

RIDER EE (NC)
ENERGY EFFICIENCY RIDER

APPLICABILITY (North Carolina Only)

Service supplied under the Company's rate schedules is subject to approved energy efficiency adjustments over or under the Rate set forth in the approved rate schedules.

ENERGY EFFICIENCY RATE ADJUSTMENT

Energy Efficiency Adjustment (EEA) increments will be applied to the energy charges of all rate schedules as determined by the following formulas:

$$\text{EEA (residential)} = \frac{\text{AC} + \text{BA, as assigned to the residential class of customers}}{S_{\text{residential}}}$$

$$\text{EEA (nonresidential)} = \frac{\text{AC} + \text{BA, as assigned to the nonresidential class of customers}}{S_{\text{nonresidential}}}$$

Where,

EEA = Energy Efficiency Adjustment

S = Projected kWh Sales for the Rider Period for the class (residential or nonresidential) of NC retail customers

AC = Avoided Cost (Capacity and Energy) Revenue Requirement

BA = Balance Adjustment

EEA is calculated for a 12 month period, referred to as the Rider Period.

$$\text{AC} = (\text{ACC} + \text{ACE}) \times 90\% \times \text{NC Allocation Percentage}$$

Where,

ACC = Avoided Capacity Revenue Requirement

ACE = Avoided Energy Revenue Requirement

90% = the percentage of avoided costs to be collected through the Rider

NC Allocation Percentage =

$\frac{\text{Projected kWh Sales for the Rider Period for the class (residential or nonresidential) of NC retail customers}}{\text{Projected kWh Sales for the Rider Period for the class (residential or nonresidential) of NC and SC retail customers}}$

ACC = the sum of (DC + ROR X ACI) for each vintage year of each measure/program

Where,

Measure/program: Programs are a collection of energy efficiency measures which represent individual efficiency technologies available to customers. Each program or measure has a unique set of characteristics, including cost, operational life, and capacity and energy impacts. ACC is calculated based on the assumed life of each program or measure.

Vintage: ACC is calculated for each program/measure separately. A vintage year is the beginning year of participation for a group of participants. With each succeeding year, a new ACC vintage is calculated for that year's incremental capacity and energy impacts.

DC = Depreciation of the Avoided Capital Investment (ACI), calculated using straight-line depreciation over the life of the measure/program for each vintage year of the program.

ROR = rate of return calculated using capital structure, cost of long term debt, and effective tax rate as included in the Avoided Cost Filing and Return on Equity (ROE) from most recent North Carolina general rate case.

ACI = Present Value of the sum of the annual avoided capacity total (AACT) less accumulated depreciation (Sum of DC for current year and all previous years for that vintage) for each vintage of each measure/program over the life of the measure/program, with the Pre-Tax Weighted Cost of Capital as the discount rate.

Pre-Tax Weighted Cost of Capital will be based on the capital structure, cost of long term debt, and effective tax rate as included in the Avoided Cost Filing and Return on Equity (ROE) from most recent North Carolina general rate case.

RIDER EE (NC) continued

ENERGY EFFICIENCY RATE ADJUSTMENT (continued)

Values from the Avoided Cost Filing are determined as follows: the values proposed by Duke Energy Carolinas in North Carolina in the most recent avoided cost proceeding, until an Order approving the avoided costs is issued by the Commission. Following a Commission Order on the filing, the values approved by the Commission up until a new avoided cost filing is made.

Where,

AACT = PD (in kW) X AAC (in \$/kW-year), expressed for each vintage for each year in nominal year \$s

Where,

AACT = Annual Avoided Capacity Total, in \$/year

PD = Projected Demand impacts for the measure/program by vintage year

AAC = Annual Avoided Capacity Costs (the Transmission Capacity Cost with Performance Adjustment Factor of 1.2) from the Avoided Cost Filing, escalated using the Escalation Factor, to obtain nominal year \$ values for each year of the measure/program.

Escalation Factor = escalation factor used in Avoided Cost Filing for escalation of capital costs.

ACE = the sum of (DE + ROR X AEI) for each vintage year of each measure/program

Where,

DE = Depreciation of the Avoided Energy Investment (AEI), calculated using straight-line depreciation over the life of the measure/program.

AEI = Present Value of the sum of the annual avoided energy total (AAET) less accumulated depreciation (Sum of DE for current year and all previous years for that vintage) for each measure/program over the life of the measure/program, with the Pre-Tax Weighted Cost of Capital as the discount rate.

Where,

AAET = PE (in kWh/year) X AEC (in \$/kWh/year), expressed for vintage for each year in nominal year \$s

Where,

AACT = Annual Avoided Energy Total, in \$/year

PE = Projected Energy impacts for the measure/program by vintage year

AEC = Annual Avoided Energy Costs from modeling results that calculate the annual energy costs for the Duke Energy Carolinas system with and without the portfolio of energy efficiency programs. The difference between the energy costs for the portfolio is assigned to individual program/measure vintage years to determine the Annual Avoided Energy Costs for the program/measure by vintage year. The modeling is consistent with the methodology used for energy cost determination in the Avoided Cost filings and Integrated Resource Plans.

BA = RREP - AREP

Where,

AREP = Actual Revenues from the Evaluation Period (which reflect 90% of avoided costs) from North Carolina retail customers

RREP = Revenue Requirements for the Evaluation Period

Evaluation Period = the time period to which the evaluation results apply.

Where,

AREP =

$$\frac{[EE (\text{Evaluation Period}) \times AKWH - BA (\text{Evaluation Period})] \times AC (\text{Evaluation Period for program/measure})}{AC (\text{Evaluation Period})}$$

Where,

EE Evaluation Period) = Rider EE (cents/kWh) for the class of customers in effect during the evaluation period

AKWH = actual kWh sales for the evaluation period for the class

BA (Evaluation Period) = BA for the class of customers in effect during the Evaluation Period.

AC (Evaluation Period for program/measure) = Avoided Cost (Capacity and Energy) Revenue Requirement as calculated for the Evaluation Period for the measure/program

AC (Evaluation Period) = Avoided Cost (Capacity and Energy) Revenue Requirement as calculated for the Evaluation Period for all measures/program

RIDER EE (NC) continued

ENERGY EFFICIENCY RATE ADJUSTMENT (continued)

$RREP = 90\% \times NC \text{ Allocation Percentage} \times [\sum ACC(\text{Evaluation Period}) \times AD/PD(\text{Evaluation Period}) + \sum AEC(\text{Evaluation Period}) \times AE/PE(\text{Evaluation Period})]$, for each measure/program and then summed

Where,

ACC (Evaluation Period) = Avoided Capacity Revenue Requirement as calculated for the Evaluation Period for the measure/program

AD = Actual Demand results as validated by program evaluation for the measure/program

PD (Evaluation Period) = Projected Demand results as calculated for the Evaluation Period for the measure/program

AEC (Evaluation Period) = Avoided Energy Revenue Requirement as calculated for the Evaluation Period for the measure/program

AE = Actual Energy results as validated by program evaluation for the measure/program

PE (Evaluation Period) = Projected Energy results as calculated for the Evaluation Period for the measure/program

EFFECT ON RATES

As a result of the Commission's Order dated May 8, 2009 in Docket No. 831, the Energy Efficiency Adjustment Rider is included in the current rate schedules effective for service on and after June 1, 2009. The effect of the Commission's Order, including revenue related taxes and regulatory fee, is an increment of 0.0382 cents/kWh for residential rate schedules and 0.0068 cents/kWh for nonresidential rate schedules.

OPT OUT PROVISION FOR QUALIFYING NONRESIDENTIAL CUSTOMERS

The EEA increment applicable to Conservation Programs and/or Demand Response Programs will not be applied to the energy charge of the applicable rate schedule for Customers qualified to opt out of the programs where:

- a. The Customer certifies or attests to the Company that it has, or has plans for implementing alternative energy efficiency measures in accordance with quantifiable goals.
- b. Electric service to the Customer must be provided under
 1. An electric service agreement where the establishment is classified as a "manufacturing industry" by the Standard Industrial Classification Manual published by the United States Government and where more than 50% of the electric energy consumption of such establishment is used for its manufacturing processes.
 2. An electric service agreement for general service as provided for under the Company's rate schedules where the Customer's annual energy use is 1,000,000 kilowatt hours or more.

The following additional provisions apply for qualifying customers who elect to opt out:

- Qualifying customers may opt out of the Company's energy efficiency programs.
- The Customer may not opt of the Company's individual energy efficiency programs. The choice to opt out applies to the Company's entire portfolio of energy efficiency programs.
- If a customer elects to participate in an energy efficiency program, the customer may not subsequently choose to opt out of the program for a period of five (5) years or the life of the applicable measure, whichever is longer.
- Charges under Rider EE (NC) will resume at the end of five (5) years or the life of the applicable measure, whichever is longer.
- In the event of termination of service and/or termination of participation in an energy efficiency conservation program measure qualifying for the opt out provision of this Rider prior to the expiration of the life of the applicable measure or five (5) years, whichever is greater, the customer shall pay the Company a termination charge equal to the prorated value of the incentive provided to the Customer. This fee shall be determined by dividing the remaining term of the measure life by the full measure life or five years, whichever is greater, and multiplying the resulting quotient by the incentive paid to the Customer under the applicable measure.
- In the event of termination of service and/or termination of participation in demand response program qualifying for the opt out provision of this Rider prior to the expiration of the contract, the customer shall pay the Company a termination charge as provided for under the applicable demand response program rider.

USE OF RIDER

Because Rider EE (NC) charges are already included in the Rates of the Company's current rate schedules, which are effective for service on and after (date), this Rider should not be used in addition to such rate schedules for bill calculations.

North Carolina Original Leaf No. 62
Effective for service on and after June 1, 2009
NCUC Docket No. E-7, Sub 831
Orders dated February 26, 2009 and May 8, 2009