

### Volume 351 August 27, 2013

#### The Future Electric Economy

On the top of the planning agenda for everyone in the power sector, it seems, is "What's next?" For a century or more, large vertically integrated utilities knew what was next.....more of the same.

Recently, the Internet touched the industry and smart grid was the result. Smart meters continue to get deployed. Utilities are reaping a growing mountain of data about their operations and customers.

More than a decade ago, competition was introduced into energy markets. A number of epic scams took place. New markets were inadequately monitored and policed. There were massive outages and billions of dollars were lost as a result of Enron and others gaming the system. That situation however has all been fixed.

The emerging Internet of power, which may take a decade to unfurl, will allow us all to change the electric power sector from the bottom up.

The way forward is certain to involve a new concept being talked about by industry visionaries — transactive energy. How can the power sector entirely on its own generate and distribute price signals without the machinations of energy traders corrupting the process?

A recent transactive energy panel of the leading architects of the concept shared their vision of the future.

The increasingly dynamic behavior at both ends of the electric system delivery path, caused by large amounts of intermittent renewable generation at the supply end and a growing collection of energy management and efficiency technologies at the consumption end, requires new methods to maintain stability and balance in the system.

Transactive energy represents a method of handling scaling issues that will arise as hundreds of millions of endpoints become active participants in the power delivery process. However, transactive energy must not further destabilize power delivery systems, and so must have strong criteria and tools to ensure stability. Regardless of how electric power delivery evolves, communications will be a key technical component.

Society can benefit from clean renewable and distributed energy adoption at scale if grid reliability is adequately addressed.

Integration of intermittent renewables at scale requires flexible resources including customer-owned distributed energy resources, but we need new methods of valuing and monetizing energy to unlock potential benefits.

Utilities have sought perfect loads to match their perfect generation and distribution systems. Transactive energy offers the latest and most promising of systems intended to have loads and utility systems play nicely together.

EnergyBiz

### Electricity Pricing – August 27, 2013 Com Ed Average LMP Electric Price

Time Period	Average per Kwh
Aug, 2012	\$ .03112
Sep, 2012	\$ .03034
Oct, 2012	\$ .02829
Nov, 2012	\$ .03327
Dec, 2012	\$ .03081
Jan, 2013	\$ .03111
Feb, 2013	\$ .03219
Mar, 2013	\$ .03665
April, 2013	\$ .03821
May, 2013	\$ .03501
June, 2013	\$ .03215
July, 2013	\$ .04067
Aug 1 – Aug 19	\$ .02973

### Extended Temperature Forecast: Chicago Area

	Tue	Wed	Thu	Fri	Sat
High	97	85	87	91	92
Low	75	71	70	73	72

