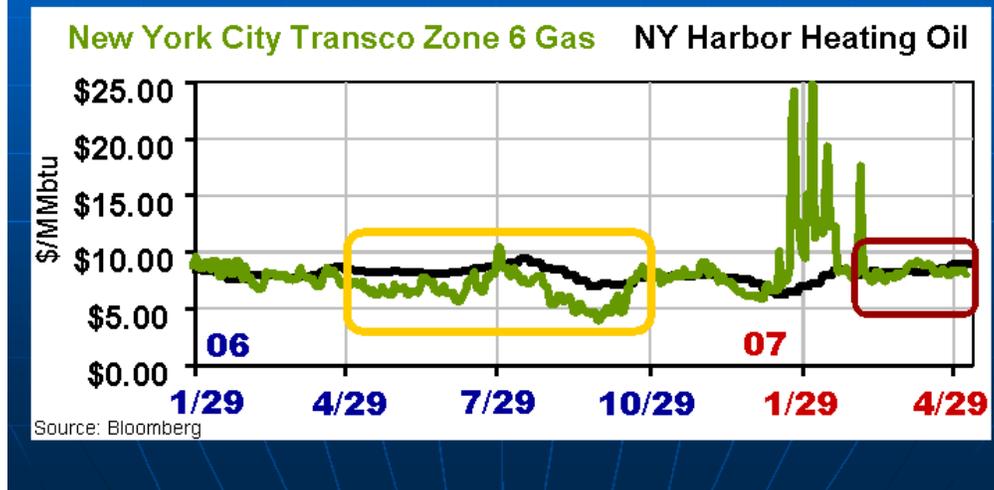


One reason to expect high summer natural gas prices is the increasing demand for use in electric generation. As we can see in this graph, based on EIA data, annual gas-fired generation grew substantially over the past decade – almost 75 percent from 1996 to 2006. At the same time, natural gas has grown as a share of electric generation as well. In 1996, only a little more than 13 percent of annual electric generation was from gas. Last year it reached almost 20 percent.

Natural gas drives electric prices even more strongly than these numbers suggest. In many regions, natural gas is the pivotal fuel, especially during the summer. As we generate more, we burn more natural gas. Consequently, electric prices tend to be set at the levels that reflect gas use and prices, even in regions where natural gas is a relatively small share of generation capacity. Summer is traditionally when natural gas is injected into storage to prepare for peak winter space-heating needs. Growth in gas-fired generation represents additional demand that must compete with storage injection requirements for natural gas supplies, tending to increase prices.

Storage inventories ended the exceptionally warm winter of 2005-2006 at near record levels, reducing summer demand for storage last summer and producing lower spot natural gas prices. While storage inventories remain high currently, they are lower than last year because of the cold weather the country experienced late in the heating season, especially in the East.

Natural Gas Prices to Vie With Oil For Generation in Summer 2007



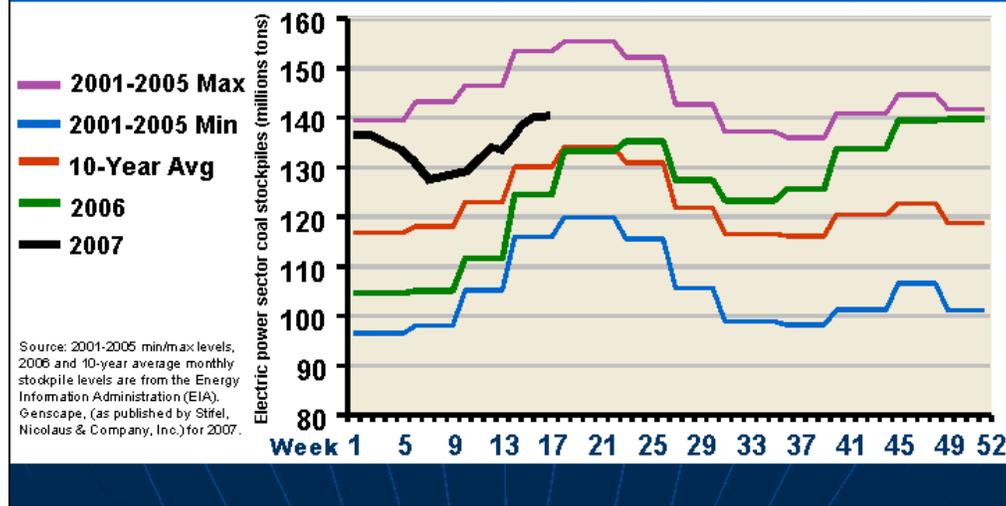
High oil prices are contributing to current natural gas prices as well. A certain amount of natural gas can substitute for oil products, especially residual fuel oil, when gas prices fall below the competing oil price. As a result, residual fuel oil prices have historically served as a sort of floor for natural gas prices.

Last year, they did not.

As we can see in this graph of wholesale energy prices into New York City, for most of the summer of 2006, natural gas prices remained below oil prices. I've highlighted this period in the yellow box. This is the longest period with lower gas prices for some time. As a result, demand for natural gas in the United States increased over typical levels due to switching on the order of half a billion to a billion cubic feet a day – observed mainly in New York and in Florida.

Currently, oil and gas prices are in closer balance – note the area in the brown box. We never see them diverge too far, and we simply don't know how they will compare this year. Nevertheless, strong current oil prices tend to keep natural gas prices, and electric prices, high as well.

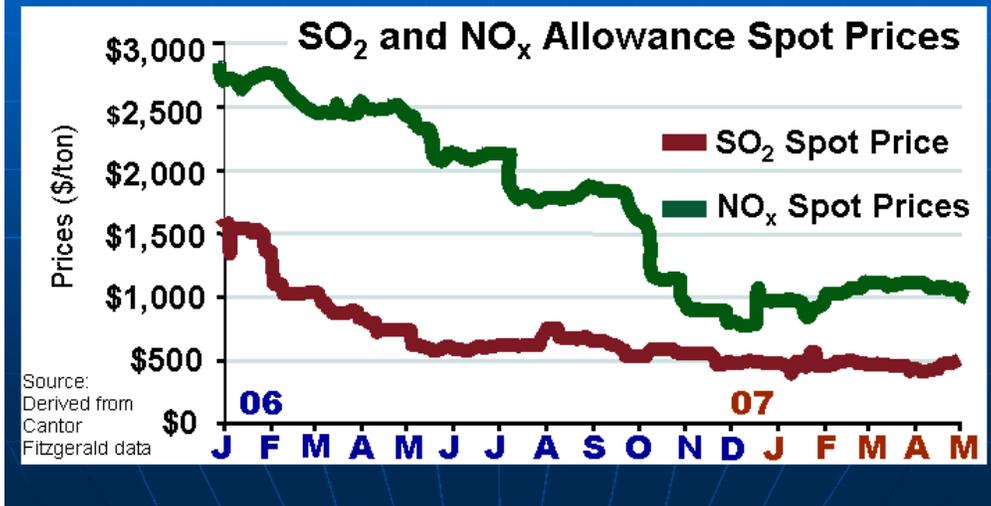
Coal Stocks Up From 2006, Though Long-term Concerns Remain



Some other important fuel prices are actually down. Eastern and Western coal prices have dropped by about 1/5th since last year at this time on much stronger inventories. As we can see on this graph of coal for electric generation, coal inventories strengthened last year. Concerns remain about the adequacy of coal deliveries and railroad investment.

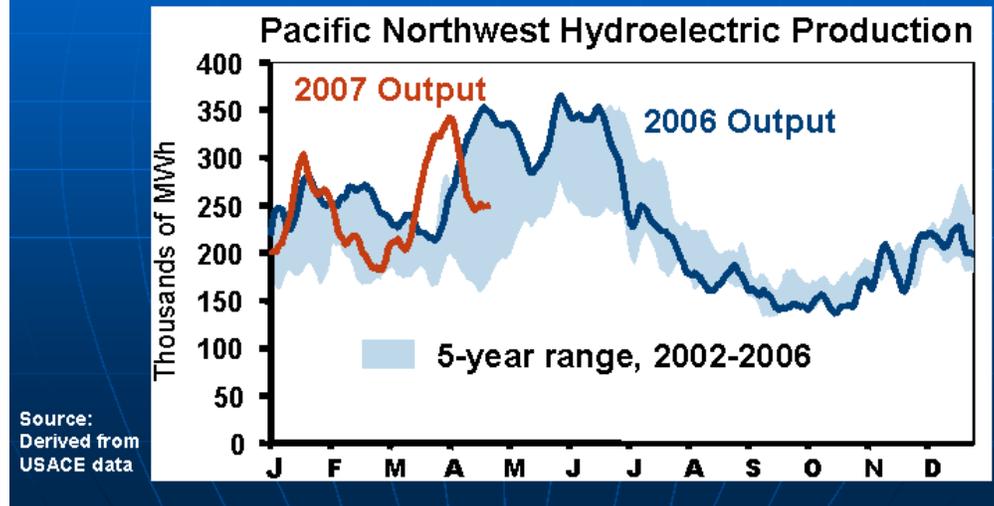
However, coal does not now predominate as a price-setting fuel in many U.S. markets. Increased investment in coal-fired generation could, conceivably, change this dynamic some day.

Emissions Prices Are Down Significantly From Early 2006



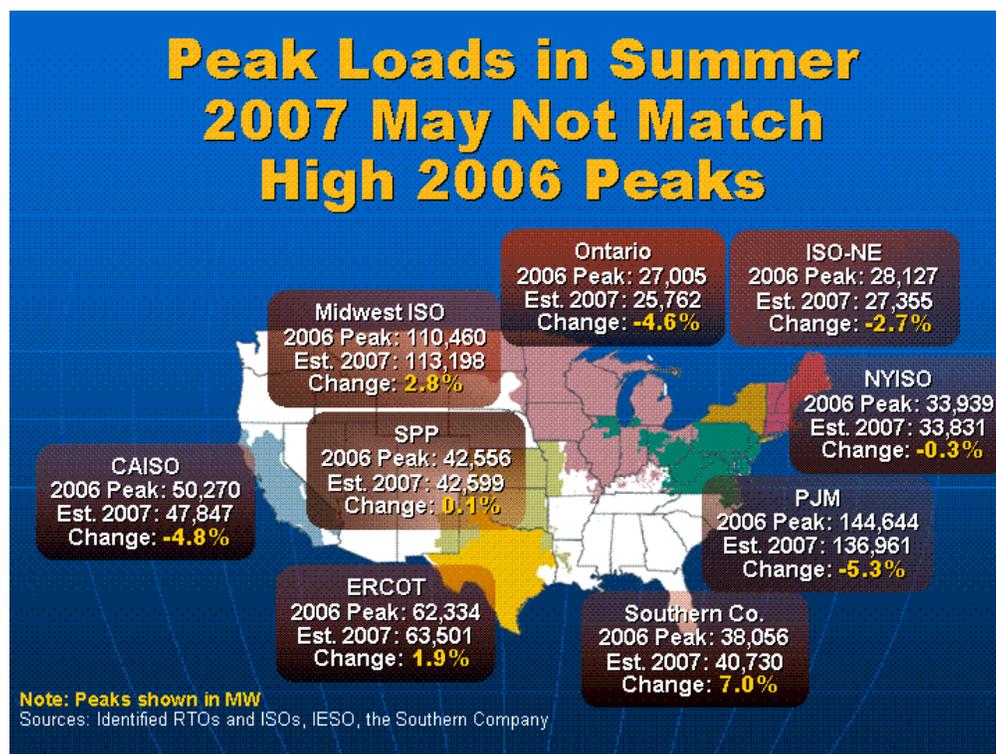
In a related set of markets, the prices of emissions credits fell dramatically in 2006 and remain fairly low. For both SO₂ and NO_x, 2006 ended with emissions below cap levels and, consequently, excess credits for these emissions. Lower hydroelectric supplies this year may increase demand for emissions credits, but for now, prices remain low.

Strong Early Hydro Production in 2007 Based on Early Melt



In the West, the effects of snow pack, river flows and reservoirs on hydroelectric generation are a perennially important driver of electric market performance. Last year, hydroelectric generation based on above-average U.S. precipitation helped manage summer peaks in the West both directly and by permitting extensive work on generation units that resulted in lower outage rates during the summer.

This year, the Pacific Northwest has received below-normal levels of precipitation, and precipitation in California has fallen substantially short of normal levels. In addition, warm weather has resulted in an early snow melt. The consequence of an early melt is more generation in the spring, but less water to refill rivers and generate later in the summer.



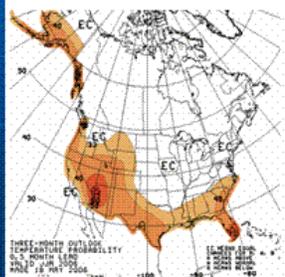
Electric markets last summer faced extraordinarily high peak demands, with records set in many regions in late July and August because of abnormally extensive heat and, in some cases, humidity. On average, however, load in the summer was also somewhat higher, and total generation for all of 2006 was largely unchanged.

Load forecasters use generalized assumptions about weather, growth and other factors. Predicting abnormal events that create record peaks is difficult.

In this map we can see that, assuming peak temperatures look more like average than last year's extremes, peak loads in 2007 will be lower than in 2006. These areas include California, Ontario, New England, the PJM area of the mid-Atlantic, and even New York. In other areas, peak load is expected to grow, including in the Southern Company in the Southeast, the upper Midwest, Texas and the lower Midwest covered by SPP.

Current NOAA Forecast is For 2007 Wide-spread Summer Heat

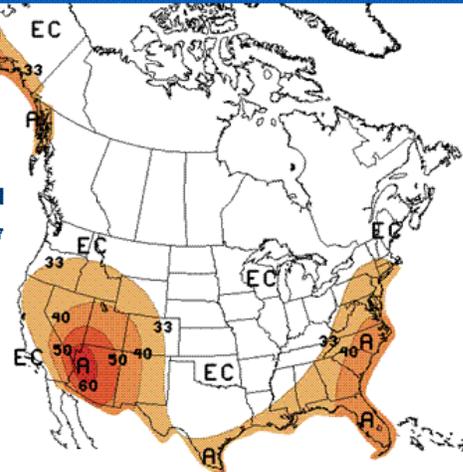
2006 Version



Source: NOAA

**3-Month
Outlook
Temperature
Probability
1.5 month lead**
**Valid JJA 2007
Made 04/19/07**

**EC = Equal
Chances for
A, N, B**
A = Above
N = Normal
B = Below



But, can we know more?

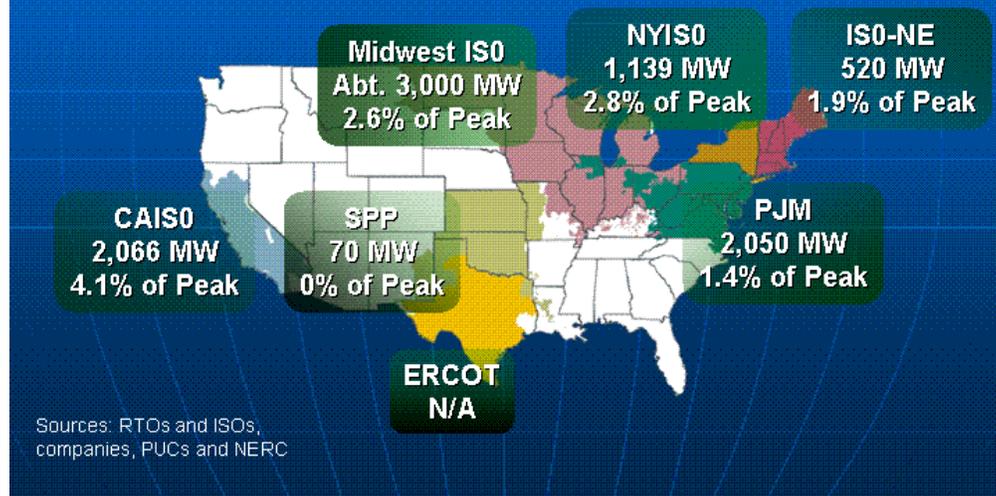
Maybe not, but let's see what the forecasters are telling us about the summer.

NOAA's most recent forecast weather map for June through August – issued in mid-April – is of widespread heat in the West and along the Gulf and East coasts. Above-average heat would likely result in higher peaks than those I reviewed in the last slide.

Interestingly, last year's mid-May forecast of summer 2006 heat looks a lot like the current forecast for summer 2007, so we've added last year's forecast as an inset to this year's map. Though it predicted above-normal temperatures, NOAA's predicted pattern for last summer did not really match the geographic distribution of last summer's extraordinary heat.

These are the dangers of forecasting, and that's why I'm happy to leave forecasting to the professionals at NOAA and EIA.

Demand Response Proved Critical in 2006, May in 2007 as Well



Before briefly considering regional issues, I'd like to spend a moment on demand response. Last summer, demand response was used extensively to manage peak loads on many systems in the United States. The volumetric effect on load was small – estimated from virtually nothing to a little more than four percent of load at the peak. Still, even small reductions of load at peaks can disproportionately reduce stress on an electric delivery system.

A little reduction can also reduce prices at the peak. Demand response programs in the United States tend not to be well coordinated with market activity, but their contribution to managing electric systems under peak conditions is significant even without that integration. The market monitor for the Midwest ISO, in particular, has recommended that demand response should not be allowed to affect prices when it is invoked to manage reliability.

Looking for ways to have a stronger price basis for demand response could encourage its effectiveness. For example, the demand response program administered by Georgia Power that signals participants with real-time-prices has reduced load in Georgia by more than 5 percent of load during extraordinarily hot weather earlier in the decade.

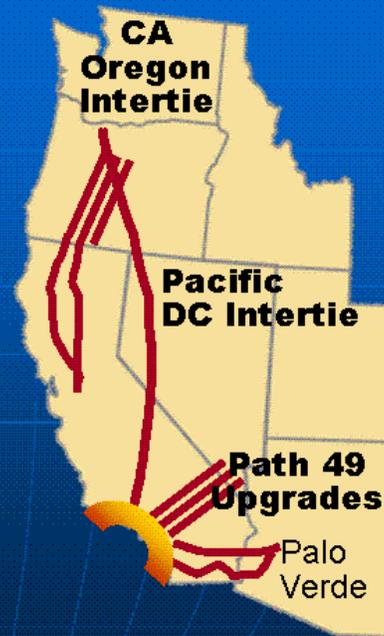
Regional Markets and Supply Issues For Summer 2007

- **West**
- **Northeast**
- **Southeast**
- **Midwest and Texas**

Next we'll review the balance of supply and demand and other market issues in four general regions, the Western United States including the California ISO, the Northwest and Southwest, the Northeast United States including ISO New England, the New York ISO and PJM, the Southeast United States and the Midwest and Texas, considering the Midwest ISO, SPP and ERCOT.

Summer 2007 Electricity in the West

- **Southern California remains very tight**
- **NW hydro much reduced from 2006**
- **Likely to burn more gas at higher cost**
- **Transmission upgrades from Palo Verde offer a little more flexibility**



Overall, Southern California still has the most constrained balance between electric consumption and supply in the United States. Generation additions are not really keeping up with expected peak load growth.

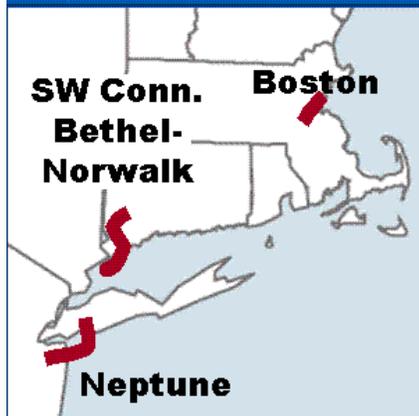
With tighter hydroelectric supplies, Southern California will be increasingly dependent on natural gas. Hydroelectric generation should still be available for peaks.

Transmission improvements are likely to help Southern California. This year, design transmission capacity has been upgraded by 500 MW from Palo Verde by changing capacitors and transformers and installing other new equipment.

Prices are likely to remain a concern. Last year we monitored transactions above the \$400 per megawatt hour Western soft cap due to scarcity at peak. Given the likelihood of higher-priced natural gas in the West this year, extreme weather could easily raise prices to the peak level again in summer 2007. In fact, California ISO imbalance market prices briefly reached their \$400 limit last week on hot weather.

I should note that California ISO imbalance market prices, in 2006, generally did not rise with other spot prices during the periods of peak loads. The failure to clear against related markets is due to the particular structure of ISO imbalance prices and the much more significant role of term contracts in California.

Summer 2007 Electricity in the Northeast



- **Transmission up-grades into Boston and SW Connecticut add some needed flexibility**
- **Neptune transmission brings eastern PJM supply to Long Island/New England**
- **Gas prices likely to push prices up**

Last year we expressed some concern about the Northeast, particularly New England and New York. As it turned out extraordinarily good generator availability helped meet New England's extreme peaks last summer. It's hard to assume such a high level of availability in the future.

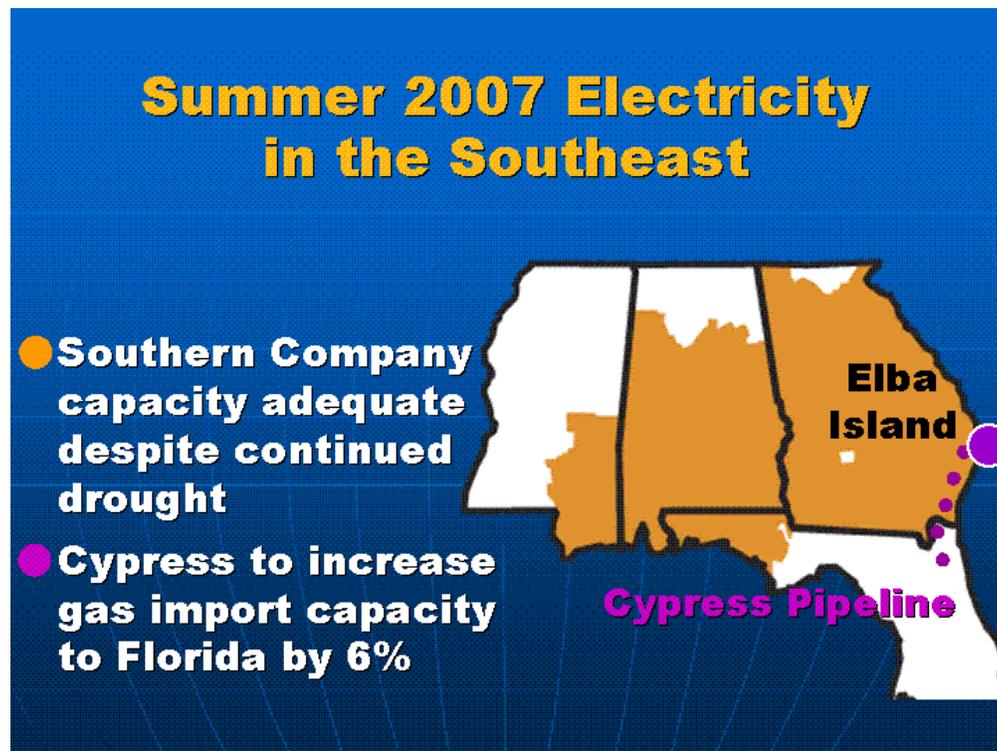
This summer, New England remains very tight, heavily dependent on imports to meet peaks. Still, within the tightest locations in New England, recent transmission additions will help. A 345kV loop added into Southwest Connecticut should allow additional transmission to meet needs. Additional transmission lines into Boston increase capacity by 1,000 MW.

Similarly, by July 1 the new Neptune line will increase capacity from eastern PJM into New York's tightest zone – Long Island – by 660 MW. The result in Long Island should be lower prices and another possible source of supply at peaks.

Eastern PJM continues to see congestion, though resources appear adequate for 2006. Concern about congestion, including the prospect of serious reliability violations in the future, led, for example, PJM's transmission expansion advisory committee recently to recommend two major transmission projects that would go into service by June 2012

Market monitors for these RTOs have long identified a lack of correspondence between market signals and electricity movements among the regions. We don't expect that to change. For example, while additional electricity delivered to Long Island through Neptune theoretically might be available to Connecticut through reverse flow of the

Cross-Sound Cable, such a transmission would require actions outside past practice to allow or encourage market participants to respond to market signals.

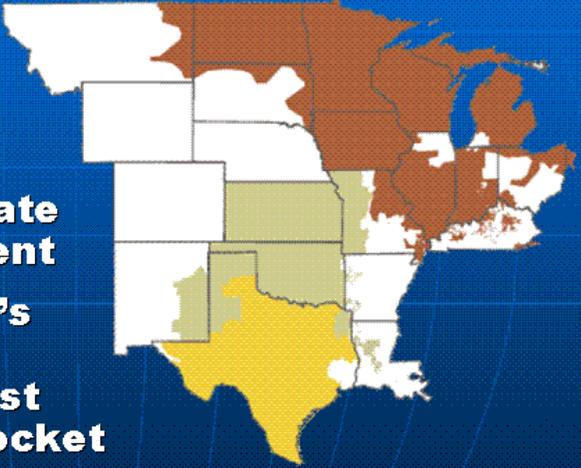


In the Southeast, generation still appears adequate, despite a drought that will reduce the availability of hydroelectric generation through the summer. For example, the Southern Company's hydropower resources have been reduced by 70 percent. Hydro makes up less than 10 percent of the Southern Company's generating capacity.

For Florida, which depends on natural gas for almost half of its generation needs, the newly operating Cypress Pipeline has already added about 220 million cubic feet per day of natural gas capacity from the Elba Island liquefied natural gas facility. The second phase of Cypress is planned to another 116 million cubic feet per day of capacity before the summer of 2008. By 2010, the Cypress Pipeline is expected to have the capacity to transport up to 500 million cubic feet of natural gas to Florida every day. Cypress adds some diversity to Florida natural gas supplies that have historically come from the Gulf of Mexico.

The additional supply may matter. During the summer of 2006, Florida's wholesale price of gas was highest in the United States.

Summer 2007 in the Midwest and Texas

- 
- **MISO capacity should be adequate after reassessment**
 - **New SPP market's first summer to manage northwest Arkansas load pocket**
 - **ERCOT faces tightening reserves**

After a careful reevaluation of its generating resources, the Midwest ISO has reduced its estimated installed capacity by about 11 gigawatts to a current total about 128 gigawatts. Generation additions in are about the same as expected load growth and the ISO's capacity reserve margin this summer is expected to be about 15 percent, which should be sufficient. Michigan utilities recently reported that they will be dependent on imports to meet peaks, but have contracted for them already.

In general, SPP supply appears adequate for the summer. Recent and rapid load growth in Northwest Arkansas has been met with 320 MW of new generation and transmission investment and upgrades.

This will be SPP's first summer with an energy imbalance market. On May 1, the start-up offer cap for that market rose to \$1,000 per megawatt hour. We've seen interval prices recently as high as \$700 per megawatt hour due to local line outages.

Though tightening, ERCOT's capacity appears adequate. On March 1, ERCOT's energy-only market price cap rose to \$1,500 per megawatt hour, making its cap the highest in the United States.

Summer 2007: Higher Electric Prices But Some New Flexibility

- **Summer 2007 prices likely to increase because of higher natural gas prices**
- **Regional ability to manage peak loads improved with targeted transmission investments**

To summarize, wholesale prices for electricity are likely to be higher across the United States this summer, due largely to higher expected natural gas prices. National generation additions have not been adequate to keep up with load growth. Still, in many areas electric transmission and natural gas transportation investments appear to have added a little flexibility to meet load in regions that have faced some stress in the past including Southern California, New England and Florida.

Thank you, and I'm happy to take any questions.