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INFORMATION SHEET

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OCT 30 2008

Clerk's Office
N.C. Utilities Commission

PRESIDING: ERVIN PLACE: Dobbs Building, Raleigh, NC

DATE: October 23, 2008 TIME: 1:35 P.M. TO 5:25 P.M.

DOCKET NO.: E-7, Sub 856

TITLE: Application for Approval of a Solar Photovoltaic Distributed Generation Program and for Approval of the Proposed Method of Recovery of Associated Costs

A P P E A R A N C E S :

FOR DUKE ENERGY CAROLINAS, LLC:

Lara S. Nichols
Brian Franklin
Duke Energy Corporation
Post Office Box 1244-PB05E
Charlotte, North Carolina 28201-1244

Robert W. Kaylor
Law Office of Robert W. Kaylor, P.A.
3700 Glenwood Avenue, Suite 330
Raleigh, North Carolina 27612

FOR WAL-MART STORES EAST, LP AND SAM'S EAST:

Rick D. Chamberlain
Behrens, Taylor, Wheeler & Chamberlain
6 N.C. 63rd Street, Suite 400
Oklahoma City, Oklahoma 73105

FOR SOUTHERN ALLIANCE FOR CLEAN ENERGY:

George S. Cavros
Attorney at Law
120 E. Oakland Park Boulevard
Suite 105
Fort Lauderdale, Florida 33334

FOR THE NORTH CAROLINA SUSTAINABLE ENERGY ASSOCIATION:

Kurt J. Olson
North Carolina Sustainable Energy
Association
Post Office Box 6465
Raleigh, North Carolina 27628

(24)

FOR THE SOLAR ALLIANCE AND THE VOTE SOLAR INITIATIVE:

R. Sarah Compton
Attorney at Law
Post Office Box 12728
Raleigh, North Carolina 27605

FOR THE USING AND CONSUMING PUBLIC:

Robert S. Gillam
Staff Attorney
Public Staff - NC Utilities Commission
4326 Mail Service Center
Raleigh, North Carolina 27699-4326

Leonard G. Green
Assistant Attorney General
North Carolina Department of Justice
Post Office Box 629
Raleigh, North Carolina 27602-0629

WITNESSES

JANICE HAGER KENNETH BAKER CARRIE CULLEN HITT
JANE McMANEUS THOMAS STARRS ROSALIE R. DAY
PUBLIC STAFF PANEL: ELISE COS AND JAMES McLAWHORN

EXHIBITS

- ✓ STARRS DIRECT EX. 1-3 ✓ PUBLIC STAFF APPENDIX A AND B
✓ HITT ATTACHMENT A ✓ PUBLIC STAFF DIRECT CONFIDENTIAL EXHIBITS 1 AND 2
✓ PUBLIC STAFF McMANEUS CONFIDENTIAL EXHIBIT 1

Briefs _____ or Within _____ days from mailing of transcript.
Proposed Orders _____ Within _____ days. Waived _____
Due:

COPIES ORDERED _____

Commissioners: _____

Chief Clerk: _____ Others: _____

Reported by: _____ Dated Transcribed: _____ TITLE PGS.

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Transcribed by: _____ TRANSCRIPT PGS. 165

TOTAL PGS. 259

ADDITIONAL INFORMATION _____

PREFILED PGS. 90

STARRS EXHIBIT 1

Thomas J. Starrs

5808 SW 41st Avenue
Portland, OR 97221
Phone: (503) 501-7176
Email: tomstarrs@comcast.net

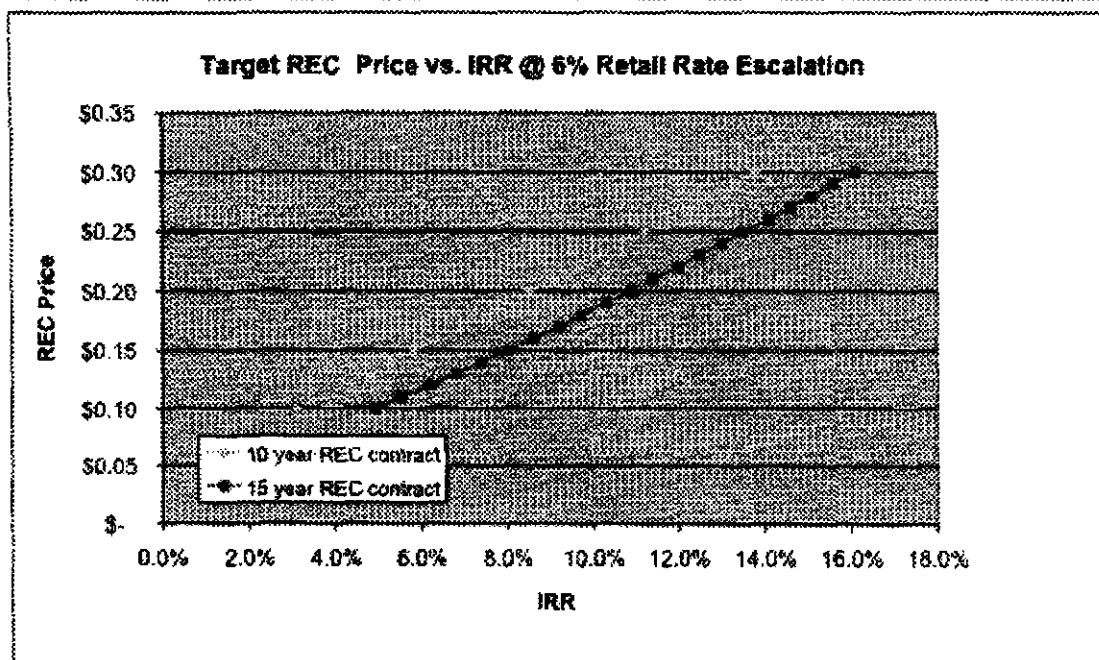
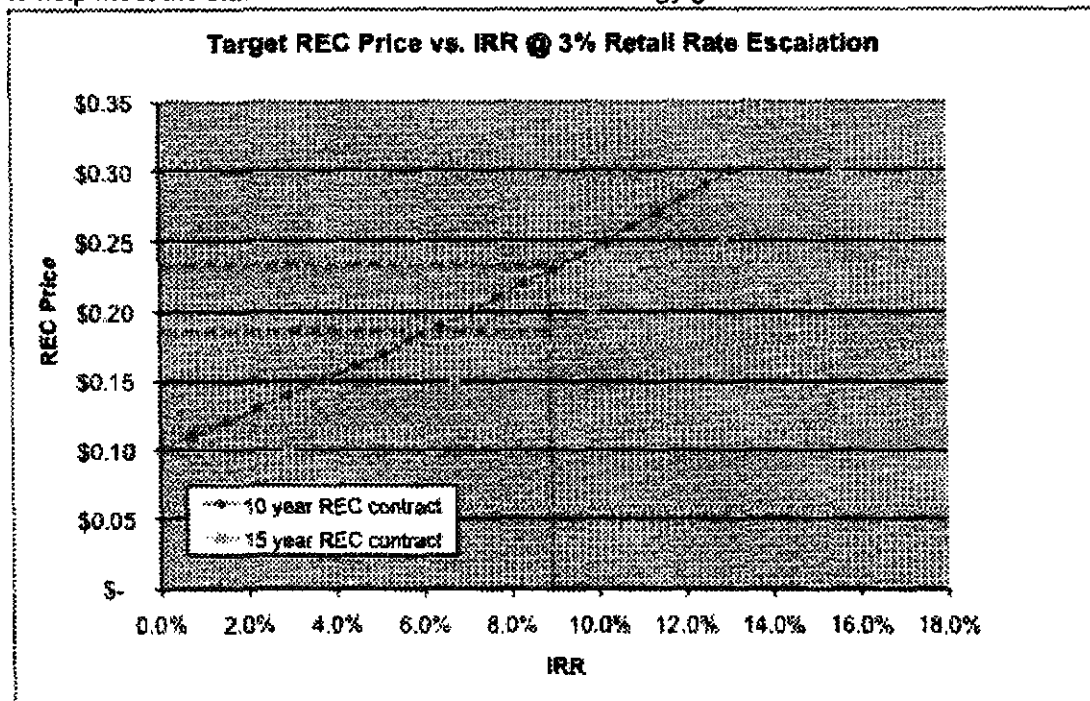
- EDUCATION** **Energy & Resources Group, University of California, Berkeley**
Ph.D., 1996
- School of Law (Boalt Hall), University of California, Berkeley**
J.D., 1988
- Energy & Resources Group, University of California, Berkeley**
M.A., 1987
- University of California, Santa Barbara**
B.A. with Highest Honors, Economics and Environmental Studies, 1983
- EXPERIENCE** **Iberdrola Renewables (formerly PPM Energy, Inc.)**
Portland, Oregon
Managing Director, Solar Power, May 2007-July 2008
- Bonneville Environmental Foundation**
Portland, Oregon
Chief Executive Officer, April 2007 – May 2007
Chief Operating Officer, July 2005 – March 2007
Vice President, Marketing and Sales, January 2004 – March 2007
- RWE Schott Solar Inc. (now Schott Solar Inc.)**
Sacramento, California
Executive Vice President, May 2003 – November 2003
- Schott Applied Power Corp.**
Sacramento, California
President, March 2002 – May 2003
- Kelso Starrs & Associates LLC**
Vashon Island, Washington
Founding partner, renewable energy consulting firm, 1995 - 2002
- Perkins Cole**
Seattle, Washington and Washington, D.C.
Attorney, 1988 - 91
- OTHER** **Admitted to the Bar of the State of Washington, 1989-Current**
Board of Directors, The Prometheus Institute, 2005-Current
Board of Directors, Fat Spaniel Technologies, 2005-Current
Advisory Board, V2Green, 2007-Current
Advisory Board, Vote Solar, 2005-Current
Board of Directors, Center for Energy Efficiency and Renewable Technologies, 2002-Current
Board of Directors, Solar Energy Industries Association, 2007 – 2008
Board of Directors, Solar Alliance, 2007 – 2008
Board of Directors, American Solar Energy Society, 2000-2007
Recipient of numerous honors, awards, fellowships & prizes

STARRS EXHIBIT 2

Analysis of the Internal Rate of Return at Various REC Prices for a Representative Customer in Raleigh, NC with a 200 kW PV System

The purpose of this analysis was to determine the level of renewable energy credit pricing which was necessary for a commercial solar project in North Carolina to achieve between a 9-12% rate of return.

Under current regulations and business climate, a commercial solar project in North Carolina rarely makes a compelling case for adopting solar generation. This analysis looks at what level of renewable energy credit pricing along with REC contract length will allow the photovoltaic market to help meet the state's renewable and distributed energy goals.

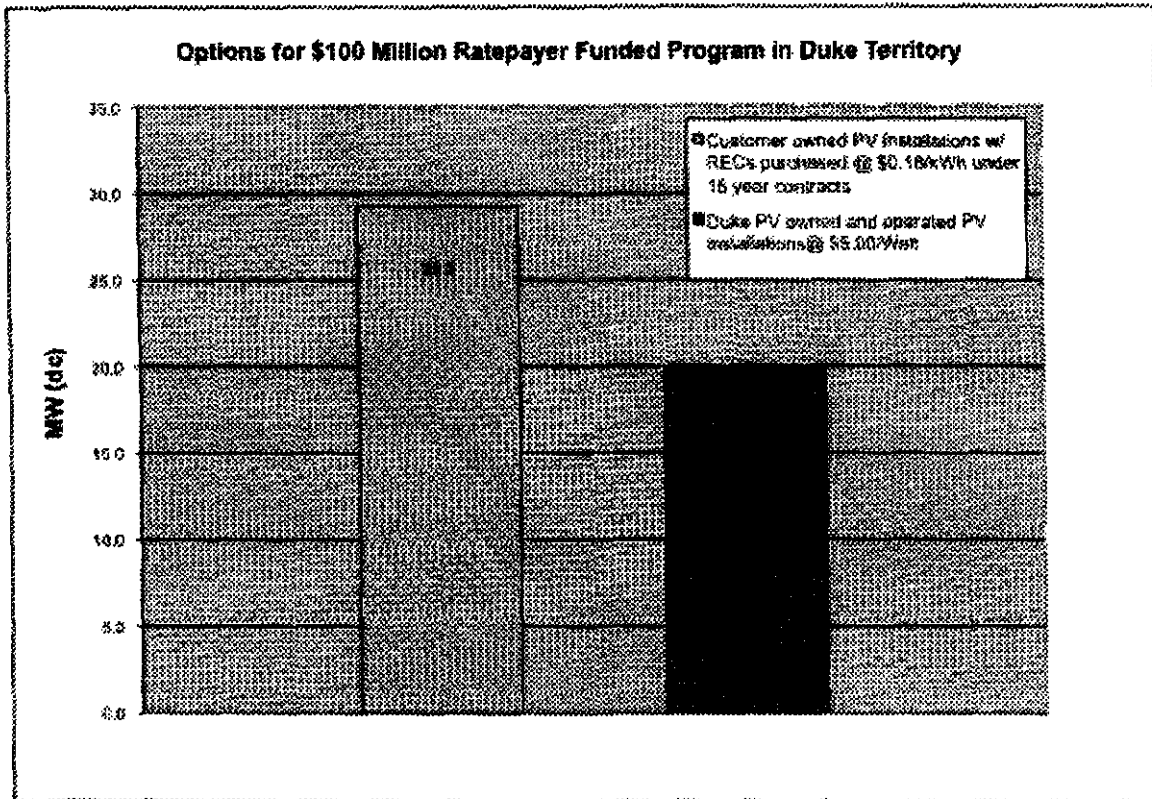


STARRS EXHIBIT 2 (CONTINUED)

Assumptions:		
System Parameters:		
Sample Box Store Customer:		
Location:	Raleigh	
Average monthly usage	235600 kWh	
Average demand	615kW/460kW summer/winter	
PV Cost (\$/Watt)		
Commercial	\$5.50 standard test conditions	
System Size 200 kilowatts		
Total system cost	\$	1,300,624
PV Cost Reduction	2% per year	
PV Production	1,191 kWh/kW STC	
System Degradation	0.5% per year	
System Tilt	15 degrees	
Inverter Replacement	15 years	
Inverter Cost	\$	270 per kW
Maintenance Cost	0.25% of system cost/year	
Solar Incentives:		
Tax Credits		
	Credit	Cap
Federal ITC		
Residential	30%	\$ 2,000
Commercial	30%	
State ITC		
Residential	35%	\$ 10,500
Commercial	35%	\$ 2,500,000
Utility Power Parameters:		
Utility Rates (\$/kWh)		
Commercial	\$	0.072 Time of Use Rates - Duke OPT-G
Utility Rate Escalation	Variable 3 or 6% per year	
Utility Cost of Capital	7.5%	
Economic Parameters:		
General Inflation	3.0%	per year
Target IRR / Discount Rate		
Commercial	9%-12%	
Tax Rates		
Federal		
Residential	28%	per year
Commercial	35%	
State:		
Residential	7.5%	
Commercial	6.9%	
MACRS Depreciation		
Year	1	2
Commercial	20.0%	32.0%

STARRS EXHIBIT 3

**Comparison of Amount of Solar Energy \$100 Million Buys:
Customer vs. Utility-Owned PV Generation**



Carrie Cullen Hitt
48 Booth Hill Road
Scituate, MA 02066
cullenhitt@hotmail.com
617-688-9417

PROFESSIONAL EXPERIENCE

President, Solar Alliance

August 2008 - Present

- Oversees all activities of the organization - a 501C6 corporation

The Solar Alliance is a state-focused association of the world's leading solar photovoltaic (PV) manufacturers, integrators, installers and financiers dedicated to accelerating the deployment of solar electric power in the United States. The Solar Alliance and its members have a strong interest in the adoption and implementation of far-reaching policies and programs that will accelerate the movement toward a low-carbon economy and stimulate the development and use of zero-carbon, renewable energy technologies such as solar PV.

Vice President, Sustainable Energy Solutions, Constellation Energy Resources

March 2007 - July 2008

- Responsible for new product development for retail sustainability products, including renewable energy, greenhouse gas assessment and carbon offsets.
- Develop and implement market strategy, product margin and pricing.
- Manage team of 10 subject and functional experts, as well as revenues and SG&A for product line.
- Oversee marketing and public relations campaign; operational/processing and sales support.
- Lead company external interface. Including relationships with NGOs and other standard setting parties.
- Direct CNE internal GHG assessment and mitigation program.

Vice President, National Government and Regulatory Affairs, Constellation NewEnergy

January 2004 - February 2007

National Director, Government and Regulatory Affairs, Constellation NewEnergy

April 2003 - December 2003 - Baltimore, MD and Boston, MA

- Directed public affairs initiatives for Constellation New Energy, the largest retail electricity company in the U.S. Develop strategy for all company political and regulatory activities in all U.S. and Canadian markets.
- Managed a \$7 million budget and staff of 15 located throughout the U.S. and Canada.
- Managed relationships with policymakers, company representatives and industry organizations. Represent the company at industry forums, including government officials and testimony before legislatures and regulatory agencies. Serve as an expert witness.
- Lead public affairs interface and analysis with holding company (Constellation Energy, Fortune 200) and all company affiliates.
- Member of the company's risk, sales commitment and stakeholder management committees.
- Reported to the President and CEO and served as an officer of the company.

PROFESSIONAL EXPERIENCE (CONT.)

Director, Product Development, Constellation NewEnergy, New England

March 2001 – May 2003 (under AES management) and August 1997-March 1999 - Boston, MA

- Represented the company in the New England and New York markets.
- Developed regulatory strategy for retail and wholesale operations, include ISO/RTO matters.
- Participated in various national industry associations. Managed renewable energy initiatives.
- Responsible for managing the region's budget process and develop expense forecasts.
- Established and launched program for small commercial customers.

Director, Regional Business Development, Green Mountain Energy Company

April 1999 – March 2001 - Austin, TX

- Created and implemented business plan for the New England region. Primary focus was residential customers.
- Managed cross-functional project team, negotiated wholesale supply contract, and arranged for substantial investment from state renewable energy fund.
- Represented the company on regional and national regulatory matters.

Assistant Director, Harvard Electricity Policy Group

June 1995 – July 1997 - Cambridge, MA

- Served as administrator for a project focused on competition in the electricity industry in the US and other countries.
- Conducted research and authored reports for project participants, including state and federal policy makers, private and public companies and academics.
- Co-authored several published articles on issues such as wholesale market power.
- Participated in consulting projects for Japan and Thailand. Administered budget and managed participant communication.

Senior Research Analyst, Joint Committee on Energy, Massachusetts Legislature Boston, MA

1991 – 1993

- Analyzed and advised in various aspects of energy policy.
- Reviewed economic and environmental impacts of generation facilities.
- Wrote testimony, authorized reports and opinion pieces.

Internships:

The Alliance to Save Energy, September 1994-1995

Massachusetts Department of Telecommunications and Energy, Summer 1994

Teaching Assistant, Holy Cross and Clark University summer program in Luxembourg, 1990

Consulting:

Served as consultant to the Massachusetts Joint Committee on Energy on restructuring matters throughout 1997.

EDUCATION

M.A. International Economics, the School of Advanced International Studies,
Johns Hopkins University, Bologna, Italy & Washington, DC 1995

B.A. Government & History, Clark University, Worcester, Massachusetts 1990

Papers and presentations available upon request.

PUBLIC VERSION

*E-7 Sub 856
T/A 10/23/88 PB*

APPENDIX A

ELISE COX

I have a Masters in Business Administration from the University of South Carolina and a Bachelor of Science from Virginia Commonwealth University. I am a Certified Public Accountant and a member of the North Carolina Association of Certified Public Accountants and the American Institute of Certified Public Accountants.

I was employed by the Public Staff on October 1, 1980. In 1983, I was named Supervisor of the Natural Gas Section of the Public Staff Accounting Division. In 1986, I assumed my present position as Assistant Director of the Public Staff Accounting Division, which includes supervision of all electric matters. It is my responsibility to supervise and participate in the analysis of testimony and exhibits presented by parties in rate case proceedings. Additionally, I have participated in the examination of the books and records of utilities involved in rate case proceedings and have offered testimony and exhibits for presentation before this Commission.

I have also been involved in other matters and proceedings that have come before the Commission such as the investigation into utility rate reductions related to the Tax Reform Act of 1986, reviews of affiliated transactions, the investigation of emerging issues in electric industry restructuring, the investigations of the Duke and PanEnergy and the Carolina Power & Light Company and North Carolina Natural Gas merger filings, the establishment of decommissioning guidelines, and the reviews of special rate proposals and amortization proposals. I was also on the Public Staff Y2K Committee and I was involved in monitoring the Y2K compliance efforts of the regulated utilities in North Carolina.

PUBLIC VERSION

E-7 Sub 856
I/A 10/23/08 PB
APPENDIX B

JAMES S. MCLAWHORN

I graduated with honors from North Carolina State University with the Bachelor of Science Degree in Industrial Engineering in May of 1984. I received the Master of Science Degree in Management with a finance concentration from North Carolina State University in December of 1991. While an undergraduate, I was selected for membership in both Tau Beta Pi and Alpha Pi Mu engineering honor societies.

I began my employment with the Public Staff Communications Division in June of 1984. While with the Communications Division, I testified before the Commission in general rate proceedings regarding matters of telephone quality of service.

In September of 1987, I was employed by GTE-South as an engineer in the Capital Recovery Department. I was responsible for analysis and recommendations to Company management regarding appropriate depreciation rates for recovery of the Company's capital investments

I began my employment with the Electric Division of the Public Staff in November of 1988. I assumed my present position as Director of the Electric Division in October of 2006. It is my responsibility to supervise and make policy recommendations on all electric utility matters before the Commission.

I have testified previously before the Commission in Virginia Electric and Power Company Rate Case Docket Nos. E-22, Sub 314, Sub 333, and Sub 412; in New River Light and Power Company Rate Case Docket Nos. E-34, Sub 28, and Sub 32; in Duke Power Company Rate Case Docket No. E-7, Sub 487; in Nantahala Power and Light Company Rate Case Docket No. E-13, Sub 157; in the Application of Dominion North Carolina Power to join PJM in Docket No. E-22, Sub 418; in Duke Power Company's request to merge with Cinergy Corporation in Docket No. E-7, Sub 795; and, in the Generic Investigation into Section 111 of the 1992 Energy Policy Act in Docket No. E-100, Sub 69.

FILED**OCT 10 2008**

E/A 10/23/08 AB

DUKE ENERGY CAROLINAS, LLC**Docket No. E-7, Sub 856
Renewables Requirements
(MWH)****Clerk's Office
N.C. Utilities Commission**

Line No.	Item	2010	2011	2012	2013	2014	2015	2016	2017	2018
1.	Solar	[1]								
2.	<u>Solar Production</u>									
3.	Duke Project (20 MW)	[2]	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]
4.	Sun Edison		[2]	[3]	[3]	[3]	[3]	[3]	[3]	[3]
5.	Total (Line 3 + Line 4)									
6.	Banked RECs (Line 5 - Line 1 + Carryover)									

[1] Calculated from information provided by Company.

[2] Assumes 50% of production in start-up year.

[3] Provided by Company.

I/A 10/23/08 PB

DUKE ENERGY CAROLINAS, LLC**Docket No. E-7, Sub 856****Renewables Requirements****(MWH)**

Line No.	Item	2010	2011	2012	2013	2014	2015	2016	2017	2018
1.	Solar	[1]								
2.	<u>Solar Production</u>									
3.	Duke Project (10 MW)	[4]	[4]	[4]	[4]	[4]	[4]	[4]	[4]	[4]
4.	Sun Edison		[2]	[3]	[3]	[3]	[3]	[3]	[3]	[3]
5.	Total (Line 3 + Line 4)									
6.	Banked RECs (Line 5 - Line 1 + Carryover)									

[1] Calculated from information provided by Company.

[2] Assumes 50% of production in start-up year.

[3] Provided by Company.

[4] Assumes 50% of Duke's proposed MW and MWH generation of its solar project.