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April 24, 2007

Via E-Filing and Mail
Charles L. A. Terreni
Chief Clark/Administrator
South Carolina Public Service Commission
101 Executive Center Drive, Suite 100
Columbia, South Carolina 29210

RE: Petition of the Office of Regulatory Staff to Establish Dockets to Consider Implementing the Requirements of Section 1251 (Net Metering and Additional Standards) of the Energy Policy Act of 2005
PSC Docket No.: 2005-385-E

Dear Mr. Terreni:

Enclosed please find the original and one copy of the Direct Testimony and Exhibits of Kim Diana Connolly in the above referenced docket. I am filing this testimony on behalf of myself and Pamela Greenlaw, another of the interveners. I am not acting in a representative capacity for any party other than myself.

Please note that the attached documents are exact duplicates, with the exception of the form of the signature, of the e-filed copy submitted to the Commission in accordance with its electronic filing instructions.

By copy of this letter we are also serving all other parties of record. Please let me know it you have any questions.

Yours truly,

John F. Hardaway

jem
Enclosure

cc: Parties of Record

TESTIMONY OF
KIM DIANA CONNOLLY
ON BEHALF OF
INTERVENERS
DOCKET NO. 2005-385-E

Q: Please state your name, address, and occupation.

A: My name is Kim Diana Connolly. My business address is 901 Main Street, Columbia, South Carolina, 29208. I am a tenured associate professor at the University of South Carolina School of Law.

Q: Please state your educational background and experience relative to or relevant to issues of power/energy development and usage.

A: I hold an undergraduate chemistry degree from the University of North Carolina at Chapel Hill, where I was a Morehead scholar and graduated in 1987. I hold a certificate in non-profit management from Duke University, which I received in 1989. I received my J.D., *magna cum laude*, from Georgetown University Law Center, in 1993. My area of specialty is environmental law. I engaged in substantial energy law practice when I was with the firm of Van Ness Feldman in Washington DC in the 1990's, and have lectured about energy issues since coming into academic work.

Q: What is the purpose of your testimony today.

A: I have as a purpose for this testimony the provision of my opinions with respect to implementation of Net Metering and certain Additional Standards as required under Section 1251 of the Energy Policy Act of 2005 in South Carolina.

Q: Are you aware that the electric utilities in South Carolina subject to this proceeding of Docket #2005-385-E are the private, investor-owned utilities of Duke Energy Carolinas, LLC; Carolina Power & Light d/b/a Progress Energy Carolinas, Inc., and South Carolina Electric and Gas Company?

A: Yes, I have reviewed the on-line docket page.

Q: Are you aware that under EPAct 2005 states must consider standards that encourage private, investor-owned electric utilities to use energy resources more efficiently?

A: Yes, although I will admit that I have not read each and every page of the 551-page Public Law 109-58 enacted in August 2005.

Q: Are you also aware that Section 1251 of EPAct 2005 requires states to consider the following:

1. **"implementation of Net Metering Service,"**
2. **"development of a plan to minimize dependence on one fuel source & to ensure the electric energy it sells to consumers is generated from a diverse range of fuels and technologies, including renewable technologies"**
3. **"development of a ten-year plan to increase the efficiency of the utility's fossil fuel generation?"**

A: Yes, and I have read that section (as well as related sections in Subtitle E) in its entirety.

Q: What is your understanding of the term "Net Metering Service?"

A: Congress has defined the term "net metering service" EPAct Section 1251 as meaning "…service to an electric consumer under which electric energy generated by that electric consumer from an eligible on-site generating facility and delivered to the local distribution facilities may be used to offset electric energy provided by the electric utility to the electric consumer during the applicable billing period." EPA has explained net metering in the simple terms of "employ[ing] a standard electrical meter to record the flow of energy back and forth between a home generator and the utility's power grid. U.S. Environmental Protection Agency, NET METERING, STATE & LOCAL CLIMATE CHANGE PROGRAM (2000), *available at*

http://yosemite.epa.gov/OAR/globalwarming.nsf/UniqueKeyLookup/SHSU5BUTYL/$File/netmetering.pdf.

Q: What are the goals and purposes of net metering?

A: Net metering allows customers who generate alternative energy to receive full value for the electricity they produce without installing expensive battery storage systems and eliminating the need for duplicate energy meters. This incentivizes investment and encourages the use of small-scale alternative energy systems. It also creates jobs for those who install such meters. Utilities benefit, since they receive increased energy during peak demands, have less transmission loss because of the shorter distance between customers and the utility, avoid the administrative and accounting costs of metering and purchasing small amounts of excess electricity. The security of each particular energy grid is stronger when it can rely on increased sources during times of grid instability or failure. The security of our state's energy system is stronger when renewable, diverse technologies are encouraged. The security of our nation is stronger when our reliance on high-polluting fossil fuels is reduced, even by a small amount.

Q: One of the standards is to increase utilization of renewable energy technologies. Are you aware of the following energy technologies being used and credited in net metering services across the USA? Solar; photovoltaics; biomass; fuel cells; geothermal; hydro –large; hydro—small; landfill gas; wind; tidal energy; CHP/Cogeneration

A: Yes.

Q: Which of these have you explored for personal use?

A: None.

Q: What is your opinion of the recommendation by ORS that the investor-owned electric utilities in South Carolina offer net metering service to their customers?

1 **A:** I fully support the recommendation.

2 **Q:** **What is your opinion of the recommendation by ORS for implementing net**
3 **metering in South Carolina by following the North Carolina model?**

4 **A:** The North Carolina model is inappropriate for South Carolina. More effective net
5 metering policy and law would be a good choice for South Carolina's future, and in
6 keeping with the commitment to "Quality of Life" issues so important to this state. A
7 low threshold in terms of requirements and opportunities is not what the era of global
8 warming and the need for energy independence calls for. A forward-looking law for
9 South Carolina is what we owe our current citizenry as well as future generations.

10 **Q:** **Does this conclude your testimony?**

11 **A:** Yes.

BEFORE
THE PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA

DOCKET NO.: 2005-385-E

IN RE:
Petition of the Office of Regulatory Staff to)
Establish Dockets to Consider Implementing)
the Requirements of Section 1251 (Net)
Metering and Additional Standards) of the)
Energy Policy Act of 2005)

CERTIFICATE OF SERVICE

This is to certify that I, John F. Hardaway, have this date served one (1) copy of the Direct Testimony and Exhibits of Kim Diana Connolly in the above referenced matter to the person(s) named below by causing said copy to be deposited in the United States Postal Service, first class postage prepaid and affixed thereto, and addressed as shown below:

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John F. Hardaway

April 24, 2007
Columbia, South Carolina