



2012 was quite a year for change in the power industry. What can we expect in 2013? The keynote speakers at Power-Gen advised the attendees to expect changes, but what will they look like?

Here's a brief run-down:

- Industry executives (decision-makers) expect an increase in combined-cycle natural-gas power generation. Capacity factors for these plants will also increase.
- Coal-fired power generation is expected to decrease from a high of 52% to around 35% by the year 2030.
- Nuclear power will retain 21% of the generating capacity in the US with a couple of new plants under construction after a 30-year hiatus. In spite of the negative press, nuclear power continues to develop new technology. There is quite a bit of interest in small modular reactor (SMR) technology, for which benefits include faster licensing and lower cost.
- Renewable energy is expected to provide 24% of power generation worldwide by 2035. It appears wind-generation tax credits have been extended for another year. This extension will cover all wind projects that begin construction in 2013. Had the tax credits been extended earlier in 2012, wind generation could have seen 8 Gigawatts of new construction in 2013. Unfortunately, the delay in extending the credits means only 8000 to 8500 MW will reach the construction stage this year.
- Solar photovoltaic is growing in leaps and bounds as the cost per KWH continues to drop. Photovoltaic will also play a major role in distributed generation as increasing numbers of homeowners and businesses install the technology.
- Geothermal, biomass and tidal and wave technology will also play a role. How large that role may be remains to be seen, as a majority of funding is being focused on solar and wind development.

The long view of coal

What's to become of our coal-fired power plants? The technology has an uphill battle to fight in dealing with special interest groups, EPA (Clean Air and Clean Water Act) and fly ash issues. Few utilities are willing to take the risk of investing billions in new coal-fired generation without

clear, defined regulations from our government.

A number of large utilities have targeted older coal plants for decommissioning over the next few years, which will result in reduced capacity. However, due to the downturn in our economy and successful implementation of state, local and federal energy- efficiency programs, power demand has decreased, minimizing the impact of reduced generation.

The changing landscape

In a nutshell, we will see more combined-cycle natural-gas-fired power plants with a mix of wind and solar. Coal will remain a staple for the foreseeable future, albeit with a smaller piece of the pie. Is this a good mix? I'm not so sure; remember the 1990s and the big push for natural gas? At least we have alternatives. **UM**

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