DIRECT TESTIMONY OF

DAVID K. PICKLES

ON BEHALF OF

SOUTH CAROLINA ELECTRIC & GAS COMPANY

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Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND POSITION.

A. My name is David K. Pickles and my business address is 7160 North Dallas Parkway, Suite 340, Plano, TX 75024. I am employed by ICF International (ICF) as the Southern Region Vice President for the Energy Efficiency Practice.

Q. PLEASE DESCRIBE ICF INTERNATIONAL.

A. Founded in 1969, ICF's more than 3,000 employees provide government and commercial clients with consulting services and technology solutions in the energy, climate change, environment, transportation, social program, health, defense, and emergency management markets. ICF is a leader in designing and implementing effective and innovative demand side management (DSM) strategies, including energy efficiency, demand response, and peak load management. ICF has been investing in and refining its methodology for DSM potential analysis for over 20 years. In addition to the analysis of DSM potential, ICF has a long history of DSM program design and implementation, including over a decade of experience supporting energy efficiency programs for the U.S. Environmental

Protection Agency and utility clients across the United States. My responsibilities include the general oversight and delivery of ICF's energy efficiency projects throughout the southern United States. In this role, I supervise the implementation of numerous energy efficiency programs for utilities, oversee the development of DSM potential studies, design DSM programs, support states in developing legislative and regulatory policy concerning energy efficiency, develop integrated resource plans, and provide related consulting services.

Q. DESCRIBE YOUR EDUCATIONAL BACKGROUND AND BUSINESS EXPERIENCE.

A. I received a Bachelor of Science degree in Economics from the University of Wyoming in 1986, and a Master of Science degree in Economics with an emphasis in the regulation of public utilities from the University of Wyoming in 1988. From 1988 to 1992, I served on the staff of the Iowa Utilities Board and the Iowa Office of Consumer Advocate where I prepared, reviewed and provided expert testimony before the Iowa Utilities Board regarding utility energy efficiency and resource planning. From 1992 to 1995, I was employed as a Director in the Energy Efficiency Practice of Synergic Resources Corporation, a management consulting firm to the energy industry where I provided energy modeling, DSM cost effectiveness and potential analyses, rate design, and avoided cost studies. From 1995 to 1999, I served in roles of increasing responsibility, including Vice President of Marketing and Development, with the energy services subsidiary Central and South West Corporation (now a part of American Electric Power). From 1999 to 2000, I was employed by PHI Consulting as the interim Chief Technology Officer for Honeywell's Energy Information

Services business unit, and, from 2000 to 2003, I was Director of Navigant Consulting's Retail Practice, where I led engagements focused on retail strategy and energy efficiency.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING?

A. I am testifying on behalf of South Carolina Electric & Gas Company (SCE&G).

Q. HAVE YOU EVER TESTIFIED BEFORE THIS COMMISSION IN THE PAST?

A. No.

Q. WHAT SUBJECTS DO YOU DISCUSS IN YOUR TESTIMONY?

A. My testimony addresses the potential impacts of future demand side management (DSM) programs upon the need for the V. C. Summer Nuclear Station ("VCSNS") Units 2 & 3, and discusses SCE&G's comprehensive energy efficiency and demand side management review and evaluation initiative for 2008-2009.

Q. WHAT IS DEMAND-SIDE MANAGEMENT?

A. DSM can be broadly defined as the set of actions that can be taken to influence the level and timing of the consumption of electricity. There are two common subsets of DSM: 1) energy efficiency and 2) demand response. Energy efficiency typically includes actions designed to increase efficiency by maintaining the same level of production or comfort, but using less energy input. For example, a program designed to encourage commercial customers to retrofit their buildings with more efficient lighting systems would typically be referred to as an "energy efficiency" program. Other programs that could fit into this category might include those

designed to improve the quality of the installation of air-conditioners, to improve maintenance and operations procedures for large pieces of equipment, or to promote the construction of new homes that use less energy than homes built using standard construction practices. In general, energy efficiency programs provide a reduction in the overall quantity of electricity consumed over the year, but may not necessarily reduce the electricity demanded at the hour of system peak.

In contrast, a demand response program typically includes actions specifically designed to encourage customers to reduce usage during peak times (or to shift that usage to other times). For example, a program that provides time-differentiated rate designs or critical peak price signals which encourage reduction of consumption during peak times, and interruptible rate programs which provide incentives to customers who reduce demand when called upon. In general, demand response programs provide a reduction in the electricity demanded at the time of system peak and may or may not reduce total annual electricity usage.

Q. WHAT ARE THE BENEFITS OF DSM?

A. In broad terms, DSM programs should be designed and selected to provide the end-use services that customers desire (*e.g.*, lighting, cooling, etc.) at a lower cost than the utility would otherwise incur to build the generation, transmission, and distribution facilities necessary to provide that end-use service with electricity.

Certain DSM programs may also have additional benefits, including: reduced environmental impacts, such as lower emissions from power plants; reduced exposure to potential future regulation of the carbon emitted

from fossil generating plants; improved energy security, as reliance on fossil fuels (and their inherent volatility and exposure to world markets) is reduced; and more efficient use of existing generation, transmission, and distribution facilities as loads are "leveled" over the year.

Of course, not all DSM programs exhibit all these benefits, and such benefits must be carefully evaluated in the context of the drawbacks that may be associated with individual DSM programs. These drawbacks might include potential adverse short term increases in rates, uncertainty surrounding the persistence and measurement of the impacts of the programs, difficulty in forecasting the participation and costs in the programs, diminishing economies of scale as DSM programs approach their maximum size, equity between customers, and the impact on the system if utilities rely upon DSM programs that ultimately do not yield the intended impact.

Despite these potential drawbacks, DSM programs can play an important role in a utility's mix of resources available to meet increases in the demand for electricity. This is especially true in today's environment of increasing prices for generating fuels, increasing environmental concerns and regulations, shrinking generating capacity reserve margins and their potential adverse impacts on system reliability, and concerns over the energy independence of the United States.

Q. PLEASE DESCRIBE SCE&G'S CURRENT DSM PROGRAMS

SCE&G has both demand response and energy efficiency programs. Demand response programs include an interruptible load program and a standby generator programs. Time of use (TOU) rates and real time pricing

(RTP) rates augment the demand response impacts. These programs provide load relief of more than 200MWs, about 4% of SCE&G's peak demand. SCE&G's energy efficiency programs include customer education and outreach, a Web-based information and energy analyzer tool, an on-line energy audit tool, a Residential Energy Saver/Conservation rate and a residential value visit program which offers financial assistance to customers who improve the thermal envelop of their home. More than 50,000 residential customers are served under the Residential Energy Saver/Conservation rate and more than 20% of commercial sales are under TOU or RTP rates.

Q. IS SCE&G CONSIDERING EXPANDING ITS PORTFOLIO OF DSM PROGRAMS?

A. Yes. In light of changing conditions, SCE&G has decided to reevaluate its portfolio of programs and is considering an expansion of its programs. As discussed later in my testimony, SCE&G has developed a comprehensive action plan to research, analyze, and introduce (as appropriate) additional DSM programs. Pending the results of this analysis, SCE&G anticipates rolling out additional programs in a manner that balances issues such as rate impacts, avoided costs, customer equity, availability of qualified local trade allies and supporting infrastructure, and other factors.

Q. HAVE YOU PERFORMED A DETAILED ASSESSMENT OF THE POTENTIAL FOR DSM IN SCE&G'S SERVICE TERRITORY?

A. ICF is currently working with SCE&G to develop a detailed "bottom-up" assessment of the potential for DSM. This assessment will include:

- An assessment of currently available DSM data specific to the service territory and a gap analysis to identify critical information needs,
- The identification of a broad range of potential DSM measures and programs based on a national review of DSM programs and best practices,
- The determination of the peak demand and energy impacts of the most promising measures based on a detailed evaluation of service territory specific building practices, efficiency levels, weather, and operational characteristics using detailed hourly computer simulation models,
- The estimation of the current and future penetration of energy efficiency measures and their cost, including evaluation of free-ridership,
- The forecasting of the potential impact of the DSM programs using a variety of scenarios concerning incentive levels and program effectiveness,
- A benchmarking of results against the actual experience of other utilities and against other studies of the potential for DSM performed in other jurisdictions, and
- The development of DSM supply curves and the analysis of the appropriate type, scale, and timing of future DSM programs in an integrated analysis alongside potential supply-side alternatives.

Our analysis will use realistic program ramp up rates and other SCE&G specific data such as weather, market infrastructure, customer

demographics, building codes, baselines, rates, avoided costs, cost-effectiveness criteria, system reliability and fuel diversity needs. We anticipate that the results of this study will be available by June 2009.

Q. IS IT LIKELY THAT REASONABLY ACHIEVABLE SCE&G SPONSORED COST EFFECTIVE DSM PROGRAMS COULD CHANGE THE NEED TO BUILD THE PLANTS?

A. No. The national average incremental annual energy savings from DSM in 2006 by states with active DSM programs was 0.58% of total system retail energy sales, with program impacts in active warm climate states like South Carolina averaging approximately 0.36%. As Company witness Dr. Joseph M. Lynch has testified, even an annual reduction of 0.5% in energy demand over the planning horizon would not change the need for the new units or their contribution to system efficiency. As discussed further by Dr. Lynch, the need for the new plants is driven primarily by the existing base load energy requirements of SCE&G customer's, anticipated future carbon regulations and compliance costs, the need for fuel diversity in the capacity portfolio and concern about aging base load coal plants. In my opinion, based on the above considerations, DSM programs will not eliminate the need for the plants.

Q. DO YOU BELIEVE THAT THERE IS AN OPPORTUNITY FOR ADDITIONAL COST EFFECTIVE DSM PROGRAMS WITHIN THE SCE&G SERVICE TERRITORY?

A. Yes. While Dr. Lynch's analysis shows that future DSM programs will not eliminate the need for the new VCSNS units, such programs may reduce the need for future purchased power contracts or other types of capacity, as

well as reduce fuel and variable O&M costs. The ongoing DSM potential study will identify the appropriate characteristics and overall level of such future DSM programs. SCE&G is committed to implementing those programs that have a clear likelihood of creating verifiable savings to the system and its customers. Our evaluation for SCE&G will also consider other key questions, including:

- The role of federal, state, and local building codes and appliance efficiency standards,
- The role of time-differentiated electricity prices and advanced metering systems,
- The role of combined heat and power generation at customer sites,
- Issues of equity between customer classes and participant and non-participants in the programs,
- The cost versus the benefit of DSM programs and the acceptability of increases in rates due to DSM programs that are determined to be cost effective,
- The appropriate recovery by SCE&G of the costs of implementing the DSM programs,
- The appropriate treatment of the lost fixed contribution that can result from certain types of DSM programs, and
- The provision of shareholder returns designed to mitigate the disincentive that current ratemaking practices impose upon DSM programs relative to supply-side resources.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.