OFFICIAL COPY

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LAW OFFICE OF

FILED FEB 07 2012 Clerk's Office N.C. Utilities Commission

February 7, 2012

Gail L. Mount Deputy Clerk Office of the Chief Clerk North Carolina Utilities Commission 4325 Mail Service Center Raleigh, NC 27699-4325

RE: Docket No. E-7, Sub 856

Dear Mrs. Mount:

Enclosed for filing are the original and thirty (30) copies of Duke Energy Carolinas, LLC's 2011 Annual Cost Update in the above referenced docket.

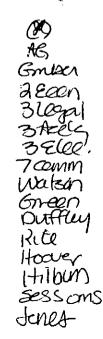
Sincerely,

Pobert W : Kaylon

Robert W. Kaylor

Encls.

cc: Parties of Record



#### DOCKET NO. E-7, SUB 856 DUKE ENERGY CAROLINAS, LLC'S 2011 ANNUAL COST UPDATE Clerk's Office N.C. Utilities Commission

As of January 31, 2012, Duke Energy Carolinas, LLC ("Duke Energy Carolinas" or "the Company") has completed phases I and III of the NC Solar PV DG program ("the Program"), approved in the North Carolina Utilities Commission's *Order Granting Certificate of Public Convenience and Necessity With Conditions* in the above-referenced docket, securing 16 commercial, 7 residential and 2 Company sites with an aggregate capacity of 10 megawatts (MW) DC. Phase I focused on identifying, constructing and installing several larger systems (500-1,500 kW). Phase II involved the acquisition and installation of small to mid-range systems (50-500 kW), one larger system (2,174 kW) and several small installations of various solar technologies at Marshall Steam Station (1,025 kW). Phase II is in the final phases of construction. Phase III included the installation of seven (7) residential systems (~ 2.3 kW each, 16 kW total).

On April 16, 2011, a fire occurred within the solar equipment at the National Gypsum rooftop site. All affected Company solar facilities with similar system protection designs (16 in total) were removed from service until enhanced system protection, improved cable management processes, continuous monitoring were implemented and warranty work as a result of third party inspections completed. As of January 31, 2012, 12 of the 16 sites (6.2 MW) have returned to service. Other sites are expected to return in February with the exception of National Gypsum and Highwoods. National Gypsum and Highwoods will return to service in the 2<sup>nd</sup> quarter of 2012. Extensive warranty work was identified through the third party inspections at Highwoods.

The Company chose to incorporate approximately 58 kW of Concentrated Photovoltaic Solar ("CPV") capacity from multiple suppliers at the Marshall site. This enables the Company to further broaden its experience with various solar technologies within the Program. The CPV capacity is expected to be operational by the 2<sup>nd</sup> quarter of 2012.

Costs for the remaining enhanced system protection work and CPV capacity at the Marshall site will be included in future filings. An overview of the site installations and the costs incurred are provided on the following pages. As the Company has completed almost all of the installations, such installations have been placed into service and commercial negotiations relating to procurement and construction of the various sites are not ongoing, the cost information relating to the components and installation will now be disclosed publicly.

# DOCKET NO. E-7, SUB 856 ĐUKE ENERGY CAROLINAS, LLC'S 2011 ANNUAL COST UPDATE

### PROGRAM SITES OVERVIEW

		In Service	kW Size	Estimated Annual MWH				
	Site	Date	(DC)	(AC)				
	National Gypsum	29-JAN-10	1,208	1,590				
	Childress Klein	31-JAN-10	532	700				
	Highwoods	01-APR-10	1,495	1,968				
Phase I	Food Lion	10-MAY-10	1,090	1,435				
L Ph	McAlpine	15-MAY-10	50	72				
	Carrier Centers	03-NOV-10	528	695				
	Lincoln Charter School	13-AUG-10	161	212				
	Gaston County Schools	07-MAY-10	71	93				
	City of Charlotte	19-AUG-10	113	148				
	EPA	13-APR-10	109	144				
	Freightliner	29-DEC-10	358	515				
	Siemens	15-NOV-10	52	74				
	Childress Klein	15-OCT-10	2,174	2,861				
	Liberty Hardware	01-SEP-10	309	407				
1	Maple View Agricultural	01-SEP-10	180	259				
	Kimberly Clark	27-OCT-10	84	120				
	Thomas Built Buses	29-NOV-10	388	558				
Phase II	Marshall	29-DEC-10	915					
HA II		27-JAN-11	110	1,613				
Phase III	Residential	31-DEC-10	16	21				
СРV	Marshall	Q1 2012	58					
			10,000	13,485				

## DOCKET NO. E-7, SUB 856 DUKE ENERGY CAROLINAS, LLC'S 2011 ANNUAL COST UPDATE

## PROGRAM COSTS OVERVIEW

	2009					2019					2011									
	I	Panels & Equipment		Installation Costs	ĺ	Total		Pancis & Equipment		Installation Costs	Γ	Total		Panels & Equipment		testallation Costs	Γ	Total		Site Totals
ir heroods	\$	2.615.250	5	498,171	\$	1,114,421	\$	•	Ś	2,986.114	\$	2,585,114	5	(273.125)		-	\$	(273,125)	\$	5,827,410
ood Lice	5	1,609,195	5	87,342	5	1,696,537	\$	289,800	5	2,598,299	5	2,000,099	5	(380,190)	\$	•	\$	(390,190)	5	4,204,44
Nikirera Kilela	5	1.011.655	5	\$45,600	5	1,157,255	\$		\$	111,354	\$	111,354	S	•	\$	•	\$	<b>-</b> .	\$	1,968,60
ation Gypsum	5	2,113,930	5	2,603,053	5	4,716,924	\$	•	5	71,842	\$	71,842	5	•	\$		\$	-	5	4,784,82
cAlpine	5	340,053	5	102,621	\$	442,674	\$	•	5	40,209	\$	40,209	5	•	\$	•	\$	•	\$	482,88
2009 Total Casts	5	7,491,083	5	4,136,787	5	11,827,871			_		-		_				_			
2009 Leases	\$	6,972			EPA		5		5	211,335	5	211_335	5	273,125	\$		\$	273,125	\$	434,45
2009 O&M	5	32.062			Gant	ton C. Sch.	\$	123,970	5	304,066	5	428.036	5	•	S	•	5		\$	428.03
Total	5	39,034			i Jaco	ohn C3	\$	281,750	5	301,796	5	\$90,546	5	•	\$	• :	\$	. •	5	550,54
					Carri	ier Center	\$	903,017	5	491_337	5	1,794,354	5	-	Ś	•	5	-	5	1,754,35
					City	of QT	\$	197,225	5	216,384	15	413,609	5	-	\$	•	5	-	5	413,60
					Sie	Herna I	5	93,605	5	117,663	15	211,268	İs	(6,872)	\$	(1,031)	5	(7,903)	5	203.35
					Ube	rty HW	\$	414,575	5	566,612	5	981,187	5	64,630	\$	-	5	64,630	\$	1,045,81
					αr	1	5	3,880,100	5	3,254,423	5	7,174,923	5	-	\$	•	\$		\$	7,174.92
					Мар	de View	\$	-	5	359,554	\$	359,554	5	315,560 (	\$	•	\$	315,560	\$	575.11
					lümi	berty Clark	\$	141,981	5	227,809	5	363,790	5	(10,379)	5	(1,557)	\$	(11,936)	\$	357,85
					Freis	httiner	5	613,541	S	315.072	\$	\$29,620	5		5	420,978	5	420,978	\$	1,350,59
					TBO		\$	780,393	5	695,796	5	1,476,191	5	.+	\$	74,812	5	74,612	\$	1,551,00
					Man	shali	5	1,881,662	5	1,556,609	5	3,434,271	5	604,983	\$	719,183	\$	1,324,156	\$	4,762,43
					Resi	dential	\$	•	\$	64,705	\$	64,706	5	31,007	5	192	5	31,139	\$	95,84
						2010 Total Costs	\$	9,601,628	5	14,939,380	\$	24,541,008					_			
					,	2010 Leanes	5	121.663			Um	pades	s	85. <b>1</b> 64	\$	531,717	s	617,SE1	s	617,58
				1		2010 OEM	5	6.000				rshall CPV	s	110,367	5	296,273		406,640	5	406,64
					'		_				F	2011	-							-
						Total	\$	127,663			L	Total Cests	5	\$14,570	5	2,040,507	\$	2,855,477	\$	39,224,35
												2010 Leases	\$	147,054				Total Leases	\$	275,73
												2010 OBM	5	135,250				Total O&M	5	173,31
												Tetal	s	282,304						

Total \$ 33,673,401

#### CERTIFICATE OF SERVICE

I certify that a copy of the Duke Energy Carolinas, LLC's 2011 Annual Cost Update in Docket No. E-7, Sub 856, has been served by electronic mail (e-mail), hand delivery or by depositing a copy in the United States Mail, first class postage prepaid, properly addressed to parties of record.

This the 7<sup>th</sup> day of February, 2012.

Robert & Hayla

Robert W. Kaylor Law Office of Robert W. Kaylor, P.A. 3700 Glenwood Avenue, Suite 330 Raleigh NC 27612 (919) 828-5250 NC State Bar No. 6237