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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
Cinergy	Hub Peak Swap Monthly	\$.03846
PJM Hub	Electricity Monthly	\$.04786
PJM	No. Illinois Peak LMP	\$.03744
PJM	Western Peak LMP	\$.04786

ComEd Average Day Ahead LMP Electric Price

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

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.

