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This topic may seem repetitious (I've written about it several times). But as the Power Generation sector continues to evolve, a discussion of its current state at a given point— *and its future as far as we can see* —needs to be revisited from time to time. So I'm bringing it up again: What's the state of the Power Industry today, where is it going and what will it look like over the next decade?

As I monitor developments in Power Generation, I'm fascinated by the changes and—*in my opinion* — some of the knee-jerk decisions the industry makes these days. In many cases, those reactions are driven by proposed legislation; in others, public sentiment and the media are doing the driving.

One can't begin to speculate on the future of Power Generation without factoring in the economy. Here we are: at the very threshold of the second decade of the 21st century and we are STILL struggling to recover from the recession/depression (depending on whom you ask or what you're reading, hearing or seeing). And, now, with the recent devastation wrought by Hurricane Sandy, that struggle to recover probably won't be getting much easier or moving much faster for a while. Even before Sandy made landfall, though, most economists felt that 2013 wouldn't be very pretty.

Current state

Let's look at the state of the Power Industry from the perspective of Fall 2012 (pre-Hurricane Sandy):

- The U.S. coal industry is bracing for tighter—*and more costly*—regulation of its waste. The associated costs, of course, will be passed on to the coal industry's customers (i.e., the power

generators).

- Natural gas seems to be the fuel of choice—*for now*. The power companies have had little control over this matter due to legislation and public sentiment.

- Renewable energy seems to be moving forward—*and should continue to do so as long as the incentives for it remain in place.*

So much for the big power producers…For the rest of us—*end-user consumers*—the primary concern should be how to cost-effectively run, protect and ensure the sustainability of our power-using operations. Fortunately for us, there is (finally) renewed interest in Combined Heat and Power (CHP).

Leveraging available technologies

CHP is an efficient, clean and reliable approach to generating decentralized power (DE) and thermal energy from a single fuel source. CHP can increase operational efficiency and decrease energy costs, while reducing emissions. Makes sense to me. Let's look at a few more advantages to CHP and DE.

Centralized electric power is produced at large generation facilities and shipped over transmission and distribution grids to end-users. DE and CHP offer several advantages over centralized power:

- Distributed-generation power is produced near its point of use, minimizing the risk of power loss.
- CHP's multiple energy sources (steam, electricity, hot water) maximize energy (fuel) usage.
- Control of electrical cost reduces impact of peak-demand charges, power-factor correction, etc.

Future state

Like other industries, the Power-Gen sector is evolving. As I have often written, though, all industries need to adapt to the times, be proactive, avoid knee-jerk reactions and leverage all available technology. That said, it may also be beneficial to look into the past for solutions today. **UM**

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