PUC Update to the House State Affairs Committee

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PUBLIC UTILITY COMMISSION OF TEXAS

HOUSE STATE AFFAIRS COMMITTEE
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The Improvements in Energy Market Pricing Have Delivered New Generation Since 2013

- Sandy Creek (970 MW) - 2013
- NRG Parish Peaker (74 MW) – 2013
- OCI Alamo I (39 MW) – 2013
- Calpine Deer Park Expansion (165 MW) - 2014
- Calpine Channel Expansion – (165 MW) - 2014
- LCRA Ferguson Replacement – (509 MW new replacing 420 MW old) – 2014
- Panda Sherman (720 MW) – 2014
- Panda Temple (717 MW) – 2014
- Panda Temple II (717 MW) – 2015
- Forney Power Upgrade (34 MW) – 2014/2015
- OCI Alamo IV – (38 MW) – 2014
- Pecos Barilla Solar (30 MW) – 2014
- 5,600 MW of new wind from 2014-2017

	2015	**2016**	**2017**	**2018**	**2019**	**2020**
New Non-Wind Generation	2,312	3,076	3,779	3,779	4,019	4,019
New Non-Coastal Wind@ 8.7%	457	586	688	688	688	688
New Coastal Wind @ 8.7%	32	61	61	61	61	61
Total	**2,801**	**3,724**	**4,528**	**4,528**	**4,768**	**4,768**
	2015	**2016**	**2017**	**2018**	**2019**	**2020**
New Non-Wind Generation	2,312	3,076	3,779	3,779	4,019	4,019
New Non-Coastal Wind@ 14.2%	747	957	1,123	1,123	1,123	1,123
New Coastal Wind @ 32.9%	121	232	232	232	232	232
Total	**3,179**	**4,265**	**5,134**	**5,134**	**5,374**	**5,374**

Data from ERCOT May 2014 Capacity, Demand and Reserves report showing the amount of increase in wind generation because of the increase in the effective load carrying capacity of wind.

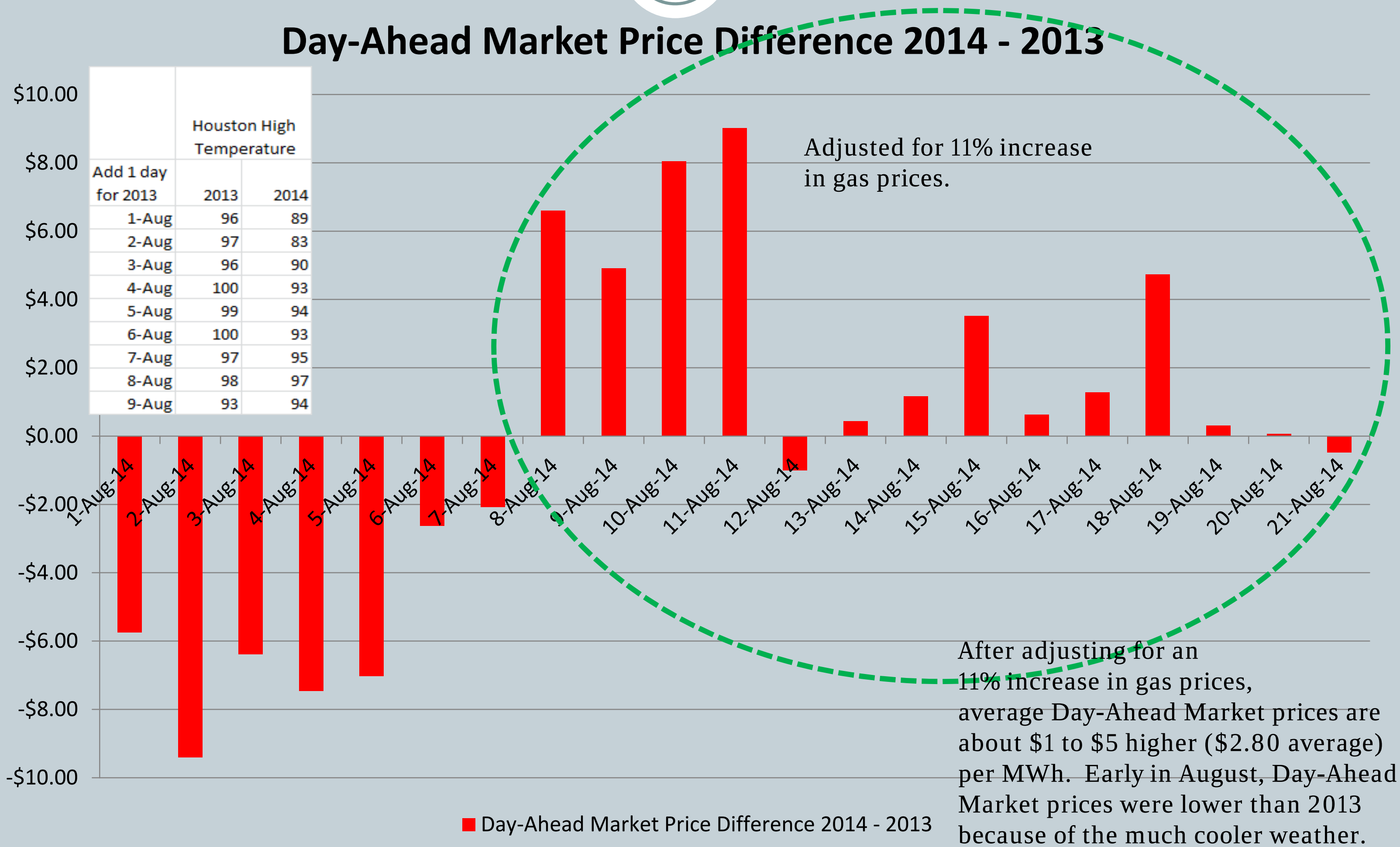
Planned New Generation In The Pipeline

- 22 Facilities totaling 8,324 MW have been issued permits by TCEQ.
- Of these, ten facilities totaling 4,912 MW have also received green house gas permits.
- Another 18 facilities totaling 8,723 MW have applied for TCEQ permits.

Addressing Generator Revenue Affecting Generating Capacity

- Increases in the system wide offer cap (SWOC) and the introduction of the operating reserve demand curve (ORDC) appear to be improving generator revenue.
- August is the key month for study because that is when electricity consumption in ERCOT is usually at peak, thus requiring almost all generation to be available.
- The following graph shows that August 2014 ERCOT Day-Ahead Market prices are approximately $1 - $5 higher than 2013. Even with the addition of over 2,000 MW of new generation and minus 727 MW of seasonably mothballed units that were not returned to summer service.
- This price difference was measured by matching August 2013 weeks to August 2014 weeks and adjusting roughly for the difference in natural gas prices.
- Differences in the weather could not be accounted for, and the impact of early cool weather in August 2014 keeping prices down (by keeping load down) can be seen.

Day Ahead Prices Higher In 2014



Add 1 day for 2013	Houston High Temperature 2013	2014
1-Aug	96	89
2-Aug	97	83
3-Aug	96	90
4-Aug	100	93
5-Aug	99	94
6-Aug	100	93
7-Aug	97	95
8-Aug	98	97
9-Aug	93	94

After adjusting for an 11% increase in gas prices, average Day-Ahead Market prices are about $1 to $5 higher ($2.80 average) per MWh. Early in August, Day-Ahead Market prices were lower than 2013 because of the much cooler weather.

Other Reliability Issues

- Security of the transmission and distribution system.
  - ERCOT, transmission and distribution utilities in the state, and the PUCT are working closely with state and federal authorities to identify critical infrastructure within the ERCOT system and the steps necessary to improve the security of critical assets.

- Sub-synchronous oscillation (SSO).
  - SSO is caused by long transmission lines and some components connected to the transmission lines. Over great distances, frequencies can vary causing increased stresses on generator power train components. If this occurs too frequently, power train components can be damaged or fail.
  - The potential damaging effects of SSO are being evaluated on a system wide basis.
  - System modifications necessary to minimize the risk of SSO are being evaluated by the PUCT, ERCOT and ERCOT stakeholders to determine the best and most cost effective solutions, who will be responsible for implementation, and how the costs of the solutions should be allocated.

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