

# Achieving Generation Greatness

By Al Senia



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**SOME MIGHT CONSIDER** Alliant Energy’s Dubuque power plant in Iowa an anachronism. Sitting in the middle of the city since the early 1900s, the three-unit coal-fired facility has attracted little attention, consistently doing its job of producing 69 megawatts of power on a 24/7 basis over the years and becoming part of the landscape. It certainly isn’t a slick new high-tech facility.

So it was a bit of a shock when Dubuque attracted widespread industry attention and interest. It was recently named by the fossil productivity committee of the Electric Utility Cost Group (EUCG) as the best-performing small plant with less than 250 megawatts average size in North America.

“It’s a very nice, well-designed little plant that just runs very, very well,” explained Albert Hicks, a Southern Company executive who directs EUCG’s best-performer program. “It benefits from having some really good people who have worked there a long time and really know that plant.”

Hicks explained that EUCG’s best-performance generator rankings combine a regression analysis that predicts operation and maintenance costs based on capacity, number of units and net generation, with a reliability score pegged to the Equivalent Forced Outage Rate (or EFOR). Plants compete in two categories, large and small, and comparative data is usually gathered for five years.

In this year’s large-plant category, New Brunswick Power’s Belledune plant took the top honor. Hicks noted that Belledune is particularly noteworthy because of its geographic location. Each winter the plant must overcome a variety of weather-related obstacles ranging from freeze protection to snow removal. Belledune is also unique because it is a

single-unit generation plant producing 455 megawatts of power and uses “the largest covered coal stockpile around.” In fact, over the years, Belledune has attracted the ire of some local environmentalists who would like to see the facility mothballed.

The Dubuque facility, on the other hand, faces far fewer operational obstacles. Charles Ohl, director of generation for Alliant’s eastern region, pointed to several reasons for the plant’s success. The company closely evaluates its capital expenditures and has developed an efficient process that aims for a two-year payback. Additionally, Alliant is extremely proactive in identifying and preventing boiler failures, which has helped keep the Dubuque facility in top shape over more than a century.

Another factor that has made a difference, according to Ohl, is Alliant’s Continuous Improvement Program, which focuses on process-performance improvements at all its power facilities. Finally, Dubuque has benefited from highly experienced workers, many of whom have been at the facility for decades and know the operational details of the plant and its strengths and weaknesses quite well.

“We have a very experienced, highly capable workforce at that plant,” said Ohl. “You hear a lot about the aging workforce in this industry, and we have one there. That helps us a lot now, but over the next five years, we are going to see a lot of turnover and we are preparing for that.”

Ohl added that Dubuque’s success in EUCG’s rankings probably resulted from a variety of factors. “There are very few ‘big bang’ events,” he said. “Most things come about through a series of small steps. The Dubuque plant is evidence that a lot of little things can add up to one very big thing. We certainly couldn’t have done it without the crew we have there.”

That’s a lesson that both energy executives and power company customers may come to appreciate.

Pat Kovalesky, executive director of EUCG, said the generator-ranking awards attract a good deal of industry interest from utility executives. The rankings help underscore the need to get people focused on meeting productivity goals. “Customers are confident you’re providing low-cost reliable power for them when you show a continuous effort to discover how to do things better,” she said. “And in the case of the award winners, you also end up doing it the best.” ☒

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