

INFORMATION SHEET

**OFFICIAL COPY**

PRESIDING: Finley, Brown-Bland, Bailey, Dockham, Patterson, Gray

PLACE: Dobbs Building, Raleigh, North Carolina

DATE: April 19, 2017 (Volume 5)

TIME: 2:00 p.m. to 5:00 p.m.

DOCKET NO.: E-100, Sub 148

COMPANIES: Duke Energy Carolinas, LLC, Duke Energy Progress, LLC,  
Virginia Electric and Power Company, d/b/a Dominion  
North Carolina Power, Cypress Creek Renewables, LLC

DESCRIPTION: General Electric Biennial Determination of Avoided Cost Rates  
for Electric Utility Purchases from Qualifying Facilities - 2016

APPEARANCES

FOR DUKE ENERGY CAROLINAS, LLC, AND  
DUKE ENERGY PROGRESS, LLC:

Lawrence B. Somers, Esq.

Kendrick C. Fentress, Esq.

E. Brett Breitschwerdt, Esq.

Robert W. Kaylor, Esq.

FOR VIRGINIA ELECTRIC AND POWER COMPANY, D/B/A  
DOMINION NORTH CAROLINA POWER:

Andrea R. Kells, Esq.

Bernard L. McNamee, Esq.

Horace P. Payne, Jr., Esq.

FOR NORTH CAROLINA SUSTAINABLE ENERGY ASSOCIATION:

Peter H. Ledford, Esq.

Charlotte Mitchell, Esq.

FOR CAROLINA UTILITY CUSTOMERS ASSOCIATION:

Robert F. Page, Esq.

FOR THE NORTH CAROLINA PORK COUNCIL:

Kurt J. Olson, Esq.

FOR SOUTHERN ALLIANCE FOR CLEAN ENERGY:

Gudrun Thompson, Esq.

Lauren J. Bowen, Esq.

Peter Stein, Esq.

FOR CAROLINA INDUSTRIAL GROUP FOR FAIR  
UTILITY RATES, I, II AND III:

Adam Olls, Esq.

FOR NTE CAROLINAS SOLAR, LLC:

M. Gray Styers, Jr., Esq.

**FILED**

**MAY 09 2017**

Clerk's Office  
N.C. Utilities Commission

APPEARANCES CONT'D.

FOR CYPRESS CREEK RENEWABLES:

Thadeus B. Culley, Esq.

FOR NORTH CAROLINA ELECTRIC  
MEMBERSHIP CORPORATION:

Michael D. Youth, Esq.

FOR THE NORTH CAROLINA ATTORNEY GENERAL:

Jennifer T. Harrod, Esq.

FOR THE USING AND CONSUMING PUBLIC

Tim R. Dodge, Esq.

Lucy E. Edmondson, Esq.

Heather D. Fennell, Esq.

Robert Josey, Jr., Esq.

WITNESSES

PANEL - CONT'D: Glen A. Snider, Kendal C. Bowman, Gary Freeman

PANEL Bruce E. Petrie, J. Scott Gaskill

EXHIBITS

Freeman Direct Exhibit 1 - Admitted

Freeman Rebuttal Exhibit 1 Admitted

Freeman Rebuttal Exhibit 2 Admitted

NCSEA Duke Panel Exhibits 1, 2, 3, 4 Admitted

NCSEA Duke Panel Confidential Cross Exhibit 5 (Filed under seal) Identified/Admitted

SACE Duke Panel Confidential Cross Exhibit 1 (Filed under seal) Admitted

SACE Duke Panel Cross Exhibits 2, 3, 4 Admitted

SACE Duke Panel Confidential Cross Exhibit 5 (Filed under seal) Admitted

Public Staff Snider Cross Exhibits 1, 2, 3 Admitted

Public Staff Snider Confidential Cross Exhibits 4, 5, 6 (Filed under seal) Identified/Admitted

Duke Bowman Redirect Exhibit 1 Identified/Admitted

Joint Initial Statement and Proposed Standard Avoided

Cost Rate Tariffs of Duke Energy Carolinas, LLC and

Duke Energy Progress, LLC Identified/Admitted

Exhibit JSG-1 Identified

Rebuttal JSG-1 Identified

Exhibit BEP-1 Identified

Confidential BEP-1 (Filed under seal) Identified

Exhibit BEP-2 Identified

pg. 1 of 182  
Filed in docket on 11/15/16 as public  
and confidential

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EMAIL COPIES ORDERED: Dodge, Fennell, Edmondson, Josey, Harrod, Fentress, Kells, Bowen,  
Culley, Ledford

HARD COPIES ORDERED: Finley, Buffkin, ~~Harrod, Kells, Bowen, Culley, Ledford~~, Sessoms

CONFIDENTIAL: Dodge, Harrod, Fentress, Somers, Bowen, Culley, Ledford, Mitchell

REPORTED BY: Linda Garrett

TRANSCRIBED BY: Linda Garrett

DATE TRANSCRIBED: May 2, 2017

TRANSCRIPT PAGES: 144

PREFILED PAGES: 131

NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP

DATE 4/18  
DOCKET #: E-100, Srl-148  
NAME OF ATTORNEY Kenneth Fentress  
TITLE Associate General Counsel  
FIRM NAME Dwy Energy  
ADDRESS \_\_\_\_\_  
CITY Raleigh NC  
ZIP \_\_\_\_\_

APPEARING FOR: \_\_\_\_\_

APPLICANT ☒ COMPLAINANT \_\_\_\_\_ INTERVENOR \_\_\_\_\_  
PROTESTANT \_\_\_\_\_ RESPONDENT \_\_\_\_\_ DEFENDANT \_\_\_\_\_

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NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP

DATE 4/8/17  
DOCKET #: 6-100 SK 148  
NAME OF ATTORNEY Lawrence B. Sowers  
TITLE Deputy General Counsel  
FIRM NAME Duke Energy Corp.  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_  
ZIP \_\_\_\_\_

APPEARING FOR: Duke Energy Carolinas LLC + Duke  
Energy Progress LLC

APPLICANT ☒ COMPLAINANT \_\_\_\_\_ INTERVENOR \_\_\_\_\_  
PROTESTANT \_\_\_\_\_ RESPONDENT \_\_\_\_\_ DEFENDANT \_\_\_\_\_

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**NORTH CAROLINA UTILITIES COMMISSION**  
**APPEARANCE SLIP**

DATE April 15, 2017  
DOCKET #: E-100, Sub 148  
NAME OF ATTORNEY Robert W. Kaylor  
TITLE Attorney  
FIRM NAME Law Office of Robert W. Kaylor, P.A.  
ADDRESS 353 E. Six Forks Rd. Ste. 260  
CITY Taraleigh NC  
ZIP 27609

**APPEARING FOR:** Duke Energy Carolinas, LLC  
Duke Energy Progress, LLC

APPLICANT \_\_\_\_\_ COMPLAINANT \_\_\_\_\_ INTERVENOR \_\_\_\_\_  
PROTESTANT \_\_\_\_\_ RESPONDENT \_\_\_\_\_ DEFENDANT \_\_\_\_\_

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NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP

DATE 4-18  
DOCKET #: E-100 Sub 148  
NAME OF ATTORNEY F. Brett Breitshardt  
TITLE \_\_\_\_\_  
FIRM NAME McGuire Woods LLP  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_  
ZIP \_\_\_\_\_

APPEARING FOR: Duke Progress

APPLICANT X COMPLAINANT \_\_\_\_\_ INTERVENOR \_\_\_\_\_  
PROTESTANT \_\_\_\_\_ RESPONDENT \_\_\_\_\_ DEFENDANT \_\_\_\_\_

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NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP

DATE 4/18/17  
DOCKET #: E100 Sub 148  
NAME OF ATTORNEY Andrea Kells  
TITLE Counsel  
FIRM NAME McOmre Woods  
ADDRESS 434 Fayetteville St.  
CITY Raleigh  
ZIP 27601

APPEARING FOR: Dominion

APPLICANT ☒ COMPLAINANT \_\_\_\_\_ INTERVENOR \_\_\_\_\_  
PROTESTANT \_\_\_\_\_ RESPONDENT \_\_\_\_\_ DEFENDANT \_\_\_\_\_

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NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP

DATE 4-18-17  
DOCKET #: E-100 sub 148  
NAME OF ATTORNEY Bernard L. McNamara  
TITLE Sr. Counsel  
FIRM NAME McGuire Woods LLP  
ADDRESS 800 E. Canal St  
CITY Richmond, VA  
ZIP 23219

APPEARING FOR: Dominion North Carolina Power

APPLICANT ☒ COMPLAINANT \_\_\_\_\_ INTERVENOR \_\_\_\_\_  
PROTESTANT \_\_\_\_\_ RESPONDENT \_\_\_\_\_ DEFENDANT \_\_\_\_\_

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NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP

DATE April 18, 2012  
DOCKET #: E-100, Sub 148  
NAME OF ATTORNEY Adam Olls  
TITLE \_\_\_\_\_  
FIRM NAME Barley & Dixon, LLP  
ADDRESS 434 Fayetteville Street, Suite 2500  
CITY Raleigh  
ZIP 27601

APPEARING FOR: Carolina Industrial Group for Fair Utility Rates I, II + III

APPLICANT \_\_\_\_\_ COMPLAINANT \_\_\_\_\_ INTERVENOR \_\_\_\_\_  
PROTESTANT \_\_\_\_\_ RESPONDENT \_\_\_\_\_ DEFENDANT \_\_\_\_\_

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NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP

DATE 4/18/17  
DOCKET #: E-100 Sub 148  
NAME OF ATTORNEY Peter Stem  
TITLE Attorney  
FIRM NAME Southern Environmental Law Center  
ADDRESS 601 W Rosemary St.  
CITY Chapel Hill  
ZIP 27516

APPEARING FOR: Southern Alliance for Clean Energy

APPLICANT \_\_\_\_\_ COMPLAINANT \_\_\_\_\_ INTERVENOR ☒  
PROTESTANT \_\_\_\_\_ RESPONDENT \_\_\_\_\_ DEFENDANT \_\_\_\_\_

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NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP

DATE April 18, 2017  
DOCKET #: E-100 Sub 148  
NAME OF ATTORNEY Lawren J. Bowen  
TITLE Staff Attorney  
FIRM NAME Southern Environmental Law Center  
ADDRESS 601 W. Rosemary St #220  
CITY Chapel Hill, NC  
ZIP 27516

APPEARING FOR: Southern Alliance for Clean Energy

APPLICANT \_\_\_\_\_ COMPLAINANT \_\_\_\_\_ INTERVENOR ☒  
PROTESTANT \_\_\_\_\_ RESPONDENT \_\_\_\_\_ DEFENDANT \_\_\_\_\_

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NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP

DATE 4/18/17  
DOCKET #: E-100, Sub 148  
NAME OF ATTORNEY Michael D. Youth  
TITLE Associate Gen Counsel  
FIRM NAME NCEMC  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_  
ZIP \_\_\_\_\_

APPEARING FOR: NCEMC

APPLICANT \_\_\_\_\_ COMPLAINANT \_\_\_\_\_ INTERVENOR X  
PROTESTANT \_\_\_\_\_ RESPONDENT \_\_\_\_\_ DEFENDANT \_\_\_\_\_

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NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP

DATE 4/18/17  
DOCKET #: E 100 Sub 148  
NAME OF ATTORNEY Kurt Olson  
TITLE \_\_\_\_\_  
FIRM NAME Law Office of Kurt Olson  
ADDRESS 3737 Glenwood Ave. Suite 100  
CITY Raleigh NC  
ZIP 27602

APPEARING FOR: North Carolina Pork Council

APPLICANT \_\_\_\_\_ COMPLAINANT \_\_\_\_\_ INTERVENOR ☒  
PROTESTANT \_\_\_\_\_ RESPONDENT \_\_\_\_\_ DEFENDANT \_\_\_\_\_

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NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP

DATE 4/18/17  
DOCKET #: E-100 Sub 148  
NAME OF ATTORNEY Thad Culley  
TITLE Partner  
FIRM NAME Icyer and Fox LLP  
ADDRESS 401 Harrison Oaks Blvd, Suite 100  
CITY Cary, NC  
ZIP 27513

APPEARING FOR: Cypress Creek Renewables

APPLICANT _____	COMPLAINANT _____	INTERVENOR <input checked="" type="checkbox"/>
PROTESTANT _____	RESPONDENT _____	DEFENDANT _____

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NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP

DATE 4/18/2017  
DOCKET #: E-100 Sub 148  
NAME OF ATTORNEY Peter Ledford  
TITLE General Counsel  
FIRM NAME North Carolina Sustainable Energy Association  
ADDRESS 4800 Six Forks Road Suite 300  
CITY Raleigh, NC  
ZIP 27609

APPEARING FOR: North Carolina Sustainable Energy Association

APPLICANT \_\_\_\_\_ COMPLAINANT \_\_\_\_\_ INTERVENOR X  
PROTESTANT \_\_\_\_\_ RESPONDENT \_\_\_\_\_ DEFENDANT \_\_\_\_\_

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NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP

DATE 4/10/17  
DOCKET #: E-106 SUB 148  
NAME OF ATTORNEY CHARLOTTE MITCHELL  
TITLE \_\_\_\_\_  
FIRM NAME LAW OFFICE OF CHARLOTTE MITCHELL  
ADDRESS PO Box 26212  
CITY RALEIGH NC  
ZIP 27611

APPEARING FOR: NCSEA

APPLICANT \_\_\_\_\_ COMPLAINANT \_\_\_\_\_ INTERVENOR ☒  
PROTESTANT \_\_\_\_\_ RESPONDENT \_\_\_\_\_ DEFENDANT \_\_\_\_\_

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NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP

DATE 04/18/17 DOCKET #: E-100, Sub 148  
NAME AND TITLE OF ATTORNEY Robert F. Page  
FIRM NAME Crisp & Page, PLLC  
ADDRESS 4010 Barrett Dr., Suite 205  
CITY Raleigh ZIP 27609

APPEARING FOR: Carolina Utility Customers Association, Inc.

APPLICANT _____	COMPLAINANT _____	INTERVENER <u>✓</u>
PROTESTANT _____	RESPONDENT _____	DEFENDANT _____

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Signature: \_\_\_\_\_

NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP

DATE April 18, 2017  
DOCKET #: E-100, Sub 148  
NAME OF ATTORNEY Gray Styers  
TITLE \_\_\_\_\_  
FIRM NAME Smith Moore Leatherwood  
ADDRESS 434 Fayetteville Street, Suite 2800  
CITY Raleigh, NC  
ZIP 27601

APPEARING FOR: NTE Solar, LLC

APPLICANT \_\_\_\_\_ COMPLAINANT \_\_\_\_\_ INTERVENOR ☒  
PROTESTANT \_\_\_\_\_ RESPONDENT \_\_\_\_\_ DEFENDANT \_\_\_\_\_

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NORTH CAROLINA UTILITIES COMMISSION  
PUBLIC STAFF - APPEARANCE SLIP

DATE 04/18/17 DOCKET #: E-100, Sub 148

PUBLIC STAFF MEMBER Tim R. Dodge, Heather Fennell, Lucy Edmondson, Robert Josey

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WATER \_\_\_\_\_  
COMMUNICATIONS \_\_\_\_\_  
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GAS \_\_\_\_\_  
TRANSPORTATION \_\_\_\_\_  
ECONOMICS \_\_\_\_\_  
**LEGAL** tim.dodge@psncuc.nc.gov,  
heather.fennell@psncuc.nc.gov,  
lucy.edmondson@psncuc.nc.gov,  
robert.josey@psncuc.nc.gov

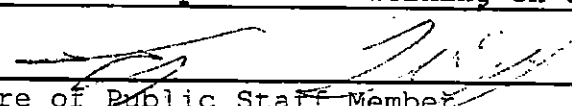
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All Public Staff personnel working on case.

  
\_\_\_\_\_  
Signature of Public Staff Member

NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP

DATE 4/18/2017  
DOCKET #: E-100, Sub 148  
NAME OF ATTORNEY Jennifer Harrod  
TITLE Special Deputy Attorney General  
FIRM NAME Office of NC Attorney General  
ADDRESS 114 West Edenton St  
CITY Raleigh NC  
ZIP 27602-0629

APPEARING FOR: NC Attorney General, Josh Stein

APPLICANT \_\_\_\_\_ COMPLAINANT \_\_\_\_\_ INTERVENOR ☒  
PROTESTANT \_\_\_\_\_ RESPONDENT \_\_\_\_\_ DEFENDANT \_\_\_\_\_

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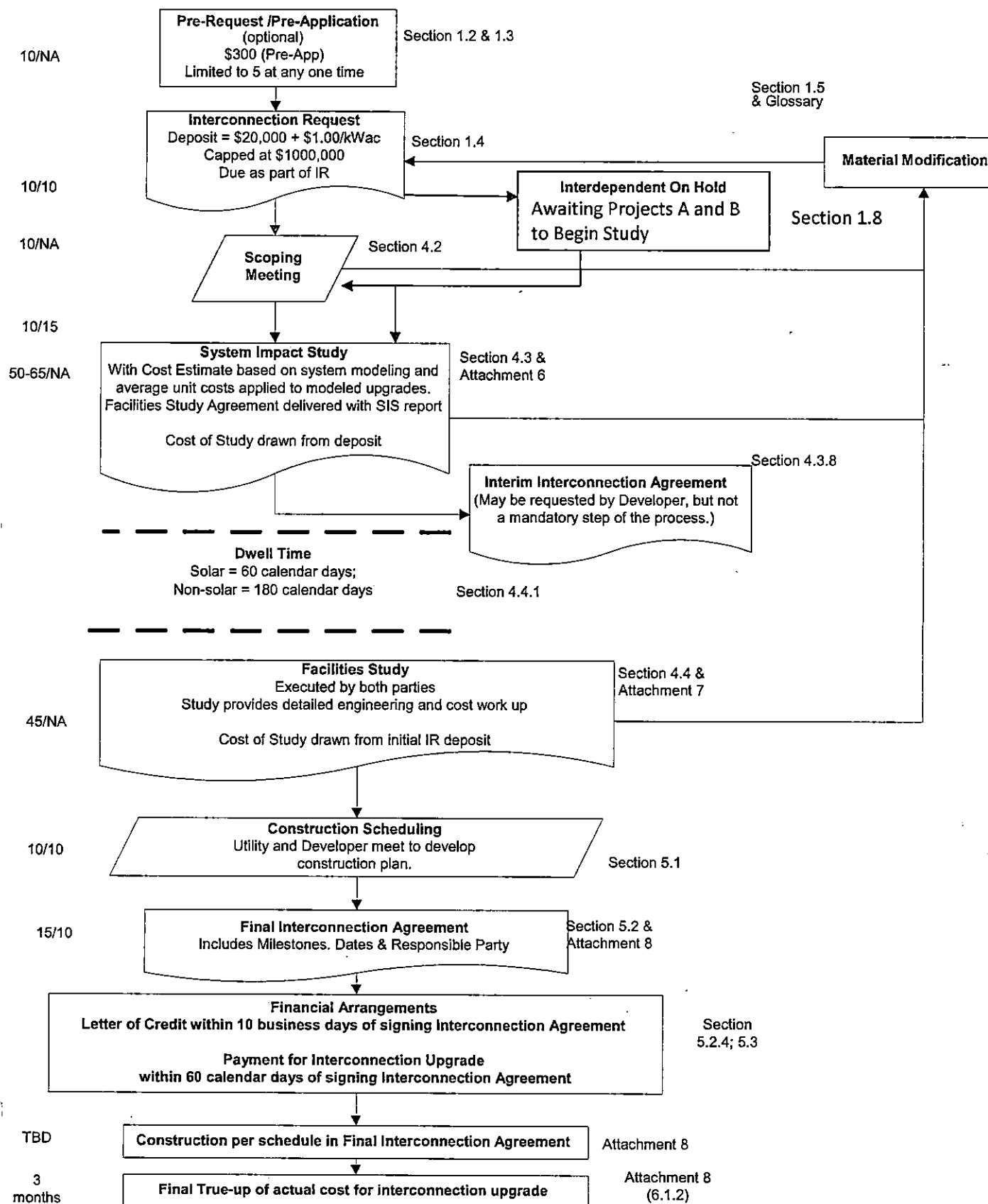
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Feb 21 2017

# NC Interconnection Procedures

## Section 4 Study Process

Response Time  
(Business Days)  
Utility/Developer



I/A

OFFICIAL COPY

Apr 10 2017

**NOTICE OF COMMITMENT TO SELL THE OUTPUT  
OF A QUALIFYING FACILITY TO  
Duke Energy Carolinas, LLC or Duke Energy Progress, LLC**

Instructions to QF: The QF shall deliver, via certified mail, courier, hand delivery or email, its executed Notice of Commitment to:

Director – Power Contracts  
400 South Tryon Street  
Mail Code: ST 13A  
Charlotte, North Carolina 28202  
Attn.: Wholesale Renewable Manager  
DERContracts@duke-energy.com

Any subsequent notice that a QF may be required to provide to the Company pursuant to this Notice of Commitment shall be delivered to the same address by one of the foregoing delivery methods.

1. [ ] (“Seller”) hereby commits to sell to Duke Energy Carolinas, LLC or Duke Energy Progress, LLC (the “Company”) all of the electrical output of the Seller’s qualifying facility (the “Facility”).
2. The name, address, and contact information for Seller is:  
  
Name: \_\_\_\_\_ Telephone: \_\_\_\_\_  
  
Address: \_\_\_\_\_ Email: \_\_\_\_\_
3. By execution and submittal of this commitment to sell the output of the Facility (the “Notice of Commitment”), Seller certifies as follows:

Eligibility for Schedule PP

Seller is a qualifying facility (“QF”) with a maximum nameplate capacity of 1,000 kW and is eligible for the Company’s Schedule PP.

Report of Proposed Construction (Rule R8-65)

Seller has filed a report of proposed construction for its \_\_\_\_\_ kW (net capacity ac) Facility with the North Carolina Utilities Commission (“NCUC”) pursuant to NCUC Rule R8-65 (“Report of Proposed Construction”) on [insert date] in Docket No. \_\_\_\_\_.

Application to Interconnect Generator to Company’s System

Seller is requesting to become an Interconnection Customer of the Company, as that term

is defined in the North Carolina Interconnection Procedures ("NCIP"), and has either submitted the NCIP Attachment 6 Interconnection Request Application Form for Certified Inverter-Based Generating Facilities No Larger Than 20 kW or has submitted the NCIP Attachment 1 Interconnection Request Application Form requesting NCIP Section 3 Fast Track review and the Company has notified the Seller-Interconnection Customer that its Interconnection Request is complete.

4. By execution and submittal of this Notice of Commitment Seller acknowledges that the legally enforceable obligation date ("LEO Date") for the Facility will be established upon the Company's receipt of this Notice of Commitment Form, which shall be based upon: (a) the receipted date of deposit of this Notice of Commitment with the U.S. Postal Service for certified mail delivery to the Company; (b) the receipted date of deposit of this Notice of Commitment with a third-party courier (e.g., Federal Express, United Parcel Service) for trackable delivery to the Company; (c) the receipted date of hand delivery of this Notice of Commitment to the Company at the address set forth in paragraph 1, above; or (d) the date on which an electronic copy of this Notice of Commitment is sent via email to the Company if such email is sent during regular business hours (9:00 a.m. to 5:00 p.m.) on a business day (Monday through Friday excluding federal and state holidays). Emails sent after regular business hours or on days that are not business days shall be deemed submitted on the next business day.
5. The LEO Date will be used to determine Seller's eligibility for the rates, terms and conditions of the Company's currently effective Schedule PP.
6. This Notice of Commitment shall automatically terminate and be of no further force and effect upon: (i) execution of a PPA between Seller and Company or; (ii) if such Seller does not execute a PPA, thirty (30) days after Company's delivery of an "executable" PPA to the QF by the Company, that contains all information necessary for execution and which the Company has requested that the QF execute and return.

The undersigned is duly authorized to execute this Notice of Commitment for the Seller:

\_\_\_\_\_  
[Name]

\_\_\_\_\_  
[Title]

\_\_\_\_\_  
[Company]

\_\_\_\_\_  
[Date]



**NOTICE OF INTENT TO NEGOTIATE POWER PURCHASE  
AGREEMENT TO SELL THE OUTPUT  
OF A QUALIFYING FACILITY TO  
Duke Energy Carolinas, LLC or Duke Energy Progress, LLC**

Instructions to "Qualifying Facility" ("QF") Seller: The QF shall deliver, via certified mail, courier, hand delivery or email, its executed Notice to:

Director – Power Contracts  
400 South Tryon Street  
Mail Code: ST 13A  
Charlotte, North Carolina 28202  
Attn.: Wholesale Renewable Manager  
DERContracts@duke-energy.com

Any subsequent notice that a QF is required to provide to Company pursuant to this Notice shall be delivered to the same address by one of the foregoing delivery methods.

1. [ ] ("Seller") has obtained QF status as of [Date] in [FERC Docket Number] and intends to sell the output of its QF cogeneration or small power production facility located at (the "Facility") to Duke Energy Carolinas, LLC or Duke Energy Progress, LLC (the "Company") pursuant to a power purchase agreement to be negotiated between Seller and the Company.

2. The name, address, and contact information for Seller is:

Name: Telephone:  
Address: Email:

3. **Certifications to Commence Negotiations.** In order to proceed with negotiations, Seller certifies as follows:

(Select the applicable certification below)

Certificate of Public Convenience and Necessity

i. Seller has received a certificate of public convenience and necessity ("CPCN") for the construction of its kW (net capacity AC) Facility pursuant to North Carolina General Statute § 62-110.1 and North Carolina Utilities Commission ("Commission") Rule R8-64, on [insert date] in Docket No. .

- ii. \_\_\_\_\_ Seller is exempt from the CPCN requirements pursuant to North Carolina General Statute § 62-110.1(g) and has filed a report of proposed construction for its \_\_\_\_\_ kW (net capacity AC) Facility with the Commission pursuant to Commission Rule R8-65 ("Report of Proposed Construction") on [insert date] in Docket No. \_\_\_\_\_.

Application to Interconnect Generator to Company's System

If Seller is requesting to become an Interconnection Customer of the Company, as that term is defined in the North Carolina Interconnection Procedures ("NCIP"),

- i. \_\_\_\_\_ Seller is eligible for interconnection under NCIP Section 3 ("Fast Track," as defined in NCIP Section 3.1), has submitted the NCIP Attachment 1 Interconnection Request Application Form requesting Fast Track review and the Company has accepted the Section 3 Interconnection Request as complete and provided the Interconnection Customer with queue number \_\_\_\_\_.
- ii. \_\_\_\_\_ Seller has submitted the NCIP Attachment 1 Interconnection Request Application Form requesting to interconnect under the NCIP Section 4 Study Process, the Company has accepted the Section 4 Interconnection Request as complete and provided the Interconnection Customer with queue number \_\_\_\_\_, and Seller has executed and returned a System Impact Study Agreement to begin the Section 4 study process after being preliminarily determined a Project A or Project B by the Company under NCIP 1.8.

- 4. **Procedures for negotiating power purchase agreement.** The Company agrees to negotiate diligently and in good faith with Seller towards an executable power purchase agreement ("PPA"), and will adhere to the following procedures during the negotiation process:
  - a. To obtain an indicative pricing proposal to sell the output of the proposed QF to the Company, Seller must provide in writing to the Company (and may include with this Notice), general project information reasonably required for the development of indicative pricing, including, but not limited to:
    - i. Qualifying Facility owner name, organizational structure and chart, contact information, and identify any affiliated QFs delivering power to the Company;
    - ii. Generation technology and other related technology applicable to the Facility;
    - iii. Fuel type (s) and source (s);
    - iv. Plans to obtain, or actual fuel and transportation agreements, if applicable;
    - v. Maximum design capacity (MW), station service requirements, and net

amount of power (kWh) to be delivered to the Company's electric system by the QF;

- vi. Proposed site location and electrical interconnection point;
  - vii. Where QF is or will be interconnected to an electrical system other than the Company's, plans to obtain, or actual electricity transmission agreements with the interconnected system;
  - viii. Quantity, firmness, and timing of daily and monthly power deliveries (including planned maintenance schedule), including schedule of estimated Qualifying Facility electric output, in an 8,760-hour electronic spreadsheet format;
  - ix. Ability, if any, of QF to respond to dispatch orders from the Company;
  - x. Anticipated commencement date for delivery of electric output;
  - xi. List of acquired and outstanding QF permits, including a description of the status and timeline for acquisition of any outstanding permits;
  - xii. Interconnection agreement status; and
  - xiii. Proposed contracting term for the sale of electric output to the Company.
- b. The Company shall not be obligated to provide an indicative pricing proposal until all information described in Paragraph 4.a. has been received in writing from the Seller. Where the Company determines that the Seller has not provided sufficient information as required by Section 4.a., the Company shall, within 10 business days, notify the Seller in writing of any deficiencies.
- c. Within 30 days following receipt of all information required in Paragraph 4.a., the Company will provide the owner with an indicative pricing proposal, which may include other indicative contract terms and conditions tailored to the individual characteristics of the proposed QF project. Such proposal may be used by the owner to make determinations regarding project planning, financing, and feasibility. However, the indicative pricing proposal provided to the Seller pursuant to Section 4.c. will not be final or binding on either party. Prices and other terms and conditions will become final and binding on the parties under only two conditions:
- i. The prices and other terms contained in a PPA shall become final and binding upon execution of a final, agreed-upon PPA by the QF which is then presented for counter-execution by the Company; or
  - ii. If the Company and the QF cannot agree to the terms of a PPA, the applicable prices that would apply at the time request for arbitration is filed by the QF with the Commission shall be final and binding upon approval of such prices by the Commission upon a final non-appealable determination by the Commission that:
    - (a) a "legally enforceable obligation" has arisen where the QF is ready, willing, and able to enter into a contract with the Company and, but for the conduct of the Company, there would be a contract;

or

(b) the Qualifying Facility can deliver its electrical output within 180 days of such determination.

- d. If the Seller desires to proceed with contracting its QF with the Company after reviewing the indicative pricing proposal, it shall request in writing that the Company prepare a draft PPA to serve as the basis for negotiations between the parties. In connection with such request, the Seller shall provide the Company with any additional information about the QF that the Company reasonably determines necessary for the preparation of a draft PPA, which shall include:
  - i. Updated information of the categories described in Section 4.a.;
  - ii. Evidence of site control for the entire contracting term;
  - iii. Anticipated timelines for completion of key QF milestones,
  - iv. to include:
    - 1. Licenses, permits, and other necessary approvals;
    - 2. Funding;
    - 3. Qualifying Facility engineering and drawings;
    - 4. Significant equipment purchases;
    - 5. Construction agreement(s);
    - 6. Interconnection agreement(s); and
    - 7. Signing of third-party Transmission Agreements, where applicable; and
  - v. Additional information as explained in the Company's indicative pricing proposal.
- e. If the Company determines that the Seller has not provided sufficient information as required by Section 4.d., the Company shall, within 10 business days, notify the Seller in writing of any deficiency.
- f. Following satisfactory receipt of all information required in Section 4.d., the Company shall, within 15 business days, provide the Seller with the Companies' then current standardized non-tariff PPA customized as appropriate for the proposed QF. The draft shall serve as the basis for subsequent negotiations between the parties and, unless clearly indicated, shall not be construed as a binding proposal by the Company.
- g. Within 90 calendar days after its receipt of the draft PPA from the Company pursuant to Section 4.f., the Seller shall review the draft PPA and shall either: (a) notify the Company in writing that it accepts the terms and conditions of the draft PPA and is ready to execute an PPA with same or similar terms and conditions as the draft PPA; or (b) prepare an initial set of written comments and proposals based on the draft and provide them to the Company. The Company shall not be obligated to commence negotiations with a Seller or draft a final PPA unless or until the Company has timely received an initial set of written comments and

proposals from the Seller, or notice from the Seller in writing that it has no such comments or proposals and is requesting the draft PPA be finalized for execution.

- h. If the Seller requests to commence negotiations to modify the draft PPA, as provided for in 4.g above, Seller shall contact the Company in writing contemporaneous with or after delivering its initial set of written comments to schedule PPA negotiations at such times and places as are mutually agreeable between the parties. In the course of PPA negotiations, the Company agrees that it:
  - i. Shall not unreasonably delay negotiations and shall respond in good faith to reasonable additions, deletions, or modifications to the Companies' draft current standardized non-tariff PPA that are proposed by the Seller in a non-discriminatory manner;
  - ii. May request to visit the site of the proposed QF;
  - iii. Shall update its indicative pricing at appropriate intervals of not less than 60 calendar days from the date Seller commences negotiations to accommodate any changes to the Company's avoided cost calculations, the proposed QF or proposed terms of the draft PPA if the QFs' reasonably-proposed in-service date to deliver power to the Company is more than 180 days into the future;
  - iv. Shall include any revised contracting terms, standards, or requirements that have occurred since the initial draft PPA was provided;
  - v. May request any additional information from the Seller necessary to finalize the terms of the PPA and to satisfy the Company's due diligence with respect to the QF.
- i. When both parties are in full agreement as to all terms and conditions of the draft PPA, including the price paid for delivered energy, and the Seller provides evidence that any applicable Transmission Agreements have been executed and/or execution is imminent, the Company shall prepare and forward to the Seller, within 10 business days, a final, executable version of the PPA.
- j. The Seller shall, within 30 business days, execute and return the final PPA to the Company for execution. The Company will, within 10 business days of its receipt of the PPA executed by Seller, execute such PPA and return a copy to Seller.
- k. Failure of the Seller to meet any timelines set forth in this section relieves the Company of any obligation to proceed under this negotiating procedure until such time as the Seller resubmits its QF and the procedures begin anew. If the Seller does not execute the final PPA within 30 business days, such final PPA shall be deemed withdrawn and the Company shall have no further obligation to the Seller unless or until such time the Seller submits a new Notice of Intent to negotiate on behalf of the QF.

The undersigned: 1) certifies the accuracy of the information provide in Section 3 of this Notice; 2) affirms that he or she has read and understands the procedures that the Company and Seller will adhere to in negotiating a PPA; and (3) is duly authorized to execute this Notice on behalf of the Seller:

\_\_\_\_\_  
[Name]

\_\_\_\_\_  
[Title]

\_\_\_\_\_  
[Company]

\_\_\_\_\_  
[Date]

NCSEA  
Docket No. E-100, Sub 148  
2016 Avoided Cost Rates  
NCSEA Data Request No. 2  
Item No. 2-7  
Page 1 of 4

**DUKE ENERGY CAROLINAS, LLC and DUKE ENERGY PROGRESS, LLC**

**Request:**

On page 16 of his direct testimony, DEP/DEC witness Holeman testifies regarding projected levels of solar installed capacity during 2018, based on current penetration levels.

(b) With respect to each of these forecasts, analyses or projections, please explain what assumptions were made with respect to cancellation and/or completion of QF projects for which an LEO already exists.

**Response:**

The solar forecast used in the 2016 IRP did not rely on any specific cancellation and/or completion assumptions for projects with existing LEOs. The solar forecast for the 2017-2019 period was based, among other factors, on the historical relationship (materialization %) between the number of projects that connected to the grid or that were cancelled, relative to the total number of projects in the queue. The materialization percentages used to develop the 2017-2019 solar forecast were applied to both projects with and without existing LEO's as illustrated in the table below:

**Materialization %**

DEC <= 5 MW	40%
DEC > 5 MW	31%
DEP <= 5 MW	60%
DEP > 5 MW	20%

Materialization % = (# of Projects Connected + # of Projects Under Construction) / (# of Projects Connected + # of Projects Under Construction + # of Projects Cancelled)

NC Public Staff  
Docket No. E-100, Sub 148  
2016 Avoided Cost Rates  
NC Public Staff Data Request No. 3  
Item No. 3-4  
Page 1 of 1

**DUKE ENERGY PROGRESS, LLC**

**Request:**

Has the Company experienced any transmission congestion during over-generation events? If so, please provide a narrative on how the system was congested and where the limited flow areas occurred.

**Response:**

Not at this time. Please refer to the prefiled direct testimony of John Samuel Holeman III for additional information.



NCSEA CROSS EXHIBIT  
NCEA Duke Panel Cross Exhibit 3  
J/A



# Duke Energy Legislative Stakeholder Proposal

February 10, 2017



## Public Utility Regulatory Policies Act (PURPA) Reform in NC

### Goal:

- Modify the PURPA terms to lower the cost of solar for our customers

### Actions:

- Make changes to PURPA implementation as contemplated by the November 2016 Avoided Cost NCUC filing
- Amend the Current Standard Contract
  - 10 year term, energy price updated biennially
  - Eliminate Performance Adjustment Factor incentive and pay for capacity when need identified
  - Retain hydro settlement agreement
- Negotiated Contract Key Terms
  - Reduce contract term to 2 years
  - Align Power Purchase Act execution with delivery commitment



U.S. DEPARTMENT OF  
**ENERGY**

PNNL-23226

Prepared for the U.S. Department of Energy  
under Contract DE-AC05-76RL01830

# Duke Energy Photovoltaic Integration Study: Carolinas Service Areas

S Lu  
N Samaan  
D Meng  
F Chassin  
Y Zhang  
B Vyakaranam

M Warwick  
J Fuller  
R Diao  
T Nguyen  
C Jin

Month Year



**Pacific Northwest**  
NATIONAL LABORATORY

*Proudly Operated by Battelle Since 1965*

Three scenarios were simulated in the generation study: 1) compliance solely with the goals and schedules of SB3, 2) modest increases over SB3 goals, and 3) more rapid penetration of PV.<sup>1</sup> Generation impacts, including reserve requirements, control performance, and production costs were evaluated with projections every other year from 2014 to 2022 (Table ES.1). Figure ES.1 shows the locations of the projected PV sites. The PV penetration evaluated ranged from 673 MW<sup>2</sup> to 6800 MW (2% to 20% of peak load). To provide corresponding inputs to energy production cost modeling, system variability and reserve requirements were analyzed for each case. Of the two steps in energy production cost modeling, generation commitment and dispatch was performed for the Duke Energy system as a whole, while balancing operations were modeled individually for its component balancing authorities (BA) areas (i.e., Duke Energy Carolinas [DEC] and Duke Energy Progress [DEP]).<sup>3</sup>

Table ES.1. PV Penetration Cases

(MWac)	2014	2016	2018	2020	2022
Compliance					
DEC	361	631	785	1,012	1,197
DEP	312	312	334	395	483
Mid					
DEC	431	816	1,393	2,006	2,598
DEP	331	506	867	1,248	1,642
Smooth High	2.5%	5%	10%	15%	20%
DEC	500	1,000	2,000	3,000	4,000
DEP	350	700	1,400	2,100	2,000

Where applicable, the study relied on existing Duke Energy tools, data, and integrated resource planning assumptions. In addition, new modeling capabilities in both PV production and balancing authority operations were employed to capture the impact of PV variability up to 1-minute time scale. Resources including generators, pumped storage, demand-response, and long-term contracts were considered in the models. Load, resources, and fuel prices forecasts were consistent with Duke Energy integrated resource planning. The resource plans were developed according to projected load growth and PV installations in the compliance scenario. Therefore, the resource mix may vary from year to year, but stays constant for different PV penetration scenarios in the same study year. Data was provided by Duke Energy when available; otherwise it was simulated by the analysis team.

<sup>1</sup> Based on data from the interconnection queue, the level of actual penetration in the system may exceed compliance level, and is more close to the penetration level in the mid case.

<sup>2</sup> PV installation capacity in this document refers to alternating current (AC) capacity by default, unless noted otherwise.

<sup>3</sup> This treatment reflects the way Duke Energy system operates at the time of the study. Combining the two BAs or coordinating their balancing operations could potentially reduce the challenges from variable resources on generation operations, and is a subject for further studies and opportunity for operation improvement.

NTE Solar  
Docket No. E-100, Sub 148  
2016 Avoided Cost Rates  
NTE Solar Data Request No. 2  
Item No. 2-2  
Page 1 of 1

**DUKE ENERGY CAROLINAS, LLC and DUKE ENERGY PROGRESS, LLC**

**Request:**

2-2. Provide copies of any and all reports, studies, or other documents that DEC or DEP prepared internally with regard to the ability of a solar project to obtain financing in light of their proposal to offer only a ten-year contract with energy rates recalculated every two years.

**Response:**

DEC and DEP have no such reports. The basis for the Companies' proposed modifications to the standard offer are set forth in the Joint Initial Statement and were intended to better meet PURPA's objectives of establishing avoided cost rates that are just and reasonable to the Companies' customers, non-discriminatory to QFs, and in the public interest, in light of the current economic and regulatory circumstances related to surging solar QF development.



**DUKE ENERGY CAROLINAS, LLC and DUKE ENERGY PROGRESS, LLC**

**Request:**

2-3. Provide copies of any and all reports or studies that Duke has had prepared by external financial advisors with regard to the ability of a solar project to obtain financing in light of DEC and DEP's proposal to offer only a ten-year contract with energy rates recalculated every two years.

**Response:**

DEP and DEC have no such reports. The basis for the Companies' proposed modifications to the standard offer are set forth in the Joint Initial Statement and were intended to better meet PURPA's objectives of establishing avoided cost rates that are just and reasonable to the Companies' customers, non-discriminatory to QFs, and in the public interest, in light of the current economic and regulatory circumstances related to surging solar QF development.

**DUKE ENERGY CAROLINAS, LLC and DUKE ENERGY PROGRESS, LLC**

**Request:**

2-4. Please provide copies of any and all reports or studies that Duke has had prepared by investment bankers with regard to the ability of a solar project to obtain financing in light of DEC and DEP's proposal to offer only a ten-year contract with energy rates recalculated every two years.

**Response:**

DEC and DEP have no such reports. The basis for the Companies' proposed modifications to the standard offer are set forth in the Joint Initial Statement and were intended to better meet PURPA's objectives of establishing avoided cost rates that are just and reasonable to the Companies' customers, non-discriminatory to QFs, and in the public interest, in light of the current economic and regulatory circumstances related to surging solar QF development.

**DUKE ENERGY CAROLINAS, LLC and DUKE ENERGY PROGRESS, LLC**

**Request:**

2-5. Did Duke commission from any third-party or otherwise obtain any reports or studies (other than those provided in response to DR 2-2, 2-3, and 2-4) for the purpose of determining whether its proposal to offer only a ten-year contract with energy rates recalculated every two years would have an adverse impact on the ability of a solar project to obtain financing? If so, please provide such documents.

**Response:**

No. The basis for the Companies' proposed modifications to the standard offer are set forth in the Joint Initial Statement and were intended to better meet PURPA's objectives of establishing avoided cost rates that are just and reasonable to the Companies' customers, non-discriminatory to QFs, and in the public interest, in light of the current economic and regulatory circumstances related to surging solar QF development.



**DUKE ENERGY CAROLINAS, LLC and DUKE ENERGY PROGRESS, LLC**

**Request:**

2-6. Did Duke consult with any solar developers with regard to the effects of its proposal to offer only a ten-year contract with energy rates recalculated every two years on their ability to finance future projects? If yes, please identify such solar developers and provide a summary of their input.

**Response:**

This request is vague and ambiguous to the extent it seeks information regarding whether Duke “consult[ed] with any solar developers with regard to the effects of its proposal . . .” Subject to the foregoing, the Companies supported its proposed standard offer contract term and structure in Section IV of the November 15, 2016, Joint Initial Statement, as more appropriately balancing the significant growth in solar QF energy being injected into the system with the growing overpayment risk for customers under the legacy standard contract structure in place today. The Companies did not specifically evaluate QFs ability to finance future projects. The Companies have discussed resolving various issues related to PURPA contracts with solar developers since November 2016. By agreement of the Companies and the solar developers involved, however, those discussions are confidential, conducted for purposes of settlement.



Brian L. Franklin  
Associate General Counsel

Duke Energy  
550 South Tryon Street  
Charlotte, NC 28202

Mailing Address:  
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Charlotte, NC 28201

o: 980.373.4465  
f: 980.373.8534

brian.franklin@duke-energy.com

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Sep 01 2016

September 1, 2016

**VIA ELECTRONIC FILING AND  
OVERNIGHT DELIVERY**

Chief Clerk  
North Carolina Utilities Commission  
Dobbs Building  
430 North Salisbury Street  
Raleigh, North Carolina 27603-5918

RE: Docket No. E-2, Sub 1107  
Duke Energy Progress, LLC's Fuel Charge Adjustment Proceeding

Dear Chief Clerk :

Enclosed for filing please find an original and 15 copies of the supplemental testimony of Kimberly D. McGee and her revised exhibits and work papers, as well as the supplemental testimony of T. Preston Gillespie, Jr. for Duke Energy Progress, LLC ("DEP") regarding the Application relating to fuel charge adjustments for electric utilities that was filed by DEP with the North Carolina Utilities Commission on June 22, 2016.

Please contact me if you have any questions.

Respectfully submitted,

Brian L. Franklin

Enclosures

BLF/trh

cc: Parties of Record



BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-2, SUB 1107

In the Matter of	)	
Application of Duke Energy Progress, LLC	)	<b>SUPPLEMENTAL TESTIMONY</b>
Pursuant to G.S. 62-133.2 and NCUC Rule	)	<b>OF KIMBERLY D. MCGEE FOR</b>
R8-55 Relating to Fuel and Fuel-Related	)	<b>DUKE ENERGY PROGRESS, LLC</b>
Charge Adjustments for Electric Utilities	)	

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Sep 01 2016

**Duke Energy Progress**  
**Power Plant Performance Data**  
**Twelve Month Summary**  
April, 2015 - March, 2016  
Nuclear Units

<u>Unit Name</u>	<u>Net Generation (mWh)</u>	<u>Capacity Rating (mW)</u>	<u>Capacity Factor (%)</u>	<u>Equivalent Availability (%)</u>
Brunswick 1	7,263,877	938	88.16	88.17
Brunswick 2	8,013,020	932	97.88	97.76
Harris 1	7,295,490	928	89.50	87.57
Robinson 2	5,723,406	741	87.93	84.05

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Sep 01 2016

**Duke Energy Progress  
Power Plant Performance Data  
Twelve Month Summary  
April, 2015 through March, 2016  
Combined Cycle Units**

Unit Name		Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Equivalent Availability (%)
Lee Energy Complex	1A	1,345,824	196	78.13	94.04
Lee Energy Complex	1B	1,299,309	195	75.81	91.25
Lee Energy Complex	1C	1,358,440	197	78.39	95.77
Lee Energy Complex	ST1	2,499,173	378	75.19	83.01
Lee Energy Complex	Block Total	6,502,746	967	76.56	89.58
Richmond County CC	7	1,307,216	172	86.50	96.27
Richmond County CC	8	1,125,440	170	75.24	83.97
Richmond County CC	ST4	1,361,704	169	91.65	90.69
Richmond County CC	9	1,399,058	193	82.55	92.63
Richmond County CC	10	1,386,139	193	81.78	91.41
Richmond County CC	ST5	1,830,381	248	83.91	88.23
Richmond County CC	Block Total	8,409,938	1,146	83.56	90.66
Sutton Energy Complex	1A	1,316,593	198	75.66	91.60
Sutton Energy Complex	1B	1,406,168	198	80.81	92.86
Sutton Energy Complex	ST1	1,683,854	265	72.27	91.17
Sutton Energy Complex	Block Total	4,406,615	662	75.84	91.78

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Sep 01 2016

Units in commercial operation for the full month are presented.  
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress  
Power Plant Performance Data  
Twelve Month Summary  
April, 2015 through March, 2016**

**Intermediate Steam Units**

Unit Name	Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Equivalent Availability (%)
Mayo 1	2,558,007	735	39.63	90.76
Roxboro 3	1,642,500	694	26.95	72.71
Roxboro 4	1,681,326	703	27.21	77.73

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Sep 01 2016

**Duke Energy Progress  
Power Plant Performance Data  
Twelve Month Summary  
April, 2015 through March, 2016**

**Baseload Steam Units**

<b>Unit Name</b>	<b>Net Generation (mWh)</b>	<b>Capacity Rating (mW)</b>	<b>Capacity Factor (%)</b>	<b>Equivalent Availability (%)</b>
Roxboro 2	2,866,030	672	48.57	88.70

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Sep 01 2016

Units in commercial operation for the full month are presented.  
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress  
Power Plant Performance Data  
Twelve Month Summary  
April, 2015 through March, 2016  
Other Cycling Steam Units**

Unit Name	Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Operating Availability (%)
Asheville 1	671,313	191	39.93	85.03
Asheville 2	703,235	187	42.80	92.19
Roxboro 1	1,322,986	379	39.70	87.12

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Sep 01 2016

Units in commercial operation for the full month are presented.  
Pre-commercial or partial month commercial operations are not included.



**Duke Energy Progress  
Power Plant Performance Data  
Twelve Month Summary  
April, 2015 through March, 2016  
Combustion Turbine Stations**

Station Name	Net Generation (mWh)	Capacity Rating (mW)	Operating Availability (%)
Asheville CT	131,466	343	94.96
Blewett CT	-459	59	98.66
Darlington CT	66,848	808	95.53
Richmond County CT	3,002,240	838	89.10
Sutton CT	-575	67	93.02
Wayne County CT	275,539	903	94.22
Weatherspoon CT	-167	143	96.24

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Sep 01 2016

Units in commercial operation for the full month are presented.  
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress  
Power Plant Performance Data  
Twelve Month Summary  
April, 2015 through March, 2016  
Hydroelectric Stations**

Station Name	Net Generation (mWh)	Capacity Rating (mW)	Operating Availability (%)
Blewett	89,153	27.0	86.23
Marshall	11,623	4.0	58.61
Tillery	193,081	84.0	98.44
Walters	359,241	113.0	66.57

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Sep 01 2016



Brian L. Franklin  
Associate General Counsel

Duke Energy  
550 South Tryon Street  
Charlotte, NC 28202

Mailing Address:  
DEC45A / P.O. Box 1321  
Charlotte, NC 28201

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brian.franklin@duke-energy.com

March 8, 2017

**VIA ELECTRONIC FILING AND  
HAND DELIVERY**

Ms. M. Lynn Jarvis, Chief Clerk  
North Carolina Utilities Commission  
4325 Mail Service Center  
Raleigh, North Carolina 27699-4300

**RE: Docket No. E-7, Sub 1129  
Duke Energy Carolinas, LLC's Fuel Charge Adjustment Proceeding**

Dear Ms. Jarvis:

Enclosed for filing with the North Carolina Utilities Commission ("NCUC" or the "Commission") is the Application of Duke Energy Carolinas, LLC ("DEC") pursuant to N.C. Gen. Stat. § 62-133.2 and Commission Rule R8-55 relating to the fuel charge adjustments for electric utilities, together with the testimony and exhibits of Kimberly McGee, Swati V. Daji, Joseph A. Miller, Jr., Scott L. Batson, and David C. Culp containing the information required in NCUC Rule R8-55.

Information contained in Mr. Batson's Exhibit 1 is confidential because it contains sensitive information regarding DEC's future nuclear outage schedule. Information contained in Ms. Daji's Exhibit 3 is confidential because it contains costs to purchase spot gas supply, and public disclosure could hinder DEC from obtaining the most cost-effective energy to meet the needs of its customers. Therefore, I will deliver 15 copies filed under seal pursuant to N.C. Gen. Stat. § 62-132.11, and one copy with the confidential information redacted, to the Clerk's Office by close of business on March 9, 2017. These confidential documents should only be shared with the Commission and Commission Staff. Parties to the docket may contact DEC regarding obtaining copies pursuant to an appropriate confidentiality agreement.

Please contact me if you have any questions.

Respectfully submitted,

Brian L. Franklin

Enclosures  
cc: Parties of Record



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Mar 08 2017

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-7, SUB 1129

In the Matter of	)	
Application of Duke Energy Carolinas, LLC	)	
Pursuant to G.S. 62-133.2 and NCUC Rule	)	<b>DUKE ENERGY CAROLINAS,</b>
R8-55 Relating to Fuel and Fuel-Related	)	<b>LLC'S APPLICATION</b>
Charge Adjustments for Electric Utilities	)	

---

Duke Energy Carolinas, LLC ("DEC," "Company," or "Applicant"), pursuant to North Carolina General Statutes ("N.C. Gen. Stat.") § 62-133.2 and North Carolina Utilities Commission ("NCUC" or the "Commission") Rule R8-55, hereby makes this Application to adjust the fuel and fuel-related cost component of its electric rates. In support thereof, the Applicant respectfully shows the Commission the following:

1. The Applicant's general offices are located at 550 South Tryon Street, Charlotte, North Carolina, and its mailing address is:

Duke Energy Carolinas, LLC  
P. O. Box 1006  
Charlotte, North Carolina 28201-1006

2. The names and addresses of Applicant's attorneys are:

Brian L. Franklin, Associate General Counsel  
Duke Energy Carolinas, LLC  
DEC45A/P.O. Box 1321  
Charlotte, North Carolina 28201-1006  
(980) 373-4465  
[Brian.Franklin@duke-energy.com](mailto:Brian.Franklin@duke-energy.com)

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Mar 08 2017

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-7, SUB 1129

In the Matter of )  
Application of Duke Energy Carolinas, LLC )  
Pursuant to G.S. 62-133.2 and NCUC Rule )  
R8-55 Relating to Fuel and Fuel-Related )  
Charge Adjustments for Electric Utilities. )

---

**DIRECT TESTIMONY  
OF KIMBERLY MCGEE FOR  
DUKE ENERGY CAROLINAS, LLC**

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Mar 08 2017

1     **Q.     PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2     A.     My name is Kimberly McGee. My business address is 550 South Tryon  
3             Street, Charlotte, North Carolina.

4     **Q.     BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5     A.     I am Rates Manager for Duke Energy Carolinas LLC ("DEC" or the  
6             "Company").

7     **Q.     PLEASE SUMMARIZE YOUR EDUCATION AND PROFESSIONAL**  
8             **QUALIFICATIONS.**

9     A.     I graduated from the University of North Carolina at Charlotte with a Bachelor  
10            of Science degree in Accountancy. I am a certified public accountant licensed  
11            in the State of North Carolina. I began my career in 1989 with Deloitte and  
12            Touche, LLP as a staff auditor. In 1992, I began working with DEC (formerly  
13            known as Duke Power Company) as a staff accountant and have held a variety  
14            of positions in the finance organization. From 1997 until 2009, I worked for  
15            Wachovia Bank (now known as Wells Fargo) in a variety of finance and  
16            regulatory positions. I rejoined DEC in January 2009 as a Lead Accountant in  
17            Financial Reporting. I joined the Rates Department in 2011 as Manager, Rates  
18            and Regulatory Filings.

19    **Q.     PLEASE DESCRIBE YOUR DUTIES AS RATES MANAGER FOR**  
20             **DEC.**

21    A.     I am responsible for providing regulatory support for retail and wholesale rates,  
22            and providing guidance on DEC's fuel and fuel-related cost recovery application  
23            in North Carolina, and its fuel cost recovery application in South Carolina.

**Duke Energy Carolinas**  
**Power Plant Performance Data**  
**Twelve Month Summary**  
January, 2016 - December, 2016  
Nuclear Units

<u>Unit Name</u>	<u>Net Generation (mWh)</u>	<u>Capacity Rating (mW)</u>	<u>Capacity Factor (%)</u>	<u>Equivalent Availability (%)</u>
Oconee 1	6,472,061	847	86.99	86.97
Oconee 2	7,609,827	848	102.16	99.99
Oconee 3	7,095,215	859	94.03	93.40
McGuire 1	9,515,883	1,158	93.55	91.76
McGuire 2	10,368,406	1,158	101.93	99.97
Catawba 1	10,242,365	1,140	102.28	99.97
Catawba 2	9,315,899	1,150	92.22	91.50

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**Duke Energy Carolinas  
Power Plant Performance Data  
Twelve Month Summary  
January, 2016 through December, 2016  
Combined Cycle Units**

Unit Name		Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Equivalent Availability (%)
Buck CC	11	1,469,264	176	95.04	95.51
Buck CC	12	1,470,059	175	95.63	95.20
Buck CC	ST10	2,081,837	317	74.76	95.32
Buck CC	Block Total	5,021,160	668	85.57	95.34
Dan River CC	8	1,408,605	165	97.19	92.94
Dan River CC	9	1,387,806	166	95.18	91.66
Dan River CC	ST7	2,027,905	320	72.14	93.33
Dan River CC	Block Total	4,824,316	651	84.37	92.80

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Units in commercial operation for the full month are presented.  
Pre-commercial or partial month commercial operations are not included.



**Duke Energy Carolinas  
Power Plant Performance Data  
Twelve Month Summary  
January, 2016 through December, 2016**

**Baseload Steam Units**

<b>Unit Name</b>	<b>Net Generation (mWh)</b>	<b>Capacity Rating (mW)</b>	<b>Capacity Factor (%)</b>	<b>Equivalent Availability (%)</b>
Belews Creek 1	5,452,584	1,110	55.92	78.95
Belews Creek 2	5,278,592	1,110	54.14	84.52
Cliffside 6	2,918,909	844	39.37	67.40
Marshall 3	3,933,507	658	68.06	90.69
Marshall 4	3,517,891	660	60.68	82.13

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Units in commercial operation for the full month are presented.  
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Carolinas  
Power Plant Performance Data  
Twelve Month Summary  
January, 2016 through December, 2016**

**Intermediate Steam Units**

<b>Unit Name</b>	<b>Net Generation (mWh)</b>	<b>Capacity Rating (mW)</b>	<b>Capacity Factor (%)</b>	<b>Equivalent Availability (%)</b>
Cliffside 5	763,059	555	15.66	87.19

Units in commercial operation for the full month are presented.  
Pre-commercial or partial month commercial operations are not included.

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**Duke Energy Carolinas  
Power Plant Performance Data  
Twelve Month Summary  
January, 2016 through December, 2016  
Other Cycling Steam Units**

Unit Name		Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Operating Availability (%)
Allen	1	183,840	162	12.92	78.10
Allen	2	226,462	162	15.91	90.27
Allen	3	431,519	261	18.82	92.51
Allen	4	294,270	276	12.14	52.05
Allen	5	361,870	266	15.49	54.26
Lee	3	220,821	170	14.79	61.13
Marshall	1	1,338,442	380	40.10	79.13
Marshall	2	964,532	380	28.90	55.71

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**Duke Energy Carolinas  
Power Plant Performance Data  
Twelve Month Summary  
January, 2016 through December, 2016  
Combustion Turbine Stations**

Station Name	Net Generation (mWh)	Capacity Rating (mW)	Operating Availability (%)
Lee CT	63,297	82	94.96
Lincoln CT	46,112	1,264	96.28
Mill Creek CT	102,500	592	97.92
Rockingham CT	1,290,467	825	85.08

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Mar 08 2017

Units in commercial operation for the full month are presented.  
Pre-commercial or partial month commercial operations are not included.

**Duke Energy Carolinas  
Power Plant Performance Data**

McGee Exhibit 6  
Page 20 of 40

**Twelve Month Summary  
January, 2016 through December, 2016  
Hydroelectric Stations**

Station Name	Net Generation (mWh)	Capacity Rating (mW)	Operating Availability (%)
<b>Conventional Hydroelectric Stations:</b>			
Bear Creek	18,298	9.5	74.79
Bridgewater	48,345	31.5	96.96
Bryson	1,950	1.0	59.84
Cedar Cliff	15,833	6.8	98.64
Cedar Creek	120,759	45.0	72.36
Cowans Ford	141,031	324.9	58.29
Dearborn	141,752	42.0	99.79
Fishing Creek	112,094	49.0	78.47
Franklin	1,746	1.0	95.62
Gaston Shoals	10,048	3.0	50.55
Great Falls	165	12.0	99.90
Keowee	53,635	152.0	98.63
Lookout Shoals	86,778	27.9	97.90
Mission	3,683	1.8	60.53
Mountain Island	101,821	62.0	98.49
Nantahala	150,384	50.0	99.26
Ninety-Nine Islands	45,196	15.6	69.80
Oxford	75,181	40.0	49.32
Queens Creek	2,068	1.4	71.72
Rhodhiss	58,221	33.4	95.19
Rocky Creek	-213	26.6	0.00
Tennessee Creek	25,841	9.8	99.64
Thorpe	49,869	19.7	84.64
Tuckasegee	2,442	2.5	88.84
Tuxedo	18,557	6.4	84.10
Wateree	187,824	85.0	95.04
Wylie	124,836	72.0	98.98
<b>Pumped Storage Hydroelectric Stations:</b>			
<b>Gross Generation</b>			
Bad Creek	2,187,933	1,360.0	89.54
Jocassee	1,251,760	780.0	91.94
<b>Energy for Pumping</b>			
Bad Creek	-2,756,385		
Jocassee	-1,459,305		
<b>Net Generation</b>			
Bad Creek	-568,452		
Jocassee	-207,545		

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Mar 08 2017

J/A

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PUBLIC STAFF SNIDER  
CROSS-EXAMINATION EXHIBIT NO. 1  
DOCKET NO. E-100, SUB 148 - APRIL 14, 2017

## REPORT CENTER

REPORTS

END OF DAY REPORT - IFED FUTURES

CATEGORY: END OF DAY REPORT MARKET: ICE FUTURES U.S. - ENERGY DIV

SELECTED CONTRACT

H-Henry LD1 Fixed Price Future

SUBMIT

### AVAILABLE REPORTS FOR H-HENRY LD1 FIXED PRICE FUTURE

REPORT DATE	REPORT FILE
April 18, 2017	DOWNLOAD
April 17, 2017	DOWNLOAD
April 13, 2017	DOWNLOAD
April 12, 2017	DOWNLOAD
April 11, 2017	DOWNLOAD

# ICE Report Center - Data

REPORT DATE	REPORT FILE
April 10, 2017	DOWNLOAD
April 7, 2017	DOWNLOAD

## NOTES:

The information contained in these reports are compiled for the convenience of subscribers and are furnished without responsibility for accuracy and are accepted by the subscriber on the condition that errors or omissions shall not be made the basis for any claim, demand or cause of action.

Oil information is not available until the next business day.

Futures Daily Market Report for Henry Hub  
18-Apr-2017

COMMODITY NAME	CONTRACT MONTH	DAILY PRICE RANGE				SETTLE		VOLUME AND OI TOTALS						
		OPEN#	HIGH	LOW	CLOSE#	PRICE	CHANGE	TOTAL VOLUME	OI	CHANGE	EFP	EFS	BLOCK VOLUME	SPREAD VOLUME
H-Henry LD1 Fixed Price Future														
H	May17	3.149	3.177	3.108	3.151	3.145	-0.018	228,991	355,764	-21,272	0	0	67,107	51,475
H	Jun17	3.225	3.263	3.204	3.242	3.236	-0.015	57,131	294,743	-545	0	0	5,431	41,940
H	Jul17	3.287	3.333	3.280	3.314	3.314	-0.013	31,233	339,115	3,300	0	0	318	27,143
H	Aug17	3.325	3.365	3.320	3.345	3.347	-0.012	18,867	246,664	4,782	0	0	2,318	14,855
H	Sep17	3.332	3.355	3.318	3.338	3.339	-0.013	20,039	261,758	763	0	0	3,059	15,850
H	Oct17	3.354	3.369	3.332	3.351	3.356	-0.014	24,092	360,851	-1,270	0	0	1,098	20,281
H	Nov17	3.395	3.425	3.388	3.407	3.411	-0.013	19,566	216,868	2,047	0	0	5,005	11,621
H	Dec17	3.527	3.550	3.522	3.539	3.542	-0.013	10,395	239,918	1,200	0	0	1,232	6,869
H	Jan18	3.604	3.620	3.589	3.611	3.614	-0.013	33,230	300,383	1,764	0	0	21,603	7,608
H	Feb18	3.563	3.585	3.554	3.570	3.578	-0.011	7,268	166,992	815	0	0	1,577	2,563
H	Mar18	3.481	3.492	3.461	3.483	3.486	-0.006	14,122	241,867	2,838	0	0	3,603	6,646
H	Apr18	2.929	2.950	2.929	2.945	2.954	0.003	13,889	223,114	432	0	0	3,531	6,814
H	May18	2.877	2.880	2.877	2.880	2.886	0.004	9,693	177,118	3,618	0	0	3,784	2,449
H	Jun18	2.891	2.899	2.891	2.899	2.906	0.005	7,108	117,641	396	0	0	3,479	240
H	Jul18	2.928	2.928	2.922	2.922	2.929	0.005	4,354	130,044	491	0	0	676	279
H	Aug18	2.929	2.929	2.929	2.929	2.936	0.005	4,391	128,496	-71	0	0	744	248
H	Sep18	2.909	2.909	2.902	2.905	2.913	0.006	4,277	111,154	441	0	0	675	240
H	Oct18	2.921	2.929	2.921	2.924	2.931	0.006	5,215	160,374	-1,293	0	0	67	1,612
H	Nov18	2.972	2.972	2.972	2.972	2.980	0.006	3,670	126,060	-503	0	0	35	1,920
H	Dec18	3.107	3.110	3.101	3.110	3.115	0.006	4,295	121,820	1,989	0	0	36	2,449
H	Jan19	3.212	3.216	3.205	3.205	3.218	0.006	4,101	88,547	1,844	0	0	333	2,883
H	Feb19	3.189	3.190	3.185	3.185	3.193	0.006	1,187	57,577	318	0	0	303	224
H	Mar19	3.112	3.112	3.112	3.112	3.116	0.006	1,303	68,649	398	0	0	333	248
H	Apr19	2.720	2.720	2.718	2.718	2.730	0.017	1,355	57,993	596	0	0	413	300
H	May19	2.678	2.678	2.678	2.678	2.692	0.019	1,368	50,125	186	0	0	426	310



COMMODITY NAME	CONTRACT MONTH	DAILY PRICE RANGE				SETTLE		TOTAL VOLUME	VOLUME AND OI TOTALS					BLOCK VOLUME	SPREAD VOLUME
		OPEN#	HIGH	LOW	CLOSE#	PRICE	CHANGE		OI	CHANGE	EFB	EFS			
H	Jun19	2.705	2.705	2.705	2.705	2.718	0.021	1,320	48,331	174	0	0	410	300	
H	Jul19					2.747	0.023	1,362	48,772	616	0	0	423	310	
H	Aug19					2.763	0.027	1,362	47,883	179	0	0	423	310	
H	Sep19					2.765	0.027	1,319	46,876	174	0	0	410	300	
H	Oct19	2.775	2.775	2.775	2.775	2.796	0.027	2,135	51,922	829	0	0	823	682	
H	Nov19					2.866	0.027	1,601	45,863	410	0	0	780	240	
H	Dec19					3.010	0.027	1,640	46,705	414	0	0	792	248	
H	Jan20					3.132	0.025	1,190	30,030	372	0	0	650	403	
H	Feb20					3.104	0.027	792	26,246	296	0	0	634	29	
H	Mar20					3.044	0.028	818	27,626	302	0	0	650	31	
H	Apr20					2.732	0.031	403	28,953	67	0	0	242	30	
H	May20					2.721	0.031	416	25,936	100	0	0	250	31	
H	Jun20					2.754	0.031	503	24,172	145	0	0	342	30	
H	Jul20					2.789	0.031	416	25,624	84	0	0	250	31	
H	Aug20					2.816	0.031	416	25,013	84	0	0	250	31	
H	Sep20					2.818	0.031	403	23,677	78	0	0	242	30	
H	Oct20					2.848	0.031	416	24,553	69	0	0	250	31	
H	Nov20					2.918	0.033	405	22,046	99	0	0	242	30	
H	Dec20					3.062	0.034	418	22,223	31	0	0	250	31	
H	Jan21					3.184	0.033	293	11,593	-66	0	0	286	0	
H	Feb21					3.149	0.031	175	9,899	-1	0	0	168	0	
H	Mar21					3.084	0.029	193	11,829	24	0	0	186	0	
H	Apr21					2.759	0.029	184	10,302	0	0	0	180	0	
H	May21					2.748	0.029	190	9,993	0	0	0	186	0	
H	Jun21					2.774	0.029	184	9,478	0	0	0	180	0	
H	Jul21					2.804	0.029	190	9,784	62	0	0	186	0	
H	Aug21					2.829	0.029	190	9,828	93	0	0	186	0	
H	Sep21					2.834	0.029	184	9,237	58	0	0	180	0	

4

COMMODITY NAME	CONTRACT MONTH	DAILY PRICE RANGE				SETTLE		VOLUME AND OI TOTALS						
		OPEN#	HIGH	LOW	CLOSE#	PRICE	CHANGE	TOTAL VOLUME	OI	CHANGE	FFP	FFS	BLOCK VOLUME	SPREAD VOLUME
H	Oct21					2.864	0.029	190	9,332	62	0	0	186	0
H	Nov21					2.934	0.031	184	8,691	-6	0	0	180	0
H	Dec21					3.079	0.033	190	9,198	-4	0	0	186	0
H	Jan22					3.206	0.033	98	7,745	57	0	0	93	5
H	Feb22					3.171	0.033	89	6,837	81	0	0	84	5
H	Mar22					3.106	0.033	98	7,676	92	0	0	93	5
H	Apr22					2.786	0.033	5	6,738	-4	0	0	0	5
H	May22					2.776	0.033	5	7,210	-4	0	0	0	5
H	Jun22					2.804	0.033	5	6,958	-4	0	0	0	5
H	Jul22					2.836	0.033	5	7,161	-4	0	0	0	5
H	Aug22					2.864	0.033	5	7,174	-4	0	0	0	5
H	Sep22					2.869	0.033	5	6,928	-4	0	0	0	5
H	Oct22					2.897	0.033	5	7,099	-4	0	0	0	5
H	Nov22					2.967	0.033	5	7,146	0	0	0	0	5
H	Dec22					3.112	0.033	5	7,320	0	0	0	0	5
H	Jan23					3.247	0.033	0	4,289	0	0	0	0	0
H	Feb23					3.207	0.033	0	4,057	0	0	0	0	0
H	Mar23					3.135	0.032	0	4,908	0	0	0	0	0
H	Apr23					2.825	0.032	0	4,370	0	0	0	0	0
H	May23					2.815	0.032	0	3,896	0	0	0	0	0
H	Jun23					2.843	0.032	0	3,777	0	0	0	0	0
H	Jul23					2.875	0.032	0	3,900	0	0	0	0	0
H	Aug23					2.903	0.032	0	3,900	0	0	0	0	0
H	Sep23					2.908	0.032	0	3,731	0	0	0	0	0
H	Oct23					2.945	0.032	0	3,848	0	0	0	0	0
H	Nov23					3.017	0.032	0	4,037	0	0	0	0	0
H	Dec23					3.162	0.032	0	4,167	0	0	0	0	0
H	Jan24					3.304	0.032	0	2,749	0	0	0	0	0

5

COMMODITY NAME	CONTRACT MONTH	DAILY PRICE RANGE				SETTLE		TOTAL VOLUME	VOLUME AND OI TOTALS				BLOCK VOLUME	SPREAD VOLUME
		OPEN	HIGH	LOW	CLOSE #	PRICE	CHANGE		OI	CHANGE	EFF	DFS		
H	Feb24					3.262	0.032	0	2,584	0	0	0	0	0
H	Mar24					3.189	0.032	0	2,736	0	0	0	0	0
H	Apr24					2.874	0.032	0	2,731	0	0	0	0	0
H	May24					2.862	0.032	0	2,823	0	0	0	0	0
H	Jun24					2.895	0.032	0	2,731	0	0	0	0	0
H	Jul24					2.938	0.032	0	2,823	0	0	0	0	0
H	Aug24					2.976	0.032	0	2,823	0	0	0	0	0
H	Sep24					2.992	0.032	0	2,731	0	0	0	0	0
H	Oct24					3.047	0.032	0	2,823	0	0	0	0	0
H	Nov24					3.119	0.032	0	2,633	0	0	0	0	0
H	Dec24					3.264	0.032	0	2,713	0	0	0	0	0
H	Jan25					3.407	0.032	0	1,369	0	0	0	0	0
H	Feb25					3.363	0.032	0	1,258	0	0	0	0	0
H	Mar25					3.288	0.030	0	1,369	0	0	0	0	0
H	Apr25					2.928	0.030	0	1,304	0	0	0	0	0
H	May25					2.916	0.030	0	1,342	0	0	0	0	0
H	Jun25					2.949	0.030	0	1,304	0	0	0	0	0
H	Jul25					2.991	0.030	0	1,342	0	0	0	0	0
H	Aug25					3.029	0.030	0	1,342	0	0	0	0	0
H	Sep25					3.042	0.030	0	1,304	0	0	0	0	0
H	Oct25					3.094	0.030	0	1,342	0	0	0	0	0
H	Nov25					3.169	0.030	0	1,330	0	0	0	0	0
H	Dec25					3.324	0.030	0	1,367	0	0	0	0	0
H	Jan26					3.469	0.030	0	651	0	0	0	0	0
H	Feb26					3.424	0.030	0	588	0	0	0	0	0
H	Mar26					3.349	0.030	0	651	0	0	0	0	0
H	Apr26					2.984	0.030	0	782	0	0	0	0	0
H	May26					2.969	0.030	0	808	0	0	0	0	0

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COMMODITY NAME	CONTRACT MONTH	DAILY PRICE RANGE				SETTLE		TOTAL VOLUME	OI	VOLUME AND OI TOTALS				BLOCK VOLUME	SPREAD VOLUME
		OPEN#	HIGH	LOW	CLOSE#	PRICE	CHANGE			CHANGE	EPF	EF5			
H	Jun26					3.004	0.030	0	782	0	0	0	0	0	
H	Jul26					3.049	0.030	0	808	0	0	0	0	0	
H	Aug26					3.089	0.030	0	808	0	0	0	0	0	
H	Sep26					3.104	0.030	0	782	0	0	0	0	0	
H	Oct26					3.159	0.030	0	808	0	0	0	0	0	
H	Nov26					3.239	0.030	0	630	0	0	0	0	0	
H	Dec26					3.399	0.030	0	651	0	0	0	0	0	
H	Jan27					3.544	0.030	0	0	0	0	0	0	0	
H	Feb27					3.499	0.030	0	0	0	0	0	0	0	
H	Mar27					3.424	0.030	0	0	0	0	0	0	0	
H	Apr27					3.054	0.030	0	0	0	0	0	0	0	
H	May27					3.039	0.030	0	0	0	0	0	0	0	
H	Jun27					3.074	0.030	0	0	0	0	0	0	0	
H	Jul27					3.119	0.030	0	0	0	0	0	0	0	
H	Aug27					3.159	0.030	0	0	0	0	0	0	0	
H	Sep27					3.174	0.030	0	0	0	0	0	0	0	
H	Oct27					3.229	0.030	0	0	0	0	0	0	0	
H	Nov27					3.312	0.030	0	0	0	0	0	0	0	
H	Dec27					3.477	0.030	0	0	0	0	0	0	0	
H	Jan28					3.624	0.030	0	93	0	0	0	0	0	
H	Feb28					3.579	0.030	0	87	0	0	0	0	0	
H	Mar28					3.504	0.030	0	93	0	0	0	0	0	
H	Apr28					3.129	0.030	0	90	0	0	0	0	0	
H	May28					3.114	0.030	0	93	0	0	0	0	0	
H	Jun28					3.149	0.030	0	90	0	0	0	0	0	
H	Jul28					3.194	0.030	0	93	0	0	0	0	0	
H	Aug28					3.234	0.030	0	93	0	0	0	0	0	
H	Sep28					3.249	0.030	0	90	0	0	0	0	0	

COMMODITY NAME	CONTRACT MONTH	DAILY PRICE RANGE				SETTLE		VOLUME AND OI TOTALS						
		OPEN#	HIGH	LOW	CLOSE#	PRICE	CHANGE	TOTAL VOLUME	OI	CHANGE	EFP	EFS	BLOCK VOLUME	SPREAD VOLUME
H	Oct28					3.304	0.030	0	93	0	0	0	0	0
H	Nov28					3.389	0.030	0	90	0	0	0	0	0
H	Dec28					3.559	0.030	0	93	0	0	0	0	0
H	Jan29					3.709	0.030	0	0	0	0	0	0	0
H	Feb29					3.664	0.030	0	0	0	0	0	0	0
H	Mar29					3.589	0.030	0	0	0	0	0	0	0
H	Apr29					3.214	0.030	0	0	0	0	0	0	0
H	May29					3.199	0.030	0	0	0	0	0	0	0
H	Jun29					3.234	0.030	0	0	0	0	0	0	0
H	Jul29					3.279	0.030	0	0	0	0	0	0	0
H	Aug29					3.319	0.030	0	0	0	0	0	0	0
H	Sep29					3.334	0.030	0	0	0	0	0	0	0
H	Oct29					3.389	0.030	0	0	0	0	0	0	0
H	Nov29					3.474	0.030	0	0	0	0	0	0	0
H	Dec29					3.649	0.030	0	0	0	0	0	0	0
Totals for H:								551,152	5,598,842	8,211	0	0	138,059	230,255

NOTE: The information contained in this report is compiled for the convenience of subscribers and is furnished without responsibility for accuracy and is accepted by the subscriber on the condition that errors or omissions shall not be made the basis for any claim, demand or cause of action.

NOTE: OI information is not available until the next business day.

NOTE: Volume is aggregated and representative of each Futures market strip including applicable TAS trading activity.

# Open and Close prices reflect the first and last trade in the market and do not correlate to any opening or closing periods.

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**STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH**

DOCKET NO. E-100, SUB 141

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of  
2014 Biennial Integrated Resource Plans  
and Related 2014 REPS Compliance Plans )  
ORDER APPROVING )  
INTEGRATED RESOURCE )  
PLANS AND REPS COMPLIANCE )  
PLANS )

HEARD: Monday, March 9, 2015, at 7:00 p.m. in Commission Hearing Room 2115,  
Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina

BEFORE: Commissioner Bryan E. Beatty, Presiding; Chairman Edward S. Finley, Jr.,  
and Commissioners Susan W. Rabon, ToNola D. Brown-Bland, Don M.  
Bailey, Jerry C. Dockham, and James G. Patterson

APPEARANCES:

For Virginia Electric and Power Company, d/b/a Dominion North Carolina Power:

E. Brett Breitschwerdt, McGuireWoods LLP, 434 S. Fayetteville Street, Suite 2600,  
Raleigh, North Carolina 27601

For Duke Energy Progress, Inc., and Duke Energy Carolinas, LLC:

Lawrence B. Somers, Deputy General Counsel, Duke Energy Corporation, P.O.  
Box 1551, Raleigh, North Carolina 27602

For North Carolina Waste Awareness & Reduction Network:

John D. Runkle, 2121 Damascus Church Road, Chapel Hill, North Carolina 27516

For Southern Alliance for Clean Energy and Sierra Club:

Gudrun Thompson, Senior Attorney, Southern Environmental Law Center, 601  
West Rosemary Street, Suite 220, Chapel Hill, North Carolina 27516

dates for all generation units based upon changing circumstances, and update retirement dates accordingly.

DEC and DEP stated that, in response to several data requests, SACE and Sierra Club noted that they "do not purport to offer 'proposed resource additions and mix of resources' in their comments. According to DEC and DEP, "if these parties don't have a proposed alternate resource mix and associated costs to analyze and compare, then it belies the validity of the purported cost-effectiveness of their proposals and frustrates any meaningful consideration of their comments. In conclusion, the Companies assert that their IRPs and REPS compliance plans meet all applicable requirements and any SACE and Sierra Club arguments to the contrary should be dismissed."

The Commission finds that DEC and DEP have satisfactorily addressed the issues raised by SACE and the Sierra Club in their initial comments and that no further action is required.

IT IS, THEREFORE, ORDERED, as follows:

1. That this Order shall be, and is hereby, adopted as part of the Commission's current analysis and plan for the expansion of facilities to meet future requirements for electricity for North Carolina pursuant to G.S. 62-110.1(c).
2. That the IOUs' 15-year forecasts of native load requirements and other system capacity or firm energy obligations, supply-side and demand-side resources expected to satisfy those loads, and reserve margins are reasonable for planning purposes and are hereby approved.
3. That the 2014 REPS compliance plans filed in this proceeding by the IOUs are hereby approved.
4. That future IRP filings by all IOUs shall continue to include a detailed explanation of the basis and justification for the appropriateness of the level of the respective utility's projected reserve margins.
5. That future IRP filings by all IOUs shall continue to include a copy of the most recently completed FERC Form 715, including all attachments and exhibits.
6. That future IRP filings by all IOUs shall continue to: (1) provide the amount of load and projected load growth for each wholesale customer under contract on a year-by-year basis through the terms of the current contract, segregate actual and projected growth rates of retail and wholesale loads, and explain any difference in actual and projected growth rates between retail and wholesale loads, and (2) for any amount of undesignated load, detail each potential customer's current supply arrangements and explain the basis for the utility's reasonable expectation for serving each such customer.

7. That the IOUs should continue to monitor and report any changes of more than 10% in the energy and capacity savings derived from DSM and EE between successive IRPs, and evaluate and discuss any changes on a program-specific basis. Any issues impacting program deployment should be thoroughly explained and quantified in future IRPs.

8. That each IOU shall continue to include a discussion of the status of EE market potential studies or updates in their future IRPs.

9. That all IOUs shall continue to include in future IRPs a full discussion of the drivers of each customer class' load forecast, including new or changed demand of a particular sector or sub-group.

10. That pursuant to the Regulatory Conditions imposed in the Merger Order DEC and DEP shall continue to pursue least-cost integrated resource planning and file separate IRPs until otherwise required or allowed to do so by Commission order, or until a combination of the utilities is approved by the Commission.

11. That DEC shall continue to provide updates in future IRPs regarding its obligations related to the Cliffside Unit 6 air permit.

12. That the Cliffside Unit 6 Carbon Neutrality Plan filed by DEC is approved as a reasonable path for DEC's compliance with the carbon emission reduction standards of the air quality permit; provided, however, this approval does not constitute Commission approval of individual specific activities or expenditures for any activities shown in the Plan.

13. That to the extent an IOU selects a preferred resource scenario based on fuel diversity, the IOU should provide additional support for its decision based on the costs and benefits of alternatives to achieve the same goals.

14. That future IRP filings by DEP and DEC shall continue to provide information on the number, resource type and total capacity of the facilities currently within the respective utility's interconnection queue as well as a discussion of how the potential QF purchases would affect the utility's long-range energy and capacity needs.

15. That, consistent with the Commission's May 7, 2013 Order in Docket No. M-100, Sub 135, the IOUs shall continue to include with their future IRP submittals verified testimony addressing natural gas issues, as detailed in the body of that Order.



16. That NC WARN's motion for an evidentiary hearing shall be, and is hereby, denied.

ISSUED BY ORDER OF THE COMMISSION.

/ This the 26<sup>th</sup> day of June, 2015.

NORTH CAROLINA UTILITIES COMMISSION

*Gail L. Mount*

Gail L. Mount, Chief Clerk

**STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH**

DOCKET NO. E-100, SUB 141

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of 2015 Integrated Resource Plan Update Reports and Related 2015 REPS Compliance Plans	) ) ) ) )	ORDER ACCEPTING FILING OF 2015 UPDATE REPORTS AND APPROVING 2015 REPS COMPLIANCE PLANS
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HEARD: Monday, February 8, 2016, at 7:00 p.m. in Commission Hearing Room  
2115, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina

BEFORE: Commissioner Bryan E. Beatty, Presiding; Chairman Edward S. Finley, Jr.,  
and Commissioners ToNola D. Brown-Bland, Don M. Bailey, Jerry C.  
Dockham, and James G. Patterson

APPEARANCES:

For Virginia Electric and Power Company, d/b/a Dominion North Carolina Power:

E. Brett Breitschwerdt, McGuireWoods LLP, 434 S. Fayetteville Street, Suite 2600,  
Raleigh, North Carolina 27601

For Duke Energy Progress, LLC, and Duke Energy Carolinas, LLC:

Lawrence B. Somers, Deputy General Counsel, Duke Energy Corporation, P.O.  
Box 1551, Raleigh, North Carolina 27602

For North Carolina Waste Awareness and Reduction Network:

John D. Runkle, 2121 Damascus Church Road, Chapel Hill, North Carolina 27516

For Southern Alliance for Clean Energy and Sierra Club:

Gudrun Thompson, Senior Attorney, Southern Environmental Law Center, 601  
West Rosemary Street, Suite 220, Chapel Hill, North Carolina 27516

For North Carolina Sustainable Energy Association:

Peter Ledford, 4800 Six Forks Road, Suite 300, Raleigh, North Carolina 27609

For the Using and Consuming Public:

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

BY THE COMMISSION: Integrated Resource Planning (IRP) is intended to identify those electric resource options that can be obtained at least cost to the utility and its ratepayers consistent with the provision of adequate, reliable electric service. IRP considers demand-side alternatives, including conservation, efficiency, and load management, as well as supply-side alternatives in the selection of resource options. Commission Rule R8-60 defines an overall framework within which the IRP process takes place in North Carolina. Analysis of the long-range need for future electric generating capacity pursuant to G.S. 62-110.1 is included in the Rule as a part of the IRP process.

General Statute (G.S.) 62-110.1(c) requires the Commission to "develop, publicize, and keep current an analysis of the long-range needs" for electricity in this State. The Commission's analysis should include: (1) its estimate of the probable future growth of the use of electricity; (2) the probable needed generating reserves; (3) the extent, size, mix, and general location of generating plants; and (4) arrangements for pooling power to the extent not regulated by the Federal Energy Regulatory Commission (FERC). Further, G.S. 62-110.1 requires the Commission to consider this analysis in acting upon any petition for the issuance of a certificate for public convenience and necessity for construction of a generating facility. In addition, G.S. 62-110.1 requires the Commission to submit annually to the Governor and to the appropriate committees of the General Assembly a report of its: (1) analysis and plan; (2) progress to date in carrying out such plan; and (3) program for the ensuing year in connection with such plan. G.S. 62-15(d) requires the Public Staff to assist the Commission in making its analysis and plan pursuant to G.S. 62-110.1.

G.S. 62-2(a)(3a), in pertinent part, declares it a policy of the State to:

assure that resources necessary to meet future growth through the provision of adequate, reliable utility service include use of the entire spectrum of demand-side options, including but not limited to conservation, load management and efficiency programs, as additional sources of energy supply and/or energy demand reductions. To that end, to require energy planning and fixing of rates in a manner to result in the least cost mix of generation and demand-reduction measures which is achievable, including consideration of appropriate rewards to utilities for efficiency and conservation which decrease utility bills

Session Law (S.L.) 2007-397 (Senate Bill 3), signed into law on August 20, 2007, amended G.S. 62-2(a) to add subsection (a)(10) that provides that it is the policy of North Carolina "to promote the development of renewable energy and energy efficiency through the implementation of a Renewable Energy and Energy Efficiency Portfolio Standard (REPS)" that will: (1) diversify the resources used to reliably meet the energy needs of North Carolina's consumers, (2) provide greater energy security through the use of indigenous energy resources available in North Carolina, (3) encourage private investment in renewable energy and energy efficiency, and (4) provide improved air quality and other benefits to the citizens of North Carolina. To that end, Senate Bill 3 further provides that "[e]ach electric power supplier to which G.S. 62-110.1 applies shall include an assessment of demand-side management and energy efficiency in its resource plans submitted to the Commission and shall submit cost-effective demand-side management and energy efficiency options that require incentives to the Commission for approval."<sup>1</sup>

Senate Bill 3 also defines demand-side management (DSM) as "activities, programs, or initiatives undertaken by an electric power supplier or its customers to shift the timing of electric use from peak to nonpeak demand periods" and defines an energy efficiency (EE) measure as "an equipment, physical or program change implemented after 1 January 2007 that results in less energy being used to perform the same function."<sup>2</sup> EE measures do not include DSM.

To meet the requirements of G.S. 62-110.1 and G.S. 62-2(a)(3a), the Commission conducts an annual investigation into the electric utilities' IRPs. Commission Rule R8-60 requires that each utility, to the extent that it is responsible for procurement of any or all of its individual power supply resources (collectively, the utilities),<sup>3</sup> furnish the Commission with a Biennial Report in even-numbered years that contains the specific information set out in Rule R8-60. In odd-numbered years, each of the electric utilities must file an Update Report updating its most recently filed Biennial Report.

Further, Commission Rule R8-67(b) requires any electric power supplier subject to Rule R8-60 to file a REPS compliance plan as part of each Biennial and Update Report. In addition, each Biennial and Update Report should (1) be accompanied by a short-term action plan that discusses those specific actions currently being taken by the utility to implement the activities chosen as appropriate per the applicable biennial and annual reports and (2) incorporate information concerning the construction of transmission lines pursuant to Commission Rule R8-62(p).

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<sup>1</sup> G.S. 62-133.9(c).

<sup>2</sup> G.S. 62-133.8(a)(2) and (4).

<sup>3</sup> During the 2013 Session, the General Assembly enacted S.L. 2013-187 (House Bill 223), which exempted the EMCs from the requirements of G.S. 62-110.1(c) and G.S. 62-42, effective July 1, 2013. As a result, EMCs are no longer subject to the requirements of Rule R8-60 and are no longer required to submit IRPs to the Commission for review.

Within 150 days after the later of either September 1 or the filing of each utility's Biennial Report, the Public Staff or any other intervenor may file an integrated resource plan or report of its own as to any utility or may file an evaluation of or comments on the reports filed by the utilities, or both. The Public Staff or any intervenor may identify any issue that it believes should be the subject of an evidentiary hearing. Within 60 days after the filing of initial comments, the parties may file reply comments addressing any substantive or procedural issue raised by any other party. A hearing to address issues raised by the Public Staff or other intervenors may be scheduled at the discretion of the Commission. The scope of any such hearing shall be limited to such issues as identified by the Commission. One or more hearings to receive testimony from the public, as required by law, shall be set at a time and place designated by the Commission.

Within 60 days after the filing of each utility's Update Report required by section (j) of Rule R8-60, the Public Staff or any other intervenor may file an update report of its own as to any utility. Further, within the same time period the Public Staff shall report to the Commission whether each utility's Update Report meets the requirements of this rule. Intervenors may request leave from the Commission to file comments. Comments will be received or expert witness hearings held on the Update Reports only if the Commission deems it necessary. The scope of any comments or expert witness hearing shall be limited to issues identified by the Commission. One or more hearings to receive testimony from the public, as required by law, shall be set at a time and place designated by the Commission.

By November 30 of each year, each utility individually or jointly shall hold a meeting to review its Biennial or Update Report with interested parties.

### **2015 Update Reports**

This Order addresses the 2015 Update Reports (2015 IRPs) filed in Docket No. E-100, Sub 141, by Duke Energy Progress, LLC (DEP); Duke Energy Carolinas, LLC (DEC); and Dominion North Carolina Power (DNCP) (collectively, the investor-owned utilities, utilities or IOUs). In addition, this Order also addresses the REPS compliance plans filed by the IOUs.

The following parties have been allowed to intervene in this docket: Carolina Industrial Group for Fair Utility Rates I, II, and III (CIGFUR); Carolina Utility Customers Association, Inc. (CUCA); Environmental Defense Fund (EDF); Mid-Atlantic Renewable Energy Coalition (MAREC); North Carolina Sustainable Energy Association (NCSEA); North Carolina Waste Awareness and Reduction Network (NC WARN); North Carolina Electric Membership Corporation (NCEMC); Sierra Club; and Southern Alliance for Clean Energy (SACE). The Public Staff's intervention is recognized pursuant to G.S. 62-15(d) and Commission Rule R1-19(e).

### Procedural History

On July 1, 2015, DNCP filed its 2015 IRP Update Report and 2015 REPS compliance plan. On July 31, 2015, DNCP filed an Errata to page 124 of its Update Report.

On August 27, 2015, the Public Staff filed a Motion for Extension of Time to file a report on whether the IRP of DNCP meets Commission requirements and for parties to file comments on DNCP's July 1 filing. Also on August 27, the Presiding Commissioner granted an extension of time to allow the Public Staff until September 21, 2015, to complete its compliance review, and to allow any party until September 21, 2015, to seek leave to file comments on DNCP's IRP Update Report.

On September 1, 2015, DEC and DEP filed 2015 IRP Update Reports and related REPS compliance plans. On September 9, 2015, DEP filed a revised page 22 to its Update Report to correct a typographical error.

On September 17, 2015, the Public Staff filed a Motion to Authorize Combined Comments on REPS Compliance Plans, asking that the Commission designate October 22, 2015, as the deadline for filing the combined comments on the REPS compliance plans of DEC, DEP and DNCP. This motion was approved on September 18, 2015, by the Presiding Commissioner. The order also noted that November 2, 2015, shall continue to be the deadline for parties to seek leave to file comments on DEC's and DEP's IRPs.

On September 21, 2015, the Public Staff filed its report regarding whether DNCP's Update Report meets the requirements of Commission Rule R8-60(j). Based on its review, the Public Staff determined that DNCP's Update Report met the requirements of the rule.

On September 28, 2015, Duke Energy filed notice that, after communicating with the parties, the stakeholder meeting to review the 2015 DEP and DEC IRPs has been scheduled for November 6, 2015, in Raleigh.

On October 22, 2015, the Public Staff filed its Comments on REPS Compliance Plans submitted by DEP, DEC and DNCP as part of their 2015 Update Reports. In its conclusions, the Public Staff stated that:

1. DEP, DEC, and DNCP should be able to meet their REPS obligations during the planning period, with the exception of the swine and poultry waste set-asides, without nearing or exceeding their cost caps.

2. DEP and DEC do not expect to meet the swine and poultry waste requirements in 2015 and are uncertain about meeting the requirements in 2016 and 2017. DNCP will have difficulty meeting the

swine waste requirements for itself during the reporting period, and the poultry waste requirements for Windsor in 2015; but it expects to meet the poultry waste requirements for itself throughout the reporting period, the swine waste requirements for Windsor throughout the period, and the poultry waste requirements for Windsor in 2016 and 2017. DEP, DEC, and DNCP are actively seeking energy and RECs to meet the set-aside requirements for the years in which they expect to fall short of compliance.

3. The Commission should approve the 2015 REPS Compliance Plans filed by DEP, DEC, and DNCP.

On October 27, 2015, DEC filed a Revision to Allen Units 1-3 Expected Retirement Date. In the filing, DEC stated that "pursuant to a settlement agreement to end the remaining component of a civil lawsuit filed in 2000 against Duke Energy Corporation by the U.S. Justice Department on behalf of the Environmental Protection Agency, DEC agreed to retire Allen Units 1, 2 and 3 by December 31, 2024. The U.S. District Court for the Middle District of North Carolina approved that settlement on October 20, 2015."

On November 2, 2015, the Public Staff submitted its report regarding whether DEC's and DEP's Update Reports met the requirements of Commission Rule R8-60(j). Based on its review, the Public Staff determined that DEC's and DEP's Update Reports did meet the requirements of the rule.

Also on November 2, 2015, NC WARN filed a Motion to Seek Leave to File Comments. Attached to its motion were NC WARN's proposed comments. In its proposed comments, NC WARN made four main assertions: (1) that Duke's forecasts for growth in demand for electricity are exaggerated; (2) that Duke fails to plan to use strategic purchases and cooperation with other utilities; (3) that Duke's IRPs include its continued reliance on expensive and unnecessary new natural gas and nuclear plants; and (4) that Duke fails to plan for the use of cost-effective and readily available renewable energy, energy efficiency measures, and combined heat and power (CHP) resources. In addition, NC WARN incorporated by reference its updated report entitled "A Responsible Energy Future for North Carolina."

On November 9, 2015, DEC and DEP filed an Objection to NC WARN's Motion to Seek Leave to File Comments. In summary, DEC and DEP submitted that NC WARN's proposed comments restate the same opinions and allegations that NC WARN has filed and that the Commission has rejected in previous IRP dockets. Duke requested that the Commission deny NC WARN's motion and decline to accept NC WARN's proposed comments.

On November 23, 2015, the Commission issued an Order Scheduling Public Hearing on 2015 IRP Update Reports and Related 2015 REPS Compliance Plans. The order set the required Public Hearing for the night of February 8, 2016.

Also on November 23, 2015, the Commission issued an Order Denying Leave to File Comments and Declining to Accept Comments. In the Discussion and Conclusion section of that order the Commission stated the following:

General Statute 62-110.1(c), in pertinent part, requires the Commission to "develop, publicize, and keep current an analysis of the long-range needs for expansion of facilities for the generation of electricity in North Carolina, including its estimate of the probable future growth of the use of electricity." The purpose of the IRP process is to gather facts and opinions that assist the Commission and the utilities to plan now in order to be in a position to make informed decisions at a later time. On the other hand, the IRP process is not designed to result in Commission "directives which fundamentally alter a given utility's operations." Instead, those directives are appropriate in other types of Commission proceedings, such as certificate of public convenience and necessity and complaint proceedings. See State ex rel. Utils. Comm'n v. North Carolina Electric Membership Corporation, 105 N.C. App. 136, 144, 412 S.E.2d 166, 170, 173 (1992).

As noted earlier, the Commission amended Rule R8-60 to establish guidelines for the Commission's review of the IRP updates filed by the electric utilities in odd-numbered years. As fully discussed in the IRP Procedure Order, one purpose of the amendments is to streamline the process for the Public Staff's review and the Commission's decision on the IRP updates. The IRP update process had become cumbersome and time consuming, due in large part to repetitive filings addressing the same or substantially similar facts. In an effort to alleviate unneeded repetition, the Commission adopted Rule R8-60(l), requiring that intervenors request leave from the Commission to file comments on the update reports, and providing that such comments will be limited to issues identified by the Commission.

The proposed comments filed by NC WARN are essentially the same as the comments filed by NC WARN in the 2014 IRP biennial proceeding. The Commission carefully considered NC WARN's comments in the 2014 IRP proceeding. However, the Commission is not convinced that these same comments are helpful in the present IRP update proceeding. As a result, the Commission is not persuaded that there is good cause to grant NC WARN's motion for leave to file comments. Therefore, the Commission concludes that the motion should be denied and the comments should not be accepted.

In addition, the Commission emphasizes that Rule R8-60(l) limits intervenor comments, when permitted by leave of the Commission, to those issues identified by the Commission. Thus, it is intended and will be helpful if parties will file their motion for leave to file comments and identify the issues that they seek to address.



### Public Hearing

Pursuant to G.S. 62-110.1(c), the Commission held a required public hearing in Raleigh on February 8, 2016, as scheduled. Thirteen public witnesses spoke. Eight of the 13 discussed various issues related to smart meters, which are part of a separate proceeding in this docket.

The five public witnesses that addressed IRP related issues were all customers of Duke Energy. Most of their testimony expressed their views that Duke is not paying enough attention to solar and other forms of renewable energy such as biomass, geothermal, hydro and wind generation as potential alternatives. In addition, they opined that the cost of solar and wind generation is plummeting and that battery storage has arrived in the market.

Various issues related to coal generation and coal ash were also discussed, as well as the view that energy efficiency is already the least-cost resource available.

### Conclusion

Based upon the record in this proceeding, and the comments of the Public Staff regarding the IRP Update Reports and REPS compliance plans submitted by DEC, DEP and DNCP, the Commission hereby accepts the Update Reports filed by the utilities as complete and fulfilling the requirements set out in Commission Rule R8-60. The Commission further approves the REPS compliance plans submitted by DEC, DEP and DNCP as recommended by the Public Staff.

IT IS, THEREFORE, SO ORDERED.

ISSUED BY ORDER OF THE COMMISSION.

This the 22<sup>nd</sup> day of March, 2016.

NORTH CAROLINA UTILITIES COMMISSION

*Paige J. Morris*

Paige J. Morris, Deputy Clerk

Commissioner Lyons Gray did not participate in this decision.

Duke Bowman Redirect I/A  
Exhibit 1



**STATE OF ALABAMA**  
PUBLIC SERVICE COMMISSION  
P.O. BOX 304260  
MONTGOMERY, ALABAMA 36130

TWINKLE ANDRESS CAVANAUGH, PRESIDENT

JOHN A. GARNER, EXECUTIVE DIRECTOR

JEREMY H. ODEN, ASSOCIATE COMMISSIONER

CHRIS "CHIP" BEEKER, JR., ASSOCIATE COMMISSIONER

**Alabama Power Company,**  
Petitioner

**Petition:** For approval of Rate  
CPE – Contract for Purchased  
Energy.

**Docket No. U-5213**

**ORDER**

**BY THE COMMISSION:**

On February 21, 2017, Alabama Power Company ("Alabama Power" or "the Company") filed with the Alabama Public Service Commission ("the Commission") in accordance with section 37-1-81, *Code of Alabama, 1975*, a new rate schedule entitled Rate CPE – Contract for Purchased Energy. As explained in the filing, the new rate schedule and accompanying form contracts would establish the terms, conditions and compensation for purchases of energy by Alabama Power from a qualifying facility greater than 100 kilowatts (AC) in size. Alabama Power is required to make such purchases from qualifying facilities pursuant to provisions of the Public Utility Regulatory Policies Act of 1978 ("PURPA") and associated regulations that have been implemented by the Federal Energy Regulatory Commission ("FERC"). For the reasons set forth, the Commission finds the Company's proposed Rate CPE to be just and reasonable and in the public interest, and approves its effectiveness as of the date of this order.

## BACKGROUND

PURPA was enacted by Congress in the late 1970s in response to a perceived national energy crisis. *See generally* 16 U.S.C. §§ 2601, *et seq.*; *see also FERC v. Mississippi*, 456 U.S. 742, 745-46 (1982). Included therein were certain provisions of PURPA directing FERC to implement rules requiring electric utilities like the Company to make electric energy purchases from cogeneration and small power production facilities (collectively termed “qualifying facilities” or “QFs”). *See* 16 U.S.C. § 824a-3(a). The rates for such purchases were to be just and reasonable to the electric consumers of the electric utility and in the public interest, not discriminate against the QFs, and not exceed the cost of the energy the utility would have incurred through self-generation or otherwise, but for the purchase from the QF. *See* 16 U.S.C. §§ 824a-3(b), (d). PURPA also directed state regulatory authorities, such as this Commission, to implement any rule issued by FERC. *See* 16 U.S.C. § 824a3-(f)(1).

Consistent with the Congressional directives given it, FERC promulgated new regulations in 1980. *See generally* Order No. 69, 45 Fed. Reg. ¶ 12214 (Feb. 25, 1980); *see also* 18 C.F.R. Part 292. With respect to purchases of energy or capacity made available from a QF, the regulations generally require the utility to pay a rate predicated on its full avoided costs, 18 C.F.R. § 292.304(a), a term defined as “the incremental costs to an electric utility of electric energy or capacity or both which, but for the purchase from the qualifying facility or qualifying facilities, such utility would generate itself or purchase from another source.” 18 C.F.R. § 292.101(b)(6). FERC also enumerated a list of factors to be considered (as applicable) in the development of the avoided cost rate, including, but not limited to, the availability of capacity or energy during peak periods, the dispatchability and reliability of the facility, the

term of any contract with the QF, and the usefulness of the facility in system emergencies. *See* 18 C.F.R. § 292.304(e).

FERC also included requirements for standard rates for purchases. Specifically, FERC required state regulatory authorities to put into effect standard purchase rates for QFs with a design capacity of 100 kilowatts or less. *See* Order No. 69 at p. 12223; *see also* 18 C.F.R. § 292.304(c). For QFs of a size greater than 100 kilowatts, FERC encouraged, but did not require, state authorities to implement standard rates. *See id.* Consistent with the foregoing, the Commission ultimately approved Rate PAE – Purchase of Alternate Energy, which is Alabama Power's standard rate for purchases from QFs of 100 kilowatts or less. *See* Report and Order of the Commission, Docket No. 18005 (March 12, 1981). The price paid for energy purchased under Rate PAE is based on the Company's projected avoided cost for the upcoming 12-month period. As required by the Commission, the Company updates its avoided energy rates annually to reflect its most current projections. At the time of Rate PAE's approval, the Commission declined to formalize any standard rate for QFs with a design capacity larger than 100 kilowatts. Instead, the Commission opted to address such agreements on a case-by-case basis. Since that time, the Company periodically has presented individual agreements for purchases of excess energy from QFs to the Commission for approval. These agreements, all of which were with existing customers of the Company that had sited cogeneration facilities at their premises, include rates for purchases predicated on the same avoided cost data used for Rate PAE. Those rates are also updated on an annual basis (similar to Rate PAE) to reflect the Company's current avoided energy projections.

## PROPOSED RATE CPE

Alabama Power now proposes Rate CPE, which would provide standard rates for QFs with a design capacity in excess of 100 kilowatts (AC). Rate CPE possesses two principal features: i) rates for the purchase of energy from QFs, and ii) standard contracts establishing terms and conditions for such purchases. The rates for purchases of energy from QFs are categorized both by the voltage level at which the energy is placed onto Alabama Power's system and also by time period (e.g., Summer Peak, Non-Summer Off-Peak). As explained in the Company's filing, these rates are based on the Company's current avoided cost projections for the upcoming twelve-month period, and were developed using the same processes that the Company employs to develop the pricing in Rate PAE. Consistent with its historical practices regarding purchase agreements with QFs in excess of 100 kilowatts, as well as with Rate PAE, the Company would update the rates for purchases made in accordance with Rate CPE by the first business day in February, and each year thereafter. The revised Rate CPE would be filed with the Commission for review and become effective upon issuance of a Commission order approving the revised rate.

Rate CPE also incorporates two standard contracts: Attachment A – Contract for the Purchase of Energy from a Qualifying Facility and Attachment B – Contract for the Purchase of Excess Energy. The Attachment A Contract applies to a QF that wishes to sell its total output to the Company, less any production consumed on site for station service or similar reasons. The Attachment B Contract applies to an electric customer of Alabama Power that operates a QF to serve a portion of its retail electric needs and seeks to sell excess output to the Company on an intermittent basis. Both contracts rely on the purchase rates set forth in Rate CPE, as described above.

Attachment A also includes an “as delivered” pricing option. Under FERC’s regulations, a QF has the option to elect pricing calculated at the time a “legally enforceable obligation” is incurred (i.e., a price predicated on projected avoided cost) or on an “as delivered” basis (i.e., the actual avoided cost at the time of delivery). See 18 C.F.R. § 292.304(d). The Attachment A Contract includes a mechanism whereby QFs can receive compensation on an “as delivered” basis (initially, the QF is paid a projected rate, but then the Company trues up those payments once actual avoided costs are known). The Company explains in its filing that while the “as delivered” option is available for QFs who are eligible for and selling “excess energy” under the Attachment B Contract, it has been the Company’s experience that such customer-QFs prefer pricing on a projected basis. Accordingly, the Company has excluded the “as delivered” pricing option from the Attachment B Contract, and intends to address any such request on a case-by-case basis.

Each standard contract is structured with an “evergreen” provision. That is, the QF has the right to renew the contract at the end of each annual period, in its sole discretion, by providing notice to Alabama Power. In contrast, the Company can only terminate the Attachment A Contract if PURPA is repealed, or in the case of certain events of default described more fully in the contract. Comparable termination rights exist for the Attachment B Contract, but as it will complement an existing contract for electric service with the customer, slight variations may arise on a case-by-case basis, in accordance with the terms of the contract for electric service. As noted above, contract renewals would reflect the most current purchase rates reflected in Rate CPE, as filed with the Commission each year when avoided energy rates are updated. Furthermore, the Company has indicated in its filing that, as particular

circumstances warrant, a standard contract may be modified to reflect individualized considerations, such as capacity payments.

Although the Company would file annual updates to the pricing included in Rate CPE, the Company proposes that when it and a QF enter into one of the standard contracts approved under Rate CPE, such contract would not require separate filing or approval by the Commission. Instead, the Company would apprise the Commission Staff when a standard form contract has been executed, thus affording Staff the opportunity to review the agreement and make a determination as to whether any modification to the standard form has been made. If such a modification has occurred, and in Staff's review it is material enough to require separate Commission approval, then the Company would be obligated to file the contract with the Commission for approval. The Company explains that this proposed method for review will reduce the administrative burdens both on it and on the Commission.

In addition, Rate CPE provides information relating to the interconnection and delivery of energy from the QF to the Alabama Power electrical system. More specifically, the rate recites that the QF will be responsible for all costs associated with any corresponding facilities, improvements and upgrades needed for interconnection of the QF or for delivery of electrical energy to the customers of Alabama Power, along with all fees and costs associated with applications, required studies, administration of the interconnection agreement and financial security requirements. In addition, Rate CPE directs potentially interested QFs to the Company's website for information relating to the interconnection process (e.g., an interconnection application, generation interconnection agreement and contact information for interconnections.).

Finally, Alabama Power's filing letter notes several drivers for the proposed Rate CPE. For example, the Company states that certain customers are beginning to deploy cogeneration (also referred to as combined heat and power, or CHP), in order to satisfy their need for both electricity and thermal energy. The Company also notes that small power production facilities (e.g., photovoltaic solar) also are becoming more prevalent, as the cost of the underlying equipment has decreased and federal subsidies continue to facilitate development. In this respect, Alabama Power states that the recent request for proposals (RFP) for renewable generation and environmentally specialized resources, conducted in accordance with the order entered in Docket No. 32382, elicited more than 200 responses. In light of these developments, the Company states that the establishment of standard terms and conditions for purchase contracts with QFs will promote their orderly and efficient implementation and administration, consistent with Congress's original goals for PURPA, as implemented by FERC.

## **DISCUSSION**

When PURPA was enacted nearly 30 years ago, one of its goals was to encourage greater use of renewable and other forms of independent generation. In prescribing this goal, however, Congress recognized that its implementation by FERC must be done in a way that is just and reasonable to the electricity consumers of utilities and in the public interest. Thus, in reviewing Rate CPE, the Commission must consider if the rate adequately addresses the goals of PURPA but is also just and reasonable for Alabama Power's customers. The Commission believes Rate CPE strikes the appropriate balance.

When FERC initially established implementing rules for PURPA, it recognized the possibility that actual avoided cost could differ from projected avoided cost, under legally enforceable obligations. In such cases, FERC assumed that differences between projected and



actual avoided costs rates would even out over time, where the avoided cost rates may be overestimated some years, while underestimated in others. *In the Matter of Petition to Modify Terms & Conditions of PURPA Purchase Agreements*, 324 P.U.R. 4th 320 (Aug. 20, 2015) (citing *Regulations Implementing Section 210 of the Public Utility Regulatory Policies Act of 1978*, 45 Fed. Reg. 12214-02). However, reaching this balance between projected cost and actual cost has not occurred in many cases – leaving customers paying more to QFs than what was intended under PURPA.

Alabama Power has proposed Rate CPE with a one-year term and “evergreen” provision to satisfy the requirements of PURPA. Under this model, a QF essentially has an indefinite contract, terminable at its option, in certain events of default, or in the event Congress repeals the PURPA purchase requirement. During that term, and for QFs not being paid on an “as delivered” basis, the pricing updates annually, consistent with the updated avoided energy pricing submitted by the Company. In various PURPA-related actions regarding its PURPA regulations, FERC has offered broad guidance as to the length of contract sufficient to encourage the development of QFs. In one context, FERC has stated that the contract must be of a sufficient length to encourage investment. See *Windham Solar LLC, et al.*, 157 FERC (61,134, P 8 (Nov. 2016)). FERC also has stated that a long-term contract, in the context of PURPA, is “one year or longer.” See *New PURPA Section 210(m) Regulations Applicable to Small Power Production Facilities and Cogeneration Facilities*, Order No. 688-A, 119 FERC ¶ (61,305, at P 27 & n.17 (2007)). Taking these and other such acknowledgements together, along with existing laws and regulations, the Commission believes the Company’s design is reasonable both to QFs and to the Company’s customers.

As for the development of the energy pricing for Rate CPE contracts, FERC has recognized that it is the responsibility of the state authority to determine an avoided cost rate consistent with the federal regulations implementing PURPA. *See Alcoa Renewable Energy Ltd. v. Mass. Elec. Co.*, 146 FERC ¶ 61,107, P 11 & n.21 (Feb. 2014). This Commission concurs with the Company's proposal, as it is consistent with the policies adopted by this Commission and by the State. For more than 35 years, and consistent with the requirements of PURPA, the Company has maintained Rate PAE, a standard rate for purchases from QFs with a design capacity of 100 kilowatts and less. In the last several years, the Company has noticed an increase in customers taking advantage of Rate PAE, and coupled with the considerable interest in the 2016 RFP, the need for such a rate as CPE has increased.

In addition, the Commission has over this same time period approved, on an *ad hoc* basis, agreements between the Company and certain customers equipped with cogeneration facilities that wished to sell their excess output to the Company. Both categories of purchases have used rates predicated on the Company's avoided costs, with the rates for purchases refreshing annually as the Company updated its forecast of avoided costs.

And not only is Rate CPE consistent with the policies of the Commission, but also with the policies of this State. Section 37-4-140 (a)(1), *Code of Alabama, 1975*, defines avoided costs as "costs that a utility or a commission non-jurisdictional electric supplier which purchases electrical energy from a distributed generation facility would have been required to incur but for the distributed generation facility's provision of electrical energy during the same period of time". Rate CPE and its standard contracts use these familiar processes for the purchase of energy from a QF. Equally important, the Company does not propose the exclusive use of these contracts to meet its PURPA obligations for QF facilities greater than 100 KW.

Rather, the Company recognizes that individual circumstances may arise where a non-standard contract is better suited to recognize the specific attributes (e.g. availability, dispatchability, and reliability) of a QF proposing to interconnect and sell to the Company in accordance with PURPA. If and when such a circumstance occurs, the Commission Staff will have an opportunity to review the contract, as modified from the standard form, to determine if it is just and reasonable, and in the public interest. In cases where there is a material difference from the standard contracts, the Staff will recommend to the Commission that separate approval is warranted. This approach satisfies the goals of PURPA, as enacted by Congress, by ensuring that rates for purchases of energy or capacity or both are just and reasonable to Alabama Power's customers, while encouraging QF development in a non-discriminatory manner. *Cf.* 16 U.S.C. §§ 824a-3(b), (d). In furtherance of this end, the Commission Staff recommends that the Company be directed to submit to Staff any Attachment A or Attachment B contract under which it seeks authority to make purchases from QFs at least thirty (30) days prior to the effective date of the contract. Absent contrary indication by Staff within fifteen (15) days of the Company's submission, the contract shall be deemed to be in accordance with Rate CPE and effective for any purchases made by the Company from the QF under that contract.

Commission Staff has reviewed the Company's request with due consideration of the Commission's prior experiences, the reported experiences in several other jurisdictions, applicable FERC regulations and the energy policies codified in Alabama statutes. The Staff has determined from its review that the proposal of Alabama Power complies with all applicable regulatory and legal considerations and recommends its approval by the Commission. We have examined Alabama Power's filing and concur with the recommendations of our Staff. In view of the foregoing, the Commission **FINDS** that Rate

CPE – Contract for Purchased Energy, as set forth in the filing discussed above, is just and reasonable and in the public interest, and is due to be approved, subject to the further direction set forth here.

**IT IS, THEREFORE, ORDERED BY THE COMMISSION** that, the proposed Rate CPE – Contract for Purchased Energy, as set forth in the filing of Alabama Power Company, is hereby approved.

**IT IS FURTHER ORDERED BY THE COMMISSION** that this new rate shall be effective for contracts entered into by the Company beginning with March 2017 billings. Not later than the first business day of February 2018, and subsequent years thereafter, the Company shall file updated avoided energy rates for Rate CPE. Such revised rate shall become effective after examination by the Commission and upon issuance of an order approving the same and shall be deemed effective for March billings and thereafter. The Company also shall consider whether a corresponding filing can be made for updates to its existing Rate PAE, so that updates to it occur contemporaneously with those under Rate CPE. The Company is directed to report on the feasibility of this modification when it makes its annual Rate PAE filing in April, 2017.

**IT IS FURTHER ORDERED BY THE COMMISSION** that the Company shall submit to Staff any Attachment A or Attachment B contract under which the Company seeks authority to make purchases from QFs at least thirty (30) days prior to making the effective date of such contract. Absent contrary indication by Staff within fifteen (15) days of the Company's submission, the contract shall be deemed to be in accordance with Rate CPE and effective for any purchases made by the Company from the QF under that contract.

IT IS FURTHER ORDERED BY THE COMMISSION that since Rate CPE has been implemented in accordance with PURPA, it follows that if PURPA were to be repealed or amended making this rate no longer necessary, then at such time Rate CPE and any contracts under its terms are null and void.

IT IS FURTHER ORDERED BY THE COMMISSION that, jurisdiction in this cause is, hereby, retained for any further order or orders that this Commission may find just and reasonable under the circumstances.

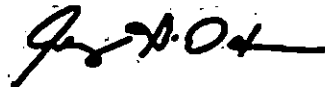
IT IS FURTHER ORDERED BY THE COMMISSION that this Order shall be effective as of the date hereof.

DONE at Montgomery, Alabama, this 7th day of, March, 2017.

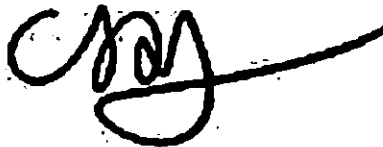
ALABAMA PUBLIC SERVICE COMMISSION



Twinkle Andress Cavanaugh, President

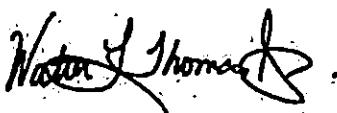


Jeremy H. Oden, Commissioner



Chris "Chip" Beeker, Jr., Commissioner

ATTEST: A True Copy



Walter L. Thomas, Jr., Secretary

\*Pg. 1 of 182  
Previously filed  
in docket as  
public and  
confidential

Joint Initial Statement I/A  
and Proposed Standard Avoided  
Cost Rate Tariffs of DEC, LLC,  
and DEP, LLC

STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH

DOCKET NO. E-100, SUB 148

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of	)	JOINT INITIAL STATEMENT AND
Biennial Determination of Avoided	)	PROPOSED STANDARD AVOIDED
Cost Rates for Electric Utility	)	COST RATE TARIFFS OF DUKE
Purchases from Qualifying Facilities	)	ENERGY CAROLINAS, LLC AND DUKE
- 2016	)	ENERGY PROGRESS, LLC

NOW COME Duke Energy Carolinas, LLC ("DEC") and Duke Energy Progress, LLC ("DEP" and together with DEC "the Companies"), pursuant to the North Carolina Utilities Commission's June 22, 2016 *Order Establishing Biennial Proceeding, Requiring Data, and Scheduling Public Hearing* ("2016 Scheduling Order") and subsequent October 27, 2016 Order extending the time for filing, and submits the Companies' Initial Statements and Exhibits presenting DEC's and DEP's proposed standard avoided cost rates and contract terms and conditions. As further described in Section V, the Companies respectfully request that the Commission expeditiously issue a procedural order setting the date for an evidentiary hearing and the filing of testimony by interested parties in this Docket.

**INTRODUCTORY STATEMENT**

North Carolina's position as a national leader in renewable energy is a source of pride for customers, the industry, and policymakers alike. Forward-looking regulatory and legislative policies, strong partnership by the state's major utilities, Duke Energy Carolinas and Duke Energy Progress, and aggressive construction and deployment of solar facilities by developers large and small have combined to make North Carolina

OFFICIAL COPY

Nov 15 2016