



October 21, 2013

Ms. Marzia Zafar, Director, Policy and Planning Division
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

via Email: zaf@cpuc.ca.gov

Subject: AHRI Proposal for the November 6 San Onofre Nuclear Generating Station (SONGS) Replacement Symposium

Dear Ms. Zafar:

On behalf of the Air-Conditioning, Heating, and Refrigeration Institute (AHRI), which represents over 300 manufacturers of HVAC, refrigeration, and water heating products, we would like to submit a proposal for presentation at the November 6 Symposium. Our proposal would address the approximately 60% of Southern California Edison's (SCE) load, which is driven by air-conditioning, through a demand-side approach. Specially, our proposal to address the "SONGS gap" includes two components, as described below.

First of all, it is important to note that systems manufactured today draw substantially less power than most systems now in the field. While federal minimum efficiency standards for Central Air-Conditioners was increased from 10 to 13 SEER in 2006, AHRI estimates that 46% of the residential systems in California are still 10 SEER or lower. The higher cost of a 13 SEER unit has resulted in many home and building owners repairing old, inefficient units rather than replacing them. This installed base of aging, inefficient equipment creates a sizable opportunity to increase energy efficiency and reduce peak utility loads.

Our analysis assumes that there are 125,000 residential and small commercial systems in or near the area served by the two constrained substations, plus a commercial load equivalent to 15,000 fifteen-ton rooftop units. As such, AHRI's proposal involves replacing 50,000 residential Central A/C systems (averaging 4 tons per unit), and 6,000 commercial A/C systems (manufactured before 2006) with new modern and efficient units, over an 8-year period. This would result in a peak load reduction of 93 MW that would be achieved through incentives provided to SCE customers of approximately \$100 million – an amount which is less than the cost of acquiring land, constructing a gas-fired generating station, plus paying for the fuel and operating and maintenance costs.

The second step involves development of demand response (DR) or peak-load evaluation programs utilizing next-generation variable-capacity air-conditioners. This technology will provide much greater peak power reduction in a DR event compared to traditional compressor cycling or thermostat set-back programs, and with less impact on occupant comfort. AHRI is now developing standards for DR communications and performance, with input from EPRI and a few leading utilities. These enhanced DR-ready systems should be available in the next few years. SCE may wish to participate in the standards development process.

We look forward to discussing our proposal on November 6.

Sincerely,

A handwritten signature in black ink, appearing to read "Stephen R. Yurek". The signature is fluid and cursive, written over a white background.

Stephen R. Yurek
President and CEO