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The power industry needs to cut emissions, modernize the grid and increase capacity as the economy recovers and demand grows. The public conversation turns to renewable sources, substituting gas for coal, smart grid innovations and the ever-green topic of a nuclear renaissance. Often lost in the discussion is the topic of efficiency. Most of the pilot programs to manage demand are on the residential side. Dealing with large-scale commercial or industrial customers can be challenging for a utility, which may not have the industry-specific knowledge to identify likely areas where efficiencies can be realized or the technical expertise to implement them. Increasingly, utilities are turning to outside firms that specialize in identifying and implementing energy efficiency in such industries.

The demand response approach to energy efficiency generally requires the active participation of end users, but distribution companies have alternatives that don't depend on customer participation. Controlling voltage levels and reactive power - Volt-VAR - is fundamental to all electric transmission.

At the end of the line, integration of distributed energy generation and storage will play a major role in increasing overall energy efficiency. But this area, too, is in the basic-research phase. "There are two fundamental parameters," James said. "One is how much energy you can store. The other, which is just as important, is how fast you can discharge the energy you've stored and then recharge it. There are numerous approaches: compressing air, using hydro storage, and employing batteries. The home run would be a very efficient battery technology so you could develop scalable storage. But that's a material science and basic physics issue. And that's going to take some time." The business case for energy efficiency is complex. It's easy to see the case for cutting generating costs. But when it comes to cutting demand or increasing transmission efficiency, the profit motive generally won't suffice. Utilities are driven to improve efficiency as much by regulatory demands for increased efficiency and the mandated move toward renewable sources as they are by the possibility of increasing profits or cutting the need to invest in increased capacity.

Electricity Pricing – September 3, 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 31	\$.03112

Extended Temperature Forecast: Chicago Area

	Tue	Wed	Thu	Fri	Sat
High	75	85	72	84	87
Low	60	64	58	64	69

