



FEDERAL ENERGY REGULATORY COMMISSION

# Summer 2010 Energy Market and Reliability Assessment

Item No: A-3

May 20, 2010

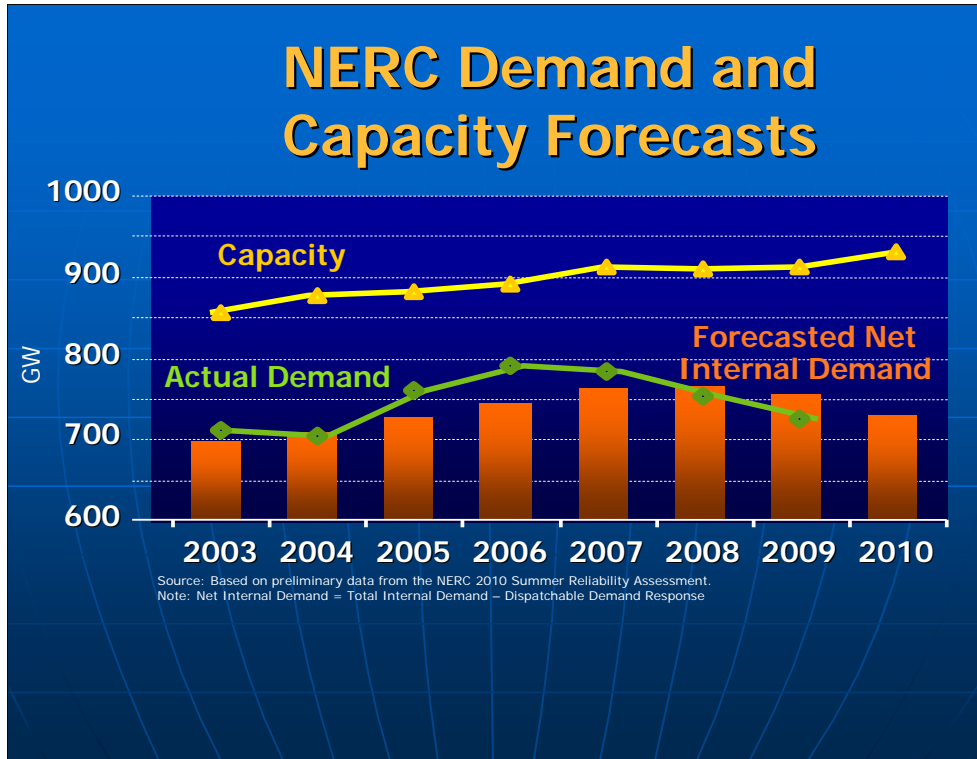
Mr. Chairman, Commissioners, good morning. Today we are pleased to present the joint Summer 2010 Energy Market and Reliability Assessment.

# Key Takeaways

- Forecasted 2010 demand comparable to summer 2009 demand
- Wind capacity up, but on-peak generation expectations down
- Changes in gas markets affecting electric markets
- Lower hydro expected in Northwest

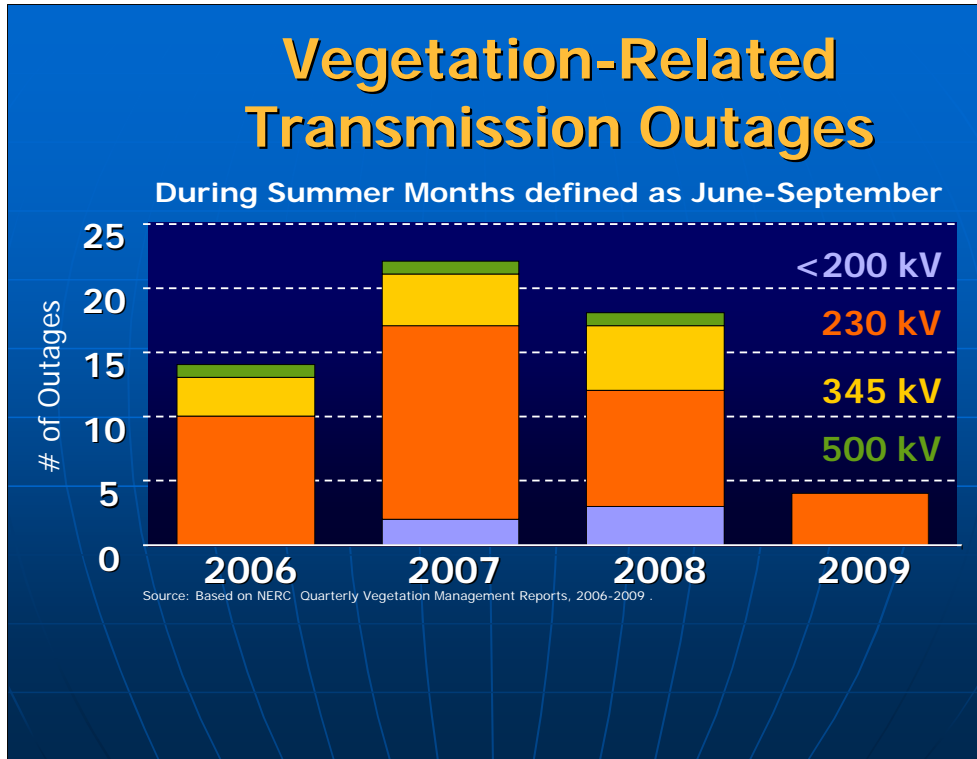
There are four key takeaways from today's presentation.

- First, NERC's demand projections for this summer are comparable to last summer's actual demand.
- Second, summer wind capacity is up about 6.94 GW since last summer bringing total nameplate capacity to about 34 GW. The three regions experiencing the highest wind growth were RFC, the United States portion of MRO, and SPP. NERC's average on-peak wind capacity forecast is about 12 percent of the total nameplate capacity.
- Third, changes in natural gas market dynamics are affecting forward power prices.
- Fourth, very low snowpack in the Northwest is influencing not only power prices but gas prices as well.

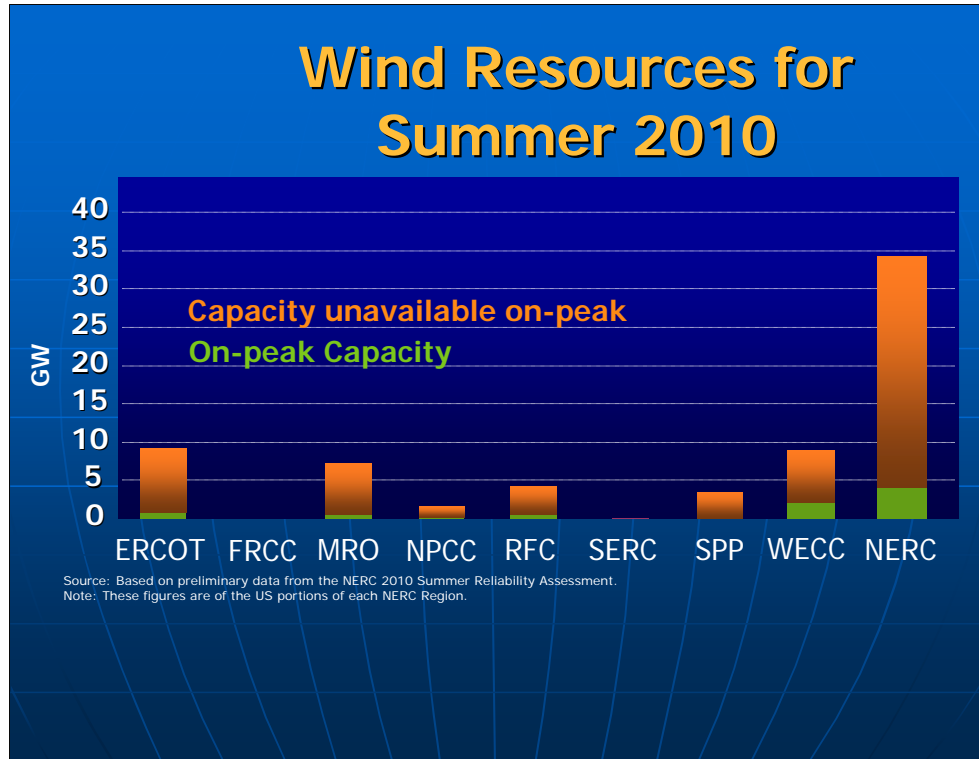


Reflective of the economic downturn and mild weather in many parts of the country, NERC's assessment reported that the 2009 actual load was 3.8 percent less than the 2009 forecasted load. While NERC forecasts that the temperatures this year will be closer to average, the continuing effects of the economic downturn keep the 2010 forecasted load comparable to the 2009 actual load.

As Steve will discuss later, the Northwest is expecting lower-than-normal hydro capacity this summer. However, since total capacity still substantially exceeds the forecast demand, all regions have adequate reserves, and NERC expects that they will be able to provide reliable service throughout the 2010 summer months.



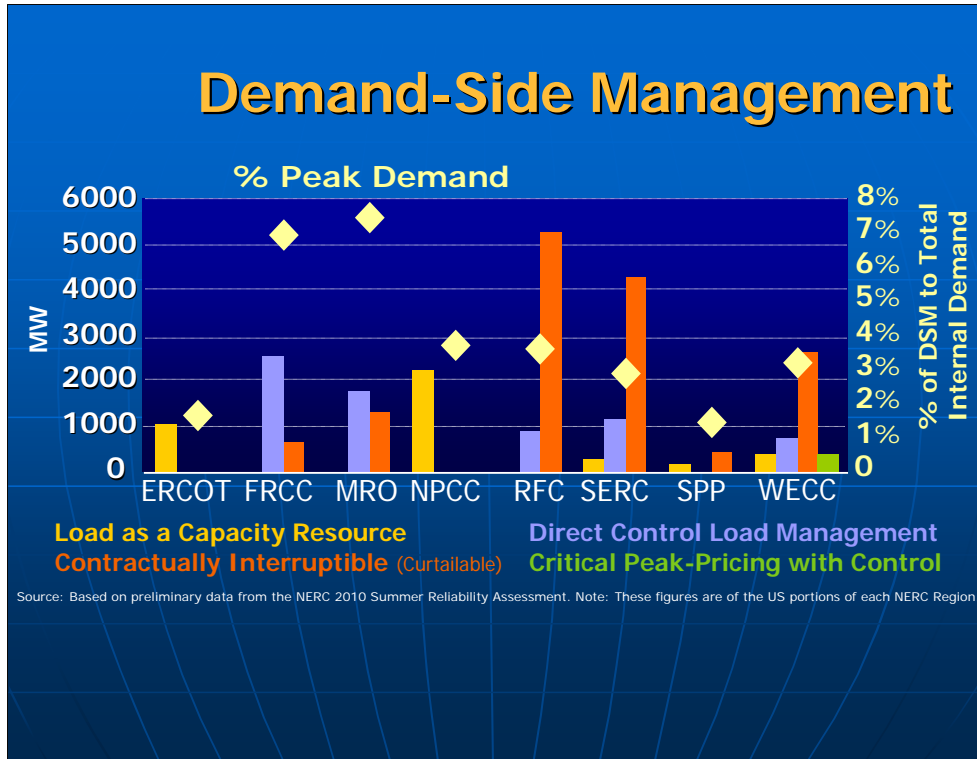
Last year we reported on vegetation-related transmission outages during the summer months which can negatively impact reliability. NERC's recent quarterly Vegetation Management reports show a decline in the number of vegetation-related transmission outages during the summer of 2009. Because all four reported outages were due to falling vegetation from outside the transmission line rights-of-way, they did not result in violations of the transmission vegetation management reliability standard FAC-003. This is the first summer since FAC-003 became effective in 2007 with no violations of the standard due to vegetation contact.



The NERC Summer Assessment reports that projected summer installed nameplate wind capacity will increase by about 6,900 MW, or 25 percent from 2009, for a total nameplate capacity across the nation of 33,897 MW. According to NERC, the three regions experiencing the highest wind growth were RFC, with 2,200 MW added since last year; the United States portion of MRO, with approximately 1,500 MW added; and SPP, with approximately 1,200 MW added.

The average on-peak wind capacity for the 2010 summer is forecast to be 12.1 percent of nameplate capacity, which is lower than the 15.2 percent on-peak capacity forecasted last year. This change is driven by revised methods for calculating expected on-peak wind capacity, particularly in MISO and SPP, that help forecasters better understand the amount of wind power available at system peak. The on-peak capacity forecast varies by region from a low of 1.5 percent in SPP to a high of 23.7 percent in WECC.

Several regions reported continuing efforts to improve wind forecasting, integration, and monitoring tools. NERC projects that the integration of wind resources will be manageable for the 2010 summer.



While NERC projects that demand-side management available to reduce peak load for the 2010 summer will decrease by about 9 percent to about 26,000 MW, this change is primarily because the forecast total does not include resources from markets for demand response that have closing dates in early June. We expect that this summer's on-peak demand response forecast will be comparable to last summer's once it is updated to include resources acquired in these markets.

## Summer 2010 Electricity Prices Mixed Compared to 2009

Summer is defined as July and August

Hub	Location	2009 Price	2010 Price	% Change
Massachusetts Hub	New England	\$48.77	\$49.78	2%
New York City	New York City	\$69.50	\$70.50	1%
PJM West	PJM	\$54.64	\$55.01	1%
Cinergy	Midwest	\$40.25	\$42.00	4%
Palo Verde	Southwest	\$41.44	\$48.43	17%
Mid C	Northwest	\$34.23	\$47.08	38%
SP-15	Southern Calif.	\$44.04	\$49.72	13%

Sources: Forward natural gas data is from ICE as of 4/30/2010 and is compared to the same forward packages for last Jul-Aug as of 4/30/2009.

I will now turn to the outlook for electric prices. We look at summer forward electric prices to get a sense of how traders currently view the market for summer 2010 power. Forward prices are not a predictor of actual day ahead prices, but by analyzing the trends in the forward prices, we can better understand market factors heading into summer.

Compared to summer forward power prices this time last year, 2010 prices are mixed; they are higher in the West and relatively steady in the East. Compared to May 1, 2009, July and August forward electricity prices were 38 percent higher in the Northwest on May 1, 2010 and 1 percent higher in PJM. We note that just two years ago forward power prices across the country were more than twice what they are today--all well over \$100 per Mwh and closer to \$200 per Mwh in New York City.

There are two main reasons the year-to-year price changes presented here are so different between regions. First, changes in natural gas market dynamics this summer compared to last summer are having a significant effect on power prices. Second, expectations of decreased hydro-electric generation are pushing Northwest prices upward. Both of these factors are discussed in detail in subsequent slides.

## Natural Gas Price Dynamics Changing due to Infrastructure

Summer is defined as July and August

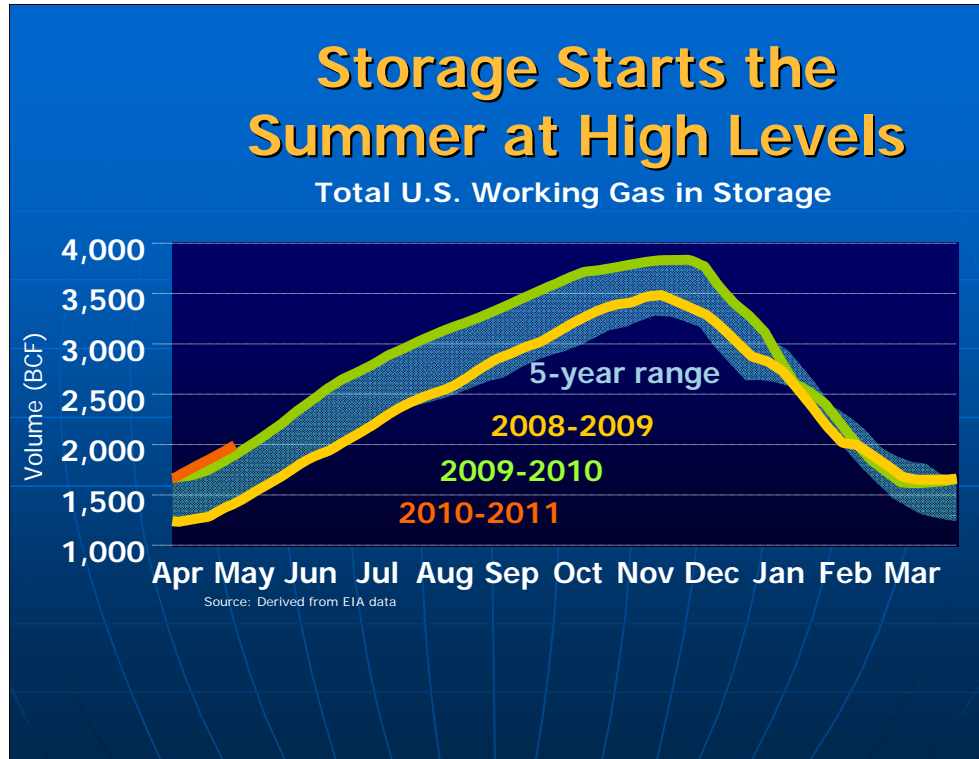
Hub	Location	09 Basis	10 Basis	Difference
Transco-Z6 NY	New York and New England	\$0.70	\$0.44	-\$0.26
TETCO-M3	PJM	\$0.54	\$0.38	-\$0.16
TCO	Appalachia	\$0.12	\$0.10	-\$0.02
Chicago	Midwest	-\$0.15	\$0.03	\$0.19
San Juan EP	Southwest	-\$0.62	-\$0.22	\$0.40
NWP-Sumas	Northwest	-\$0.67	-\$0.24	\$0.43
Socal	Southern Calif.	-\$0.33	\$0.06	\$0.38

Sources: Forward natural gas data is from ICE as of 4/30/2010 and is compared to the same forward packages for last Jul-Aug as of 4/30/2009.

Throughout the country, natural gas market dynamics are changing. Prices in the Northeast are down relative to Henry Hub while prices in the Midwest and West are up.

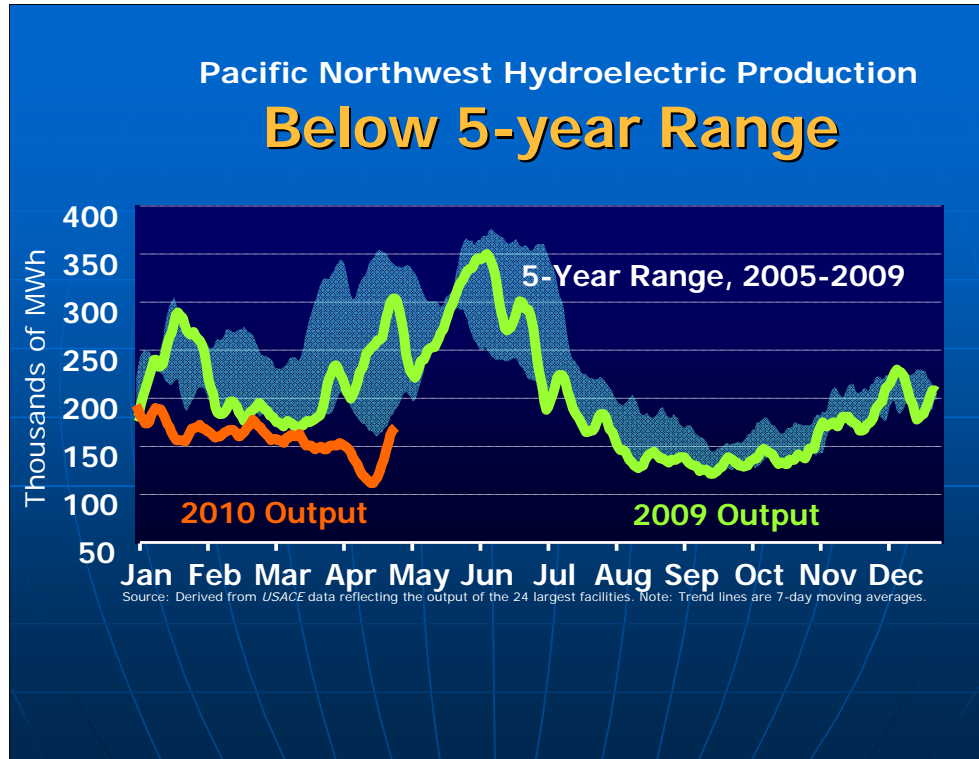
Last May coincided with the brief period in the Rockies Express Pipeline's lifespan when its primary delivery points were in the Midwest. When REX extended its eastern terminus eastward--first to western Ohio in July and, then, to eastern Ohio in November--the bulk of its deliveries moved eastward, too. This shift moved over 1.5 bcf/d from Midwestern markets to the pipeline's intended Northeastern customers. This change, with the addition of another 0.5 bcf/d of production from the Marcellus shale in Appalachia, has pushed Northeastern basis prices downward while Midwestern basis has risen. In the West, REX increased eastward competition for Rockies supplies, increasing Western gas prices relative to the Henry Hub.





Natural gas storage levels have never been this high going into the summer. Prices for the winter strip are about \$1 per MMBtu above current spot prices providing an incentive to buy gas now, put it into storage and sell it at winter prices. Domestic gas production has recently reached 60 Bcf per day, a level not attained since the early 1970s. These conditions, with increased storage capacity matched with relatively steady overall demand, have led analysts to forecast that inventory levels will reach 4,000 Bcf this year for the first time.

Gas demand has been strong in the power generation sector. In the State of the Markets Report last month, we observed how competitive prices for gas and coal during much of 2009 had increased the use of gas for generation, particularly in the Southeast. This winter, in the early months of 2010, gas prices rose relative to coal, and gas-fired generation lagged. Recently, gas prices have been falling toward coal again, and the competitive situation that arose last year appears to have returned.



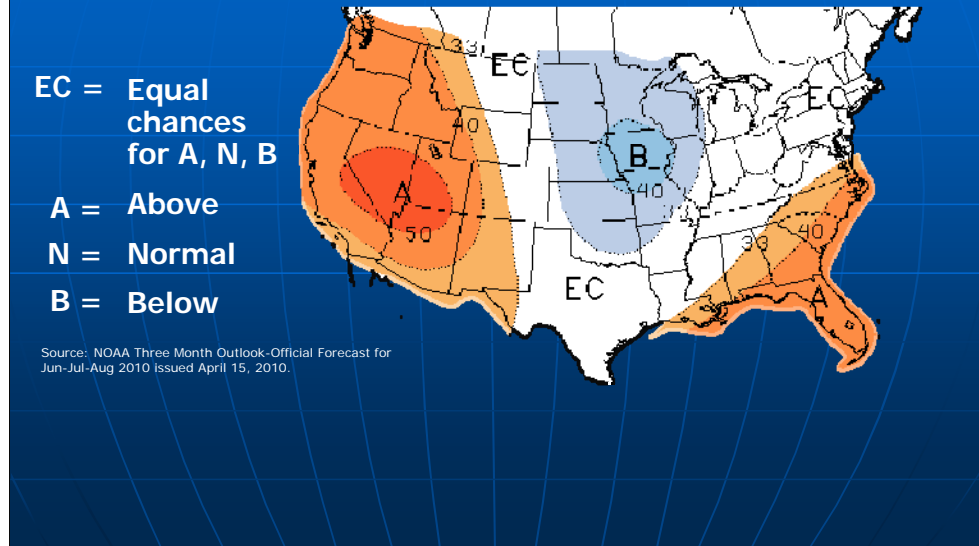
Gas market effects are not the only reason for higher expected power prices in the West. This winter's snowpack in the Pacific Northwest and British Columbia reached just 70% of the historical average. Forecasts for runoff this spring and summer call for the 47th driest of 50 years of recorded data and the lowest since 2001.

Diminished runoff will reduce the water available for hydro-electric generation and require the increased use of other resources, most likely gas-fired power plants. Gas-fired generation is more expensive than hydro. Increased gas demand for power generation in the Northwest will also put upward pressure on gas prices in the region.

These Northwest hydro conditions may test Western power markets, but new market structures, moderated demand due to the recession and the availability of new gas-fired capacity to meet the generation shortfall should reduce the risk of a general market dysfunction. It should also be noted that the Bonneville Power Administration has reported that decreased flexibility in hydro dispatch that may limit the agency's ability to use hydropower resources for ancillary services during windy periods.

California's hydro-electric conditions going into the summer are closer to normal as the state received above average snowfall this past winter. Nonetheless, imports from the Northwest are a key element of California's supply portfolio, and the reduced availability of hydro generation will likely be felt in the market.

## NOAA's Current Summer Outlook Projects Warmer West and Southeast



Always the largest wildcard going into the summer is weather. The National Oceanic and Atmospheric Administration sees a warm summer West of the Rockies and in the Southeast; colder than normal temperatures are forecast for the Midwest.

Major forecasters are predicting a more active hurricane season this year compared to last year, with estimates ranging from 15-17 named storms and seven to nine hurricanes. Last year there were few tropical weather events, with nine named storms and three hurricanes. In addition to the local effects of hurricanes' destruction of infrastructure and economic activity, they can affect the national market by closing wells and disrupting natural gas supply chains. However, the effects of hurricanes on natural gas markets have likely been dampened by the increased onshore production of shale gas from diverse reservoirs and a decline in dependence on gulf production.



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This concludes our presentation, we'd be happy to answer any questions.