

Good morning Mr. Chairman and Commissioners. We are pleased to present the *Summer 2013 Energy Market and Reliability Assessment*, a joint effort of the Office of Enforcement and the Office of Electric Reliability. The *Summer Assessment* is the staff's annual opportunity to share our assessment of the electric, natural gas, and other energy markets, as we head into the summer months.

This presentation does not necessarily reflect the views of the Commission or any Commissioner.

Market conditions going into the summer will reflect the rebound in natural gas prices and the anticipation of a warmer-than-normal summer for most of the country. The markets are expected to see greater coal burn in reaction to higher natural gas prices and utilize demand response programs to manage peak loads. As weather is an important, but unpredictable factor, there can be localized price spikes, particularly in the South Orange County and San Diego area, as constraints become acute.

## **Key Takeaways**

- Reserve margins remain adequate with one exception.
  - · Texas faces increased risk with extreme heat.
- South Orange County and San Diego face very tight capacity situations with San Onofre offline.
- Higher natural gas prices should predominantly favor dispatch of coal over natural gas.
- Forward natural gas prices rebound above \$4.00/MMBtu for this summer and drive increase in electric forwards.

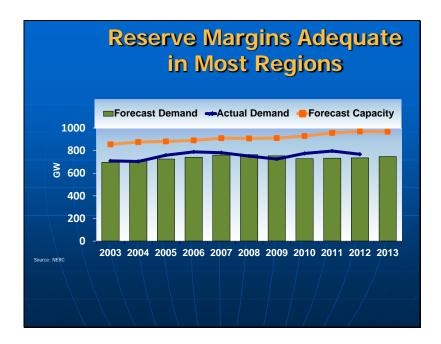
The key takeaways from today's presentation are as follows:

In general, reserve margins remain adequate with the exception of Texas. The availability of the San Onofre Nuclear plant remains a key market and reliability factor in South Orange County and San Diego.

Higher natural gas prices should favor dispatch of coal plants over natural gas plants in some regions, especially the Midwest, Rockies, and Mid-Continent.

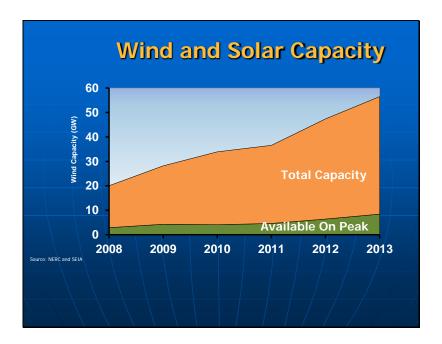
Higher natural gas forward prices are translating into higher electricity forward prices. While forwards are not a forecast of prices, they may portend upward price trends on power prices for this summer.

Dave will discuss the summer assessment from a reliability perspective.



Preliminary data from NERC's Summer Assessment indicates that reserve margins will exceed planning targets in most regions of the country this summer. However, in Texas, ERCOT is forecasting a reserve margin of 12.9 percent, which is below its reserve margin target of 13.75 percent. For California, WECC is forecasting a reserve margin of approximately 19 percent, four percentage points above the reserve margin target of 15 percent.

Overall, NERC forecasts that total U.S. load, when weather adjusted, will rise slightly less than one percent compared to last year. Some areas, such as ERCOT, are projecting load growth over the next year, while other areas are projecting that loads will remain flat or decline.



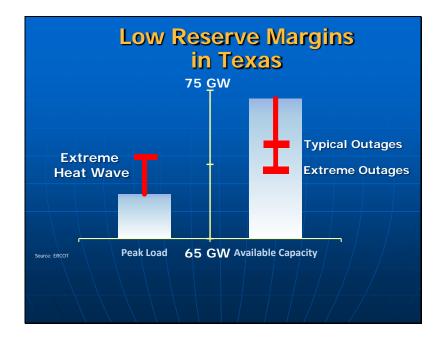
The NERC Summer Assessment forecasts that the summer installed nameplate wind capacity will increase by about 9 GW, or about 19 percent from 2012. This will bring the total nameplate capacity across the nation to approximately 56 GW. The forecasted average on-peak wind capacity for this summer is 15 percent of nameplate capacity.

WECC also projects that approximately 2 GW of new utility-scale solar capacity will come online this summer, primarily in Southern California and Arizona. WECC's on-peak capacity forecast for this generation is 99 percent of the nameplate capacity. Industry reports indicate that by the end of 2013 total installed solar capacity in the United States is expected to top 12 GW when utility-scale, residential, and commercial installations are included.

## **Eastern Plant Outages** and Retirements

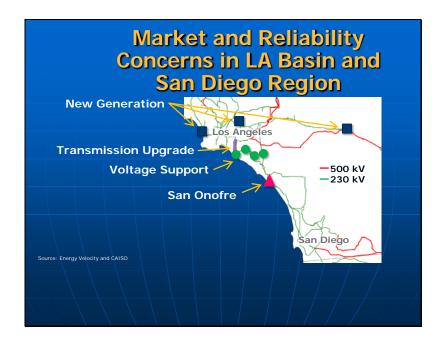
- Scattered retirements of older units since last summer.
- Additional potential retirements in next few years.
- Planning coordinators working to coordinate transmission upgrades, must-run agreements, etc.

A number of utilities in the Eastern Interconnection have announced intentions to retire older fossil fuel generating units over the next few years. In PJM, approximately 5 GW of capacity has retired since last summer for a net loss of roughly 2.5 GW. According to NERC and the Regions, reserve margins are generally projected to exceed planning targets for this summer. Planning coordinators continue to support reliable operations in areas experiencing higher than normal levels of plant retirements through the development of new capacity resources, operating procedures, transmission upgrades, and reliability must-run agreements.



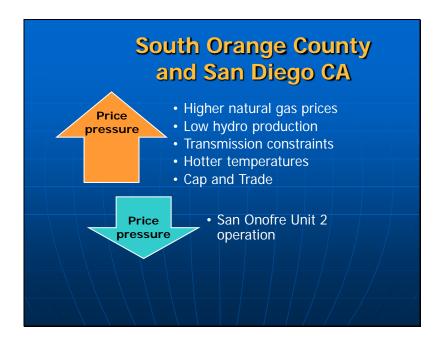
ERCOT is projecting a reserve margin of 12.9 percent, assuming that normal weather conditions occur in Texas this summer. This forecast reserve margin is approximately one percentage point below the reserve margin target. With declining reserve margins, ERCOT faces an increasing risk that load could exceed available capacity during an extreme heat wave with higher than normal forced generation outages. ERCOT forecasts that over 1.7 GW of demand response resources and 1 GW of new generation will be available to operators this summer. Stakeholders and regulators in Texas continue to work on policies and initiatives to promote the development of new generation and increase participation in demand response programs.

While drought remains a concern in Texas, ERCOT projects that sufficient cooling water will be available for power generation this summer.



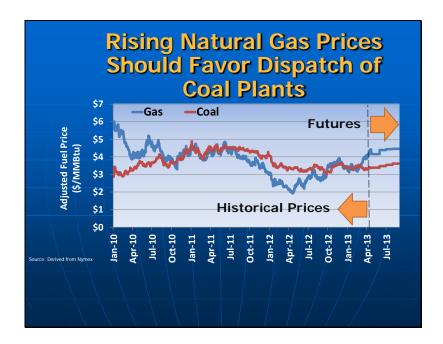
In Southern California, the San Onofre Nuclear Generating Station between Los Angeles and San Diego remains offline. While NERC projects that reserve margins in California, as a whole, will remain adequate, transmission constraints will continue to limit transfers into the Los Angeles basin and San Diego, particularly under multiple contingency conditions. Three new generators are projected to enter service in the area over the summer, and Southern California Edison is continuing to work on transmission reconfiguration and voltage support projects in Southern Orange County. Entities in the area are also working to increase demand response and conservation measures.

Eric will now discuss market conditions heading into the summer.

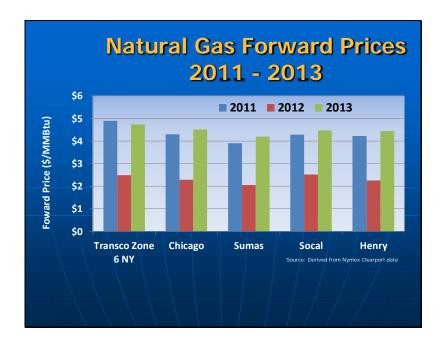


The unavailability of the San Onofre Nuclear Generating Station will make capacity tight in the transmission-constrained South Orange County and San Diego area, resulting in limited imports and use of higher-cost local generation. Constrained transmission into the area also yields the potential for price spikes in the real-time market, as were experienced last summer. In addition, drought conditions in the West increase fire hazards, potentially affecting regional transmission and generation capability. Finally, California's Greenhouse Gas Cap-and-Trade Program has placed upward pressure on prices in California, further compounding the cost of operating less-efficient generation dispatched within transmission constrained zones.

Given the confluence of potentially negative events in South Orange County and San Diego, the market is likely to experience greater volatility with upward price pressures. Staff will monitor the market operations closely, including the tight supply and demand conditions and for any market participant behavioral issues.



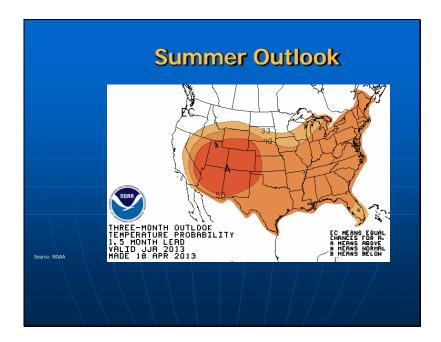
Adjusted for the relative efficiency of coal and natural gas-fired power plants, current U.S. natural gas prices are 78¢/MMBtu higher than Central Appalachian coal prices, the highest separation between natural gas and coal prices since July 2010. With the rebound in natural gas prices, staff expects less displacement of coal fired generation by natural gas this summer compared to last summer.



Natural gas forward prices for July and August 2013 show a dramatic increase compared to 2012, when forwards were below \$2.50/MMBtu. However, they are similar to 2011 forward prices. Key hubs around the country show similar trends. Summer forwards at Chicago are \$4.51, \$4.47 at SoCal, and \$4.73 in New York. The only forward price below \$4.20 is at Sumas on the Canadian/Washington border, which relies primarily on hydroelectricity to meet summer power needs. Since natural gas is frequently the marginal fuel type in electricity markets, it influences electric forward prices. Devin is going to discuss the effects of rising natural gas prices on electric forwards.



Electric prices for the forward summer strip this year are 25 percent to 58 percent higher than similar forwards a year ago. The 2012 electricity forwards reflected low marginal fuel costs tied to the exceptionally low gas prices of last summer. This summer's forward prices are comparable to those of 2011 in the PJM Western, Cinergy/Indiana, and Mass hubs, but higher in Mid-C, SP-15, and Palo Verde. The increase in the latter three hubs is largely attributable to a decrease in hydroelectric generation availability from 2011 to 2013.



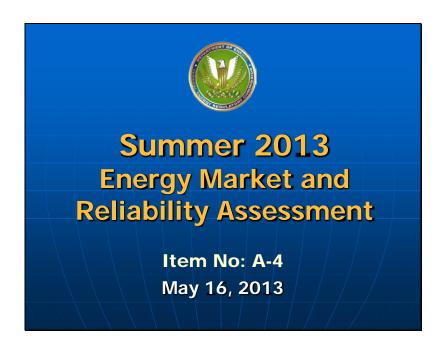
NOAA predicts another warmer-than-normal summer for most of the country. Like last year's prediction, the exceptions are the Pacific Coast and the Pacific Northwest where normal temperatures are expected. The Four Corners and Great Basin areas of the West look to have the greatest chances of above-average temperatures. NOAA also expects an increased chance of below-normal-precipitation within an area extending from the Texas Panhandle and New Mexico, and through the central Rockies to most of Oregon and northern California through the summer months. It appears that those areas of the central and western U.S. currently experiencing drought will not experience much improvement in those conditions.

Early forecasts for the hurricane season from Colorado State University call for higher-than-normal activity for the Atlantic this summer, with 18 named storms, of which nine will become hurricanes, four of which will become major. Seven hurricanes are considered normal for a season. Generally speaking, hurricanes do not have as large an impact on U.S. energy markets as they did several years ago due to the shift in U.S. natural gas production away from the Gulf of Mexico and to onshore shale production.



The shift back and forth in the dependence on natural gas-fired generation compared to coal is having an impact on power markets. High levels of natural gas power burn means that natural gas supply dependability becomes more important. This continues to be a focus of the Commission's gas-electric coordination initiative.

As in recent summers, and particularly since this summer is predicted to be warmer-than-normal, demand response may be an important ingredient in managing peak loads. Regions such as PJM, New York, and ISO New England relied upon demand response to manage high-load periods during the summers of 2011 and 2012. With growth in demand response resources, their use may have a growing market impact during the summer period.



This concludes our prepared remarks. We will answer any questions you may have.