



LEGAL COUNSEL OFFICE

VIA CERTIFIED MAIL

October 19, 2010

Renné Vance Chief Clerk North Carolina Utilities Commission 4325 Mail Service Center Raleigh, North Carolina 27699-4325

Re: Docket No. E-100, Sub 127

FILED

OCT 2 1 2010

Clark's Office N.C. Utilities Commission



Dear Ms. Vance:

Enclosed please find the original and 31 copies of the Comments and Proposed Rates for Western Carolina University for filing in the above referenced Docket.

Please stamp one copy and return it in the stamped, self-addressed envelope.

Thank you for your attention to this matter.

Sincerely,

Mary Ann Lochner

General Counsel

Angie Johnson cc:

Parties of Record

520 HF Robinson | Cullowhee, NC 28122 329.227.7116 tel | 828.227.7047 fax | www.wcu.edu

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OCT 2 1 2010
Clark's Office
N.C. Utilities Commission

**DOCKET E-100, SUB 127** 



### **BEFORE THE NORTH CAROLINA UTILITIES COMMISSION**

# IN THE MATTER OF BIENNIAL DETERMINATION OF AVOIDED COST RATES FOR ELECTRIC UTILITY PURCHASES FROM QUALIFYING FACILITIES - 2010

COMMENTS AND PROPOSED RATES OF WESTERN CAROLINA UNIVERSITY

October 19, 2010

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### I. Procedural History

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On or about February 6, 1984, Western Carolina University filed with the North Carolina Utilities Commission an application setting forth proposed rates, terms and conditions to be offered to small power producers and cogenerators. That filing was in Docket No. E-100, Sub 41A. Every two years since then Western Carolina University has filed with the North Carolina Utilities Commission the same proposed rates, terms and conditions to be offered small power producers and cogenerators. Those filings were in Docket No. E-100, Sub 53; Docket No. E-100, Sub 57; Docket No. E-100, Sub 59; Docket No. E-100, Sub 66; Docket No. E-100, Sub 74; Docket No. E-100, Sub 79; Docket No. E-100, Sub 81; Docket No. E-100, Sub 87, Docket No. E-100, Sub 96; Docket No. E-100, Sub 100, and Docket No. E-100, Sub 106, and Docket No. E-100, Sub 117. The basis for the Small Power Production Supplier Reimbursement Formula as set out in the current filing is the same rate formula concept as filed in all of the earlier proceedings. In the current case, as well as in all previous cases, WCU seeks to pay the same rates to small power producers and cogenerators that the university would pay to its supplier, Duke Energy, for power.

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### II. Avoided Cost Calculation and Proposed Rate Design

As the Commission is aware, Western Carolina purchases all of its demand and energy requirements from Duke Energy Carolinas LLC under an all-requirements contract. Western Carolina does not generate any of its own power. The power Western Carolina sells to its customers through its Resale Electric Distribution System is solely power that it purchases from Duke Energy Carolinas LLC. Since Western Carolina does not generate any power, its avoided cost, in the context of cogeneration/small power production, is purchased power services from Duke Energy Carolinas LLC. Per an agreement with Duke Energy, WCU can allow up to one (1) megawatt (MW) of QF power or renewable energy power as an offset to its annual billable demand from Duke. However, for cumulative WCU loads that exceed 1 MW, the university will receive Duke's avoided cost. As can be seen in the attached rate formulas, WCU will pay those suppliers the same amount that it either avoids paying Duke for total loads up to 1 MW or Duke's avoided costs, which will occur when the cumulative university QF or renewable load is in excess of 1 MW.

The wholesale rates that Western Carolina University pays to Duke Energy vary by year.

As a result, it is impractical to herein specify a single set of rates that Western Carolina pays

Duke Energy for power supply service over the next two years. The attached formulas, as found
in Exhibit 1, 2, 3, and 4 encompass the avoided costs of the University with respect to small
power producers and cogenerators. Exhibit 1 sets out the formula to be used by WCU when
calculating the credit to be paid to small power producers or cogenerators that wish to receive

the demand credit and the university's total small power producing load is less than one MW. Exhibit 2 provides the formula for aggregate WCU customer loads of less than one MW and the customer foregoes the demand credit. Exhibit 3 establishes the formula for WCU customer loads where the aggregate small power load is in excess of one MW and the customer wishes to receive the demand credit. Exhibit 4 provides the formula for customer loads where the aggregate WCU small power producing load is more than one MW and the customer does not wish to receive the demand credit.

In past cases, the Utilities Commission approved Western Carolina's cogenerator and small power producer rate to reflect the fact that the University's avoided cost was its wholesale cost of power. In these past proceedings, power supply and transmission were bundled into a single rate design. Due to changes in federal legislation, Western Carolina now receives separate invoices from Duke for power supply as well as transmission. The formulas as found in Exhibits 1 through 4 incorporate only power supply charges incurred by the University as it is very difficult to ascertain if transmission expenses are avoided by a small power producer and, if so, what the net effect of such a reduction may be to the university.

The deletion of the \$25.00 administrative service charge in Exhibits 2 and 4 was done in accordance with the Commission's April 12, 1985 Order when the Commission required the University to eliminate the account servicing charge to a qualifying facility when such qualifying facility agrees to forego capacity credits. If the qualifying facility contracts to receive demand credit, a meter capable of reading hourly demands is required to accurately measure the

demand supplied by the renewable/cogenerator power supplier during the interval in which Duke Energy Carolinas LLC incurs a peak demand. The maintenance cost of electronic meters is greater than the cost of maintaining standard meters. In Docket No. E-100, Sub 41A, the Utilities Commission approved the use of an electronic meter to the extent that it is the same demand metering equipment required for other customers of WCU under similar operating conditions. If the monthly administrative charge is not set to cover all the costs associated with an account, the additional costs will have to be passed on to the other retail customers of the system. These additional costs would actually increase Western Carolina University's costs of providing service to its other retail customers as a result of the University's purchasing power from a cogenerator or small power producer. If a cogenerator or small power producer is willing to forego a demand credit, the University is willing to forego the \$25 administrative fee since it will not have to pay demand credits. The decision as to whether or not to contract for demand credits is made solely by the cogenerator or small power producer.

The \$8.25 monthly charge for meter reading and administrative overhead is based on a reasonable estimate of WCU's monthly administrative charges. In the university's last rate case, Docket E-35, Sub 38, the cost of servicing an account on a monthly basis amounted to approximately \$6.00. This cost was based on the fact that the customer bill could be entirely computer generated. In the case of a cogenerator, or small power producer, a manual calculation must be made to determine the credit to be applied to the customer's monthly bill as the university's computer billing program is not designed to perform such a calculation. Therefore, there would be additional cost in the monthly bill preparation for a cogenerator or

- small power producer. In addition, this charge is also close to what the neighboring utility, Duke
- 2 Energy Carolinas, LLC has included in its rate for cogenerators and small power producers

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- 4 The standard contract used for a small generator when the total WCU small power load is less
- 5 than one MW is attached hereto as Exhibit No. 5 and entitled "Purchase Power Agreement for
- 6 Aggregate WCU Loads Totaling Less than One MW". The standard contract used to calculate
- 7 the credits for a generator where the aggregate WCU load is greater than one MW is found in
- 8 Exhibit 6 and is entitled "Purchased Power Agreement for Aggregate WCU Loads totaling More
- 9 than One MW (without demand credit)".

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III. **Status of QFs on WCU System** The University entered one renewable energy contract with a qualified supplier on January 20, 1986. That supplier has not offered for sale any electricity to the University in well over ten years. However, very recently, the University has been approached by a customer that is seeking to install a rooftop solar application on his house. This rooftop unit is expected to be very small (less than 15 kW) and the university is working with this customer now to meet his needs. Respectfully submitted this the 19<sup>th</sup> day of October, 2010 Mary Ann Lochner 

 General Counsel
Western Carolina University
Old Highway 117
Cullowhee, NC 28723-9003
828-227-7323

STATE OF NORTH CAROLINA	)	VERIFICATION
COUNTY OF WAKE	)	

Kevin W. O'Donnell, being first duly sworn, deposes and says:

He is a consultant for Nova Energy Consultants, Inc. and he has read the foregoing Initial Statement and knows the contents thereof, that the same is true except as to the matters stated therein on information and belief, and as to those matters, he believes it to be true.

Sworn to and subscribed before me
This 25 44 day of September, 2010

Notary Public

My Commission Expires: 5/1/2015

SEAL

### WESTERN CAROLINA UNIVERSITY SMALL POWER SUPPLIER REIMBURSEMENT FORMULA FOR TOTAL AGGREGATE LOADS FOR WCU UP TO 1 MW (WITH DEMAND CREDIT)

### Rate SPP DEMAND

MPSS = ((CER X CES) + (CDR X CDA)) - \$25.00

In June of each year, a true-up of estimated demand and energy will occur, thereby resulting in a charge or a credit to the small power supplier. The formula for this charge or credit is as follows:

True-Up = (PPAER X PES) + (PPADR x PDA)

MPSS = Monthly payment to Small Power Production Supplier.

CER = Current month Energy Rate per KWH, as shown on the University's current bill from its supplier, Duke Energy Carolinas.

CES = Current month Energy Supplied, in KWH, by the Small Power Production Supplier as defined as the most recent billing cycle energy produced by the Supplier.

CDR = Current month Demand Rate per KW, as shown on the University's current bill from its supplier, Duke Energy Co.

CDA = Estimated 12-month demand avoided as a result of the KW supplied by the Small Power Production Supplier.

PPAER = the difference between the previous years monthly energy rate per kWh and the adjusted energy rate per kWh, as shown on annual workpapers provided by Duke Energy Company in June of each year.

PES = Previous calendar year energy supplied, in KWH, by the Small Power Production Supplier.

PPADR = = the difference between the previous years monthly demand rate per kW and the adjusted demand rate per kW, as shown on annual workpapers provided by Duke Energy Company in June of each year.

PDA = the difference between the estimated 12-month demand avoided (CDA) and the 12-month actual demand for the previous calendar year.

\$25 = A charge of \$25.00 for meter reading, billing and administrative overhead.

### **MONTHY PAYMENT**

Company shall pay Seller the sum of the Energy Credit and the Demand Credit reduced by a special meter reading and billing of \$25.00.

## WESTERN CAROLINA UNIVERSITY SMALL POWER SUPPLIER REIMBURSEMENT FORMULA FOR TOTAL AGGREGATE LOADS FOR WCU UP TO 1 MW (WITHOUT DEMAND CREDIT)

#### Rate SPP NO DEMAND

MPSS= (CER x CES) + (PPAER x PES) - \$8.25

MPSS = Monthly payment to Small Power Production Supplier.

CER = Current month Energy Rate per KWH, as shown on the University's current bill from its major supplier, Duke Energy Co.

CES = Current month Energy Supplied, in KWH, by the Small Power Production Supplier.

PPAER = Purchased Power Adjustment Energy Rate per KWH, as shown on annual workpapers provided by Duke Energy Company in June of each year.

PES = Current month Energy Supplied, in KWH, by the Small Power Production Supplier.

\$8.25 = A charge of \$8.25 for meter reading and administrative overhead.

### MONTHY PAYMENT

Company shall pay Seller the sum of the Energy Credit and the Demand Credit reduced by a meter reading and billing charge of \$8.25.

### WESTERN CAROLINA UNIVERSITY SMALL POWER SUPPLIER REIMBURSEMENT FORMULA FOR TOTAL AGGREGATE LOADS FOR WCU OVER 1 MW (WITH DEMAND CREDIT)

### Rate DUKE AVOIDED COST DEMAND

MPSS = (CER X CES) + (CDR X CDA) - \$25.00

MPSS = Monthly payment to Small Power Production Supplier.

CER = Current month Energy Rate per KWH, as shown on Duke Energy Co.'s avoided cost energy rate, for the contract period of the WCU and Customer agreement.

CES = Current month Energy Supplied, in KWH, by the Small Power Production Supplier as defined as the most recent billing cycle energy produced by the Supplier.

CDR = Current month Capacity Rate per KW, as shown on Duke Energy Co.'s avoided cost energy rate for the contract period of the WCU and Customer agreement.

CDA = Current month Demand Avoided as a result of the KW supplied by the Small Power Production Supplier as defined as the most recent billing cycle energy produced by the Supplier.

\$25 = A charge of \$25.00 for meter reading, billing and administrative overhead.

#### MONTHY PAYMENT

Company shall pay Seller the sum of the Energy Credit and the Demand Credit reduced by a special meter reading and billing of \$25.00.

## WESTERN CAROLINA UNIVERSITY SMALL POWER SUPPLIER REIMBURSEMENT FORMULA FOR TOTAL AGGREGATE LOADS FOR WCU OVER 1 MW (WITHOUT DEMAND CREDIT)

#### Rate DUKE AVOIDED COST NO DEMAND

MPSS = (CER X CES) - \$8.25

MPSS = Monthly payment to Small Power Production Supplier.

CER = Current month Energy Rate per KWH, as shown on Duke Energy Co.'s avoided cost energy rate for the contract period of the WCU and Customer agreement.

CES = Current month Energy Supplied, in KWH, by the Small Power Production Supplier as defined as the most recent billing cycle energy produced by the Supplier.

### MONTHY PAYMENT

Company shall pay Seller the sum of the Energy Rate per kWh multiplied by the energy metered from the customer location.

### PURCHASED POWER AGREEMENT FOR AGGREGATE WCU LOADS TOTALLING LESS THAN ONE MW

	HIS AGREEMENT executed in duplicate is made this day of, 20, by between WESTERN CAROLINA UNIVERSITY, Cullowhee, rolina (the "University"), party of the first part, and (the	
	"), party of the second part.	
hereto, fo the follov	consideration of the mutual covenants herein contained, the parties or themselves, their successors and assigns, do hereby agree that, subject to wing conditions, the Supplier shall sell and deliver electric power to the cy, and the University shall purchase, receive, use and pay for the same:	
1.	Service Requirements. The electric power to be delivered hereunder shall be made in Jackson County at or near Cullowhee, North Carolina at a delivery point described as follows:	
	maximum amount of electric power to be delivered under this agreement under normal operating conditions shall be kilowatts.	
2.	MONTHLY PAYMENTS. University shall pay the Supplier the sum of the energy credit and the demand credit reduced by a charge of \$25 or \$8.25 (depending on the rate schedule under which service is provided) for meter reading, billing, and administrative overhead.	
3.	Energy Credit. The energy credit shall consist of the sum of the energy rate per KWH, as determined in Rates SPP DEMAND or SPP NO DEMAND, for all KWH purchased from the Supplier during the current billing period and the purchased power adjustment per KWH, if any, for all KWH purchased from the Supplier during the current billing period.	
	Demand Credit. The demand credit, if any, shall consist of the sum of the demand rate per KW, as found in Rates SPP DEMAND for the estimated KW output of the Supplier's generator in the 12-month billing period, and the purchased power adjustment per KW for the metered KW output of the Supplier's generator during the aforementioned 12-month billing period.	
4.	General Requirements for Parallel Generation <u>Operation</u> . The Supplier understands and agrees to comply with the General Requirements for Parallel Generator Operation which are attached hereto and incorporated	

by reference. The provisions stated therein become terms and conditions

of this Agreement. Additionally, the Application for Parallel Operation completed and signed by the Supplier is attached hereto and incorporated by reference. In reliance upon the accuracy of the information stated therein, the University has agreed to enter into the Agreement. Therefore, if the information is not true, such shall constitute a breach and the University's remedy shall be to cease all payments to Supplier and disconnect the small power production facility from the WCU grid.

- 5. Contract Period. The initial term of this agreement shall be for a period for five (5) years with automatic renewal each year thereafter. The University reserves the right to terminate the contract at any time upon written notice to the Supplier in the event that the Supplier violates any of the terms or conditions of this agreement or operates his generation facilities in a manner which is detrimental to the University or any of its customers. Supplier may terminate the contract on thirty (30) days written notice to the University. In the event of early termination of a contract, the Supplier will be required to pay to the University to purchase power from Supplier at times when such power is not required on University's system or when such purchase would detrimentally impact the University's other customers.
- 6. Assignability. The parties agree that this contract is not assignable.

7.

IN WITNESS WHEREOF, on the day and year first above written, the parties heret	О
have caused their names to be hereunto subscribed.	

SUPPLIER	WESTERN CAROLINA UNIVERSITY

### PURCHASED POWER AGREEMENT FOR AGGREGATE WCU LOADS TOTALLING MORE THAN ONE MW

### (WITHOUT DEMAND CREDIT)

THIS AGREEMENT executed in duplicate is made this day of			
hereto, for t conditions,	onsideration of the mutual covenants herein contained, the parties chemselves only, do hereby agree that, subject to the following the Supplier shall sell and deliver electric power to the University, and ity shall purchase, receive, use and pay for the same:		
s. C	fervice Requirements. The electric power to be delivered hereunder hall be generated in the University's electric service area in Jackson county at or near Cullowhee, North Carolina at a delivery point described s follows:		
	um amount of electric power to be delivered under this agreement under ration conditions shall be kilowatts.		
2. M	MONTHLY PAYMENT. University shall pay the Supplier the energy credit.		
KWH, as det	dit. The energy credit shall consist of the sum of the energy rate per termined in Rate,DUKE AVOIDED COST NO DEMAND or DUKE AVOIDED AND, for all KWH purchased from the Supplier during the current billing		
	eneral Requirements for Parallel Generation Operation. The Supplier		

3. General Requirements for Parallel Generation Operation. The Supplier understands and agrees to comply with the General Requirements for Parallel Generator Operation which are attached hereto and incorporated by reference. The provisions stated therein become terms and conditions of this agreement. Additionally, the Application for Parallel Operation completed and signed by the Supplier is attached hereto and incorporated by reference. In reliance upon the accuracy of the information stated therein, the University has agreed to enter into the Agreement. Therefore, if the information is not true, such shall constitute a breach of this agreement and the University's remedy shall be to cease all payments to Supplier and disconnect the small power production

facility from the WCU grid. The Supplier agrees to allow the University, its employees or agents to enter upon Supplier's property at any time to conduct inspections of the Supplier's generation equipment and interconnection equipment.

- Contract Period. The initial term of this agreement shall be for a period of 4. five (5) years with automatic renewal each year until replaced by a new contract or termination by the University or Supplier. The University reserves the right to terminate the contract at any time upon written notice to the Supplier in the event that the Supplier violates any of the terms or conditions of this agreement or operates his generation facilities in a manner which is detrimental to the University or any of its customers or if the University sells the off-campus electric distribution system. Supplier may terminate the contract on thirty (30) days written notice to the University. In the event of early termination of a contract, the Supplier will be required to pay to the University al costs occasioned by such early cancellation. Nothing in this agreement shall be construed to require the University to purchase power from the Supplier at times when such power is not required on University's system or when such purchase would detrimentally impact the University's other customers.
- 5. Assignability. The parties agree that this contract is not assignable.

IN WITNESS WHEREOF, on the day and year first above written, the Parties hereto have caused their names to be thereunto subscribed.

SUPPLIER	WESTERN CAROLINA UNIVERSITY

### **CERTIFICATE OF SERVICE**

I hereby certify that I have this day served a copy of the Comments and Proposed Rates for Western Carolina University, Docket E-100, Sub 127 by United States mail, postage prepaid, on the following:

Antoinette R. Wike Chief Counsel NCUC – Public Staff 4326 Mail Service Center Raleigh, NC 27699-4326

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This the 19th day of October, 2010

Mary Ann Lochner General Counsel Western Carolina Univers

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520 HFR Administration Building

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