

INPO has a hand in Maintenance sessions

BYLINE: E. Michael Blake **LOAD-DATE:** **October** 17, 2013

SECTION: **NUCLEAR POWER** PLANT MAINTENANCE SPECIAL SECTION; UTILITY WORKING CONFERENCE; Pg. 60

HIGHLIGHT:

The 2013 ANS Utility Working Conference (UWC), held August 11-14 in Hollywood, Fla., featured something new: presentations by the Institute of **Nuclear Power** Operations that would normally be given at INPO's own meeting in June. This was done on a trial basis, and it was to be determined later whether this level of INPO involvement at the UWC would continue in the future...

The changing electricity market

John Conway, Pacific Gas and Electric Company's (PG&E) senior vice president for energy supply, addressed the Tuesday plenary session on **nuclear power** in California's evolving energy market. With SCE's decision earlier this year not to seek the restart of San Onofre-2 and -3, PG&E's **Diablo** Canyon-1 and -2 are now the only operating power reactors in the state.

"As crazy as you see politics and policies in California," Conway said, "they tend to lead wherever the nation goes, especially on environmental issues." Factors influencing the changing electricity marketplace include once-through cooling requirements for thermal power plants, the operation of plants that produce both heat and power, a requirement for 33 percent of power to come from renewable sources, greenhouse gas reduction, cap-and-trade, distributed generation, net energy metering, and energy efficiency with demand response.

PG&E's new gas-fired generation is air-cooled, and Conway asked whether **nuclear power** could get by with air cooling. It is his opinion that the designers of small modular reactors (SMR) should try to incorporate air cooling, because new thermal power plants can't be water-cooled in California, or anywhere else in the West.

The addition of solar power creates what Conway said are steep ramps of electricity supply, which the operators of the California power grid must balance by taking less power from baseload sources during peak solar availability. To

adjust to this, Conway said, the **Diablo** Canyon reactors may go to two-year refueling cycles and seek to be flexible in their operation, rather than generate close to peak power all the time, as baseload units traditionally have done.

Conway said that the **nuclear** community needs to be more aggressive in the policy arena, to direct California away from a strict top priority for renewables and toward a clean-energy standard that includes **nuclear**.

In response to audience questions, Conway said that the state's plan to deny **Diablo** Canyon access to ocean water for final cooling as of the end of the current license periods (2024 for Unit 1 and 2025 for Unit 2) would not prevent operation under renewed licenses, stating that there is a "success path" through circulating water design. He said that a relevant federal legal position is more of a concern, but he is hopeful that it will be rewritten later this year.

Asked whether the public dialogue in California addresses the true costs of various energy sources, Conway said that this is a sensitive issue, but "physics doesn't lie," and he thinks a cost discussion is starting to take root. He noted, however, that the Democratic Party now has a supermajority in the legislature, which is a first for either party.