Memorandum

To: Demand Response Planning Meeting Attendees

From: Arthur Rosenfeld, Commissioner – California Energy Commission

Bob Foster, President – Southern California Edison

Date: July 6, 2005

Re: Demand Response Technology Planning Meeting (July 15, 2005)

The CEC is considering the costs and benefits of installing devices that would enable demand response in the context of the forthcoming 2008 Building Energy Efficiency Standards proceeding. We are seeking your help in designing and implementing a plan to increase the number of demand responsive devices installed in new buildings in the future. We believe these new technologies will provide real benefits for utilities and customers in managing peak demand growth and reducing their electricity bills.

Demand responsive devices potentially provide customers with the ability to receive signals and automatically respond to high price, emergency, or other signals sent by a utility seeking to reduce peak load by controlling various end-use devices. Implementation of these devices has the potential to reduce electric utility system resource costs, improve electric reliability, and reduce customers' bills. The recently completed two-year Statewide Pricing Pilot and related pilots with San Diego Gas & Electric and Southern California Edison have shown that installation of Programmable Communicating Thermostats (PCTs) often reduce peak demand in residential buildings. We perceive that the barriers to increased market penetration include relatively high costs of hardware installation, no plug-and-play capabilities, lack of a universal communication protocol to send price or emergency signals, and a lack of product availability at big box retailers.

We believe the prospect of including code language addressing demand responsive devices like PCTs in the building standards will attract vendor interest and support in solving some of these problems. Our calculations suggest that requiring these devices in the standards will create an annual market for roughly 200,000 PCTs in new homes and 100,000 to 200,000 additional units in situations when central air conditioners are being replaced.

We are interested in working with you to get your input on these issues, including the following questions:

1) What approach should the CEC pursue to develop the standard functional requirements and communication protocols necessary to support statewide implementation, and at the same time be accessible to utility dispatchers?

2) What implementation and/or program options should the CEC consider to increase the availability of demand responsive devices before the standard takes effect in late 2008?

We have agreed our organizations will work together to investigate the feasibility of requiring cost effective PCTs in the next round of standards. As the first step, SCE will host an informal meeting to discuss the technical issues associated with the minimum functional requirements for PCTs and other load control devices at SCE's CTAC facility in Irwindale, California. We encourage you to send your technical staff to this meeting. We envision the need for subsequent workshops to deal with commercial availability, cost effectiveness, and other issues. We encourage your participation in this important effort. If you have any questions about this meeting please contact Gregg D. Ander, FAIA, the Design & Engineering Services manager, at (626) 633-7160 or e-mailing him at gregg.ander@sce.com.

To register for the Technology Planning Meeting on July 15, 2005, (event number 13763), please call 800/336-2822 ext. 2537 or 626-812-7537 or go online at www.sce.com/ctac