

### Volume 231 April 26, 2011

The growth of U.S. wind power has begun to create operating challenges for nuclear and coal plants that must be ramped up and down as wind speeds vary, panelists at a Massachusetts Institute of Technology energy conference reported last week. The MIT Energy Initiative symposium on integrating large-scale wind and solar power attracted executives of utility and transmission companies, senior government officials and academic researchers. Some papers prepared for the conference were made public by their authors, and they define a growing challenge of matching the current U.S. mix of power plants with new requirements to respond quickly to changes in wind and solar resources.

The power system needs more flexibility to handle the short-term effects of increasing levels of wind. The expansion of renewable power will continue as a clear option for reducing power plant carbon emissions. Nearly half of global electricity supply will have to come from renewable sources if world carbon dioxide emissions are to be cut to half of current levels by 2050, according to the International Energy Agency. But utility regulation has not adapted to a future of high renewables. A high penetration of wind and solar generation is likely to make wholesale electricity prices more volatile. These and other potentially disruptive issues raise concerns about attracting sufficient investment in flexible plants in competitive power markets.

A paper by the Brattle Group says the expansion of renewable energy requires "more generation that can quickly ramp up and down, possibly with short start-up times and minimal cool-down times." Whether those needs for more cycling and peaking energy can be met by existing generators is not clear and must be given detailed study. The conference concluded with the question of whether the patchwork of federal and state regulation and the stalemate over national climate and transmission policies in Congress would help or hinder a transition to more renewable power.

### Extended Temp Forecast: Chicago Area

Tue	Wed	Thu	Fri	Sat
48 - 63	41 - 51	40 - 46	48 - 58	50 - 62

### Electricity Pricing Areas – On Peak May 2011

	April 26, 2011	Per kWh
<b>Cinergy</b>	<b>Hub Peak Swap Monthly</b>	<b>\$.03846</b>
<b>PJM Hub</b>	<b>Electricity Monthly</b>	<b>\$.04786</b>
<b>PJM</b>	<b>No. Illinois Peak LMP</b>	<b>\$.03744</b>
<b>PJM</b>	<b>Western Peak LMP</b>	<b>\$.04786</b>

### ComEd Average Day Ahead LMP Electric Price

Time Period	Average per Kwh
<b>May 1-May 31, 2010</b>	<b>\$.03389</b>
<b>Jun 1- Jun 30</b>	<b>\$.04184</b>
<b>Jul 1 - Jul 31</b>	<b>\$.04741</b>
<b>Aug 1 -Aug 31</b>	<b>\$.04628</b>
<b>Sep 1 - Sep 30</b>	<b>\$.02934</b>
<b>Oct 1 - Oct 31</b>	<b>\$.02702</b>
<b>Nov 1 - Nov 30</b>	<b>\$.02778</b>
<b>Dec 1 - Dec 31</b>	<b>\$.03545</b>
<b>Jan 1 -Jan 31, 2011</b>	<b>\$.03871</b>
<b>Feb 1 - Feb 28</b>	<b>\$.03581</b>
<b>March 1- Mar 31</b>	<b>\$.03668</b>
<b>April 1 - April 25</b>	<b>\$.03417</b>

**Weather - Tue:** Cloudy and windy with rain; chance of an isolated thunderstorm in the afternoon. High 63F. Winds SSW at 20 to 30 mph. **Wed:** Showers .High 51F. Winds NNW at 10 to 20 mph. Chance of rain 70%. **Thu:** Windy with showers. Highs in the mid 40s and lows in the low 40s. **Fri:** More sun than clouds. Highs in the upper 50s and lows in the upper 40s. **Sat:** Rain with a few rumbles of thunder. Highs in the low 60s and lows in the low 50s.

