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February 25, 2020

**VIA ELECTRONIC FILING AND
HAND DELIVERY**

Ms. Kimberley A. Campbell, Chief Clerk
North Carolina Utilities Commission
4325 Mail Service Center
Raleigh, North Carolina 27699-4300

**RE: Duke Energy Carolinas, LLC's CPRE Cost Recovery Rider and 2019
CPRE Compliance Report
Docket No. E-7, Sub 1231**

Dear Ms. Campbell:

Enclosed for filing with the North Carolina Utilities Commission ("NCUC" or the "Commission") is the Application of Duke Energy Carolinas, LLC ("DEC") for Approval of CPRE Cost Recovery Rider and 2019 CPRE Compliance Report pursuant to N.C. Gen. Stat. § 62-110.8 and Commission Rule R8-71, together with the testimony and exhibits of Bryan L. Sykes and Phillip H. Cathcart. I will deliver fifteen (15) paper copies of the filing to the Clerk's Office by close of business on February 26, 2020.

Certain information contained in the exhibits of Mr. Sykes and Mr. Cathcart is a trade secret, and confidential, proprietary, and commercially sensitive information. For that reason, it is being filed under seal pursuant to N.C. Gen. Stat. § 132-1.2. Parties to the docket may contact the Company regarding obtaining copies pursuant to an appropriate confidentiality agreement.

Please contact me if you have any questions.

Sincerely,

Jack E. Jirak

Enclosure
cc: Parties of Record

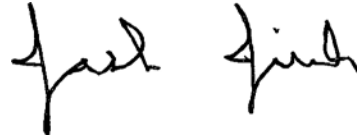
OFFICIAL COPY

Feb 25 2020

CERTIFICATE OF SERVICE

I certify that a copy of Duke Energy Carolinas, LLC's CPRE Cost Recovery Rider and 2019 CPRE Compliance Report, in Docket No. E-7, Sub 1231, has been served by electronic mail, hand delivery or by depositing a copy in the United States mail, postage prepaid to parties of record.

This the 25th day of February, 2020.



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Associate General Counsel
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BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-7, SUB 1231

In the Matter of)	APPLICATION FOR
Application of Duke Energy Carolinas, LLC)	APPROVAL OF CPRE COST
Pursuant to G.S. 62-110.8 and NCUC Rule)	RECOVERY RIDER AND 2019
R8-71 Relating to CPRE Compliance Report)	CPRE COMPLIANCE REPORT
and Program Costs)	

Duke Energy Carolinas, LLC (“DEC,” “Company,” or “Applicant”), pursuant to North Carolina General Statutes (“N.C. Gen. Stat.”) § 62-110.8(g) and North Carolina Utilities Commission (“NCUC” or the “Commission”) Rule R8-71(j), hereby submits this Application requesting approval of (1) a Rider CPRE to recover the costs incurred to implement the Competitive Procurement of Renewable Energy (“CPRE”) Program and comply with N.C. Gen. Stat. § 62-110.8 and (2) approval of its CPRE Compliance Report for calendar year 2019. 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 name and address of Applicant’s attorney are:

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Copies of all pleadings, testimony, orders and correspondence in this proceeding should be served upon the attorneys listed above.

3. N.C. Gen. Stat. § 62-110.8 requires North Carolina’s electric public utilities to file for Commission approval of a program for the competitive procurement of energy and capacity from renewable energy facilities with the purpose of adding renewable energy to the State’s generation portfolio in a manner that allows the State’s electric public utilities to continue to reliably and cost-effectively serve customers’ future energy needs.

4. N.C. Gen. Stat. § 62-110.8(b) provides that electric public utilities may jointly or individually implement the aggregate competitive procurement requirements and may satisfy certain requirements set forth in N.C. Gen. Stat. § 62-110.8 for the procurement of renewable energy capacity to be supplied by renewable energy facilities through any of the following: (i) renewable energy facilities to be acquired from third parties and subsequently owned and operated by the soliciting public utility or utilities; (ii) renewable energy facilities to be constructed, owned, and operated by the soliciting public utility or utilities subject to certain limitation set forth in N.C. Gen. Stat. § 62-110.8; or (iii) the purchase of renewable energy, capacity, and environmental and renewable attributes from renewable energy facilities owned and operated by third parties that commit to allow the procuring public utility rights to dispatch, operate, and control the solicited renewable energy facilities in the same manner as the utility’s own generating resources.

5. N.C. Gen. Stat. § 62-110.8(g) provides that an electric public utility shall be authorized to recover the costs of all purchases of energy, capacity, and environmental and renewable attributes from third-party renewable energy facilities and to recover the authorized revenue of any utility-owned assets through an annual rider approved by the Commission and reviewed annually.

6. N.C. Gen. Stat. § 62-110.8(h) provides that the Commission shall adopt rules to implement the requirements of the competitive procurement of renewable energy program. The Commission adopted and subsequently authorized amendments to Rule R8-71 to implement N.C. Gen. Stat. § 62-110.8, by orders issued November 6, 2017 and April 9, 2018, in Docket No. E-100, Sub 150.¹

7. Rule R8-71(j)(1) provides that the Commission shall schedule an annual public hearing pursuant to N.C. Gen. Stat. § 62-110.8(g) to review the costs incurred or anticipated to be incurred by the electric public utility to comply with N.C. Gen. Stat. § 62-110.8.

8. Rule R8-71(j)(2) provides that the Commission shall permit each electric public utility to charge an increment or decrement as a rider to its rates to recover in a timely manner the reasonable and prudent costs incurred and anticipated to be incurred to implement its CPRE Program and to comply with N.C. Gen. Stat. § 62-110.8. The costs and authorized revenue will be further modified through the use of a CPRE Program experience modification factor (CPRE EMF) rider. The CPRE EMF rider will reflect the difference between reasonable and prudently-incurred CPRE Program projected costs,

¹ See *Order Adopting and Amending Rules*, Docket No. E-100, Sub 150 (Nov. 6, 2017); *Order Amending Commission Rule R8-71*, Docket No. E-100, Sub 150 (April 9, 2018).

authorized revenue, and the revenues that were actually realized during the test period under the CPRE Program rider then in effect.

9. Rule R8-71(h) provides that each electric public utility shall file its annual CPRE Program compliance report on the same date that it files its application to recover costs pursuant to Rule R8-71(j). The Commission shall consider each electric public utility's CPRE Program compliance report at the hearing provided for in Rule R8-71(j) and shall determine whether the electric public utility is reasonably and prudently implementing the CPRE Program requirements of N.C. Gen. Stat. § 62-110.8. *See* NCUC Rule R8-71(i)(l).

10. By order issued on February 21, 2018 in Docket Nos. E-2, Sub 1159 and E-7, Sub 1156, the Commission approved the CPRE Program Guidelines, with some modifications, and the pro forma PPA, for use in the Tranche 1 CPRE RFP.² The Commission also accepted Duke's initial CPRE Program plan, and granted Duke's requested waivers of regulatory conditions and Code of Conduct requirements. Tranche 1 has now been completed and further details regarding Tranche 1 are described in the direct testimony of DEC witness Phillip H. Cathcart.

11. By order issued on September 24, 2018 in Docket No. E-7, Sub 1170, the Commission approved DEC's proposal to defer recovery of costs reasonably and prudently incurred to comply with the requirements of N.C. Gen. Stat. § 62-110.8 and extend the initial test period to be used to the 17-month period beginning on August 1, 2017, and ending December 31, 2018.

12. By order issued on July 2, 2019 in Docket Nos. E-2, Sub 1159 and E-7, Sub

² *See Order Modifying and Approving Joint CPRE Program*, Docket No. E-2, Sub 1159, Docket No. E-7, Sub 1156 (Feb. 21, 2018) ("CPRE Program Order").

1156, the Commission approved the CPRE Program Plan, with some modifications, for Tranche 2. The Tranche 2 RFP is currently underway, with the bid window scheduled to close on March 9, 2020.

13. By order issued on April 16, 2019 in Docket No. E-7, Sub 1193, the Commission approved DEC's proposal to once again defer recovery of costs reasonably and prudently incurred to comply with the requirements of N.C. Gen. Stat. § 62-110.8 and further extend the test period to be used in DEC's initial application to recover costs pursuant to N.C. Gen. Stat. § 62-110.8(g) to a 29-month period beginning on August 1, 2017, and ending December 31, 2019 ("Extended Initial Test Period"); and

14. Pursuant N.C. Gen. Stat. § 62-110.8(g) and Commission Rule R8-71(j), DEC hereby requests Commission approval of the Rider CPRE to recover the Company's reasonable and prudent CPRE compliance costs. More specifically, the Company requests to collect from DEC's North Carolina retail customers, through the EMF, \$1,126,791 of CPRE costs incurred and other credits for the Extended Initial Test Period and to collect \$8,464,308 for CPRE costs projected to be incurred during the period from September 1, 2020 through August 31, 2021 ("Billing Period"). The Rider CPRE will be in effect for the twelve-month period September 1, 2020 through August 31, 2021.

15. In this Application, DEC proposes a CPRE Rider amount (excluding regulatory fee) of:

Residential – 0.0150¢/kWh

General Service & Lighting – 0.0143¢/kWh

Industrial – 0.0138¢/kWh

And DEC proposes an EMF increment (excluding regulatory fee) of:

Residential – 0.0023¢/kWh

General Service & Lighting – 0.0018¢/kWh

Industrial – 0.0014¢/kWh

This results in composite CPRE factors (excluding regulatory fee) of:

Residential – 0.0173¢/kWh

General Service & Lighting – 0.0161¢/kWh

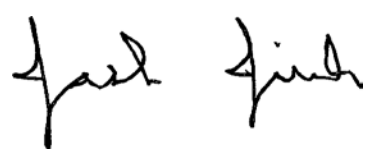
Industrial – 0.0152¢/kWh

16. The Company is also seeking approval of its Compliance Report for calendar year 2019, which is being submitted as an attachment to the testimony of DEC witness Cathcart. The Compliance Report details the Company's compliance with the CPRE Program requirements of N.C. Gen. Stat. § 62-110.8 and, along with Company's updated CPRE Program Plan and the IA's Final Tranche 1 Report, demonstrates that the Company is reasonably and prudently implementing the CPRE Program requirements.

17. The information and data required to be filed by NCUC Rule R8-71 in connection with this application is contained in the testimony and exhibits of DEC witnesses Cathcart and Bryan L. Sykes, which are being filed simultaneously with this Application and incorporated herein by reference.

WHEREFORE, DEC requests that the Commission issue an order approving Rider CPRE, approving the Company's Compliance Report, and finding the Company to be reasonably and prudently implementing the CPRE Program Requirements of N.C. Gen. Stat. § 62-110.8.

Respectfully submitted this 25th day of February, 2020.



By: _____

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ATTORNEYS FOR DUKE ENERGY CAROLINAS, LLC

STATE OF NORTH CAROLINA)
)
 COUNTY OF MECKLENBURG) VERIFICATION


Bryan L. Sykes, being first duly sworn, deposes and says:

That he is RATES MANAGER for DUKE ENERGY CAROLINAS, LLC, applicant in the above-titled action; that he has read the foregoing Application 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.

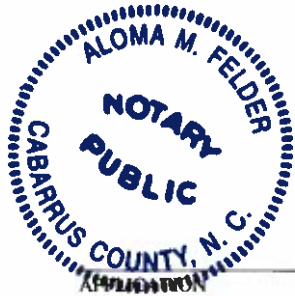


Bryan L. Sykes

Sworn to and subscribed before me this the 24th day of February, 2020.



Notary Public Aloma M. Felder
 My Commission expires: July 21, 2020



BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-7, SUB 1231

In the Matter of)
)
Application of Duke Energy Carolinas, LLC)
Pursuant to G.S. 62-110.8 and NCUC Rule)
R8-71 for Approval of CPRE Compliance)
Report and CPRE Cost Recovery Rider)
)
)
)

**DIRECT TESTIMONY OF
BRYAN L. SYKES**

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

2 A. My name is Bryan L. Sykes, and my business address is 550 South Tryon
3 Street, Charlotte, North Carolina.

4 **Q. WHAT IS YOUR POSITION WITH DUKE ENERGY CAROLINAS,**
5 **LLC?**

6 A. I am a Rates and Regulatory Strategy Manager for Duke Energy Carolinas,
7 LLC (“DEC” or the “Company”).

8 **Q. PLEASE BRIEFLY SUMMARIZE YOUR EDUCATIONAL**
9 **BACKGROUND, BUSINESS BACKGROUND AND**
10 **PROFESSIONAL AFFILIATIONS.**

11 A. I received my Bachelor of Science and Master of Science Degrees in
12 Accounting from East Carolina University. I am a certified public
13 accountant licensed in the State of North Carolina. I began my career in
14 2001 with Arthur Andersen, LLP as a staff auditor. From 2001 until 2006
15 I held various roles in public accounting firms, including Grant Thornton,
16 LLP (successor to Arthur Andersen, LLP) and subsequently
17 PricewaterhouseCoopers, LLP. In 2006, I started at Progress Energy, Inc.
18 as a financial auditor and subsequently held a variety of positions in the
19 accounting organization before and after the merger with Duke Energy
20 Corporation in 2012. I joined the Rates Department in 2019 as Manager,
21 Rates and Regulatory Filings.

22 **Q. WHAT ARE YOUR CURRENT RESPONSIBILITIES AT DEC?**

1 A. I am responsible for providing regulatory support for retail rates and
2 providing guidance on compliance with, and cost recovery related to, the
3 program for competitive procurement of renewable energy (“CPRE
4 Program”) established by North Carolina General Statute (“N.C. Gen.
5 Stat.”) § 62-110.8 and applicable to both DEC and Duke Energy Progress,
6 LLC (“DEP”).

7 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE NORTH**
8 **CAROLINA UTILITIES COMMISSION?**

9 A. No.

10 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

11 A. The purpose of my testimony is to describe the calculation of and present
12 the support for the CPRE Program rider (“Rider CPRE”) proposed by DEC
13 under N.C. Gen. Stat. § 62-110.8. I present the information and data
14 required by North Carolina Utilities Commission (“Commission”) Rule R8-
15 71 as set forth in Sykes Exhibit Nos. 1 through 6. N.C. Gen. Stat. § 62-
16 110.8(g) authorizes recovery of CPRE Program costs, and limits the annual
17 increase in the aggregate amount of these costs that are recoverable by an
18 electric public utility from its North Carolina retail (“NC Retail”) customers
19 to an amount not to exceed one percent (1%) of the electric public utility’s
20 total NC Retail jurisdictional gross revenues for the preceding calendar
21 year. Rule R8-71(j)(2) states “[t]he Commission shall permit each electric
22 public utility to charge an increment or decrement as a rider to its rates to
23 recover in a timely manner the reasonable and prudent costs incurred and

1 anticipated to be incurred to implement its CPRE Program and to comply
2 with G.S. 62-110.8.” Rule R8-71(j)(5) describes the CPRE Program
3 experience modification factor (“EMF”) component of the CPRE Program
4 rider as the difference between CPRE Program costs actually incurred and
5 CPRE Program revenues actually realized during the EMF test period,
6 representing a true-up increment or decrement related to CPRE Program
7 revenues collected during the EMF test period. In this initial CPRE
8 Program rider filing, the rider proposed by the Company includes both an
9 EMF rider component to recover DEC’s costs incurred during the EMF test
10 period, as well as a rider component to collect costs forecasted to be
11 incurred during the prospective twelve-month period over which the
12 proposed CPRE Program rider will be in effect.

13 **Q. PLEASE IDENTIFY THE EMF TEST PERIOD AND THE**
14 **PROSPECTIVE BILLING PERIOD APPLICABLE TO THE CPRE**
15 **PROGRAM RIDER PROPOSED BY THE COMPANY.**

16 A. The test period used in supplying the information and data included in my
17 testimony and exhibits is the twenty nine months beginning on August 1,
18 2017 and ending on December 31, 2019 (“Extended Initial Test Period” or
19 “EMF Period”), and the billing period for the CPRE Program rider
20 requested in the Company’s application is the twelve months beginning on
21 September 1, 2020 and ending on August 31, 2021 (“Billing Period”). As
22 discussed by witness Phillip H. Cathcart in his direct testimony filed in this
23 docket, the Company previously requested, and the Commission approved,

1 an extension of the EMF Period to encompass the twenty-nine months
2 beginning on August 1, 2017 (coincident with House Bill 589 being signed
3 into law on July 27, 2017) and ending December 31, 2019.

4 **Q. PLEASE DESCRIBE THE EXHIBITS TO YOUR TESTIMONY.**

5 A. Sykes Confidential Exhibit No. 1 identifies purchased power costs (and
6 generated power costs in the case of Company-owned facilities) in the
7 Billing Period for facilities that were selected during Tranche 1 of the CPRE
8 Program. There were no purchased or generated power costs during the
9 EMF Period since no facilities achieved commercial operation by the end
10 of the EMF Period. Certain of the winning facilities from Tranche 1 are
11 expected to achieve commercial operation by the end of the Billing Period,
12 and the capacity and energy components of purchased and generated power
13 have been calculated based on the forecasted megawatt hour (“MWh”)
14 production of each facility.

15
16 Sykes Confidential Exhibit No. 2 identifies the total CPRE Program
17 implementation costs for which the Company seeks full recovery from
18 DEC’s NC Retail customers for both the EMF Period and the Billing Period.

19
20 Sykes Exhibit No. 3 shows the calculation of the Rider CPRE amounts for
21 the Billing Period proposed by customer class: residential, general service
22 and lighting and industrial. The Company proposes implementing a charge
23 calculated on a cents per kilowatt hour (“kWh”) basis. The Rider CPRE rate

1 per customer class for purchased and generated power is determined by
2 dividing the sum of the Billing Period costs allocated to the class by the
3 forecast Billing Period MWh sales for the customer class. The Rider CPRE
4 rate per customer class for implementation costs is determined by dividing
5 the sum of the Billing Period costs allocated to the class, using a composite
6 rate determined in the purchased and generated power calculation, above,
7 by the forecast Billing Period MWh sales for the customer class.

8
9 Sykes Exhibit No. 4 shows the calculation of the Rider CPRE amounts for
10 the EMF Period proposed by customer class: residential, general service and
11 lighting and industrial. EMF Period costs represent the difference between
12 CPRE Program costs incurred and CPRE Program rider revenues collected
13 for the EMF Period. Since the Rider CPRE proposed in this docket is the
14 first CPRE Program rider, there were no rider revenues collected during the
15 EMF Period. Therefore, the under-collection for the EMF Period is the total
16 of CPRE Program implementation costs incurred for the period of August
17 1, 2017 through December 31, 2019. Similar to the Billing Period, the
18 Company proposes implementing a charge calculated on a cents per kWh
19 basis. The Rider CPRE rate per customer class is determined by dividing
20 the sum of the EMF Period costs allocated to the class by normalized test
21 period MWh sales for the customer class, including the customer growth
22 MWh adjustment and the weather MWh adjustment in the same manner as
23 the Company's annual fuel rider filing (Docket No. E-7, Sub 1228).

1

2 Sykes Exhibit No. 5 summarizes the components of the proposed “Rider
3 CPRE (NC)” calculated in Sykes Exhibit Nos. 3 and 4.

4

5 Sykes Exhibit No. 6 is the tariff sheet for the Rider CPRE.

6 **Q. WERE THESE EXHIBITS PREPARED BY YOU OR AT YOUR
7 DIRECTION AND UNDER YOUR SUPERVISION?**

8 A. Yes.

9 **Q. WHAT COSTS ARE INCLUDED IN DEC’S PROPOSED CPRE
10 PROGRAM RIDER?**

11 A. The proposed Rider CPRE is designed to recover DEC’s costs to implement
12 the CPRE Program pursuant to N.C. Gen. Stat. § 62-110.8, in compliance
13 with the requirements of Commission Rule R8-71. As described above,
14 Rider CPRE includes the CPRE Program EMF component to recover the
15 difference between the implementation costs incurred and revenues realized
16 during the EMF Period. The costs incurred during the EMF Period are
17 presented in this filing to demonstrate their reasonableness and prudence as
18 provided in Commission Rule R8-71(j). The proposed Rider CPRE also
19 includes a component to recover the costs expected to be incurred for the
20 Billing Period.

21

22 The costs the Company proposes to recover are described in the direct
23 testimony of Company witness Cathcart, and detailed in Sykes Confidential

1 Exhibit No. 2. The costs that are included for recovery in this initial
2 proposed CPRE Program rider are incremental internal Company labor,
3 contract labor including legal fees, and other related costs of implementing
4 the CPRE Program.

5
6 The Company expects to incur costs in the Billing Period for the
7 procurement of power to meet CPRE Program requirements, as detailed in
8 Sykes Confidential Exhibit No. 1, and has included forecasted costs of
9 CPRE procurement and generation in the Billing Period cost recovery total.

10
11 Fees paid to the Independent Administrator (“IA”) and costs incurred by the
12 Company’s designated evaluation team for bid evaluation work, are not
13 included for recovery in the proposed CPRE Program rider, except as noted
14 on Sykes Confidential Exhibit No. 2 for the under-collection related to
15 Tranche 1, as described in witness Cathcart’s testimony. Rather, these costs
16 are funded through proposal fees collected by the Company from the
17 participants in the Company’s CPRE solicitation process.

18 **Q. PLEASE DESCRIBE THE METHOD USED BY DEC TO**
19 **ALLOCATE CPRE PROGRAM COSTS AMONG CUSTOMER**
20 **CLASSES FOR THE PURPOSE OF CALCULATING THE CPRE**
21 **PROGRAM RIDER FOR EACH CUSTOMER CLASS.**

22 A. Sykes Exhibit No. 3 shows the calculation of the Rider CPRE for each
23 customer class for the Billing Period. CPRE Program costs, including

1 purchased and generated power costs and implementation costs, are
2 incurred by the Company in its efforts to procure capacity and energy from
3 renewable energy facilities, pursuant to N.C. Gen. Stat. § 62-110.8.

4
5 Consistent with the Company's practice of employing cost causation
6 principles with respect to the allocation of various types of costs to customer
7 classes, CPRE Program costs related to purchased and generated power
8 costs are allocated to customer class in the same manner as purchased power
9 costs are allocated to customer class in its annual fuel adjustment clause
10 rider filing.

11
12 The capacity component of purchased power and generation cost is
13 allocated to each customer class based on 2019 peak demand, a proxy for
14 the cost of service production plant allocation factor since the cost of service
15 study is not available as of the CPRE Rider filing date. The energy
16 component of purchased power and generation cost is allocated to each
17 customer class based on projected MWh sales by class. The Company has
18 directly assigned the reasonable and prudent implementation costs incurred
19 and anticipated to be incurred to implement its CPRE Program and to
20 comply with N.C. Gen. Stat. § 62-110.8 and Rule R8-71(j)(2) to its NC
21 Retail customers using a composite rate determined in the purchased and
22 generated power calculation described above.

23

1 Sykes Exhibit No. 4 shows the calculation of the CPRE Program EMF rider
2 for each customer class for the EMF Period. CPRE Program costs related to
3 implementation costs are allocated to customer class using the production
4 plant allocator from 2018, the most recent cost of service study.

5
6 Sykes Exhibit No. 5 shows the total proposed CPRE Program rider as the
7 sum of the estimated CPRE Program rider and the CPRE Program EMF
8 rider applicable to the Billing Period. The applicable regulatory fee factor
9 is applied to each rider calculation described above to determine the final
10 rates proposed by customer class, as displayed on Sykes Exhibit No. 6.

11 **Q. HOW DOES THE COMPANY PROPOSE TO RECOVER ENERGY**
12 **AND CAPACITY ASSOCIATED WITH COMPANY-OWNED**
13 **FACILITIES?**

14 A. The costs associated with Duke-owned CPRE facilities has been included
15 at the price in which those facilities bid into the Tranche 1 RFP and
16 determined by the IA to be among the most cost-competitive resources.
17 Traditional cost-of-service based recovery is not being sought through the
18 CPRE Rider.

19 **Q. IS THE ANNUAL INCREASE IN COSTS THE COMPANY**
20 **PROPOSES TO RECOVER WITH ITS PROPOSED CPRE**
21 **PROGRAM RIDER AND EMF RIDER WITHIN THE LIMIT**
22 **ESTABLISHED IN N.C. GEN. STAT. § 62-110.8?**

1 A. Yes. N.C. Gen. Stat. § 62-110.8(g) limits the annual increase in costs
2 recoverable by an electric public utility to (1%) of the electric public utility's
3 total North Carolina retail jurisdictional gross revenues for the preceding
4 calendar year. Further, Rule R8-71 provides that “[t]he annual increase in
5 the aggregate costs recovered under G.S. 62-110.8(g) in any recovery
6 period from its North Carolina retail customers shall not exceed one percent
7 (1%) of the electric public utility’s North Carolina retail jurisdictional gross
8 revenues for the preceding calendar year as determined as of December 31
9 of the previous calendar year. Any amount in excess of that limit shall be
10 carried over and recovered in the next recovery period when the annual
11 increase in the aggregate amount of costs to be recovered is less than one
12 percent (1%)”. The increase in aggregate costs DEC seeks to recover
13 pursuant to its proposed CPRE Program rider and CPRE Program EMF
14 rider is less than the statutory maximum.

15 **Q. HOW DOES DEC PROPOSE TO COLLECT THE CPRE**
16 **PROGRAM RIDERS FROM EACH CUSTOMER CLASS?**

17 A. DEC’s proposed Rider CPRE is attached as Sykes Exhibit No. 6. As shown
18 on the rider, DEC proposes that a cents per kWh rate be applied to all NC
19 Retail kWh sales for the twelve-month Billing Period.

20 **Q. WHAT IS THE CPRE PROGRAM RIDER PROPOSED BY THE**
21 **COMPANY FOR EACH CUSTOMER CLASS?**

- 1 A. The Company proposes the following CPRE Program rider to be effective
 2 September 1, 2020, and to remain in effect for the twelve-month Billing
 3 Period ending August 31, 2021.

4 *Excluding regulatory fee:*

Cents per kWh					
Customer class	CPRE Program EMF rider	CPRE Program rider	Total CPRE Program rider	Current total CPRE Program rider	CPRE Program rider increase
Residential	0.0023	0.0150	0.0173	0.0000	0.0173
General Service	0.0018	0.0143	0.0161	0.0000	0.0161
Industrial	0.0014	0.0138	0.0152	0.0000	0.0152

5 *Including regulatory fee:*

Cents per kWh					
Customer class	CPRE Program EMF rider	CPRE Program rider	Total CPRE Program rider	Current CPRE Program rider	CPRE Program rider increase
Residential	0.0023	0.0150	0.0173	0.0000	0.0173
General Service	0.0018	0.0143	0.0161	0.0000	0.0161
Industrial	0.0014	0.0138	0.0152	0.0000	0.0152

6 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

7 A. Yes.

Duke Energy Carolinas, LLC
 Docket No. E-7, Sub 1231
 CPRE Purchased and Generated Power Costs in the Experience Modification Factor (EMF) and Billing Periods
 Test Period Ending December 31, 2019

Sykes Exhibit No. 1

CONFIDENTIAL DATA

EMF Period ¹		Billing Period		Reference
August 1, 2017 - December 31, 2019		September 1, 2020 - August 31, 2021		
Capacity Factor	Energy Factor	Capacity Factor	Energy Factor	Input
N/A	N/A	17%	83%	
Purchased and Generated Power ²		Purchased and Generated Power ²		

Line No.	Market Participant	Facility Name	Location	Tranche No.	Nameplate Capacity (MW)	Capacity	Energy	Total	Capacity	Energy	Total
1				1							
2				1							
3				1							
4				1							
5				1							
6				1							
7				1							
8				1							
9				1							
10				1							
11	Total			1		494.5	\$ -	\$ -	\$ 2,072,374	\$ 10,118,061	\$ 12,190,435

Worksheet 1

Note: Rounding differences may occur

¹ For this initial CPRE recovery filing, the EMF period is the 29-month period ending December 31, 2019 as approved in Order Cancelling Annual Public Hearing, Approving Proposed Accounting Treatment, and Approving CPRE Compliance Report issued April 16, 2019 in Docket E-7, Sub 1193.

² Duke-owned facilities are considered generated power rather than purchased power.

Duke Energy Carolinas, LLC
 Docket No. E-7, Sub 1231
 CPRE Implementation Costs in the EMF and Billing Periods
 Test Period Ending December 31, 2019

Sykes Exhibit No. 2

CONFIDENTIAL DATA		EMF Period ¹	Billing Period
		August 1, 2017 - December 31, 2019	September 1, 2020 - August 31, 2021
Line No.	Implementation Cost / Activity ²	Reference	
1			
2			\$ -
3			\$ -
4			\$ -
5			\$ -
6			\$ -
7	<u>Total Internal Labor and Labor-Related Taxes and Benefits</u>		\$ 390,966 \$ 283,533 *
8		Company Records	
9			\$ -
10			\$ -
11			\$ -
12			\$ -
13			\$ -
14	<u>Total Outside Services</u>		\$ 451,107 \$ 100,000 *
15			
16	<u>Total Employee-Related Expenses</u>		\$ 930 \$ 1,000 *
17			
18	<u>Independent Administrator Fees Not Recovered³</u>		\$ 310,807 \$ -
19			
20	<u>Change of Control Fees⁴</u>	Workpaper 9	\$ (27,019) \$ -
21			
22	<u>Total Implementation Costs</u>	L7 + L14 + L16 + L18 + L20	\$ 1,126,791 \$ 384,533 *

Note: Rounding differences may occur

* Represents an estimate of implementation charges expected to be incurred in the prospective Billing Period.

¹ For this initial CPRE recovery filing, the EMF period is the 29-month period ending December 31, 2019 as approved in *Order Cancelling Annual Public Hearing, Approving Proposed Accounting Treatment, and Approving CPRE Compliance Report* issued April 16, 2019 in Docket E-7, Sub 1193.

² Implementation costs incurred in accordance with Rule R8-71(j)(2) are being directly assigned to the NC Rider CPRE.

³ This amount represents 50% of the Tranche 1 fees charged by the Independent Administrator that were not funded through reasonable proposal fees and subsequent winners' fees as envisioned in Rule R8-71(d)(10). This shortage has been split equally between DEC and DEP.

⁴ Represents the NC-Retail allocated portion of Change of Control fees collected by the Company as described in Section 24 of the *pro forma* CPRE Tranche 1 PPA approved by the NCUC in its *Order Denying Joint Motion, Approving Pro Forma PPA, and Providing Other Relief* in Docket No. E-7, Sub 1156 on June 25, 2018.

Line No.	Description	Reference	Residential	General Service and Lighting	Industrial	Total
<u>Allocation of CPRE Purchased and Generated Power by Customer Class (Prospective Billing Period)</u>						
1	CPRE Purchased and Generated Power - Capacity	Exhibit 1				\$ 2,072,374
2	NC Retail Jurisdictional % Based on 2019 Peak Demand	Input				67.55%
3	NC Retail Portion - CPRE Purchased and Generated Power - Capacity	L1 * L2				\$ 1,399,832
4						
5	NC Retail 2019 Peak Demand Allocation Factors	Input	45.44%	38.35%	16.21%	100.00%
6						
7	NC CPRE Purchased and Generated Power - Capacity Allocated Based on 2019 Peak Demand	L3 * L5	\$ 636,121	\$ 536,838	\$ 226,873	\$ 1,399,832
8						
9	NC Projected Billing Period MWh Sales	Workpaper 2	22,067,951	23,951,115	12,441,023	58,460,089
10						
11	NC CPRE Purchased and Generated Power - Capacity ¢/kWh	L7 ÷ L9 ÷ 10	0.0029	0.0022	0.0018	0.0024
12						
13	CPRE Purchased and Generated Power - Energy	Exhibit 1				\$ 10,118,061
14	NC Retail Jurisdictional % Based on Projected Billing Period Sales	Workpaper 2				66.02%
15	NC Retail Portion - CPRE Purchased and Generated Power - Energy	L13 * L14 [Total Only]	\$ 2,521,595	\$ 2,736,775	\$ 1,421,574	\$ 6,679,944
16						
17	NC Projected Billing Period MWh Sales	Workpaper 2	22,067,951	23,951,115	12,441,023	58,460,089
18	NC CPRE Purchased and Generated Power - Energy ¢/kWh	L15 ÷ L17 ÷ 10	0.0114	0.0114	0.0114	0.0114
19						
20	Total of NC CPRE Purchased and Generated Power - Capacity and Energy	L7 + L15	\$ 3,157,716	\$ 3,273,613	\$ 1,648,447	\$ 8,079,776
21						
22	% of NC CPRE Purchased and Generated Power - Capacity and Energy		39.08%	40.52%	20.40%	100%
<u>Allocation of CPRE Implementation Costs by Customer Class (Prospective Billing Period)</u>						
		Reference	Residential	General Service and Lighting	Industrial	Total
23	CPRE Implementation Costs - Total	Exhibit 2				\$ 384,533
24	% of NC CPRE Purchased and Generated Power - Capacity and Energy	L22	39.08%	40.52%	20.40%	100%
25						
26	CPRE Implementation Costs by Customer Class	L23 * L24	\$ 150,282	\$ 155,798	\$ 78,453	\$ 384,533
27						
28	NC Projected Billing Period MWh Sales	Workpaper 2	22,067,951	23,951,115	12,441,023	58,460,089
29						
30	NC CPRE Implementation Cost CPRE Charge ¢/kWh	L26 ÷ L28 ÷ 10	0.0007	0.0007	0.0006	0.0007

Note: Rounding differences may occur

Duke Energy Carolinas, LLC
Docket No. E-7, Sub 1231
Allocation of Experience Modification Factor (EMF) Period Charges to Customer Classes
Test Period Ending December 31, 2019

Sykes Exhibit No. 4

Line No.	Description	Reference	Residential	General Service and Lighting	Industrial	Total
<u>Allocation of CPRE Implementation Costs by Customer Class (EMF Period¹)</u>						
1	CPRE Implementation Costs - Total	Exhibit 2				\$ 1,126,791
2						
3	NC Retail 2018 Production Plant Allocation Factors	Input	45.96%	38.71%	15.33%	100.00%
4						
5	CPRE Implementation Costs by Customer Class	L1 * L3	\$ 517,889	\$ 436,158	\$ 172,744	\$ 1,126,791
6						
7	NC EMF Period MWh Normalized Sales	Workpaper 3	22,444,481	23,688,549	12,489,508	58,622,538
8						
9	NC CPRE Implementation Cost CPRE Charge ¢/kWh	L5 ÷ L7 ÷ 10	0.0023	0.0018	0.0014	0.0019
10						
11	CPRE Revenues Realized ² During the Test Period	Input	0.0000	0.0000	0.0000	0.0000
12						
13	EMF Period Over/(Under) Collection	L11 - L9	(0.0023)	(0.0018)	(0.0014)	(0.0019)

Note: Rounding differences may occur

¹ For this initial CPRE recovery filing, the EMF period is the 29-month period ending December 31, 2019 as approved in *Order Cancelling Annual Public Hearing, Approving Proposed Accounting Treatment, and Approving CPRE Compliance Report* issued April 16, 2019 in Docket E-7, Sub 1193.

² For this initial CPRE recovery filing, no revenues were collected during the test period. Therefore, the under-collection for the EMF Period is the total of CPRE Program implementation costs incurred for the August 1, 2017 through December 31, 2019 Test Period.

Duke Energy Carolinas, LLC
Docket No. E-7, Sub 1231
Summary of CPRE Proposed Rider Components
Test Period Ending December 31, 2019

Sykes Exhibit No. 5

Line No.	Description	Reference	Residential ¢/kWh	General Service and Lighting ¢/kWh	Industrial ¢/kWh	Composite ¢/kWh
1	Prospective Billing Period Rider Charge					
2	NC CPRE Purchased and Generated Power - Capacity ¢/kWh	Exhibit 3, L11	0.0029	0.0022	0.0018	0.0024
3	NC CPRE Purchased and Generated Power - Energy ¢/kWh	Exhibit 3, L18	0.0114	0.0114	0.0114	0.0114
4	NC CPRE Implementation Cost CPRE Charge ¢/kWh	Exhibit 3, L30	0.0007	0.0007	0.0006	0.0007
5						
6	Experience Modification Factor Period Rider Charge					
7	EMF Period (Over)/Under Collection ¢/kWh	Exhibit 4, L13	0.0023	0.0018	0.0014	0.0019
8						
9	Total Proposed CPRE Rider Charge ¢/kWh		0.0173	0.0161	0.0152	0.0164

Note: This exhibit excludes the impact of the regulatory fee

Duke Energy Carolinas, LLC

Electricity No. 4
North Carolina Original (Proposed) Leaf No. 127

RIDER CPRE (NC)
COMPETITIVE PROCUREMENT OF RENEWABLE ENERGY RIDER

APPLICABILITY (North Carolina Only)

Service supplied under the Company's rate schedules is subject to approved adjustments to recover costs associated with implementation of the Company's Competitive Procurement of Renewable Energy (CPRE) Program. Adjustments are made pursuant to North Carolina General Statute 62-110.8(g) and North Carolina Utilities Commission Rule R8-71 as ordered by the North Carolina Utilities Commission.

CPRE PROSPECTIVE COMPONENT AND EXPERIENCE MODIFICATION FACTOR

All service supplied under the Company's rate schedules is subject to an increment per kilowatt hour as set forth below. This adjustment is not included in the Rate Schedules of the Company and therefore, must be applied to the bill as calculated under the applicable rate.

RESIDENTIAL SERVICE

Prospective Component of CPRE	0.0150 ¢/kWh
Experience Modification Factor	0.0023 ¢/kWh
Net CPRE Rider Factor	<u>0.0173 ¢/kWh</u>
Regulatory Fee Multiplier	x 1.0013
CPRE Factor	<u>0.0173 ¢/kWh</u>

GENERAL SERVICE AND LIGHTING

Prospective Component of CPRE	0.0143 ¢/kWh
Experience Modification Factor	0.0018 ¢/kWh
Net CPRE Rider Factor	<u>0.0161 ¢/kWh</u>
Regulatory Fee Multiplier	x 1.0013
CPRE Factor	<u>0.0161 ¢/kWh</u>

INDUSTRIAL SERVICE

Prospective Component of CPRE	0.0138 ¢/kWh
Experience Modification Factor	0.0014 ¢/kWh
Net CPRE Rider Factor	<u>0.0152 ¢/kWh</u>
Regulatory Fee Multiplier	x 1.0013
CPRE Factor	<u>0.0152 ¢/kWh</u>

North Carolina Original (Proposed) Leaf No. 127
Effective for service rendered on and after September 1, 2020
NCUC Docket No. E-7, Sub 1231, Order dated _____

Duke Energy Carolinas, LLC
Docket No. E-7, Sub 1231
Projected Sales for the Billing Period
Test Period Ending December 31, 2019

Sykes Workpaper No. 2

Fall 2019 Forecast
Billed Sales Forecast
Sales Forecast - MWhs (000)

	Reference	Projected Sales for the Billing Period	Remove Impact of SC DERP Net Metered Generation	Adjusted Sales
North Carolina				
Residential		22,067,951		22,067,951
General		23,677,896		23,677,896
Industrial		12,441,023		12,441,023
Lighting		273,219		273,219
North Carolina Retail		58,460,089	-	58,460,089
South Carolina				
Residential		6,628,994	90,021	6,719,015
General		5,939,271	71,593	6,010,863
Industrial		9,134,820	514	9,135,334
Lighting		45,590	-	45,590
South Carolina Retail	Company Records	21,748,675	162,127	21,910,802
Total Retail				
Residential		28,696,946	90,021	28,786,966
General		29,617,166	71,593	29,688,759
Industrial		21,575,843	514	21,576,357
Lighting		318,809	-	318,809
Total Retail Sales		80,208,764	162,127	80,370,891
Wholesale		8,174,475	-	8,174,475
Projected System MWh Sales for Fuel Factor		88,383,239	162,127	88,545,366
NC as a percentage of total		66.14%		66.02%
SC as a percentage of total		24.61%		24.75%
Wholesale as a percentage of total		9.25%		9.23%
		<u>100.00%</u>		<u>100.00%</u>

Note: Rounding differences may occur

Line No.	Description	Reference	Total Company (MWh)	North Carolina Retail (MWh)	North Carolina Residential (MWh)	North Carolina General Service/Lighting (MWh)	North Carolina Industrial (MWh)
1	Test Period MWh Sales (excluding inter system sales)	Workpaper 4	90,135,537	58,642,521	22,091,823	24,259,901	12,290,797
2	Customer Growth MWh Adjustment	Workpaper 5	455,048	296,714	185,000	48,348	63,366
3	Weather MWh Adjustment	Workpaper 6	(235,610)	(316,696)	167,658	(619,699)	135,345
4	Total Normalized MWh Sales	L1 + L2 + L3	90,354,976	58,622,538	22,444,481	23,688,549	12,489,508

Note: Rounding differences may occur

Duke Energy Carolinas, LLC
Docket No. E-7, Sub 1231
Actual Sales by Jurisdiction - Subject to Weather
Test Period Ending December 31, 2019

Sykes Workpaper No. 4

Line No.	Description	Reference	North Carolina	South Carolina	Total Company	% NC	% SC
1	Residential	Company Records	22,091,823	6,769,118	28,860,942	76.55%	23.45%
2	Total General Service	Company Records	24,259,901	5,688,279	29,948,180		
3	less Lighting and Traffic Signals		272,655	47,509	320,164		
4	General Service subject to weather		23,987,245	5,640,770	29,628,016	80.96%	19.04%
5	Industrial	Company Records	12,290,797	9,009,119	21,299,916	57.70%	42.30%
6	Total Retail Sales	L1 + L2 + L5	58,642,521	21,466,517	80,109,038		
7	Total Retail Sales subject to weather	L1 + L4 + L5	58,369,866	21,419,008	79,788,874	73.16%	26.84%
8	Wholesale	L6 + L8			10,026,499		
9	Total Company				90,135,537		

Note: Rounding differences may occur

Duke Energy Carolinas, LLC
Docket No. E-7, Sub 1231
Customer Growth Adjustment to kWh Sales
Test Period Ending December 31, 2019

Sykes Workpaper No. 5

<u>Line</u>	<u>Estimation Method 1</u>	<u>Rate Schedule</u>	<u>NC Proposed Adjustment 1</u>	<u>SC Proposed Adjustment 1</u>	<u>Wholesale Proposed kWh Adjustment</u>	<u>Total Company</u>
1	Regression	Residential	184,999,964	76,243,652		
2						
3		General Service (excluding lighting):				
4	Customer	General Service Small and Large	48,355,467	6,071,876		
5	Regression	Miscellaneous	104,327	(19,325)		
6		Total General	48,459,794	6,052,551		
7						
8		Lighting:				
9	Regression	T & T2 (GL/FL/PL/OL) ²	(128,699)	739,852		
10	Regression	TS	16,909	96,601		
11		Total Lighting	(111,790)	836,453		
12						
13		Industrial:				
14	Customer	I - Textile	(2,509,370)	-		
15	Customer	I - Nontextile	65,875,298	2,958,646		
16		Total Industrial	63,365,928	2,958,646		
17						
18						
19		Total	296,713,896	86,091,302	72,243,004	455,048,202

Notes:

1 Two approved methods are used for estimating the growth adjustment depending on the class/schedule:

"Regression" refers to the use of Ordinary Least Squares Regression.

"Customer" refers to the use of the Customer by Customer approach.

2 T and T2 were combined due to North Carolina's FL & GL schedules being merged into OL & PL during the 12 month period.

Duke Energy Carolinas, LLC
Docket No. E-7, Sub 1231
Weather Normalization Adjustment
Test Period Ending December 31, 2019

Sykes Workpaper No. 6

Line #	Description	REFERENCE	Total Company MWh	NC RETAIL		SC RETAIL	
				% To Total	MWh	% To Total	MWh
1	<u>Residential</u> Total Residential	Company Records	219,018	76.55	167,658	23.45	51,360
2	<u>General Service</u> Total General Service	Company Records	(765,439)	80.96	(619,699)	19.04	(145,740)
3	<u>Industrial</u> Total Industrial	Company Records	234,566	57.70	135,345	42.30	99,222
4	Total Retail	L1+ L2+ L3	(311,855)		(316,696)		4,842
5	Wholesale		76,245				
6	Total Company	L4 + L5	<u>(235,610)</u>				

Note: Rounding differences may occur

Duke Energy Carolinas, LLC
Docket No. E-7, Sub 1231
Weather Normalization Adjustment by Class by Month
Test Period Ending December 31, 2019

Sykes Workpaper No. 7

2019	Residential	Commercial	Industrial	
	TOTAL MWH ADJUSTMENT	TOTAL MWH ADJUSTMENT	TOTAL MWH ADJUSTMENT	
JAN	403,189	21,753	106,910	
FEB	133,613	(93,968)	7,903	
MAR	317,291	-	84,782	
APR	(15,943)	(3,954)	34,885	
MAY	(122,691)	(142,134)	(66,793)	
JUN	(96,008)	(206,667)	51,708	
JUL	(78,685)	(39,023)	(12,174)	
AUG	(83,867)	(44,228)	(21,152)	
SEP	(108,844)	(66,903)	(30,443)	
OCT	(294,829)	(193,846)	53,194	
NOV	71,113	16,545	25,747	
DEC	94,681	(13,014)	-	
Total	219,018	(765,439)	234,566	(311,855)

Wholesale

2019	TOTAL MWH ADJUSTMENT	Note:	The Resale customers include:
JAN	(38,538)	1	Dallas
FEB	41,582	2	Forest City
MAR	(15,191)	3	Due West
APR	5,372	4	Prosperity
MAY	(30,683)	5	Lockhart
JUN	(10,771)	6	Western Carolina University
JUL	(3,961)	7	City of Highlands
AUG	(2,012)	8	Haywood
SEP	(55,637)	9	Piedmont
OCT	16,676	10	Rutherford
NOV	95,238	11	Blue Ridge
DEC	74,172		
Total	76,245		

Note: Rounding differences may occur

Per Rule R8-71 (j)(9) "the annual increase in the aggregate amount of costs recovered under G.S. 62-110.8(g) in any recovery period from its North Carolina retail customers shall not exceed one percent (1%) of the electric public utility's total North Carolina retail jurisdictional gross revenues for the preceding calendar year determined as of December 31 of the previous calendar year. Any amount in excess of that limit shall be carried over and recovered in the next recovery period when the annual increase in the aggregate amount of costs to be recovered is less than one percent (1%)."

Line No.	Description	EMF Period (Exhibit 4, L1)	Billing Period (Exhibit 3, L3 + L15 + L23)	Total	NC Retail Gross Revenues
1	Amount in current docket	\$ 1,126,791	\$ 8,464,308	\$ 9,591,099	
2	1% of 2019 NC Retail Gross Revenues of \$4,869,968,814			\$ 48,699,688	\$ 4,869,968,814
3	Excess of Current Docket over 1% NC Retail Gross Revenues			N/A	

Note: Rounding differences may occur

Duke Energy Carolinas, LLC
 Docket No. E-7, Sub 1231
 Change of Control Fees
 Test Period Ending December 31, 2019

Sykes Workpaper No. 9

CONFIDENTIAL DATA

Line No.	Facility Name	Date Paid	Amount Billed	NC Retail Allocation	
				Factor	NC Retail Share
1		August 8, 2019	\$ 10,000	67.55%	\$ 6,755
2		August 8, 2019	\$ 10,000	67.55%	\$ 6,755
3		August 8, 2019	\$ 10,000	67.55%	\$ 6,755
4		July 15, 2019	\$ 10,000	67.55%	\$ 6,755
5	Total		\$ 40,000		\$ 27,019

Note: Rounding differences may occur

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-7, SUB 1231

In the Matter of)
)
Application Pursuant to G.S. 62-)
110.8 and NCUC Rule R8-71 for)
Approval of CPRE Compliance)
Report and CPRE Cost Recovery)
Rider)
)

**DIRECT TESTIMONY OF
PHILLIP H. CATHCART**

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

2 A. My name is Phillip H. Cathcart, and my business address is 410 South
3 Wilmington Street, Raleigh, North Carolina.

4 **Q. PLEASE STATE YOUR POSITION WITH DUKE ENERGY AND**
5 **DESCRIBE YOUR CURRENT RESPONSIBILITIES.**

6 A. I am the Renewable Compliance Manager for Duke Energy within the
7 Business Development & Compliance Department. In my current position,
8 I am responsible for the development and implementation of the
9 competitive procurement of renewable energy program (“CPRE Program”)
10 established by Session Law 2017-192’s (“House Bill 589” or the “Act”)
11 enactment of North Carolina General Statute (“N.C. Gen. Stat.”) § 62-110.8
12 and applicable to both Duke Energy Carolinas, LLC (“DEC” or “the
13 Company”), and Duke Energy Progress, LLC (“DEP” and together with
14 DEC, “Duke”). My responsibilities include compliance with CPRE
15 Program requirements as well as interface with the North Carolina Utilities
16 Commission (“Commission”) approved CPRE Program independent
17 administrator, Accion Group, LLC (“Accion Group”, “Independent
18 Administrator”, or “IA”), on behalf of DEC and DEP.

19 **Q. PLEASE BRIEFLY SUMMARIZE YOUR EDUCATIONAL**
20 **BACKGROUND.**

21 A. I received a Bachelor of Arts degree in Economics from the University of
22 North Carolina in Chapel Hill.

1 **Q. PLEASE DESCRIBE YOUR BUSINESS BACKGROUND AND**
2 **EXPERIENCE.**

3 A. I managed a small business from 2003 until 2008. Between 2009 and 2012,
4 I held positions at Alabama Power as a Technical Analyst and Commercial
5 Account Manager. I joined Duke Energy in 2015 as a Renewable Account
6 Manager in the Distributed Energy Technology Department. In June of
7 2019, I moved to my current position as Renewable Compliance Manager
8 in the Business Development & Compliance Department.

9 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE NORTH**
10 **CAROLINA UTILITIES COMMISSION?**

11 A. No.

12 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

13 A. The purpose of my testimony is to describe DEC's activities in connection
14 with implementation of the CPRE Program and to describe the costs
15 incurred to implement the CPRE Program and comply with N.C. Gen. Stat.
16 § 62-110.8 during the twenty-nine months beginning on August 1, 2017 and
17 ending on December 31, 2019 ("Extended Initial Test Period"), and
18 purchased power and generated power costs projected to be incurred during
19 the CPRE Program rider billing period, which is the twelve month period
20 beginning on September 1, 2020 and ending on August 31, 2021 ("Billing
21 Period").

22 **Q. PLEASE DESCRIBE THE EXHIBIT TO YOUR TESTIMONY.**

1 A. My testimony includes one exhibit. Cathcart Exhibit No. 1 is the
2 Company's 2019 CPRE Compliance Report, which is being submitted in
3 this docket in compliance with Commission Rule R8-71(h). The
4 Compliance Report describes the Company's and DEP's ongoing joint
5 efforts to procure renewable energy resources under the CPRE Program and
6 ongoing actions to comply with the requirements of N.C. Gen. Stat. § 62-
7 110.8 during the reporting period, including a summary of key activities
8 during the reporting period, costs incurred to administer the CPRE Program,
9 cost incurred and fees collected by the Independent Administrator, and the
10 current status of CPRE Program requirements.

11 **Q. WAS THIS EXHIBIT PREPARED BY YOU OR AT YOUR**
12 **DIRECTION AND UNDER YOUR SUPERVISION?**

13 A. Yes. Cathcart Exhibit No. 1 was prepared by me or under my supervision.
14 Cathcart Exhibit No. 1, along with one of the appendices to Cathcart Exhibit
15 No. 1, contains confidential and proprietary information and is being filed
16 with the Commission under seal. A redacted version suitable for public
17 filing is attached to my testimony.

18 **Compliance with CPRE Program Requirements**

19 **Q. PLEASE PROVIDE BACKGROUND REGARDING THE**
20 **ESTABLISHMENT OF THE CPRE PROGRAM.**

21 A. On July 27, 2017, House Bill 589 was signed into law, thereby enacting
22 several amendments to the Public Utilities Act. Part II of the Act enacted
23 N.C. Gen. Stat. § 62-110.8, which mandates that Duke obtain Commission

1 approval to implement a CPRE Program to competitively procure 2,660
2 megawatts (“MW”) of additional renewable energy resource capacity
3 (subject to adjustment) over a 45 month period commencing from the date
4 of Commission approval of the CPRE Program, to be accomplished through
5 a series of distinct Requests for Proposals (“RFPs”) referred to as
6 “Tranches.” N.C. Gen. Stat. § 62-110.8(g) establishes a new annual CPRE
7 rider cost recovery mechanism to recover the costs incurred by DEC and
8 DEP to implement the CPRE Program.

9 **Q. HAS THE COMPANY FILED AN UPDATED CPRE PROGRAM**
10 **PLAN SINCE THE INITIAL CPRE PROGRAM PLAN WAS**
11 **APPROVED BY THE COMMISSION IN FEBRUARY 2018?**

12 A. Yes, the Company filed an updated CPRE Program Plan on September 3,
13 2019 in Docket E-100, Sub 157, as required by Commission Rule R8-71(g).
14 The updated CPRE Program Plan was approved by the Commission by
15 order date July 2, 2019 in Docket Nos. E-2, Sub 1159 and E-7, Sub 1156.

16
17 One of the key updates provided in that plan was a projected increase in the
18 “Transition MW,” which has the potential to reduce the total amount of MW
19 to be procured through the CPRE Program.

20 **Q. PLEASE EXPLAIN WHAT YOU MEAN BY TRANSITION MW.**

21 A. N.C. Gen. Stat. § 62-110.8(b)(1) provides that if prior to the end of the initial
22 45-month competitive procurement period, Duke has executed PPAs and
23 interconnection agreements for renewable energy capacity within their

1 Balancing Authorities (“BAs”) that are not subject to economic dispatch or
 2 curtailment and were not procured under the Green Source Advantage
 3 program pursuant to N.C. Gen. Stat. § 62-159.2 (“Transition MW” or
 4 “Transition MW Projects”) having an aggregate capacity in excess of 3,500
 5 MW, the Commission shall reduce the aggregate targeted competitive
 6 procurement amount (2,660 MW) by the amount of such exceedance (such
 7 adjusted targeted procurement amount, the “CPRE Targeted Amount”). If
 8 the aggregate capacity of such Transition MW Projects is less than 3,500
 9 MW at the end of the initial 45-month competitive procurement period, the
 10 Commission shall require Duke to conduct an additional competitive
 11 procurement in the amount of such deficit.

12
 13 The amount of Transition MW is currently projected to significantly exceed
 14 3,500 MW. In the updated CPRE Program Plan, the total number of
 15 Transition MW is projected to be between 4,300 and 4,900 MW, which
 16 would reduce the potential total MW to be procured through CPRE to
 17 somewhere in the range of 1,231 to 1,881 MW. Table 1 below provides the
 18 anticipated allocation to DEC and DEP:

19 **Table 1 Allocation of MW between DEC and DEP**

	DEC (Approximate MW)	DEP (Approximate MW)
Tranche 1 - Contracted	435	86
Tranche 2 - Issued	600	80
Tranch 3	0 to 570	0 to 80
Total	1,065 to 1,635	166 to 246

20

1 **Q. HAS TRANCHE 1 OF THE CPRE RFP BEEN COMPLETED?**

2 A. Yes. DEC and DEP jointly issued CPRE Tranche 1 solicitation on July 10,
3 2018, targeting 600 MW of capacity in DEC and 80 MW of capacity in
4 DEP. The deadline for proposal submissions was October 9, 2018 (October
5 8 for proposals submitted by DEC / DEP). On April 9, 2019 the IA
6 completed the evaluation process and notified the selected winning
7 proposals. On that same day, the IA filed a final Tranche 1 summary report
8 in Docket E-7, Sub 1156 providing information on the selected proposals,
9 as well as a summary of the overall process and resulting selections.

10

11 For DEC, twelve projects totaling 515 MW were selected as winning
12 proposals. One of the selected winners failed to execute the Purchase Power
13 Agreement (“PPA”) by the July 8, 2019 contracting period deadline,
14 reducing the number of projects to eleven with a total of 465 MW. On
15 December 3, 2019, DEC received notification that another project selected
16 as a winning proposal would be terminating its PPA, reducing the DEC
17 Tranche 1 totals to ten projects and 435 MW.

18

19 Eight of the ten projects selected for DEC in Tranche 1 are anticipated to
20 achieve commercial operation and begin producing energy prior to the end
21 of the Billing Period. Purchased power cost and potential authorized

1 revenue of utility-owned CPRE assets estimates are described in the direct
2 testimony of Company witness Sykes, and detailed in Sykes Exhibit No. 1.

3 **Q. WHAT IS THE STATUS OF THE TRANCHE 2 CPRE**
4 **SOLICITATION?**

5 A. DEC and DEP jointly issued the CPRE Tranche 2 solicitation on October
6 15, 2019, targeting 600 MW of capacity in DEC and 80 MW of capacity in
7 DEP. The deadline for proposal submissions is March 9, 2020 (March 6 for
8 proposals submitted by DEC / DEP).

9 **Q. HAS DEC PREPARED THE ANNUAL CPRE COMPLIANCE**
10 **REPORT AS REQUIRED BY SECTION (H) OF THE CPRE RULE?**

11 A. Yes, the annual CPRE Compliance Report is attached as Exhibit 1 to my
12 testimony. DEC requests that the Commission find that the Company's
13 ongoing actions to implement the CPRE Program requirements, as
14 described in the Compliance Report, are reasonable and prudent, in
15 accordance with NCUC Rule R8-71(i)(l).

16 **Costs of CPRE Program Compliance**

17 **Q. PLEASE DESCRIBE THE PERIOD OF COST RECOVERY**
18 **UNDER REVIEW IN THIS PROCEEDING.**

19 A. The CPRE Program rider authorized under subsection (j) of the CPRE Rule
20 allows the Company to establish "an increment or decrement as a rider to
21 its rates to recover in a timely manner the reasonable and prudent costs
22 incurred and anticipated to be incurred to implement its CPRE Program and
23 to comply with N.C. Gen. Stat. § 62- 110.8."

1
2 Subsection (j)(3) of the CPRE Rule provides that, “[u]nless otherwise
3 ordered by the Commission,” the CPRE Program Rider test period shall be
4 the same as the annual fuel factor test period, which, for DEC, is the
5 calendar year, January 1 through December 31. The forecasted Billing
6 Period is also the same as DEC’s annual fuel factor, extending September
7 1, 2020 to August 31, 2021.

8 **Q. PLEASE EXPLAIN WHY THE COMPANY REQUESTED AND THE**
9 **COMMISSION APPROVED THE EXTENDED INITIAL TEST**
10 **PERIOD FOR USE IN THIS PROCEEDING.**

11 A. Under the CPRE Rule, DEC was authorized to pursue CPRE Program cost
12 recovery beginning in 2018. At that time, however, the CPRE Program had
13 only recently been approved by the Commission and the Company was still
14 in the process of developing the initial CPRE Program implementation
15 framework. Thus, DEC had only incurred limited CPRE Program
16 development and implementation costs and, importantly, the Company did
17 not anticipate that any new renewable energy facilities to be procured
18 through the CPRE Program Tranche 1 RFP would be placed into service
19 until late 2019 or early 2020. Accordingly, DEC elected to delay cost
20 recovery in 2018 and, instead, petitioned the Commission to defer recovery
21 of its reasonable and prudently-incurred costs to implement its CPRE
22 Program to 2019 and to extend the test period backwards by five months to

1 August 1, 2017, to encompass the full period since House Bill 589 became
2 law.

3
4 On September 24, 2018, the Commission issued its *Order Approving*
5 *Proposed Accounting Treatment and Authorizing Extended Test Period* in
6 Docket No. E-7, Sub 1170, which approved the Company's proposal to
7 defer recovery of CPRE Program costs to its initial application to be filed
8 in 2019, and authorizing a 17-month test period beginning on August 1,
9 2017, and ending December 31, 2018.

10
11 The Company made a substantially similar request in 2019 and the
12 Commission approved a further extension of the test period for the 29-
13 month period beginning on August 1, 2017, and ending December 31, 2019
14 in its April 16, 2019 *Order Cancelling Annual Public Hearing, Approving*
15 *Proposed Accounting Treatment, and Approving CPRE Compliance Report*
16 in Docket No. E-7, Sub 1193.

17 **Q. IS THE COMPANY PROJECTING TO INCUR CPRE PROGRAM**
18 **PURCHASED POWER EXPENSES OR POTENTIAL**
19 **AUTHORIZED REVENUE OF UTILITY-OWNED CPRE ASSETS**
20 **THAT WOULD BE RECOVERABLE DURING THE BILLING**
21 **PERIOD AT ISSUE IN THIS PROCEEDING?**

22 A. Yes. Eight DEC projects selected in the Tranche 1 RFP are expected to be
23 placed in service and begin generating power during the Billing Period.

1 Estimated purchased power expenses and authorized revenue of utility-
2 owned CPRE asset estimates are described in the direct testimony of
3 Company witness Sykes and detailed in Sykes Exhibit No. 1.

4 **Q. IS THE COMPANY REQUESTING THE COMMISSION**
5 **ESTABLISH A CPRE RIDER TO RECOVER ITS REASONABLE**
6 **AND PRUDENTLY-INCURRED CPRE COSTS IN THIS**
7 **PROCEEDING?**

8 A. Yes. Now that the Company will begin incurring PPA expenses and
9 authorized revenues of utility-owned assets associated with winning CPRE
10 Tranche 1 bids, the Company requests to establish a CPRE rider.

11 **Q. PLEASE DESCRIBE THE CATEGORIES OF COSTS INCURRED**
12 **OR POTENTIALLY EXPECTED TO BE INCURRED TO**
13 **IMPLEMENT THE REQUIREMENTS OF THE CPRE PROGRAM.**

14 A. The following is a summary of the types of costs that were and will likely
15 continue to be incurred to implement the CPRE Program and comply with
16 the procurement requirements of N.C. Gen. Stat. § 62-110.8:

- 17 • Fees for the Independent Administrator and internal Company labor
18 costs for bid proposal evaluation
- 19 • Purchased power and potential authorized revenues of utility-owned
20 generation related to CPRE Program renewable resources
- 21 • Internal Company labor, contract labor including legal fees, and other
22 related costs of implementing the CPRE Program

1 **Q. PLEASE DESCRIBE HOW COSTS FOR RETAINING THE**
2 **INDEPENDENT ADMINISTRATOR AND FOR INTERNAL**
3 **COMPANY LABOR TO EVALUATE PROPOSALS WILL BE**
4 **RECOVERED.**

5 A. Subsection (d)(10) of the CPRE Rule provides that Duke's estimated
6 expense to retain the IA to administer the CPRE Program RFP should be
7 recovered from market participants through proposal fees. To the extent
8 that the total cost of retaining the IA exceeds the proposal fees recovered
9 from market participants, Duke is required to pay the IA the balance owed
10 for services rendered and subsequently charge the winning participants in
11 the CPRE RFP solicitation.

12 The CPRE Rule also authorizes Duke to collect proposal fees up to \$10,000
13 per proposal to defray its costs of evaluating CPRE proposals. As provided
14 for in subsection (f)(3) of the CPRE Rule, the Companies have established
15 a designated internal evaluation team specifically assigned to the CPRE
16 proposal evaluation process.

17 In Tranche 1 of the CPRE Program RFP, DEC and DEP elected to structure
18 the proposal fees and winners' fees as follows:

19 1) Proposal Fees were required of each proposal submitted on the
20 Independent Administrator's website, including Asset Acquisition
21 proposals. This fee was set at \$500/MW, based on the facility's
22 nameplate capacity, up to a maximum of ten thousand dollars
23 (\$10,000). Proposal Fees received in Tranche 1 totaled \$901,382.

1 2) In addition, a Winners' Fee was collected on a pro-rata basis from
2 each winning proposal. This fee was calculated on the amount of
3 the IA costs that was not recovered through the Proposal Fees. The
4 Winners' Fees were determined upon conclusion of the RFP.
5 Winners' Fees were allocated among all winning Proposals selected
6 by both DEC and DEP on a pro-rata basis on a per MW basis. The
7 total of the Winners' Fees was capped at five hundred thousand
8 dollars (\$500,000). Winners' Fees received in Tranche 1 totaled
9 \$500,000.

10 Actual IA expenses for Tranche 1 were approximately \$2M, exceeding
11 Proposal Fee and Winners' Fee collections by approximately \$600k. The
12 IA fees not recovered are allocated equally between DEC and DEP and is
13 included in the CPRE rider filing as detailed in Sykes Exhibit 2. A number
14 of factors caused the IA expenses to exceed estimates, including extensive
15 unanticipated stakeholder processes and reporting obligations. For Tranche
16 2, the Winners' Fee cap has been increased to \$1M to better account for IA
17 fees.

18 **Q. PLEASE DESCRIBE THE COMPANY'S COSTS ASSOCIATED**
19 **WITH THE CPRE PROGRAM INCURRED DURING THIS**
20 **EXTENDED INITIAL TEST PERIOD.**

21 A. DEC's costs associated with implementing its CPRE Program include
22 internal labor associated with development of the CPRE Program Plan and
23 Guidelines and the initial Tranche 1 RFP documents, as well as interaction

1 with the Independent Administrator and the execution of the initial RFP
2 process. In addition to internal labor, costs were incurred for external legal
3 support to support the initial CPRE Program filing, the requested
4 modifications to the interconnection procedures, and the initial RFP
5 solicitation. Finally, in the early stages of the development of the CPRE
6 Program, DEC and DEP engaged outside consultants to assist with this
7 significant effort, including development of initial CPRE Program filing
8 documents and schedules, support with drafting RFP documents, and
9 development of alternative approaches to incorporating network upgrades
10 in the CPRE Program proposals and evaluation.

11 **Q. PLEASE PROVIDE DETAIL FOR THE INTERNAL LABOR COSTS**
12 **INCURRED TO IMPLEMENT THE CPRE PROGRAM THAT**
13 **WERE INCURRED DURING THE EXTENDED INITIAL TEST**
14 **PERIOD.**

15 A. DEC includes only the incremental cost of CPRE Program compliance for
16 recovery through its CPRE rider. Company employees that work to
17 implement the requirements of N.C. Gen. Stat. § 62-110.8 charge only that
18 portion of their labor hours to CPRE accounting codes. Note that the
19 Company instructed individuals to begin charging new CPRE Program
20 accounting codes as of October 2018, after receiving the Commission order
21 approving the Extended Initial Test Period. Labor hours related to a very
22 limited number of employees are included in test period costs for months
23 prior to October 2018. Labor costs associated with these employees reflect

1 work performed that was associated with the structure of the initial RFP
2 offering, the drafting of key documents, development of the evaluation
3 methodology, the issuance of pre-solicitation documents for the initial
4 Tranche and other CPRE Program compliance activities.

5 **Q. HOW ARE CPRE-RELATED COSTS SUCH AS EXTERNAL**
6 **LEGAL AND CONSULTING SUPPORT BEING ALLOCATED**
7 **BETWEEN DEC AND DEP?**

8 A. These costs have been allocated equally between DEC and DEP. While the
9 overall CPRE Program is expected to procure significantly more total
10 megawatts for DEC versus DEP, these costs related to implementing the
11 CPRE Program are associated with administrative activities that benefit
12 DEC and DEP equally. Thus, the Company's proposed CPRE rider in this
13 docket appropriately reflects recovery of one half of the shared outside
14 administrative costs incurred.

15 **Q. ARE YOU SATISFIED THAT THE ACTUAL COSTS DEC HAS**
16 **INCURRED DURING THE EXTENDED INITIAL TEST PERIOD**
17 **ARE REASONABLE AND HAVE BEEN PRUDENTLY**
18 **INCURRED?**

19 A. Yes.

20 **Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT**
21 **TESTIMONY?**

22 A. Yes.

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-7, SUB 1231

In the Matter of)	
)	DUKE ENERGY CAROLINAS, LLC
Application of Duke Energy Carolinas, LLC)	2019 COMPETITIVE PROCUREMENT
Pursuant to G.S. 62-110.8 and Commission Rule)	OF RENEWABLE ENERGY
R8-71 for Approval of CPRE Compliance)	PROGRAM COMPLIANCE REPORT
Report and CPRE Cost Recovery Rider)	
)	

**DUKE ENERGY CAROLINAS, LLC
COMPETITIVE PROCUREMENT OF RENEWABLE ENERGY (“CPRE”)
COMPLIANCE REPORT**

On November 6, 2017, the North Carolina Utilities Commission (“NCUC” or “Commission”) issued an order in Docket E-100, Sub 150 adopting regulations to implement the Competitive Procurement of Renewable Energy (“CPRE”) Program.¹ Section (h) of NCUC Rule R8-71 (the “CPRE Rule”) requires Duke Energy Carolinas, LLC (“DEC” or the “Company”) to annually file a CPRE Program Compliance Report for the prior calendar year, which for purposes of this Compliance Report is calendar year 2019 (referred to as the “reporting year”). DEC hereby submits this CPRE Compliance Report for the reporting year.

I. CPRE Solicitation Overview (R8-71(h)(2)(i))

As noted in the Company’s initial CPRE Program Plan filed on November 27, 2017, DEC and Duke Energy Progress (“DEP” and together with DEC, “Duke”) have elected to jointly issue request for proposal (“RFP”) solicitations to comply with the aggregate procurement requirements of the CPRE Program. DEC and DEP issued the initial CPRE Tranche 1 solicitation on July 10, 2018. The Accion Group, LLC (“IA”) serves as the Independent Administrator of the CPRE Program. DEC’s initial CPRE Tranche 1 solicitation sought to procure 600 MW of renewable capacity. As described in the Independent Administrator’s Tranche 1 Final Report, attached as Appendix A, on April 9, 2019, twelve proposals were selected as winners for DEC totaling 515 MW. On July 8, 2019, one of the twelve winning proposals withdrew prior to executing a Power Purchase Agreement (“PPA”). By the end of the contracting period, DEC had entered contracts and commitments to procure renewable energy from 11 proposals totaling 465 MW. On December 3, 2019, DEC received withdrawal notification from a 30 MW proposal that had executed a PPA. This PPA termination reduces the total Tranche 1 solicitation for DEC to 435 MW. No DEC proposals in Tranche 1 were eliminated pursuant to subsection R8-71(f)(3)(ii).

On July 2, 2019, the Commission issued its *Order Modifying and Accepting CPRE Program Plan* in Docket Nos. E-2, Sub 1159 and E-7, Sub 1156, establishing the process and timeline for Duke to initiate CPRE Tranche 2. Duke issued the CPRE Tranche 2 RFP on October 15, 2019. DEC’s Tranche 2 RFP seeks 600 MW of renewable capacity. Key milestones for Tranche 2 are listed in the schedule below.

Milestone	Date
August Stakeholder Meeting	8/7/2019
Draft RFP documents posted to IA RFP Website	8/15/2019
Comment period on draft RFP documents closes	8/30/2019

¹ *Order Adopting and Amending Rules*, Docket No. E-100, Sub 150 (Nov. 6, 2017). The Commission subsequently also issued an *Order Amending Commission Rule R8-71* in the same docket on April 9, 2018.

PPA filed with NCUC	9/15/2019
IA report re: RFP documents	9/25/2019
October Stakeholder Meeting	10/10/2019
Final RFP documents posted to IA RFP Website and RFP opens	10/15/2019
November Stakeholder Meeting	11/13/2019
Final Stakeholder Meeting	2/6/2020
Deadline for submission of Proposals	3/9/2020
Projected Conclusion of Step 1 of the Evaluation Process	4/17/2020
Projected Conclusion of Step 2 and winning bids notified	6/30/2020
Projected Conclusion of Contracting period	9/30/2020

I. Summary of PPAs and Utility-Owned Assets Procured During the Reporting Year (R8-71(h)(2)(ii))

As summarized above, the Tranche 1 solicitation selected twelve total proposals, though two of the twelve proposals selected by the IA have elected not to move forward. Of the remaining ten proposals, eight are PPA Proposals and two are Utility-Owned. Further details concerning those ten proposals are included in the following table:

BEGIN CONFIDENTIAL

Project	Parent Company	Bid Number	Generation Type	Generating Capacity MW AC	Type	Cost \$/MWh
Partin Solar	Southern Current, LLC	118-01	Solar	50	PPA	
Broad River Solar	Duke Energy Renewables	143-06	Solar	50	PPA	
Maiden Creek	Duke Energy	83-07	Solar	69.3	Utility Owned Asset	
Sugar Solar	Cypress Creek Renewables	57-23	Solar	60	PPA	
Stony Knoll Solar	Duke Energy Renewables	143-04	Solar	22.6	PPA	
Gaston Solar Power Plant	Duke Energy	83-06	Solar	25	Utility Owned Asset	
Pinson	JSD Management, LLC	258-02	Solar	20	PPA	
Westminster PV1	Ecoplexus, Inc.	336-02	Solar plus storage	75	PPA	
Oakboro PV1	Ecoplexus, Inc.	336-01	Solar plus storage	40	PPA	
Speedway Solar	Duke Energy Renewables	143-05	Solar	22.6	PPA	

END CONFIDENTIAL

II. Forecasted Capacity and Energy Obtained through the CPRE Program During the Reporting Year (R8-71(h)(2)(iii))

The nameplate capacity of the winning proposals in DEC for Tranche 1 are identified above. No megawatt-hours of renewable energy or renewable energy certificates were obtained through the CPRE Program during the reporting year because none of the winning projects were completed during the reporting year. The first projects contracted through Tranche 1 will not be placed in service until Q4 2020.

IV. Duke Owned Facilities Submitted as Proposals in CPRE Solicitation (R8-71(h)(2)(iv))

The bid window for Tranche 1 of the CPRE RFP closed in 2018. The bid window for Tranche 2 of the CPRE RFP opened on October 15, 2019 and will close on March 9, 2020. No proposals have been received to date. As such, no renewable energy facilities under development by Duke were proposed into a CPRE RFP during the reporting year.

V. Avoided Cost Rates (R8-71(h)(2)(v))

The Company's avoided costs used in the Tranche 1 CPRE solicitation to set the cost-effectiveness cap established by N.C. Gen. Stat. § 62-110.8(b)(2) were DEC's levelized 20 year avoided costs developed consistent with the methodology approved by the Commission in Docket No. E-100, Sub 148. Each proposal in Tranche 1 was required to submit their bid price as a positive \$/MWh decrement to the levelized avoided cost rates, as identified in the Tranche 1 RFP documents. The following is an excerpt from the RFP document describing the proposal pricing approach:

Proposal pricing must be in the same format of 20-year avoided cost pricing periods as shown in the tables above (\$/MWh for Summer On-Peak, Non-Summer On-Peak, and Off-Peak pricing periods). To ensure consistency with the approved North Carolina Rate Schedule PP Option B avoided cost pricing structure, proposed pricing must be stated in a decrement that is applied equally to all pricing periods. For example, an [Market Participant] could propose pricing that is \$2.00 less than the avoided cost in each pricing period. This format for pricing will be required for the bid entry on the IA RFP Website and will be the basis for the pricing in the PPA.

The bid form on the IA's website allowed only for a single (positive) pricing decrement to be entered, and then presented the resulting \$/MWh pricing for each pricing period based on this decrement. The avoided costs used in Tranche 1 are presented below:

Avoided Costs Threshold for Tranche 1

Transmission Connected Projects				
<u>Avoided costs (\$/MWh)</u>	<u>DEC</u>		<u>DEP</u>	
	<u>Summer</u>	<u>Non-Summer</u>	<u>Summer</u>	<u>Non-Summer</u>
<u>Capacity + Energy On Peak</u>	\$58.00	\$74.90	\$57.40	\$78.20
<u>Energy Off Peak</u>	\$36.40		\$35.70	

Distribution Connected Projects				
<u>Avoided costs (\$/MWh)</u>	<u>DEC</u>		<u>DEP</u>	
	<u>Summer</u>	<u>Non-Summer</u>	<u>Summer</u>	<u>Non-Summer</u>
<u>Capacity + Energy On Peak</u>	\$59.40	\$76.70	\$58.50	\$79.70
<u>Energy Off Peak</u>	\$37.20		\$36.20	

The Company’s avoided costs used in the Tranche 2 CPRE solicitation are DEC’s levelized 20 year avoided costs developed consistent with the methodology approved by the Commission in Docket No. E-100, Sub 158. Each proposal in Tranche 2 is required to submit their bid price as a positive \$/MWh decrement to the levelized avoided cost rates, as identified in the Tranche 2 RFP solicitation documents. The following is an excerpt from the RFP document describing the proposal pricing approach:

“Proposal pricing must be in the same format of 20-year avoided cost pricing periods as shown in the tables above. Proposal pricing must be stated as a fixed dollar per MWh decrement that is applied equally to all energy pricing periods. For example, an MP could propose pricing that is \$2.00/MWh less than the avoided cost in each energy pricing period (for clarity, the decrement does not apply to capacity pricing periods). This format for pricing will be required for the bid entry on the IA RFP Website and will be the basis for the pricing in the PPA.”

The bid form on the IA’s website allows only for a single (positive) pricing decrement to be entered, and then presents the resulting \$/MWh pricing for each pricing period based on this decrement. The avoided costs used in Tranche 2 are presented below:

Avoided Costs Threshold for Tranche 2

DEC 20 Year CPRE - Solar and Solar Plus Storage												
CAPACITY PRICING				ENERGY PRICING								
Summer Months PM	Winter Months AM	Winter Months PM	Summer Prem Pk	Summer On-Peak	Summer Off-Peak	Winter Prem Pk	Winter On-Peak AM	Winter On-Peak PM	Winter Off-Peak	Shoulder On-Peak AM/PM	Shoulder Off-Peak	
\$/MWh	\$/MWh	\$/MWh	\$/MWh	\$/MWh	\$/MWh	\$/MWh	\$/MWh	\$/MWh	\$/MWh	\$/MWh	\$/MWh	
Distribution	\$ 43.49	\$ 83.48	\$ 28.30	\$ 58.37	\$ 57.01	\$ 33.76	\$ 72.32	\$ 52.93	\$ 65.38	\$ 41.34	\$ 45.82	\$ 30.16
Transmission	\$ 42.33	\$ 81.25	\$ 27.54	\$ 56.18	\$ 55.05	\$ 33.08	\$ 70.04	\$ 51.56	\$ 63.70	\$ 40.52	\$ 44.91	\$ 29.70

DEC 20 Year CPRE - Non-Solar Renewable Generation												
CAPACITY PRICING				ENERGY PRICING								
Summer Months PM	Winter Months AM	Winter Months PM	Summer Prem Pk	Summer On-Peak	Summer Off-Peak	Winter Prem Pk	Winter On-Peak AM	Winter On-Peak PM	Winter Off-Peak	Shoulder On-Peak AM/PM	Shoulder Off-Peak	
\$/MWh	\$/MWh	\$/MWh	\$/MWh	\$/MWh	\$/MWh	\$/MWh	\$/MWh	\$/MWh	\$/MWh	\$/MWh	\$/MWh	
Distribution	\$ 43.49	\$ 83.48	\$ 28.30	\$ 59.47	\$ 58.11	\$ 34.86	\$ 73.42	\$ 54.03	\$ 66.48	\$ 42.44	\$ 46.92	\$ 31.26
Transmission	\$ 42.33	\$ 81.25	\$ 27.54	\$ 57.28	\$ 56.15	\$ 34.18	\$ 71.14	\$ 52.66	\$ 64.80	\$ 41.62	\$ 46.01	\$ 30.80

VI. Total Costs and Authorized Revenues (R8-71(h)(2)(vi))

By order issued on April 16, 2019 in Docket No. E-7, Sub 1193, the Commission approved DEC’s proposal to defer and seek recovery of costs reasonably and prudently incurred to comply with the requirements of N.C. Gen. Stat. § 62-110.8 and its request that the test period to be used in DEC’s initial application to

recover costs pursuant to N.C.G.S. § 62-110.8(g) be the 29-month period beginning on August 1, 2017, and ending December 31, 2019 (“Extended Initial Test Period”). During the Extended Initial Test Period approved by the Commission, DEC has incurred a total of \$1,126,791, which includes costs for legal support, external consulting, internal company labor, and Independent Administrator fees not recovered through proposal fees. Because a CPRE rider has not yet been implemented, no revenues were received. None of the winning CPRE Tranche 1 projects achieved commercial operation during reporting year, so no purchased costs or authorized revenues associated with these assets were incurred.

VII. Status of Compliance with CPRE Program Requirements (R8-71(h)(2)(vii))

DEC and DEP procured 435 MW and 86 MW, respectively in Tranche 1. DEC and DEP are targeting procurement of 600 MW and 80 MW, respectively in Tranche 2. DEC and DEP both anticipate meeting these procurement targets in Tranche 2 and collectively, DEC and DEP expect to fully comply with the aggregate CPRE Program procurement requirements within the timeframe specified in N.C. Gen. Stat. 62-110.8. Note that in light of the amount of Transition MW, the currently projected range for the total CPRE procurement is 1,231 MW to 1,881 MW.²

VIII. Independent Administrator and Evaluation Costs (R8-71(h)(2)(viii))

The Independent Administrator was selected in January 2018. A copy of the contract between Duke and the IA is attached as Confidential Appendix B.

Subsection (d)(10) of the Commission’s CPRE Rule states that:

“The Independent Administrator’s fees shall be funded through reasonable proposal fees collected by the electric public utility. The electric public utility shall be authorized to collect proposal fees up to \$10,000 per proposal to defray its costs of evaluating the proposals. In addition, the electric public utility may charge each participant an amount equal to the estimated total cost of retaining the Independent Administrator divided by the reasonably anticipated number of proposals. To the extent that insufficient funds are collected through these methods to pay of the total cost of retaining the Independent Administrator, the electric public utility shall pay the balance and subsequently charge the winning participants in the CPRE RFP Solicitation.”

In Tranche 1 of the RFP, DEC and DEP elected to structure the Proposal Fees and Winners’ Fees as follows:

² “Transition MW” is the term Duke uses to refer to projects that qualify under N.C. Gen. Stat. § 62-110.8(b)(1) as having executed PPAs and interconnection agreements for renewable energy capacity within the DEC and DEP Balancing Authorities that are not subject to economic dispatch or curtailment and were not procured under the Green Source Advantage program pursuant to N.C. Gen. Stat. § 62-159.2. Should the level of Transition MW exceed 3,500 MW, then the aggregate targeted competitive procurement aggregate amount (2,660 MW) is reduced. If the aggregate capacity of such Transition MW is less than 3,500 MW at the end of the initial 45-month competitive procurement period, the Commission shall require Duke to conduct an additional competitive procurement in the amount of such deficit.

- 1) Proposal Fees were required of each proposal submitted on the Independent Administrators website, including Asset Acquisition proposals. This fee was set at \$500/MW, based on the facility's nameplate capacity, up to a maximum of ten thousand dollars (\$10,000).
- 2) In addition, Winners' Fee will be collected on a pro-rata basis from each winning proposal. This fee will be calculated on the amount of the IA costs as well as any Duke costs related to proposal evaluation (i.e., costs incurred in the Step 2 evaluation process as described in the RFP) that was not recovered from the Proposal Fees. The Winners' Fee will be determined upon conclusion of the RFP and upon completion of contracting. Any such Winners' Fees will be allocated among all winning proposals selected by both DEC and DEP on a pro-rata basis on a per MW basis. The total of the Winners' Fees shall not exceed five hundred thousand dollars (\$500,000). It is expected that Duke will collect \$500,000 in Winners' Fees for Tranche 1.

Due to the fact that the Tranche 1 bid window closed in 2018 and that no Tranche 2 bids were accepted in 2019, no proposal fees were accepted in 2019. DEC and DEP did collect Winners' Fees during the reporting year totaling \$500,000.

During the reporting year, the total costs incurred by the IA to implement the CPRE Program for DEC and DEP were approximately \$1.5 million.

I. Independent Administrator Certification (R8-71(h)(2)(ix))

The Independent Administrator certification required by NCUC Rule R8-71(h)(ix) is provided as Appendix C.

II. Grid Upgrade Costs¹

Upgrades costs, as identified in Facilities Study Reports for Tranche 1 winning bids, are identified in the table below:

¹ *Order Modifying and Approving Joint CPRE Program*, Docket Nos. E-7, Sub 1156, and E-2, Sub 1159 (Feb. 21, 2018) (directing that "[i]n addition to requiring Duke to address grid upgrade costs, as necessary, in its explanation of the elimination of proposals, Duke shall report on grid upgrade costs on a per-proposal basis in its future CPRE compliance reports")

Project	Parent Company	Bid Number	Network Upgrades
Broad River Solar	Duke Energy Renewables	143-06	\$ 245,760
Gaston Solar Power Plant	Duke Energy	83-06	\$ 454,086
Oakboro PV1	Ecoplexus, Inc.	336-01	\$ 245,862
Partin Solar	Southern Current, LLC	118-01	\$ 53,582
Pinson	JSD Management, LLC	258-02	\$ 245,864
Maiden Creek	Duke Energy	83-07	\$ 1,324,356
Speedway Solar	Duke Energy Renewables	143-05	\$ 122,932
Stony Knoll Solar	Duke Energy Renewables	143-04	\$ 245,758
Sugar Solar	Cypress Creek Renewables	57-23	\$ 122,800
Westminster PV1	Ecoplexus, Inc.	336-02	\$ 219,391



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

FINAL REPORT OF THE INDEPENDENT ADMINISTRATOR

RE:

DUKE ENERGY CAROLINAS (DEC)

Competitive Procurement of Renewable Energy Program (CPRE)
Request for Proposal (RFP) – 600 MW

DUKE ENERGY PROGRESS (DEP)

Competitive Procurement of Renewable Energy Program (CPRE)
Request for Proposals (RFP) – 80 MW

**REQUEST FOR PROPOSALS FOR
THE COMPETITIVE PROCUREMENT OF RENEWABLE ENERGY PROGRAM
TRANCHE 1**

July 18, 2019

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I.	EXECUTIVE SUMMARY	1
II.	LESSONS LEARNED FROM TRANCHE 1	3
A.	TRANSMISSION AND DISTRIBUTION EVALUATION PROCESS.....	3
B.	DOCUMENTS	4
C.	PROPOSAL SECURITY	5
D.	UTILITY SELF-DEVELOPED PROPOSALS	5
E.	ASSET ACQUISITION.....	6
F.	TRANSMISSION QUEUE ISSUES.....	6
G.	PROCESS RECOMMENDATIONS.....	7
III.	INDEPENDENT ADMINISTRATOR.....	8
A.	ABOUT THE IA	8
B.	THE IA'S ROLE IN THE RFP	9
IV.	WEBSITE.....	9
V.	OVERVIEW OF TRANCHE 1 CPRE PROPOSAL PROCESS.....	11
VI.	PRE-PROPOSAL SUBMISSION ACTIVITIES	12
VII.	PROPOSAL SUBMISSION	18
VIII.	EVALUATION MODEL	24
A.	OVERVIEW	24
B.	REQUIRED INPUT DATA	24
C.	EVALUATION MODEL PROCESSING	25
IX.	EVALUATION	26
A.	OVERVIEW OF EVALUATION PROCESS.....	26
B.	PRICE SCORING SHEETS	27
C.	EVALUATION TEAMS	27
D.	CURE PROCESS.....	27
X.	STEP 1 EVALUATION PROCESS.....	29
A.	OUTLINE OF PROCESS	29
B.	INITIAL TIER RANKING.....	30
C.	PROPOSAL SECURITY	32
XI.	STEP 2 EVALUATION PROCESS - T&D OVERVIEW	34
A.	ACTIVITY PRIOR TO PROPOSAL SUBMISSION.....	34
B.	FLOW CHART OF STEP 2	37
C.	ANALYSIS REPORT FORMAT	37
D.	COMMUNICATION DOCUMENTATION	37
E.	LATE STAGE PROJECTS	38
F.	INTERCONNECTION VERIFICATION AND VALIDATION	38
G.	STEP 2 PROCESS	40
H.	THRESHOLD COST ESTIMATES	41
I.	MEGAWATT REDUCTIONS AVAILABLE	41
J.	BASE CASE FORMULATION	41
K.	COST ANALYSIS COMPLETED	43
L.	VERIFICATION OF COST ANALYSIS RESULTS.....	46
M.	STEP 2 PROCESS CONCLUSIONS.....	49
XII.	SUBJECT MATTER AREAS.....	50

A.	LEGAL TEAM REVIEW	50
B.	FINANCIAL TEAM REVIEW.....	50
C.	PROJECT SUFFICIENCY TEAM REVIEW	51
XIII.	ACQUISITION PROCESS AUDIT.....	52
A.	OVERVIEW	52
B.	AUDIT OBJECTIVE.....	53
C.	THE AUDIT	53
D.	AUDIT CONTRACT REVIEW	59
E.	ACQUISITION AUDIT CONCLUSIONS	59
XIV.	FINALISTS	60
XV.	CONCLUSIONS.....	61
	APPENDIX A	1
	APPENDIX B	2
	APPENDIX C	8
	ATTACHMENT 1	1

**FINAL REPORT OF THE INDEPENDENT ADMINISTRATOR
RE: DUKE ENERGY CAROLINAS, LLC; DUKE ENERGY PROGRESS, LLC
REQUEST FOR PROPOSALS FOR
THE COMPETITIVE PROCUREMENT OF RENEWABLE ENERGY PROGRAM
TRANCHE 1**

July 18, 2019

I. EXECUTIVE SUMMARY

Accion Group, LLC (“Accion”) serves as the Independent Administrator (“IA”) of the Competitive Procurement of Renewable Energy (“CPRE”) program and began the assignment in January 2018. The IA participated in all aspects of the program, from preparing the draft and final Request for Proposal (“RFP”) documents through the final evaluation of all submitted Proposals. This is the IA’s final report concerning Tranche 1 of the CPRE program. This report provides an overview of Tranche 1 with detailed explanation of the processes and procedures that were employed. The IA also provides recommendations for improvements in Tranche 2.

Figure 1 presents a summary of the Tranche 1 Results.

Figure 1

	DEC	DEP
MW Procured	465.50	85.72
Average price/MWh	\$37.94	\$38.30
Nominal Savings over 20 years	\$228.00 Million	\$33.17 Million

Currently, the CPRE Program Plan approved by the Commission projects the need for three tranches of CPRE solicitations to be completed within the time frame contemplated by HB 589. Tranche 1 was the “beta” for the program and initiated the processes and procedures of CPRE to comply with the Rules established by the North Carolina Utilities Commission (“NCUC”) and refine the program for future Tranches. As such, the IA believes Tranche 1 was a success.

The CPRE program is designed to procure 2,600 MW¹ of new renewable resources over a 45-month period provided those purchases are below Duke Energy’s respective forecasted avoided cost calculated over a twenty-year term either through the Power Purchase Agreement (“PPA” or “RPPA”) or from resources to be owned by Duke. Tranche 1 sought 600 MW of qualifying renewable resources for Duke Energy Carolinas (“DEC”) and 80 MW for Duke Energy Progress (“DEP”); collectively DEP and DEC are referred to as the “Duke Companies” or “Company” in this report. The Duke Companies and its affiliates are permitted to participate in the CPRE program with projects to be constructed or acquired by

¹ As specified in the currently effective CPRE Program Plan, the revised procurement target is now 1,460 - 1,960 MW due to the increase of the Transition MW.

the Company to serve the goals of the CPRE program. Proposals from the Duke Companies were made by the DEP/DEC Proposal Team (“DEP/DEC Team”).²

The IA provided the web-based platform (“Website”) for proposals submitted to DEC, DEP, and Asset Acquisition (“AA”) proposals. The unregulated affiliate of the Duke Companies, Duke Energy Renewables (“DER”), participated in the same manner as other Market Participants (“MPs”). The IA Website maintained three separate and secure “Silos” for each of the three solicitations; all data related to these solicitations has been maintained by the IA on secure servers.

Proposals were received through October 9, 2018, when the Proposal submission period closed.³ At that time, the ability for MPs to adjust their Proposal forms was terminated, including the ability to submit additional Proposals.

The IA received a robust number of Proposals and MWs in each Silo. Proposals included a balanced representation from North Carolina and South Carolina and ranged in size from seven to 80 MW AC of generating capacity in both DEC and DEP; 80 MW was the maximum size that could be submitted. The majority of Proposals would require transmission level service. There were also Proposals for projects that would interconnect to the Duke system at the distribution level. The Website functioned as desired in that it allowed a wide variance of Proposals to be submitted.

While MPs had the ability to provide renewable energy from certain technologies,⁴ the IA received proposals for only solar photovoltaic (“PV”) generation. Four of these projects proposed storage integration. The IA conducted the evaluation of Proposals as required for CPRE, that is with a preliminary evaluation of all Proposals in Step 1, followed by a Step 2 cost analysis study of the most competitive Proposals by the T&D Evaluation team, and a final step of the evaluation completed by the IA by imputing system impact costs to Proposals and conducting another iterative evaluation ranking of Proposals.

The Website remained the host of all CPRE activities through the Step 2 evaluation process and until each PPA was executed on July 8, 2019 and Performance Assurance security was provided. The IA retained all submissions by the MPs and all exchanges between the IA and MPs, as well as exchanges between individual MPs and members of the Duke Evaluation Team after the IA identified the Proposals selected for PPAs. Prior to the selection of finalists, the IA used the Message Board to communicate project-specific questions and comments with MPs, after consultation with the Duke Evaluation Team.

Before evaluating Proposals, the IA reviewed all Proposals submitted on the DEC and DEP Silos and completed a summary of each one. Each summary captured the core information provided with each Proposal and requested that the MP review and respond to the IA either confirming the accuracy of the information or identifying discrepancies. The Step 1 evaluation ranked Proposals into an initial

² Members of the DEP/DEC Team were subject to the Code of Conduct separation protocols, which isolated them from the Duke Evaluation Team.

³ To avoid all inferences of bias, Proposals for projects to be originated by Duke and submitted by the DEP/DEC Team or DER were required to be submitted no later than October 8, 2018. Proposals by the DEP/DEC Team for projects selected for acquisition as part of CPRE were submitted on November 16, 2018.

⁴ Tranche 1 accepted renewable energy resources as identified in G.S. 62-133.8(a)(8), with the exception of wind, swine, and poultry waste powered facilities.

Competitive Tier (“Competitive Tier”), Competitive Tier Reserve (“Competitive Tier Reserve” or “Reserve List”), and released Proposals.

On April 9, 2019, the IA completed the selection process, and final status notifications were sent to MPs for each Proposal. At that time, the IA created a separate message board for exchanges between the MPs of the Finalist Proposals (“Finalist MPs”) and the appropriate Duke Personnel. Also, at that time, the same Duke Personnel were given access to the Proposal Books of the Finalist Proposals for review.

Subsequent to the notification of the parties representing winning proposals, two selected winning proposals chose to not proceed, one each in DEC and DEP. In DEC, there were no other active proposals remaining after Step 2, so the final results for Tranche 1 in DEC reflect the impact of this project withdrawing prior to signing the PPA. In DEP, the IA reached out to the MP with the next most competitive Proposal and substantially replaced the MWs of the withdrawn Proposal by the July 8, 2019 deadline.⁵

Attachment 1 sets forth the identity of the winning Proposals and those MPs that sponsored a winning Proposal but elected to withdraw.

The IA believes the CPRE Tranche 1 solicitation was conducted fairly and all MPs were given equal access to all information at the same time. The evaluation of Proposals was completed without bias towards or against any qualifying technology or participant. Further, the separation protocols that isolated Proposals from Duke Company personnel, including the Duke Evaluation Team, was strictly enforced. While the T&D Evaluation team had, out of necessity, the identity of projects as part of the Step 2 review, the IA is unaware of any instance where Duke personnel had access to project-identifying information from Proposals prior to the completion the CPRE Step 2 and the release of data to the Duke Evaluation Team.⁶

II. LESSONS LEARNED FROM TRANCHE 1

As the “beta test” of the CPRE Program, the IA is pleased with the accomplishments and success of Tranche 1. Below are observations and suggestions of the IA drawn from the Tranche 1 experience. The IA offers these suggestions as ways to improve the program for Tranche 2.

A. TRANSMISSION AND DISTRIBUTION EVALUATION PROCESS

The basis for these recommendations is discussed in the body of this report and summarized here:

1. There is a need for the Tranche 2 T&D system upgrade “base case” to better represent projects that will receive transmission and distribution services. The IA will work with the T&D Evaluation team to propose threshold standards for projects to be included in the base case. The Proposal will include a focus on upgrade cost and duration of necessary construction.

⁵ The withdrawal in DEP occurred less than two weeks before the deadline for completing PPAs.

⁶ There were three instances when MPs contacted members of the Duke Evaluation Team. Each time the Duke personnel declined to discuss the CPRE program and notified the IA.

2. Better locational guidance should reflect the commitment of transmission capacity to serve the successful CPRE Tranche 1 projects.
3. The Tranche 2 T&D system upgrade “base case” analysis should:
 - Exclude each project proposed and eliminated in Tranche 1 after it was established that upgrade costs would result in the project being well above avoided cost.
 - Only include the largest interconnection request when a project has multiple queue positions of differing sizes.
4. The IA should be included in all discussions with MPs until PPAs are signed in order to confirm the discussions are consistent with representations in Proposals concerning interconnection.
5. Duke Interconnection Account Managers should be included more on the T&D Evaluation team and actively engage in the Proposal analysis process, subject to following the appropriate communication protocols.
6. The IA should maintain a central ledger showing Proposal activity and current evaluation status. This is to be shared among all T&D Evaluation personnel and would be updated on a regular schedule.
7. Incorporate into the standard Proposal analysis document a more explicit discussion of risk and construction requirements needed to meet commercial operating dates.
8. Include reactive analysis as a standard part of the T&D system upgrade cost analysis process.

B. DOCUMENTS

Project documents were required as part of the due diligence review of project viability and state of completion. The goal of permitting so-called “shovel ready” projects to move forward could only be met by MPs confirming their projects were more than conceptual. A surprising number of Proposals were submitted with incomplete documents, including such basic items as proof of site control. During Tranche 2, the IA intends to continue to use the cure period to provide MPs the opportunity to meet their burden of proof with appropriate project documentation, rather than rejecting Proposals without the opportunity to correct misunderstandings and complete forms. While the cure period will continue to be limited to the Step 1 period, the response requirement for cures will be restricted.

The IA required identification of the transmission path from the project to the proposed Point of Interconnection (“POI”). A number of MPs failed to provide this information with their Proposals and were permitted to rectify the omissions during the cure period. The IA will use the pre-proposal period to impress upon MPs the need to identify each tract of land that would be crossed to reach the POI along with proof of site control of the path for the term of the PPA.

The Tranche 2 proposal form will include an acknowledgement that the MP is responsible for the accuracy of all documents. The IA is hopeful this will encourage MPs to be more attentive when submitting Proposals, so the IA need not require replacement documents, thus permitting the economic evaluation to occur more promptly.

Some MPs were unaware of which permits would be required for their project. The Tranche 2 Proposal form should include a form identifying the permits that could be required, and a “check off” identifying those applicable to the project.

Proof of Title Insurance was required as a tool to confirm site control. Few MPs provided the documentation. The IA is exploring additional ways to confirm sufficient site control of project sites and the transmission path.

Based on the experience in Tranche 1, the IA recommends the following requirements for documents to provide details on the generating facility design:

1. The Tranche 2 RFP and Proposal Form should include a requirement for MPs to provide the PV Syst input/output parameters and related calculations/work papers supporting the proposal's 8760 energy production profile. Had this been required in Tranche 1, some or all of the miscommunications between the IA team and certain MPs would have been avoided.
2. A required document entitled “Generating Facility Description” should describe or include: a) major structures related to the production of electricity; b) key equipment components (e.g., solar PV modules, inverters, transformers, energy storage devices if applicable); c) model numbers, nameplate capacities, spec sheets etc., as applicable; and d) transmission lines and electrical equipment leading to the POI with the existing electric grid. This facility description should be of sufficient accuracy and completeness that it can be inserted as an exhibit into a PPA to represent the exact facility that will be constructed and operated to meet the PPA terms and conditions.

C. PROPOSAL SECURITY

The need for Proposal security was confirmed in Tranche 1. At the same time, the process can be improved by the IA giving MPs more advanced notice of when Proposal security will be due, rather than the seven-day notice provided in Tranche 1. This was especially challenging for MPs during the iterative process of Step 2 with projects on the Competitive Tier Reserve who were subsequently moved to the Primary Competitive Tier after the initial completion of Step 1.

The IA proposes to provide a “two-step” approach whereby the IA will provide the MP with a preliminary notice that a project is under review and that a notice that Proposal security is required will be forwarded within one week.

D. UTILITY SELF-DEVELOPED PROPOSALS

As outlined in the IA’s role in Section III, an important part of the IA’s role is to ensure equitable treatment of all Proposals, including both third party Proposals and utility self-developed Proposals. Specifically, the NCUC established items (iv), (viii), and (ix) as the IA’s responsibilities:

- (iv) Develop and publish the CPRE Program Methodology that shall ensure equitable review between an electric public utility’s Self-developed Proposal(s) as addressed in subsection (f)(2)(iv) and proposals offered by third-party market participants.

(viii) Evaluate the electric public utility's Self-developed Proposals.

(ix) Provide an independent certification to the Commission in the CPRE Compliance Report that all electric public utility and third-party proposals were evaluated under the published CPRE Program methodology and that all proposals were treated equitably through the CPRE RFP Solicitation(s).

Based on the experience in Tranche 1, the IA recommends revising the Proposal security requirements for the DEP/DEC Team. Proposal security or some functional equivalent should be required in the case of both Duke self-developed projects and Asset Acquisition projects that the DEP/DEC team elects to sponsor. The IA will work with Duke to develop an appropriate structure for use in Tranche 2, which will be provided to the NCUC for consideration.

In Tranche 1, two winning Proposals withdrew after being selected as finalists after the close of Step 2. One Proposal was from a third-party MP and the other was from an Asset Acquisition Proposal sponsored by the DEP/DEC Team. The impact of the third-party MP withdrawing late in the process was mitigated by the existence of the non-refundable Proposal security.⁷ The utility's Asset Acquisition winning Proposal that withdrew did not have Proposal security⁸ and the related project developer was not obligated to provide comparable security in the event of withdrawal. In effect, the DEP/DEC Team and the developer had a free option to withdraw at any time, which the IA believes was an unanticipated result.⁹ This issue arose during the final stages of the post-selection period, so fully developed recommendations for preventing this from reoccurring are being developed by the IA and Duke personnel and will be provided during the Tranche 2 formative stage. The recommendations will address ways to have both all Duke Proposals and developers of Asset Acquisition projects held to the same performance standards as MPs offering PPA Proposals. This issue is discussed in more detail later this report.

E. ASSET ACQUISITION

The IA is working with Duke to develop and clarify expectations for processing of Asset Acquisition proposals received from Market Participants to ensure a fair and transparent process and facilitate concurrent and post- review by the IA. This includes the communications through the website and other means with MPs, processing of proposals within Duke, and the process utilized by Duke to rank and select proposals for possible submission as Asset Acquisitions.

The Tranche 2 RFP should provide clear expectations/requirements for agreement between Duke and a Market Participant to in order for Duke to submit an Asset Acquisition proposal. For instance, a Letter of Intent covering principal terms and conditions should be required.

F. TRANSMISSION QUEUE ISSUES

After Proposals were received in Tranche 1, the IA and Duke T&D personnel worked to confirm the eligibility of each project. It soon became clear that the queue numbering system created an

⁷ As of the date of this report, the Proposal security payment had not been received.

⁸ The RFP expressly waived the Proposal security requirement for utility self-developed Proposals.

⁹ The reasoning behind the RFP waiver of Proposal security from the DEP/DEC team related to the fact that DEP/DEC would be unable to obtain a letter of credit in which DEP/DEC was both the beneficiary and applicant/obligor.

unnecessary challenge due to numerous different queue numbering methods. To illustrate this problem, the following are a list of possible queue numbers attached to a project: the queue number assigned by Duke Transmission, the queue number for projects registered with the Federal Energy Regulatory Commission (“FERC”), the queue numbering for North Carolina, the queue numbering used in South Carolina, and, in some instances, unique queue numbers assigned by Duke Account Managers.

To avoid future confusion, the IA will work with Duke to develop a unified project documentation system for Tranche 2 that will allow the IA to more efficiently assess and evaluate Proposals. This review will include developing a form to compare and confirm the projects associated with queue numbers as presented by MPs and assign one reference number to be used in the Step 2 process. For Tranche 2, the IA and the T&D team will reconcile in a sequential way all queue numbering, based on date of the MP requesting interconnection.

G. PROCESS RECOMMENDATIONS

The IA makes the following recommendations for Tranche 2, based on the Tranche 1 experience:

1. RFP Document

The IA recommends the following three general changes to the RFP:

- a. Add definitions of the Step 1 ranking classifications; “Primary Competitive Tier,” “Competitive Tier Reserve,” and “Release List” in Section F on Proposal security (possibly in Section F on Proposal security).
- b. Change the definition of the Proposal security calculation to match the term “Generating Capacity MW AC” supplied in the Proposal Forms.
- c. Change some of the “non-economic criteria” in Appendix F to pass / fail when appropriate, such as Credit Worthiness to remove risk to Duke through the posting of Proposal security.

2. Proposal Form

The IA has the following recommendations to the Proposal Form:

- a. Agree within Duke on a standard term to represent the output capacity for the term “Generating Capacity” to avoid confusion. Having all the terms such as Generating Capacity MW AC, Total DC Capacity [MW], Contract Capacity [MW], Installed Inverter Capacity [MW], and Max Design Capacity MW AC may be unnecessary.
- b. If the term “Insta DC Rating [kWpDC]” is needed in future Proposal Forms, change the unit from kW to MW.
- c. Remove “Decrement” from the calculated prices since the price that the bidder will be paid is not a decrement to the bidder.
- d. Explicitly list the Proposal security calculation on the Proposal Form.
- e. Investigate why multiple bidders had trouble selecting the correct drop-down box for Technology.

- f. Investigate using a standard format for all queue numbers.

3. Evaluation Process

The IA offers the following recommendations to the Evaluation Process:

- a. Update guidance for MPs regarding area of transmission congestion.
- b. Duke T&D Account Managers should be included in T&D Evaluation team and included in the Proposal analysis process, and thereby will have access to the ranking knowledge earlier in the review process.
- c. The IA should maintain a central ledger showing Step 2 activity and status of each proposal review. This would be shared among all T&D Evaluation team members and would be updated on a regular basis.
- d. Create a better way of understanding construction timing; a standard approach to documenting the likely time constraints would be helpful. A table such as Figure 2 should be inserted in each standard cost analysis document.

Figure 2

<u>COD Risk Due to Transmission?</u>	<u>Earliest Feasible COD</u>
Moderate	To meet a COD of 1/7/2021, this Proposal would need to provide notice to proceed by 01/1/2020. A typical interconnection study process is approximately 1 year. Only after the study process can notice to proceed be issued. Additionally, this Proposal requires coordination with SCEG which could impact the feasibility of COD.

III. INDEPENDENT ADMINISTRATOR

A. ABOUT THE IA

With an average of more than thirty-five years of in-depth experience in electric, gas, water, and renewable utilities, Accion Group’s diverse consortium of consultants provides insightful, candid, and practical advice to the utility industry and their associated government regulatory bodies. Headquartered in Concord, New Hampshire and consulting affiliates nationwide, Accion’s specialties range from competitive procurement and utility management to construction monitoring and nuclear decommissioning.

Since its incorporation in 2001, Accion has been routinely involved in high-profile consulting engagements, thus securing a reputation as one of the premier firms providing independent review of utility procurement practices. Accion has served as Independent Administrator, Independent Evaluator, Independent Monitor, or Independent Observer to state commissions on competitive solicitations in major markets including California, Hawaii, Georgia, Colorado, Montana, Oregon, Florida, the Carolinas, and Arizona. Accion Group has also assisted utilities in the preparation for, and the conduct of, power supply solicitations in Maryland, Massachusetts, and Nevada. Having reviewed Proposals for generation

by renewable sources (including wind, solar, bio-mass, wave action, storage, low-head hydroelectric, geothermal, and methane capture), distributed generation with storage, and the construction of as well as facilities using nuclear power, natural gas, and coal fuels, our consultants are well-versed in the subtleties of utility procurement practices. Accion Group's ultimate goal as IA is the same as the purchasing utility and state regulators: ensuring the solicitation obtains the best deal possible for ratepayers, given current market and regulatory conditions in terms of both price and non-price factors.

B. THE IA'S ROLE IN THE RFP

As IA, Accion conducted Tranche 1 on a website custom made for the purpose. The IA designed and implemented the evaluation of CPRE Tranche 1 Proposals in order to determine those Proposals which offered the greatest value to the ratepayers and recommend those Proposals for contracting with the Companies. The North Carolina Utilities Commission ("NCUC" or "Commission") required the IA perform the following tasks:¹⁰

- (i) Monitor compliance with CPRE Program requirements.
- (ii) Review and comment on draft CPRE Program filings, plans, and other documents.
- (iii) Facilitate and monitor permissible communications between the electric public utilities' Evaluation Team and other participants in the CPRE RFP solicitations.
- (iv) Develop and publish the CPRE Program Methodology that shall ensure equitable review between an electric public utility's DEP/DEC Proposal(s) as addressed in subsection (f)(2)(iv) and proposals offered by third-party market participants.
- (v) Receive and transmit proposals.
- (vi) Independently evaluate the proposals.
- (vii) Monitor post-proposal negotiations between the electric public utilities' Evaluation Team(s) and participants who submitted winning proposals.
- (viii) Evaluate the electric public utility's DEP/DEC Proposals.
- (ix) Provide an independent certification to the Commission in the CPRE Compliance Report that all electric public utility and third-party proposals were evaluated under the published CPRE Program methodology and that all proposals were treated equitably through the CPRE RFP Solicitation(s).

This report addresses how Accion completed each task and the results of CPRE Tranche 1.

IV. WEBSITE

Accion Group provided the RFP Website ("Website") for CPRE Tranche 1 to operate as a secure platform for the solicitation process including bidding, evaluation, and contracting. Below is an overview of each major feature that was enabled for users within the Duke Tranche 1 CPRE program.

¹⁰ NCUC Docket No. E-100, Sub 150; Rule R8-71(d)(5)

A. SCHEDULE

The "Schedule" page displayed the solicitation schedule. Registered users received an email if new events in the schedule were posted or if the schedule was updated.

B. ANNOUNCEMENTS

The "Announcements" page displayed public announcements regarding the solicitation. When posted, registered users received the announcements via email.

C. REGISTRATION

The IA utilized a login registration on the website for purposes of privacy and security. Interested parties were required to register on the website prior to filling out a Proposal form or gaining access to pages such as documents and Q&A.

D. USER PROFILE

Allowed users to update their contact information, and turn on or off email notifications when new documents, announcements, or scheduled events occurred.

E. TUTORIAL

The IA crafted tutorials in both written and video formats to guide individuals in the use of the website. When an individual registered on the website, an email was sent to them with the written tutorial attached. Both tutorials were posted on the "Tutorials" page on the website and could be accessed prior to registration.

F. DOCUMENTS

The "Documents" page displayed all public documents related to Tranche 1. When new documents were posted, registered users received a notification via email. The Documents page was made available after registration.

G. Q&A

The "Q&A" page was a forum for registered users to ask non-project specific questions. All questions were anonymous and could be viewed by all registered users. Each question was posted once the IA submitted a response. Users who asked questions received a notification via email when the IA responded to their question. Following the close of the Proposal submission period, the Q&A page was disabled for further questions, though the prior questions and answers remained viewable.

H. MESSAGES

Prior to the Proposal submission date, the "Message" page was used only for questions or comments which disclosed confidential project-specific information, and therefore could not be asked via the Q&A forum. This feature was available after registering as a Market Participant ("MP"). After the Proposal period closed, all communications with MPs who submitted Proposals was conducted via a "Finalist Messages" page. This page was used by Duke Evaluation Team members, the IA, and MPs. As with the pre-bid Message Board, these exchanges were preserved for future review.

I. PROPOSAL MANAGEMENT

The “Proposal Management” page acted as the homepage for all activities relating to an individual MP’s Proposals. From this page, MPs could complete Proposals and redirect to a Proposal’s bid form, designate contacts associated with each Proposal (who received emails when Proposal related activity occurred), upload required bid form documents, create, clone, or delete a Proposal, and redirect to the “Proposal Books” page, which contained all files and documented history relating to individual Proposals.

V. OVERVIEW OF TRANCHE 1 CPRE PROPOSAL PROCESS

The CPRE Tranche 1 solicitation was broken into three divisions: Duke Energy Carolinas, Duke Energy Progress, and Asset Acquisition. This division was reflected on the Website where each solicitation had its own site, or “Silo,” within the Website. The separate Silos were used so that all data associated with the particular solicitation was self-contained, instead of being co-mingled with unrelated data. The data on each Silo was preserved for future review. The three Silos had identical structures and varied insofar as to accommodate minor differences in the solicitations. The Duke Energy RFP solicitation Website was released on April 6, 2018.

To register on a Silo, interested users were asked to read and agree to the terms and conditions put forth by the Independent Administrator, complete a “reCAPTCHA check,” that is “I am not a robot,” for website security, and complete the standard registration information, including a primary and secondary contact. Further, each individual had the option of registering as a Market Participant, or Non-Market Participant (“Non-MP”). Once registered, each individual received an automatic email notification acknowledging successful registration to the Silo along with a temporary username and password, which could be changed after login.

General information regarding the solicitation was made public upon the release of the Website. Certain features were made available to non-registrants, including the solicitation schedule, any announcements made thus far, public documents, viewership to Q&A, and website tutorials in both written and video formats. All other public information was available to registered users on the Silos; this included the Q&A forum, the Messages forum, and, following release of the Proposal form, the Proposal Management page. The Duke Companies Proposal Team required expanded Website access, and the IA selectively changed their registrant title to “DE Admin,” which gave access to additional features on their respective Silo.

The Website was designed to be the medium for all CPRE related activities. As stated previously, embedded in the Website were three Silos, each representing a unique CPRE Tranche I process. Each Silo automatically saved all user activity tagged with the user information and a time and date stamp. Additionally, the IA strictly encouraged all participants to use the Website for all CPRE activities, thereby ensuring a complete record of the solicitation process.

Beginning on May 11, 2018, draft RPPA and RFP documents were available to registered users for the purpose of the commenting period. All registered users had access to these documents. Registered users were invited to provide comments on a special “Comments” page. Interested persons, and

Figure 3: Standard Proposal Book File System

especially MPs, were invited to review the draft documents and offer suggestions that would enable them to offer robust Proposals. In effect, interested parties were invited to help draft the RFP documents. The Comments page separated each RFP document into individual sections with the opportunity to provide explicit changes by “red-line” revisions, accompanied by a brief explanation of the intended result. While the approach has been very successful in other jurisdiction, the response in Tranche 1 provided few red-lined changes and the comments were along the line of “this section should be changed”, without specific textural suggestions. The IA is hopeful there will be a more engaged response in Tranche 2.

On July 10, 2018, the Proposal form was released on the Website to all MPs. An announcement was made on each Silo, and an automatic email notification was sent informing the MPs of the release. When an MP created a Proposal, a corresponding Proposal Book folder was automatically generated within the MP’s Proposal Books. A standard Proposal Book folder is shown in Figure 3, depicting subfolders containing uploads from the Proposal Form (Proposal Support Docs; Other Eligibility

Documentation), Proposal submission and messaging history (Proposal History), and documents uploaded post submission period (Cure Documents).

The MPs were given nearly three months to complete the Proposal form on their respective Silo. During that time, the IA monitored the Website daily to ensure the functionality of the Website and to monitor and respond to all general and project specific questions. The IA achieved this by updating the schedule when appropriate, posting announcements, updating the FAQ’s page, and responding to posts on the Q&A page and the Message Board in a timely manner.

VI. PRE-PROPOSAL SUBMISSION ACTIVITIES

A. REGISTRATION

On April 6, 2018, Accion Group, opened registration on the Website. The Website contained three Silos: Duke Energy Carolinas, Duke Energy Progress, and Asset Acquisition. Once the Website was made public, interested parties had the ability to register on any Silo as Non-Market Participants or Market Participants. Registration on the Website remained open throughout the Tranche 1 CPRE process.

Registration was made straightforward and secure. The Registration page was accessed via the homepage of the Website through a tab on the menu bar titled “Register.” Upon clicking the tab, users were introduced to the Terms and Conditions put forth by the IA, which they were then required to read and agree with to proceed. Users were then directed to a security page where the Website utilized *reCAPTCHA* technology to authenticate registrants.

Users were then transferred to the Registration Page, pictured in Figure 4. Registration was a crucial first step in the online solicitation for documentation purposes. Once registered, all user activity on the Website was automatically saved with an individual’s identifying data. This provided a complete history of all CPRE related activities which could be tied to individual users.

Figure 4: Registration Page on the Website

As highlighted on the top of the Registration Page, users were required to Register as either an Applicant or Non-Aplicant, which is synonymous with Market Participant and Non-Market Participant. Non-MPs had restricted use on the Website compared to MPs. This allowed Non-MPs to have necessary access to understand the progression and process of the CPRE program without participating as a Market Participant. Likewise, MPs had all necessary tools to fully participate in Tranche 1 on the Website. Figure 5 identifies Website access granted to Non-MPs and MPs.

Figure 5: Access to the Website for Non-MP’s and MPs. Check marks signify access.

	Non-MPs	MPs
Schedule	✓	✓
Announcements	✓	✓
Documents	✓	✓
Viewership to Q&A	✓	✓
Q&A		✓
User Profile	✓	✓
Tutorial	✓	✓
FAQ	✓	✓
Proposal Management		✓

Registration was available throughout the Tranche 1 process; however, Figure 6 represents the number of users registered to the Website as of the Proposal Submission deadline on October 9, 2018. Within the DEC Silo, 167 MPs registered from 147 different companies. Within the DEP Silo, 82 MPs registered from 72 different companies. A list of states and territories represented on the Website is shown in Figure 7.

The IA is satisfied with the dissemination of information about this RFP. Throughout the submission process, the Website received 364 MP and Non-MP registrants from thirty-four (34) jurisdictions, including the District of Columbia, and two Canadian provinces. These figures confirm that there was significant engagement from a wide range of companies.

Figure 6

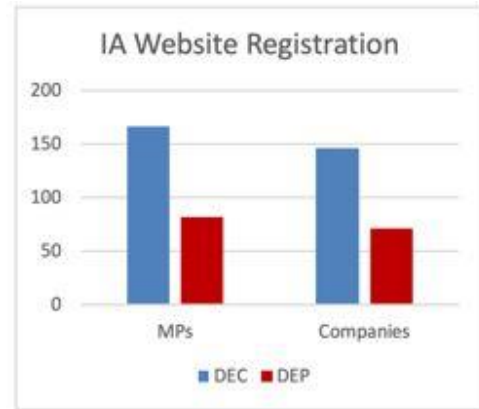


Figure 7: Registration statistics on the Website from April 6, 2018 to October 9, 2018

State / Territory	Registered Users
Alabama	5
Arizona	5
California	44
Colorado	6
Connecticut	2
District of Columbia	6
Florida	30
Georgia	21
Hawaii	1
Idaho	2
Illinois	13
Indiana	3
Maryland	6
Massachusetts	1
Minnesota	3
Mississippi	1
Missouri	2
Nevada	1
New Hampshire	3
New Jersey	5
New Mexico	1
New York	10
North Carolina	128
Ohio	2
Ontario CA	5
Oregon	1
Pennsylvania	3
Quebec CA	1
South Carolina	18
Tennessee	4
Texas	19
Vermont	1
Virginia	7
Washington	4
Total:	364

B. IA GUIDANCE AND COMMUNICATION

1. Tutorial and Documents Pages

The IA maintained daily oversight of the Website and provided all means of Website and CPRE guidance. Within the Tutorial page, registrants could access a seven-page written tutorial overviewing the Website navigation, its features, and how to properly complete a Proposal form, as well as a six-minute video walkthrough highlighting the same. The IA also utilized the Documents page to post helpful information regarding the CPRE process, including the RFP and RPPA, Grid Locational Guidance, and Late Stage information. Before the Proposal submission deadline on October 9, 2018, the IA uploaded more than 60 documents.

2. Q&A and Messages

For any questions or concerns, MPs contacted the IA via the Q&A or Messages pages. The IA created these pages to ensure that reasonable and efficient communications could be completed and documented on the Website. If the IA received phone calls or emails from MPs, the inquirer was immediately directed to continue the correspondence via the Website.

The Q&A page and the Message Board were created for distinct purposes. The Q&A page was open from the release of the Website on April 6, 2018, and closed at the end of the Submission period, on October 9, 2018. Questions on the Q&A page were non-project specific, and could therefore be useful to many Tranche 1 participants. Questions were visible to all users after the IA submitted their response. For all other questions during this time, MPs were directed to the Message Board. The intended uses of the Q&A page and Message Board were explicitly stated in both the written and video tutorials, and were displayed on their respective pages. After October 9, 2018, the Q&A page was disabled and all communication between the IA and MPs occurred on the Message Board. All posts on the Q&A page remained visible to registered users for the entirety of the Tranche 1 process.

On the DEC Silo, 34 MPs asked a total of 172 questions on the Q&A page between April 6, 2018 and October 9, 2018. 14 MPs asked one question, and one MP asked 31 questions. In DEP during the same period, seven MPs asked a total of 22 questions on the Q&A page. Figures 8 and 9 below show the percent of total Q&A posts shown by individual MPs on the DEC and DEP Silos.

Figure 8

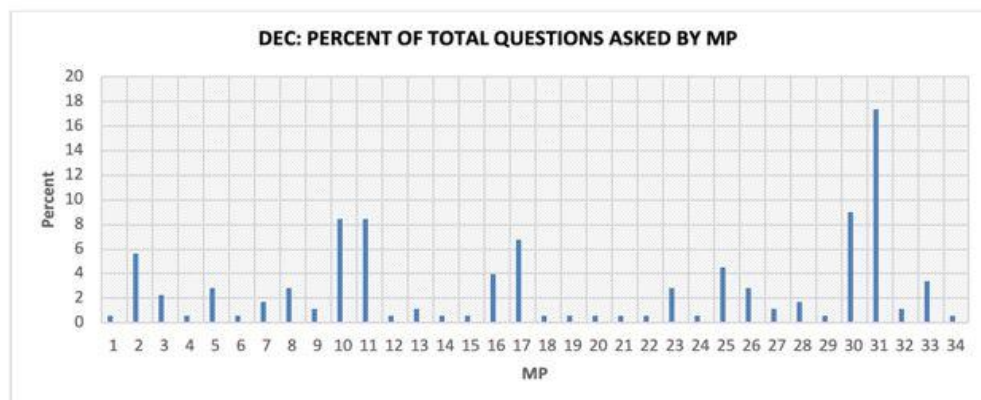
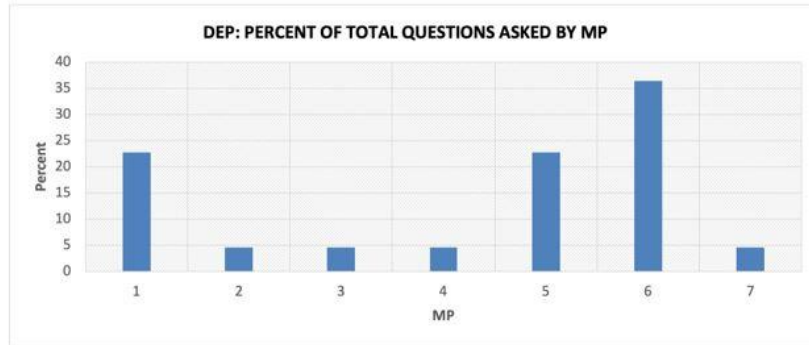


Figure 9



C. BIDDER WEBINARS/CONFERENCES

A Pre-Bid Conference (“Webinar” or “Conference”) was held on May 17, 2018 for which participants were invited to register and participate in the Webinar by going to the RFP Website, logging onto the first Silo (DEC) and selecting the “Pre-Bid Webinar” tab on the menu bar.

The following announcement was posted on the RFP Website on May 8, 2019 announcing the Pre-Bid Conference:

*From: decpre@acciongroup.com
To: [Website Registrant]*

*Subject: Duke Energy Carolinas - Announcement Posting
Please do not reply to this auto-generated email.*

An announcement has been posted on the Duke Energy Carolinas website. Information about the announcement follows:

*Reference #: 3
Date Posted: 5/8/2018 1:37:33 PM*

Announcement:

The Independent Administrator and Duke will present the CPRE RFP webinar for interested persons on Thursday, May 17, 2018, beginning at 8:30 am (Eastern). To register for the webinar, visit the RFP website <https://decprerfp2018.accionpower.com>, and log onto the first silo – Duke Energy Carolinas CPRE RFP – 600 MW and select the “Bidder Webinar” on the menu bar.

If you would no longer like to receive these announcement notifications, click the link below.

*[Unsubscribe](https://decprerfp2018.accionpower.com)
<https://decprerfp2018.accionpower.com>*

Figure 10

States Represented	Attendees
Arizona	1
California	10
Colorado	2
District of Columbia	1
Florida	9
Georgia	2
Illinois	5
Indiana	1
Minnesota	2
Nevada	1
New Jersey	1
New York	1
North Carolina	44
Ohio	1
South Carolina	5
Tennessee	7
Texas	5
Virginia	2
Washington	1
Total	101

Upon successful registration on the RFP Website for the Webinar, registrants received confirmation of their registration and notification that Webinar call-in details would be emailed to everyone who registered within 24 hours before the Webinar.

One hundred twenty-five (125) individuals registered to attend the Pre-bid Webinar representing 60 Companies from 19 states.

A detailed breakdown showing states represented is displayed in Figure 10.

Of the total registrants, 21 were from Duke Energy, four were from the IA Team and one Staff member registered. One hundred one (101) individuals of the 125 registrants actually signed in to participate in the Webinar. Figure 11 shows the breakdown of individuals who registered to attend the Pre-Bid Webinar.

While registrants were encouraged to pre-register for the Webinar, and reminders were sent to encourage registration, no individual was ultimately denied access to participate in the Webinar. The Webinar Access information was also posted on the Announcement page prior to the start time to accommodate those who had not

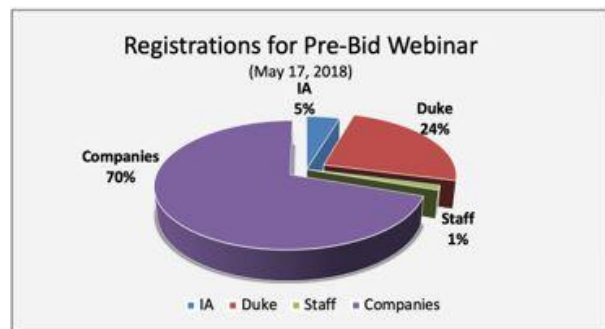
registered but wished to participate. Twenty (20) individuals registered after the Webinar had commenced.

The presentation slides created for the Webinar were posted on the RFP Website prior to the Webinar on May 16, 2017, for the benefit of all registrants and potential MPs, and additionally a recording of the entire program was posted on the Website following its completion, in order to provide all information for those unable to participate in the Webinar.

During the Webinar Duke and the IA provided background of the solicitation and an overview of the RFP process. The Webinar provided the participants with information on the following topics:

- Registration on the RFP Website
- Overview and Background
- HB 589 “Competitive Energy Solutions Law” for North Carolina
- CPRE Overview
- Information about the IA and the IA’s role
- Communications protocols

Figure 11



- Standards of Conduct/Expectation of MPs
- Tranche 1 Capacity and Schedule
- Proposal Requirements/Types accepted
- Evaluation Process
- Interconnection
- Pro Forma and Storage
- Asset Acquisition Proposals
- RFP Website and Video Tutorials

Finally, the participants were given an opportunity to ask questions. The Webinar produced thirty-nine (39) questions, which were answered by Duke Personnel or the IA. All responses from Duke were reviewed by the IA. The questions and written responses were posted on the CPRE Tranche 1 RFP Website on May 30, 2018. Participants were advised that the written responses should be used when preparing Proposals, as the oral response at the Pre-Bid Webinar may have been incomplete.

VII. PROPOSAL SUBMISSION

A. SUBMISSION PROCESS

On July 10, 2018, the Proposal Management page, which served as the homepage for all Proposals, was released to registered MPs. Upon its release, an announcement was made on the Website, and was also sent via email to all registered participants.¹¹

The Proposal Management page allowed MPs to manage their Proposals from start to finish. Features of this page included the ability, to start, edit, clone, submit, or delete Proposals. They could also manage uploaded documents, change notification settings, and generally monitor the status of their Proposals. These features were explained in detail in both the written and video tutorials.

The Proposal submission deadline was on October 9, 2018, giving MPs nearly three months from the release of the Proposal form to submit a Proposal. The IA estimated that it took a minimum of one to three hours to complete the Proposal form if all document uploads were previously assembled. The IA therefore stressed to MPs the importance of starting Proposals well in advance of the submission deadline. Announcements were posted on August 6, 2018, and September 28, 2018 notifying MPs of this guidance.

¹¹ Users received email notifications of announcements automatically, however this setting could be turned off in their User Profile. Users who turned off email notifications did not receive notification of the release of the Proposal Management page.

Figure 12: Announcement from the IA reminding MPs to allow at least 3 hours to complete Proposal form

9/28/2018 9:11:23 AM As a reminder, the DUKE CPRE proposals are due on Tuesday, October 9, 2018, at noon EPT. The Market Participants (“MPs”) **should allow at least 3 hours** to complete the proposal form, **after** assembly of required documents for upload as well as all required information. A copy of the proposal form is provided on the document page as a worksheet to assist in assembling proposal information. MPs are reminded that all proposal must be priced below avoided cost. The MP is to enter one value on the proposal form and the website will automatically calculate and present the price for each period. MPs are encouraged to complete and submit their proposal form on time if they intend to participate in the Duke CPRE RFP process because late proposals will not be accepted. Please CLICK on the submit button once you complete the proposal form.

(Ref.# 18)

The electronic submission process provided MPs with several features which aimed to streamline the bidding process. First, all uploaded documents were automatically saved and organized into a Proposal folder system. Second, if an MP submitted an incomplete Proposal, a PDF version of the Proposal form appeared as currently completed with all incomplete fields highlighted in red. Finally, MPs could clone a Proposal at any time. Cloned Proposals created a new Proposal with identical information from the original; this feature allowed MPs who wished to submit similar, but not identical Proposals an the ability to duplicate relevant data with a single click.

B. PROPOSAL SUBMISSION REQUIREMENTS

1. Avoided Cost Thresholds

The CPRE program solicited resources that were priced below administratively-established avoided costs. The RFP provided avoided cost rates for three pricing periods: Summer, Non-Summer, and Off Peak, to which all Proposals must have bid at or below. The following are the charts of pricing periods taken from the RFP.

Figure 13

Transmission Connected Projects				
<u>Avoided costs (\$/MWh)</u>	<u>DEC</u>		<u>DEP</u>	
	<u>Summer</u>	<u>Non-Summer</u>	<u>Summer</u>	<u>Non-Summer</u>
<u>Capacity + Energy On Peak</u>	\$58.00	\$74.90	\$57.40	\$78.20
<u>Energy Off Peak</u>	\$36.40		\$35.70	

Figure 14

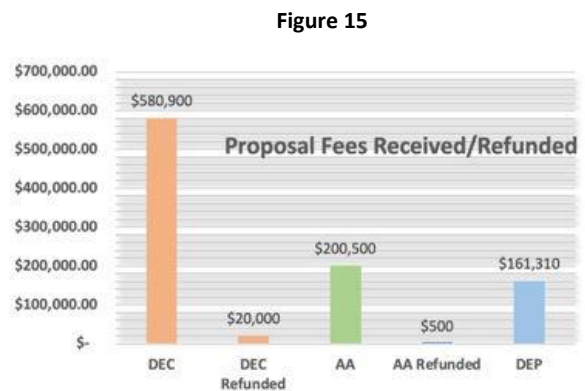
Distribution Connected Projects				
<u>Avoided costs (\$/MWh)</u>	<u>DEC</u>		<u>DEP</u>	
	<u>Summer</u>	<u>Non-Summer</u>	<u>Summer</u>	<u>Non-Summer</u>
<u>Capacity + Energy On Peak</u>	\$59.40	\$76.70	\$58.50	\$79.70
<u>Energy Off Peak</u>	\$37.20		\$36.20	

2. Proposals Fees

Each MP in this RFP was required to pay a non-refundable “Proposal Fee” with each Proposal submitted based on the facility’s nameplate capacity. For PPA Proposals, a minimum fee of five hundred dollars (\$500) per MW with a maximum of ten thousand dollars (\$10,000) was due at the time each Proposal was submitted. For Asset Acquisition Proposals, a non-refundable minimum Proposal Fee of ten thousand dollars (\$10,000) was due for BOT and Joint Venture Proposals.

Proposal Fees were automatically calculated using the nameplate capacity entered on each Proposal Form, and instructions for electronic payment were provided both on the Proposal Form, and additionally on the RFP Website documents page. Failure to submit the Proposal Fee resulted in automatic disqualification of the Proposal from further consideration.

The IA received and reconciled all Proposal Fees with corresponding Proposals and confirmed that all fees were paid and received no later than 12:00 PM EDT (Noon) on the Proposal due date, as directed by the RFP Documents. The total amount of Proposal Fees received was \$922,710. Figure 15 shows the breakdown of fees received for DEC, DEP and AA Proposals submitted, including all refunded Proposal Fees. During the reconciliation process, the IA reached out via the Message Board to one DEC MP who failed to complete and submit two Proposals but paid both Proposal Fees, and one AA MP who overpaid their Proposal fee. Upon confirmation from both MPs the IA refunded the \$20,000 Proposal Fees for the unsubmitted Proposals and the \$500 overpayment.



Fees were not refunded in the case of any modification of the RFP schedule, rejection of any Proposal, or failure by a winning MP to execute a PPA.

C. PROPOSAL SUBMISSION STATISTICS

1. Submission

Most MPs submitted more than a single Proposal. In DEC, 10 of the 18 bidding MPs submitted more than one Proposal. In DEP, three MPs submitted only one Proposal while seven of 10 bidding MPs submitted more than one Proposal. Eight MPs submitted only one Proposal in DEC, while one MP submitted 15. The average number of Proposals submitted by an MP was three in DEC and two in DEP.

Figure 16

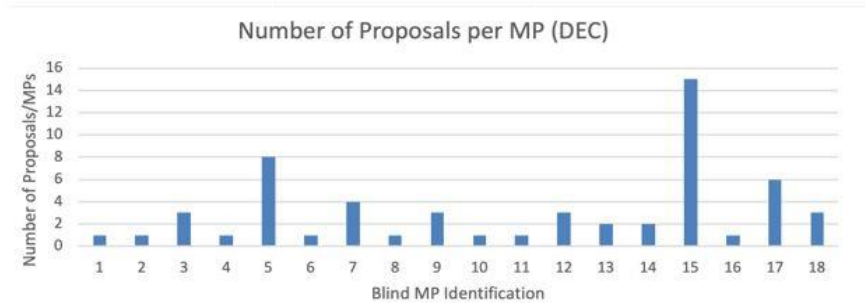
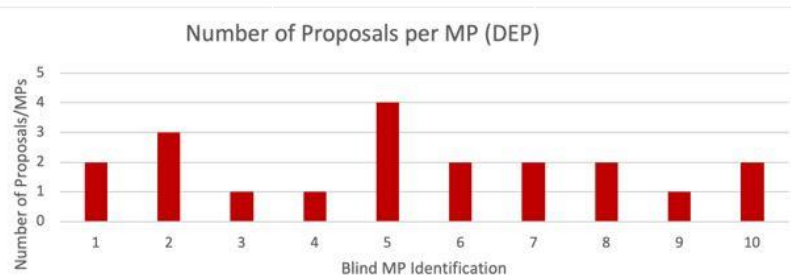
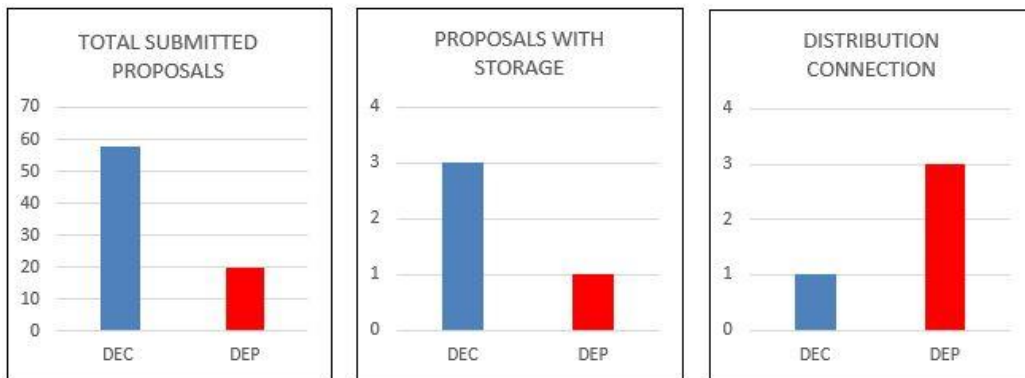


Figure 17



Both DEC and DEP had a robust number of Proposal submissions; DEC received 58 Proposals and DEP received 20. All Proposals were for solar photovoltaic generation. Three Proposals were submitted with energy storage systems integrated with PV systems in DEC, while one Proposal did the same in DEP. One Proposal would interconnect to the distribution system in DEC, and three would do the same in DEP; the remaining Proposals on each Silo required transmission system interconnection.

Figures 18, 19, 20

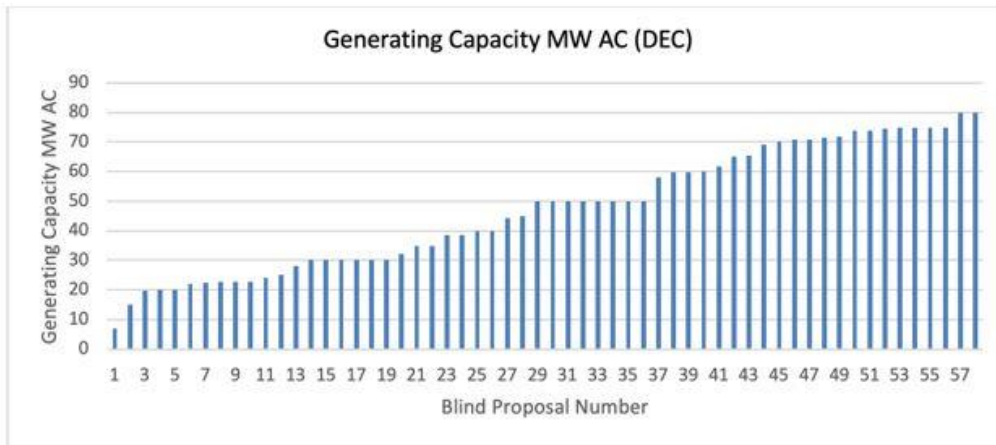


2. Generating Capacity

Duke Energies Carolina (DEC)

DEC received more than four times the targeted 600 MW for CPRE Tranche 1. Proposals were submitted with between seven and 80 MW of generating capacity, and totaled 2732.72 MW. The average Proposal was submitted with 47.16 MW of generating capacity.

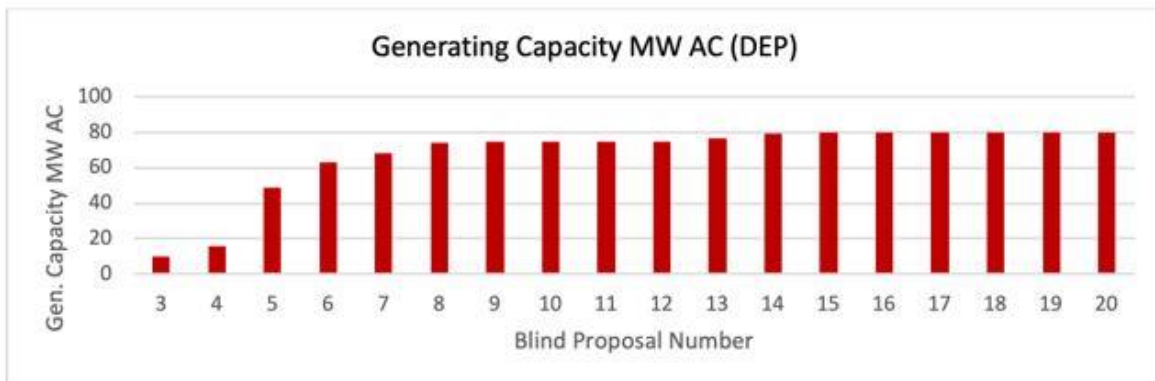
Figure 21



Duke Energies Progress (DEP)

DEP received more than 15 times the targeted 80 MW for CPRE Tranche 1. Proposals were submitted between 7.02 and 80 MW of generating capacity, and totaled 1,231.15 MW. The average Proposal was submitted with 61.55 MW of generating capacity.

Figure 22



3. Transmission and Distribution

A goal of CPRE was to have “shovel ready” projects move forward by using available transmission and distribution resources.¹² MPs were required to identify the Point of Interconnection (POI) to which their project would connect, as well as whether the MP desired distribution level or transmission level service. All projects 20 MW and larger were required to have interconnection at transmission level. Projects sized smaller than 10 MW were required to have connection at distribution level. Projects sized 10 MW to 19 MW could interconnect at transmission level, but to maximize use of existing capacity for were assigned to the distribution system. A significantly higher number of MPs proposed to interconnect at the transmission level than to the distribution. In DEC, 57 Proposals sought transmission interconnection while only one sought distribution interconnection. In DEP, 17 Proposals sought transmission interconnection while only three sought distribution interconnections.

Figure 23

TRANSMISSION VS. DISTRIBUTION (DEC)

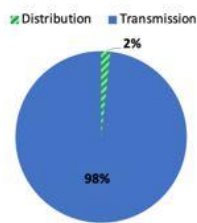
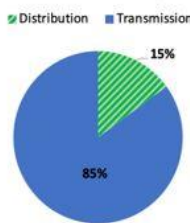


Figure 24

TRANSMISSION VS. DISTRIBUTION (DEP)



4. Submission by State

Pursuant to the CPRE requirements, all proposed facilities for DEC and DEP were required to be located in the respective DEC or DEP service territories. There were a total of 33 DEC Proposals totaling 1415.91 MWs and a total of 9 DEP Proposals totaling 617.3 MWs in North Carolina. In South Carolina, there were a total of 25 Proposals totaling 1316.81 MWs in DEC, and a total of 11 Proposals totaling 613.89 MWs in DEP. The IA believes Tranche 1 received a balanced load of Proposals between North Carolina and South Carolina.

Figure 25

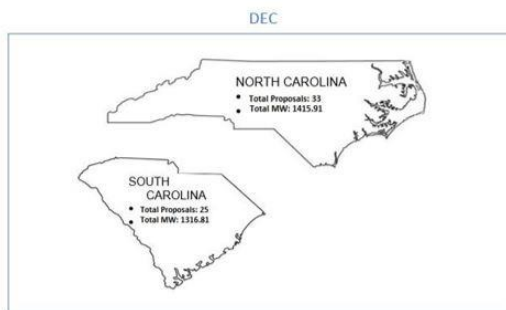
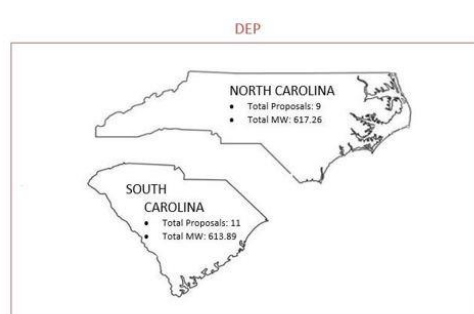


Figure 26



¹² In furtherance of this goal, in Tranche 1 projects that had completed interconnection studies and committed to pay the cost of interconnection were recognized as “Late Stage” Proposals and were excluded from the cluster study process. Thus, the Late Stage projects were recognized as being “shovel ready” and given priority during the Step 2 evaluation process.

VIII. EVALUATION MODEL

A. OVERVIEW

Each Proposal was evaluated using the MP's pricing information (with three price tiers of decrement), the facility's MW AC generating capacity, and the MP's hourly production profile over 20 years ("Loadshape") information. For proposals that included storage, the facility storage parameters (nominal output, storage duration, and charging rate), and production profiles with and without storage were included in the evaluation.

The IA created a custom evaluation model based on prior experience and the needs of the CPRE program ("Evaluation Model") which utilized the bid input parameters to calculate each Proposal's benefit ("Net Benefit") to the Company system over the twenty-year PPA term. A Proposal's Net Benefit is the sum of the facility's net energy benefit and the facility's capacity benefit, less the costs of system upgrades required to interconnect the facility.

$$\text{Net Benefit (\$/MWh)} = \text{Net Energy Benefit (\$/MWh)} + \text{Capacity benefit (\$/MWh)} - \text{T\&D (\$/MWh)}$$

In Step 1, the proposals were ranked based on the net energy and capacity benefits, excluding T&D system upgrade costs. In the Step 2 process, the T&D system upgrade costs for projects were calculated in an iterative process starting with the most attractive proposals and then imputed to the Proposal in the final ranking of Proposals.

B. REQUIRED INPUT DATA

1. Loadshape 8760

For each Proposal, the MP was required to supply a 20-year 8760 Loadshape that best represented the long-term output of the facility. The 8760 Loadshape was subject to review by the Independent Administrator to ascertain that the data within the Loadshape does not exceed the capability of the proposed facility.

A Proposal that included storage was required to submit a pre-storage Loadshape as well as the post-storage Loadshape. The pre-storage Loadshape represented the facility generation with the storage capability turned off. The post storage Loadshape represented the MP's best effort to utilize the facility with its storage capability to maximize facility value (but remain within the practical limits of the energy storage capability). The pre-storage Loadshape was compared to the post-storage Loadshape to evaluate whether the MP exceeded the limits of his Proposal's storage capability in submitting the post-storage Loadshape. The evaluation of a Proposal that included storage was based upon the post-storage 8760 20-year Loadshape data.

A Proposal that did not include storage was required to submit the single 20-year 8760 Loadshape which was used in the evaluation of the facility.

2. Facility Pricing

The CPRE program required that each Proposal was priced as a decrement (i.e., below) the levelized 20-year avoided cost identified in the RFP. This decrement was a single \$/MWh amount that applied to each avoided cost pricing period. Once a single decrement amount was entered, the Website

automatically converted the decrement into a price that would be below avoided costs for each of Duke's avoided cost price periods. The Proposal form prevented the entry of pricing above Duke's avoided costs. The Website Proposal form presented the calculated prices for each pricing period so the MP could confirm the pricing Proposal was as desired. As noted above, after the Proposal submission period closed, the IA provided each MP with a summary of their respective Proposal(s) and received a confirmation from each MP that the pricing was as intended.

The Avoided Cost rate was a three-tier rate which covers:

- a. Summer Peak – the non-weekend and non-holiday hours between 1:00 PM and 9:00 PM during the months of June through September.
- b. Non-Summer Peak – the non-weekend and non-holiday hours between 6:00 AM and 1:00 PM during the months of October through May.
- c. Off-Peak – all weekend and holiday hours as well as weekday/non-holiday hours that fell outside of the 8 hour "Summer Peak" band during the months June through September and those weekday/non-holiday hours that fell outside of the 7 hour "Non-Summer Peak" band during the months October through May.

MP pricing was submitted as a decrement to the appropriate forecasted Avoided Cost rate which differed for transmission/distribution connection as well as balancing area (DEC or DEP). The minimum acceptable decrement was zero, which replicated the forecasted Avoided Cost rate.

There was a range of price decrements submitted. The median price decrement for Proposals submitted in both DEC and DEP was 6.73 \$/MWh.

3. Other Required Inputs

- a. In addition, evaluation of each facility included the following data:
- b. Inverter Capability
- c. Interconnection (Distribution or transmission) Voltage
- d. Storage Capability (if applicable) in MW nominal output
- e. Storage Capacity (if applicable) in Hours duration at the nominal output
- f. Maximum Storage charging rate in MW (if applicable)

The inverter capability represented the maximum output from a project as submitted on each 8760. The interconnection voltage was included in the modeling to determine the energy that could flow from the facility.

C. EVALUATION MODEL PROCESSING

The first iteration of the evaluation model calculated for each proposal the capacity benefit, the energy benefit, and the Proposal cost on a year-by-year basis by using the MP's pricing information for the three price tiers, the inverter capability, the basic storage parameters (nominal output, storage duration, and charging rate) if storage is included, and the MP's Loadshape information. During the second

iteration of the evaluation model, the after-curtailment, and, if appropriate, the after-storage benefit was calculated. Finally, the Proposal was evaluated on its twenty-year net present value of benefit per MWh which was used by the IA for ranking Proposals.

The evaluation model processing routine included these key elements:

1. Pricing: Assign Periods and Generate 20 year \$/MWh

Each hour within the single 8760-hour year was assigned to one of the three pricing tiers (see “Facility Pricing” above) and an energy price was also assigned. This was repeated for all years until each hour of the twenty years of Loadshape data was assigned an energy price. Adjustments were made as required for holidays and weekends, daylight savings time shift, and leap year calendar effects.

2. Capacity Benefit Calculation

The facility’s capacity benefit is the cost savings associated with the proposed facility’s ability to defer future generating capacity on the Duke system. Each year of the production profile (8760) input data was compared against a Loss of Load Expectation (“LOLE”) matrix that measured a facility’s ability to generate electricity during periods of critical need for the grid. The facility’s resulting capacity benefit was estimated by comparison to the Duke system (DEC or DEP) avoided cost. The benefit was estimated by using the system’s avoided capacity cost (on a \$/MW basis projected from the future cost of utility constructed supply side peaking generation) and allocated to that facility.

3. Net Energy Benefit Calculation (Energy Benefit less Proposal Cost)

The Net Energy Benefit was calculated as energy savings to Duke Energy resulting from the operation of the proposed facility. The energy savings for a facility was the difference between the Duke Energy marginal energy cost and the proposed facility’s energy cost (as established by the MP’s submitted pricing). This analysis was run on an 8760 hour per year basis for twenty years. In any hour that the facility generates energy, the energy savings for each hour would be the facility output multiplied by the difference between the Duke marginal energy price and the facility energy price. This was conducted in an iterative process to incorporate the impacts of curtailment and storage (if included).

IX. EVALUATION

A. OVERVIEW OF EVALUATION PROCESS

The IA strictly followed the evaluation protocol set forth in the Tranche 1 RFP and in NCUC Rule R8-71(f)(3). Further, all appropriate evaluation process information was communicated to MPs in a timely manner. The IA composed a flow chart depicting the entire process, which was then discussed with the Companies and shared on the Website for the MPs on September 19, 2018. Further, the Announcements, Messages, and Schedule pages were monitored daily to reflect the current Tranche 1 plan, or to remind MPs of an upcoming evaluation deadline.

The major components of the evaluation process are described in depth below. The process was designed to evaluate each Proposal individually while maximizing efficiency and fairness. The IA believes this process succeeded in this goal, and all refinement suggestions for Tranche 2 remain minor.

B. PRICE SCORING SHEETS

In accordance with the Appendix F of the RFP, the Price Scoring Sheet (“Scoring Sheet”) was used to when reviewing each Proposal. The Scoring Sheets allocated weighted scores to each evaluation category, and category scores were summed to reach a Proposal’s overall evaluation score. This method confirmed that each Proposal was evaluated using the same criteria. An example of a Scoring Sheet is attached as Appendix A.

C. EVALUATION TEAMS

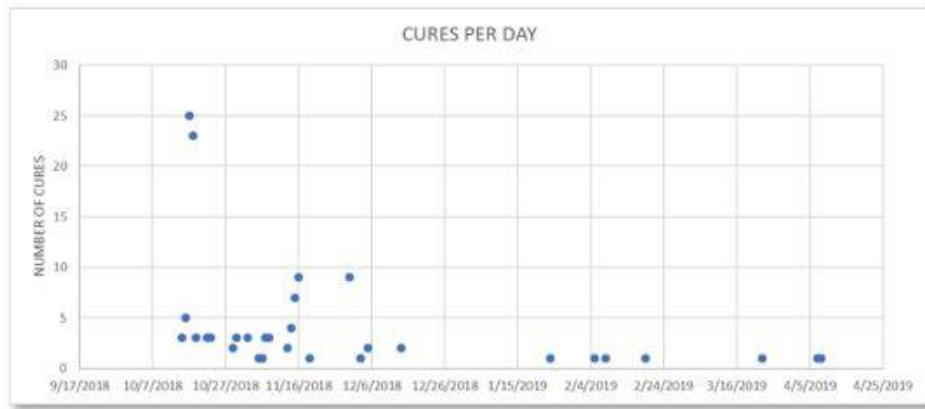
The IA created five subject matter evaluation teams: Modeling (“Modeling”), Financial (“Financial”), Legal (“Legal”), Transmission & Distribution (“T&D”), and Engineering/Project Sufficiency (“PST”). Each team contained subject matter experts and focused their work on their respective portions of the Proposal evaluation. Each of the teams used their designated sections of the Scoring Sheet as the basis of their evaluation. The Modeling Team designed and created the Evaluation Model and worked to determine the “Price Score” defined on the Scoring Sheet. The Financial Team determined the “Credit Worthiness” score for each Proposal by evaluating the MP’s financial assurances and credit requirements. The Legal Team focused on three areas: determining that the MP could complete permitting to meet COD, determining that the Proposal had project site control for full term, and determining that the Proposal had site control to the POI for full term. The PST determined scores for four categories: experience of the project team, equipment to be used, required control equipment, and quality of project design. Finally, the T&D Team worked to assist the Modeling Team in determining the Price Score of each Proposal by conducting the T&D analysis of system upgrade costs as described below in Section XI.

D. CURE PROCESS

After Proposals were submitted, it was necessary to fix any inaccuracies made by MPs, and to gather any further materials requested by the IA’s evaluation team. This process (“Cure Process”), cures occurred at the beginning stages of Step 1. In a few instances, the IA sought information from MPs when Proposals were moved from the reserve list and to the competitive tier, after the start of Step 2. The number of cures per day is shown in Figure 27. Together there were 125 cures in DEC and DEP throughout the evaluation process, with an average of 1.5 cures per Proposal.¹³ The Cure Process confirmed the data inputted on the Proposal Forms to be correct and ready for evaluation. It is worth noting that the initial identification of deficiencies with Proposals, immediately after their receipt, obviated the need to delay evaluation later during the iterative process of elevating Proposals from the Reserve List to the Competitive Tier.

¹³ Includes all cures/clarifications directly related to the characteristics of the proposal. This does not include cures for other aspects of the evaluation process, such as Proposal security Forms.

Figure 27: Number of cures per day over the evaluation process



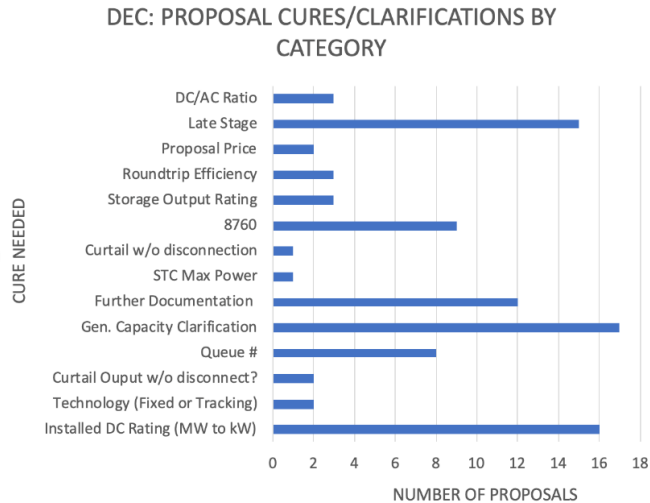
The Cure Process immediately followed Proposal submission on October 9, 2018, with each Evaluation team performing an overview analysis of the data pertaining to their expertise. If any questions were raised or clarifications required, an MP was notified via the Message Board and was given an appropriate amount of time to respond. In total, 48 of the original 58 DEC Proposals and 14 of the original 20 DEP Proposals submitted cures at some point during evaluation.

Most of the cures were identified and accomplished using the Confirm Bid Data Memorandum (“Confirm Bid Data Memo”, or “Memo”) created by the IA. On October 16, 2018, the IA sent a Memo to the MP of each Proposal with the following information:

- Technology
- Generating Capacity MW AC
- Installed DC Rating [kWpDC]
- Is Storage Included?
- Storage Size (MW)
- Storage Output Rating (MW)
- Price Decrement
- Summer Decrement
- Non-Summer Decrement
- Off-Peak Decrement
- Forecasted COD
- Curtail Output Without Disconnecting?
- Offering to Reduce MW size for Same MWh?
- MW Reduction Amount up to 10%
- Late Stage Proposal?

These Memos resulted in MPs identifying 31 DEC Proposals and 13 DEP Proposals that required cures. MPs were required to respond to the Memo with either confirmation of correct data or identification of inaccurate data. If an MP did not respond, the IA interpreted all data to be correct and evaluated as such. Following the Memo correspondence, alterations of data in these categories was prohibited.

Figure 28



1. DEC

In total, 102 cures/clarifications were made in DEC. 94 of the 102 cures were made during the Step 1 evaluation. The most requested cure by the Evaluation Team was the Generating Capacity of the facility. This is likely linked to confusion on the Proposal Form regarding the difference between inverter capacity and generating capacity as it applies to overall generation, and will be clarified for Tranche 2. Further, many Proposals used “MW” units when the Proposal Form indicated “kW.” All cure categories and frequencies are depicted in Figure 28.

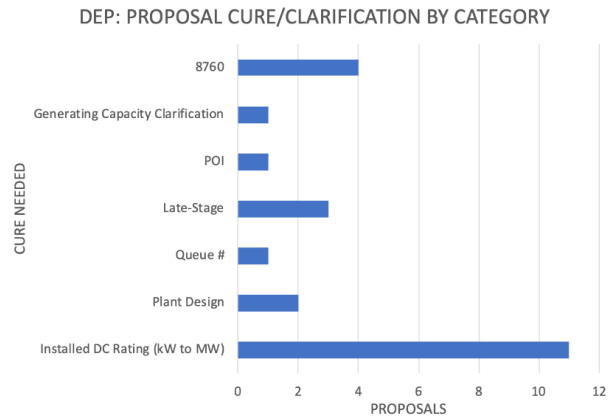
Most Proposals were submitted with no need for major adjustments. 62% of Proposals required no cures (10) or had only one cure (26). Three Proposals, all from the same MP, required eight cures.

2. DEP

In DEP, 23 cures were made. The Step 1 evaluation accounted for 22 of these cures. The most requested cure by the evaluation team was to change the units of the Installed DC Rating from MW to kW as requested on the Proposal Form. All cure categories and frequencies are depicted in Figure 29.

Most DEP Proposals were submitted with no need for major adjustments. 57% of Proposals required no cures (6) or had only one cure (7). Two Proposals required three cures.

Figure 29



X. STEP 1 EVALUATION PROCESS

A. OUTLINE OF PROCESS

The goal of the Step 1 evaluation was to categorize Proposals into three Tiers: The Primary Competitive Tier, the Competitive Tier Reserve, and the release list, ranked in order from most attractive to least attractive for ratepayers prior to the Step 2 T&D evaluation. The Tiers were constructed based upon two metrics: The Net Benefit (\$/MWh) of each Proposal calculated by the Evaluation Model, and the cumulative generating capacity MW AC.

The Tier structure was created by the IA for the benefit of the MPs. In the Step 1 evaluation, Proposals were sorted based on the overall benefit to ratepayers prior to the Step 2 T&D evaluation of

system upgrade costs. This allowed only Proposals with the highest likelihood of being selected as a winner being included in the Primary Competitive Tier and therefore required to post Proposal security. The Competitive Tier Reserve included Proposals with a lower likelihood of being selected for a PPA. A Proposal on the Reserve Tier remained in the CPRE program, but was not required to provide Proposal security until notified that the Proposal was eligible for evaluation in Step 2. Proposals in the Competitive Tier Reserve were moved into the Primary Competitive Tier when other Proposals dropped out due to declining to provide Proposal security, or were found to be above Avoided Cost during the iterative Step 2 evaluation, necessitating adding additional MWs to the Step 2 evaluation in order to meet the Tranche 1 goals.

The composition of each Tier at the end of Step 1 (“Initial Tier Ranking”) was completed on December 6, 2018. On that date, a memo was uploaded to each Proposal’s Cure Folder with the Proposal’s initial status. Further, the IA published the “CPRE Tranche 1 Initial Status Report” for public viewership on the IA Website on December 7, 2018.

The final phase of the Step 1 evaluation required all Primary Competitive Tier Proposals to provide Proposal security. If an MP declined, their Proposal was released from CPRE. This allowed the IA to filter out uncommitted Proposals outright before having to undertake a time-consuming T&D evaluation in Step 2. Once an MP provided an acceptable form of Proposal security, the IA notified the T&D Team to begin evaluation of the Proposal, thus beginning the Step 2 evaluation of the Proposal.

B. INITIAL TIER RANKING

1. Primary Competitive Tier

The Primary Competitive Tier was composed of Proposals with the highest Net Benefit (\$/MWh) as determined by the Evaluation Model before considering T&D system upgrade costs. The IA’s goal was for the Primary Competitive Tier to contain two times the MW goal in each Silo, thus allowing for the elimination of some Proposals while still meeting the intended MW goal. This also allowed the IA to continue evaluation of Proposals beyond the original goals without a delay as new Proposals were asked to post security. Each Proposal received a memo regarding its Initial Tier Ranking status at the end of Step 1. In line with the RFP standards, MPs were given seven business days following notification of Primary Competitive Tier status to provide Proposal security in the amount of \$20/kW.

CPRE is a multi-year procurement program, with the goals of Tranche 1 designed to begin the competitive procurement process. Tranche 1 had a goal of 600 MW for DEC and 80 MW for DEP. The DEC Initial Primary Competitive Tier contained 24 Proposals totaling 1270.22 MW. All Proposals selected for the Competitive Tier were bid in with a price decrement at least 8.9 below avoided cost, and with an average price decrement 12.36 below avoided cost. Following the Evaluation Model calculation, the estimated Net Benefit of Proposals was at least \$6.48/MWh, and averaged \$9.94/MWh. All Proposals selected were highly competitive and provided significant value to ratepayers.

The DEP Initial Primary Competitive Tier contained eight Proposals totaling 469.52 MW. The MW goal for DEP was 80 MW, thus the 469.52 MWs selected far exceeded the two-times MW goal. As stated above, this target goal was created to ensure that enough MPs would supply Proposal security and maintain their initial value to begin the Step 2 T&D evaluation. Because the DEP MW goal was smaller

than that of DEC (80 MW vs. 600 MW), individual Proposals in DEP represented a larger fraction of the MW targeted goal than those in DEC. In fact, several Proposals in DEP were bid with a generating capacity equal to the MW goal. For this reason, the IA chose to include Proposals representing a greater MW total than in DEC in the Initial Tier Ranking for DEP.

All DEP Proposals selected in the Initial Tier Ranking were bid in a price decrement at least 7.1 below avoided cost, and with an average price decrement 14.01 below avoided cost. Following the Evaluation Model calculation, the estimate Net Benefit of Proposals was at least 5.58 \$/MWh and averaged 10.35 \$/MWh. All Proposals selected were highly competitive and would potentially provide value to ratepayers.

Figure 30

Primary Competitive Tier Proposals			
	Total MWs	Average Price Decrement below Avoided Cost	Average Net Benefit
DEC	1270.22	12.36	9.94 \$/MWh
DEP	469.52	14.01	10.35 \$/MWh

2. Competitive Tier Reserve

The Competitive Tier Reserve contained the next best Proposals in the Net Benefit (\$/MWh) ranking determined by the Evaluation Model, and equaled one times the MW goal for each Silo. Proposals selected for this Tier were considered competitive Proposals with the potential to be selected as Finalists, however the MPs were not required to post Proposal security at the time of the Initial Tier Ranking. This Tier was created by the IA specifically to benefit MPs by limiting the financial burden associated with Proposals less competitive than the best-ranked Proposals, but still considered viable for future consideration.

The DEC Competitive Tier Reserve contained 10 Proposals totaling 543.84 MW, which complied with the one-times the MW goal standard for Tier size. All Proposals selected had a price decrement that was at least 6.38 below avoided cost, and had, on average, a price decrement 7.04 below avoided cost. Following the Evaluation Model calculation, the estimated Net Benefit for Proposals was at least 4.0 \$/MWh, and on average 4.91 \$/MWh. These Proposals were still highly competitive, and would potentially provide value to ratepayers.

The DEP Competitive Tier Reserve contained eight Proposals totaling 612 MW. The IA selected more than the MW size goal for this Tier for the same reasons it over-selected in the Primary Competitive Tier. All Proposals selected had a price decrement at least 4.67 below avoided cost, and on average had a price decrement 5.93 below avoided cost. Following the Evaluation Model calculation, the estimated Net Benefit for Proposals was at least 0.94 \$/MWh and averaged 2.2 \$/MWh. All of the Proposals remained below the avoided cost threshold.

Figure 31

Competitive Tier Reserve Proposals			
	Total MWs	Average Price Decrement Below Avoided Cost	Average Net Benefit
DEC	543.84	7.04	4.91 \$/MWh
DEP	612	5.93	2.2 \$/MWh

3. Release List

The release list contained the least competitive Proposals. MPs with Proposals selected to the release list had the option to keep their project in CPRE by being included on the Reserve Tier. The table below depicts the response of MPs with Proposals when notified that their Proposal was identified for release, but could be on the Reserve Tier.

Figure 32

Silo	Release List Proposals	Proposals Moved to Reserve from Release
DEC	23	23
DEP	3	2

C. PROPOSAL SECURITY

1. Overview

Proposal security was required from all third-party MP Proposals. As per the RFP, Proposal security equaled \$20/kW, based on the facility’s inverter nameplate capacity. Proposal security was required within seven business days of MP’s notification of a Proposal’s selection for the Primary Competitive Tier. The Proposal security was accepted as cash, a Surety Bond, or a Letter of Credit (“LOC”). The IA provided acceptable Surety Bond and LOC forms on the IA Website as part of the RFP.

Third-party MPs had the option to withdraw their Proposal by not posting Proposal security. If an MP did not post Proposal security within the seven-business day window, the IA confirmed via the confidential Message Board that the MP intended to withdraw the Proposal from consideration. This discouraged the withdrawal of Proposals during the final contracting stages of Tranche 1 and encouraged only “shovel ready” projects to seek Step 2 review. This procedure was consistent with the design of CPRE so Tranche 1 ended with the identification of finalists by the IA, and all other Proposals would be released so the unsuccessful MPs would have their Proposal security released to be available for other projects. Additionally, the use of Proposal security greatly increased the likelihood of PPAs being executed, in contrast to what has occurred in other jurisdictions when developers are permitted to withdraw at the 11th hour.

As projects were eliminated or withdrawn from the Primary Competitive Tier, the IA proceeded to move additional Proposals into the Primary Competitive Tier; these selections were made based on the Initial Tier Ranking. When a Proposal was selected to advance to the Primary Competitive Tier, the IA notified the Proposal MP via the confidential Message Board and advised the MP of the seven-business day deadline for Proposal security (sometimes referred to as “bid security”). The following is an example of a message sent in this instance on the Website:

Proposal [X] has been moved from the reserve list to the primary competitive tier. In order to proceed, the MP must now provide the bid security for this project, as identified in the RFP. Please use the "upload documents" feature on the message board to provide the security bond or another acceptable form of security.

The MP should use the message board to advise the IA if the security will be in the form of cash and IA will provide instructions. To facilitate timely evaluation of the proposal the security should be received without delay, preferable by COB on February 7, 2019. Pursuant to the terms of the RFP, the security must be provided no later than February 12, 2019.

All Proposal security forms were uploaded by MPs to the Cure Documents folder within the Proposal Books on the IA Website. Upon submission, the IA confirmed the validity of the file and sent the relevant documents to the Duke Legal Team for review. If the Duke Legal Team declared the form to be insufficient, the IA allowed the MP to make the appropriate revisions. Below is a message by the IA to an MP in such a case:

Duke personnel has reviewed the security form for this proposal and found two deficiencies. Please revise the document in two business days, by end of COB, Friday, February 15, 2019, and post the document using the "upload documents" button on the message board of the RFP website.

The deficiencies are: 1. surety bond effective date is in brackets. 2. Date of CPRE in first recital is shown as May 11, which is incorrect.

Needed cures: 1. remove brackets around the effective date on the first page. 2. Change the issuance date (on the bottom of the first page) from May 11, 2018, to July 10, 2018.

Once a Proposal's security was accepted by the Duke Legal Team, the Proposal was moved from Step 1 evaluation to Step 2 T&D review.

2. DEC

Within the DEC Initial Primary Competitive Tier, 60% of third-party Proposals declined to provide Proposal security. This resulted in only 15 Proposals totaling 833 MW left in the Initial Primary Competitive Tier for Step 2 T&D evaluation. The IA then advanced more projects into the Primary Competitive Tier. Using the Initial Tier ranking, the T&D Team completed preliminary evaluations of all Competitive Tier Reserve and Release List Proposals to determine the viability of each project before requesting Proposal security and moving them to Step 2 T&D evaluation. A Proposal was eliminated if: it did not have a queue number, it did not have a viable interconnection, or it was in a pre-identified constrained area and had a distribution factor above 3%. Seven Proposals were eliminated during this part of the evaluation process. Additionally, three Proposals identified as duplicates of higher-ranked projects and were removed from consideration.

In total, 22 of the 33 Proposals from the Competitive Tier Reserve or release lists were moved into the Primary Competitive Tier. Of those Proposals, four were submitted by Duke's Affiliated or DEP/DEC team and were sent to the T&D Evaluation team for Step 2 evaluation. The remaining 18 Proposals were required to provide Proposal security before advancing; 12 declined. The six Proposals which provided Proposal security were sent to the T&D Evaluation team for Step 2 evaluation. In total, 47 of the 57 DEC Proposals in the Initial Tier Ranking were moved to the Primary Competitive Tier at a point in time in the evaluation process. Of those 47 Proposals, 33 were third-party Proposals and were required to provide

Proposal security; 21 declined. Ultimately, a total of 26 Proposals were sent to the T&D Evaluation team for Step 2 evaluation.

3. DEP

The DEP Initial Primary Competitive Tier included eight Proposals, of which six were required to post Proposal security and one declined. The remaining seven Proposals totaled 394.62 MW, just under five times the DEP MW goal. The IA considered this to be a sufficiently robust set of Proposals and therefore did not move any further Proposals into the Primary Competitive Tier prior to the completion of Step 2.

XI. STEP 2 EVALUATION PROCESS - T&D OVERVIEW

The goal of the Step 2 evaluation process was to calculate the final Net Benefit (\$/MWh) of each Primary Competitive Tier Proposal. The main burden of this step was on the T&D Team to assign an estimated upgrade cost to each qualifying proposal. The purpose of this section is to document the steps taken by the IA and the Duke T&D Evaluation team to complete the system upgrade cost analysis for each Proposal.¹⁴ This work was completed at the end of May 2019. This discussion is presented as a chronology of events, from those actions taken prior to Proposal submission. From this process the IA developed recommendations for the T&D evaluators to be employed in Tranche 2.

A. ACTIVITY PRIOR TO PROPOSAL SUBMISSION

1. Portfolio Study Example

MPs expressed interest in learning more about the methodology the IA planned to use to complete the portfolio analysis. Such analysis was critical as multiple Proposals competed for the same network resources, thus necessitating allocation of line capacity between competing Proposals.

The IA prepared an example of its approach to portfolio analysis, based on previous engagements. This example was specific to the Duke CPRE process. In early September 2018, this example was reviewed with the Commission Public Staff and with Duke personnel. This review resulted in several modifications that better adapted the analysis for this project. The portfolio study example was finalized on September 19, 2018, and posted on the IA website Document page.

Separate Competitive Tiers were established for DEC and DEP by the IA and shared with the T&D Team to begin the Step 2 analysis. The Step 2 process included an analysis of potential electrical interdependency of these Proposals was performed. It was apparent from a review of the Points of Interconnection (“POI”) specified by the MPs that several of the Proposals in the Competitive Tier were electrically interdependent. The potential system impact of interdependencies were identified as the system upgrade costs for each Proposal were determined. The maps below show the geographic location

¹⁴ The Duke T&D Evaluation team members all completed the separation protocol training and executed a confirming affidavit. No member of the T&D Evaluation team had involvement with the development of any Proposal from the Duke Companies Proposal Team or any affiliate of DEC or DEP that submitted a Proposal.

of the selected projects, and there was no electrical interdependency among the final Proposals, thus, sharing of network upgrade costs between Proposals was not needed.

2. Transmission Guidance Provided to Bidders

The T&D Team created a locational guidance document for MPs to better understand the available transmission capability and assist them in selecting viable points of interconnection. This guidance is included as Appendix B and was part of a webinar presented on May 10, 2018. A copy of the materials was available on the Document Page of the IA Website.

Notwithstanding the locational guidance, several MPs proposed non-late stage facilities in areas that were identified as constrained. The IA will not speculate on why an MP would participate in CPRE knowing their project was in a constrained area and therefore would have transmission upgrade costs assigned. Figure 33 below is a map of all DEC Proposals and the pre-identified constrained areas. Figure 34 shows all winning Proposals in DEC. Note that all winning Proposals were outside of the constrained areas. One successful DEP Proposal will interconnect at transmission level service and is shown in Figure 35. This was a late stage project.

Figure 33

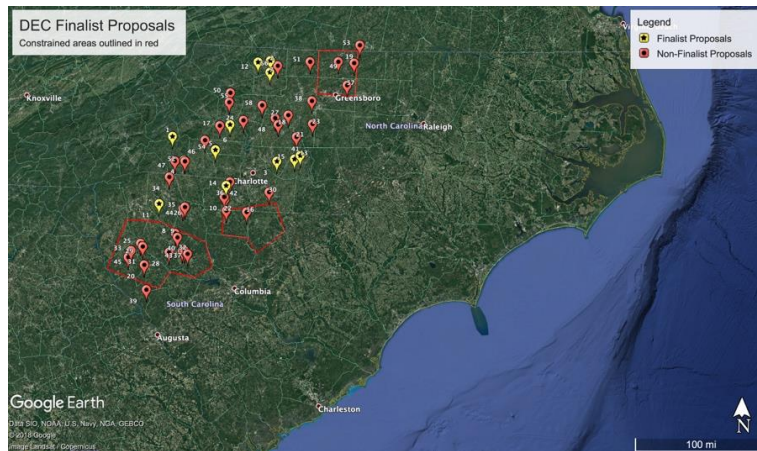
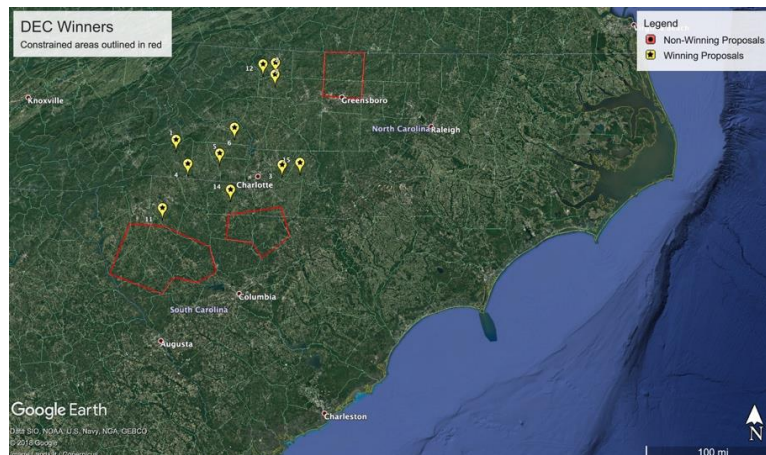


Figure 34



3. Distribution Guidance Provided to Bidders

MPs were advised that projects smaller than 20 MW would be evaluated as requiring distribution level service. Locational guidance was provided for projects that could interconnect at distribution level via materials posted on the IA Website or linked from the Website, as well as during the May 10, 2018 webinar. Specifically, a document entitled “Method of Service Guidelines” was identified by Duke and a link to the materials was included on the IA Website.

One of the two DEP winners is a 7.02 MW project that will interconnect at distribution level. The maps shown in Figure 35 and 36 show this project’s location in a constrained area. The project was in the final Competitive Tier because it is well priced and a “late stage” project, meaning the MP accepted responsibility for system upgrade costs in the Proposal and only minor additional costs were imputed to the Proposal.

Figure 35

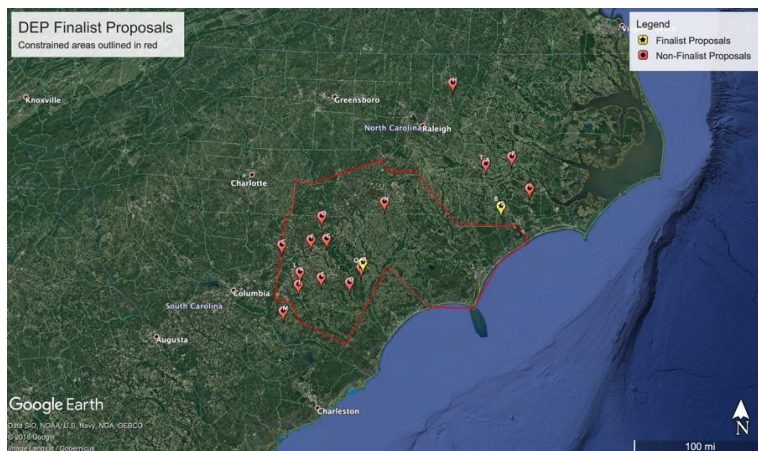
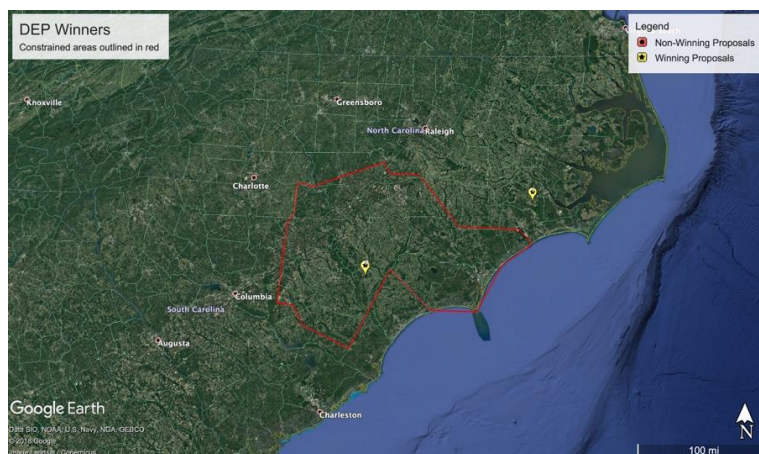


Figure 36



B. FLOW CHART OF STEP 2

In response to a request from the Commission Public Staff, the IA produced a flow chart showing the iterative approach to this cost determination was formulated. This flow chart was provided on the IA Website on September 19, 2018, and is included as Appendix C.

The flow chart was shared and discussed during face to face meetings with the subject matter experts on the T&D Team. As the team name suggests, Duke personnel with subject matter expertise in the areas of either transmission or distribution were assigned to the team. During the Step 2 evaluations, Proposals were separated depending on whether the associated projects would interconnect at either transmission or distribution levels and were reviewed by personnel experienced in the respective areas. The flow chart was followed throughout the actual analysis of Proposals to ensure that all Proposals were evaluated using the same process and standards.

C. ANALYSIS REPORT FORMAT

As part of the practice of treating each Proposal in a fair and equitable manner, a standard document was used to record and present the analysis results for each Proposal. A draft standard document was presented to both T&D Teams for consideration and modification. A mock Proposal was selected, and the Distribution team completed an example analysis to test the applicability of using this standard format. This example was shared with the T&D Team which adopted a similar approach.

D. COMMUNICATION DOCUMENTATION

After the Proposal submission period closed on October 9, 2018, a "T&D EVAL" folder and confidential Message Board was opened on the DEC Silo of the IA Website for data sharing with the members of the T&D Evaluation team. This platform ensured that the exchange of files, and the file contents, had a time and date stamp, and that all Proposal data was shared securely. All members of the team shared access to these files, and this process continued until the ranking of the Competitive Tier became final.

At the same time CPRE Proposals were being evaluated, the day to day operation of Duke transmission continued. Some Duke Account Managers had dual responsibilities in addressing non-CPRE requests for transmission service and being on the T&D Evaluation team. To avoid even the appearance of CPRE ranking information being released, the IA Website provided restricted access to separate folders, thereby isolating evaluation information access on a "need to know basis." This approach prevented Duke Account Managers from viewing ranking information of Proposals, while the T&D Evaluation team, via a confidential file system, received the information needed to complete evaluations. These files are preserved on the IA Website for future review and confirmation.

Beginning on October 9, 2018, all voice or email messages between the IA evaluation team members and the T&D team were documented in a communication log with daily postings to the confidential evaluation files on the IA Website. Communication records were organized by week and posted to the "T&D Communication Log" folder on the Evaluation page of the IA Website.

All direct communication from members of the T&D Evaluation team to MPs concerning CPRE topics was prohibited. Instead, T&D Team members were instructed to provide questions to the IA, who in turn posted them on the confidential Message Board of the Website. This ensured complete documentation of all exchanges. There were no observed instances of MPs inappropriately approaching T&D Evaluation team members.

E. LATE STAGE PROJECTS

Late Stage projects were recognized in Tranche 1 as a special class of Proposals. To qualify for late stage status, a project was required to have an executed state jurisdictional Facility Study agreement as of the date of Proposal submission. A project that obtained Late Stage status retained its original queue position and original network upgrade costs, if any, even if it was not selected as a winning project. Late Stage status was an advantage for a project with little to no network upgrade costs identified in their existing System Impact Study. For a project already assigned significant network upgrade costs, foregoing Late Stage status allowed for sharing of costs in the CPRE pooling process. The advantage to Late Stage status was that a project retained its original queue position, even if it was not selected as a winning project.

Considerable discussions and interactions by the IA and Account Managers, Duke attorneys, and T&D Team members was necessary to make determinations as to Late Stage eligibility. Numerous questions and confirmations required MP's responses on the Message Board because of confusion about some projects. This process started in mid-October and was not completed until mid-December.

F. INTERCONNECTION VERIFICATION AND VALIDATION

The process of verifying and validating the information submitted by the MPs proved to be arduous due to confusion about queue identification numbering, whether projects were FERC-jurisdictional, and the precise POI of projects. The IA managed the confirmation process with assistance from Account Managers, T&D Team members, Duke attorneys, and the MPs. Because the identity and location of projects proposed into the CPRE program was to remain unknown to most Duke personnel, including those on the Duke Evaluation Team, information from Proposals was only provided when there was uncertainty about a Proposal, and then only to the Duke personnel with subject-matter expertise to assist the IA so the required separation protocols were maintained. Proposal verification started shortly after the close of bidding in October 2018, and continued into mid-January 2019. Those issues needing verification and validation are discussed below.

1. Facility Study Agreement Status

There were several instances where the facility study agreement for a project was executed by the developer, but the final acceptance was not executed by Duke. In other instances, the study was not complete, though the MP contended that it was. Each of these instances had to be resolved before a Proposal was included in the Step 2 evaluations.

2. Project Size

The CPRE maximum Proposal size for transmission connection was 80 MW; the distribution connection maximum was 20 MW. Project size was established in the interconnection request and could not be expanded, but could be reduced up to 10 percent. Confusion concerning project size was largely a result of lack of specificity on the Proposal form. Instead of using a uniform term, such as “Project Size,” the Proposal form required “capacity” size in different contexts. In cases where the Proposal form intended for MPs to submit project size, some bidders submitted nameplate MW, inverter capacity, or output MW to POI, resulting in inconsistent project capacity data. The appropriate MW capacity was established by the T&D Team through interaction with the MP on the Message Board. As a result of this process, this section of the Proposal form will be revised for Tranche 2 (“Lessons Learned”).

3. Transition from FERC to State

There were several examples where MPs desired to transition their FERC projects to State jurisdiction in order to participate in CPRE. This transition involved consultation with Duke attorneys for verification. Additionally, there were instances in which proper paperwork had not been filed to accomplish this transition, or the projects did not qualify for State jurisdiction. In each instance, the MP was informed of the final determination and did not challenge the result.

4. Queue History

The online Proposal form required identification of the queue number associated with the project. There were numerous instances where the MP used a queue number that was no longer valid, used the same queue number for multiple projects, or used a queue number that was invalid. In some instances, the MP presented the queue number provided by a Duke account manager, though it was determined the queue number was invalid. Similarly, there were instances of confusion as to the appropriate queue number to be used among differing Duke options and the FERC queue numbering system. The IA and the T&D Evaluation team resolved each issue prior to the start of the Step 2 evaluations, and prepared revised protocols for assigning queue numbers so the confusion will not reoccur.

5. Ownership Transition

It is common for some developers to initiate project development and then sell their project to another MP prior to completion of the project. Ownership transfers are required to be filed with Duke. Unfortunately, the documentation of ownership transition was not always filed or recorded properly. Each instance of inaccuracy in ownership documentation was investigated by the IA and the T&D Evaluation team and proper documentation was recorded prior to the start of the Step 2 evaluations.

6. Analysis Uncertainties

The T&D Evaluation team and the Account Managers identified several Proposals where the RFP data did not align with the existing information for the project. These included two Proposals which required clarification on their ability to successfully interconnect at the POI indicated on the Proposal Form, two Proposals where the intended POI was unclear, and several Proposals where the size presented on the Proposal Form differed from what was given at other points in the submission process.

7. Concluding Proposal Cures

The initial cure process was crucial to attaining the basic Proposal data needed for the ranking process. The majority of this work was completed by mid-November 2018, which allowed the Proposal ranking process to go forward. A few cures remained that were resolved in mid-December. These remaining issues did not delay the initial ranking analysis but did modify subsequent rankings.

As the Proposal cures were being resolved, it proved a challenge that Account Managers were not privy to the Proposal ranking data. Account Managers could only respond to specific questions from the T&D Evaluation team, and were also hampered in completing their daily tasks by their lack of CPRE Proposal knowledge. Both the T&D Evaluation team and the Account Managers were disadvantaged by this lack of shared knowledge.








G. STEP 2 PROCESS

1. DEC Transmission Proposals

At the conclusion of Step 1, Proposals were selected by the IA and sent to the T&D Team to begin Step 2 analysis starting on November 22, 2018. 18 Proposals totaling approximately 800 MW were included in the initial Step 2 analysis.

For each Proposal reviewed in Step 2, only information necessary to determine system impact cost was extracted from the Proposal submissions and provided to the T&D Team, and no Proposal pricing or calculated net benefit was provided. The information provided to the T&D Team is listed in Figure 37.

Figure 37

Name	Date modified	Type	Size
 x_118-01_Facility_Description	11/21/2018 12:23 ...	Microsoft Word D...	12 KB
 x_118-01_Project_Map	11/21/2018 3:26 PM	Adobe Acrobat D...	410 KB
 x_118-01_Single_Line	11/21/2018 12:21 ...	Adobe Acrobat D...	460 KB
 x_118-01_Single_Line_Drawing	11/21/2018 12:21 ...	Adobe Acrobat D...	460 KB
 x_118-01_Site_Description	11/21/2018 12:22 ...	Adobe Acrobat D...	29 KB
 x_118-01_Site_Plan	11/21/2018 3:26 PM	Adobe Acrobat D...	492 KB
 x_118-01_Transmission_Project	11/21/2018 12:22 ...	Microsoft Word D...	22 KB

The T&D Team reviewed the contents of these files and identified issues for which additional information was needed from the MP. The T&D Team shared requests with the IA via a confidential Message Board on the IA Website and the IA, in turn, interacted with the MP to collect the information and pass it to the T&D Team. ¹⁵ This approach ensured that the T&D Team did not to have direct CPRE correspondence with the individual.

¹⁵ Some requests were made via email and were then recorded in the communication log

2. DEP Transmission Proposals

Proposals for DEP were selected and sent to the T&D Team. Eleven (11) Proposals, totaling over 700 MW, were sent on November 29, 2018 with the same data identified in Figure 37. The IA used the same process as described above for collecting clarifying information from MPs when necessary.

3. Distribution Service Analysis

The two distribution Proposals in the Competitive Tier for DEC were delivered to the T&D team on November 29, 2018 along with the Figure 37 data.

H. THRESHOLD COST ESTIMATES

A review of the location of projects confirmed there were a number in the identified constrained areas where system upgrade costs would certainly be incurred. To avoid excess analysis, the IA prepared a table with an estimated maximum upgrade cost each Proposal could bear without exceeding avoided cost. If the analysis indicated that a long transmission line upgrade or a significant substation would be needed, the system upgrade costs were estimated and compared to the threshold values previously calculated by the IA. This quickly eliminated Proposals that would be above avoided cost, thereby streamlining the transmission analysis.

Threshold values of 600, 1,200 and 1,800 megawatts were established and calculated. These threshold values were established based on the 600 MW of CPRE generation that is to be added in Tranche 1.

I. MEGAWATT REDUCTIONS AVAILABLE

On the Proposal Form, MPs were asked if they would be willing to have their project sizes reduced by up to 10% if interconnection constraints were present, without changing the associated decrement price. This size reduction would not result in a change in the dollar per megawatt hour Proposal price. 31 MPs expressed their willingness to accept such a reduction if necessary. On December 12, 2018 a list of MPs willing to accept a reduction was sent to both the DEC and DEP segments of the T&D Team to be available should the IA determine it would be appropriate to reduce one or more Proposal in order to meet the Tranche 1 goals. The Tranche 1 evaluations were completed without the need to reduce the size of any Proposal.

J. BASE CASE FORMULATION

1. Overall Base Case Discussion

The T&D Team reviewed and established the base case after receiving the listing of ranked Proposal list on November 22, 2018. The process for confirming the base case required review of all projects in serial queue, elimination of duplicate projects, and elimination of untimely projects.

2. Review all Projects in Serial Queue

Initially included in each base case were all projects with a queue position established prior to October 9, 2018. Any project that bid into CPRE was removed from this initial base case, with the exception of Late Stage projects.

3. Eliminate Duplicate Projects

Some developers held queue positions for the same project with different configurations, such as different project sizing. Where there were multiple projects identified for a single location, only one could be built. Using engineering judgment, the IA and the T&D Team eliminated projects that could not proceed. At the NCUC's May 2019 technical session the IA suggested that between 50% and 80% of the projects in the queue would not be built. The IA believed that the base case should more accurately reflect the projects likely to be built.

4. Eliminate Untimely Projects

Tranche 1 required in service date, referred to as the Commercial Operation Date ("COD") of January 1, 2021. However, the IA and the Duke Evaluation Team recognized it would be inappropriate to eliminate an attractive Proposal if it could be in service shortly after the expected COD date. Accordingly, it was established that if a project could be completed by July 1, 2021, it would be considered as reaching a timely COD. Any project deemed not able to be in-service by this date could be excluded from further consideration. The construction timeline used for this determination was the normal completion times for the system components needed. The DEC T&D Team identified the transmission upgrades required for all Proposals analyzed. These upgrades were then evaluated and a determination was made as to whether the necessary upgrades could be completed by the required date.

The realistic COD cannot often be determined until after the network upgrade equipment requirements have been established. The causal connection between upgrades needed and the time required to construct will be further discussed in more depth below.

5. DEC Base Case

The DEC base case was formulated by excluding all combined cycle plants bid before October 9, 2018 that did not have an executed Interconnection Agreement. Subsequent studies of any plants excluded from the base case were adjusted such that those generators were not responsible for the costs associated with the upgrades caused by CPRE winners with later queue dates/positions. All other queued projects that were not duplicates from the same project were included in the DEC base cases.

Four transmission planning regions existed within DEC. Due to the size of DEC's generation queue, four base cases—corresponding to the four transmission planning regions—were created. Queued generation on the seams of each region were included in the respective base cases so as not to mask potential issues. The approach of using geographical groupings (based on the existing regional planning responsibilities) to create multiple base cases allowed for a systematic approach to assessing the impact of additional generation in different areas of the system.

6. DEP Base Case

The DEP CPRE Tranche 1 Base Case included all non-bidding and late stage requests, both FERC and State, with queue dates through October 9, 2018. There was one exception; a gas-fired combined-cycle plant which had a mutually exclusive alternative. Thus, combined cycle plants Q398 and Q399 were included in the base case and Q428 was excluded.

Due to the significant amount of solar generation in DEP, impacts from additional generation span the entire DEP region. Thus, all requests in DEP were modeled in a single DEP-wide base case.

7. Distribution Base Case

The Distribution Base Case differed from the others in that each project was evaluated based upon the loading of the line to which it was connecting and the substation loading into which the line connects.

K. COST ANALYSIS COMPLETED

The analysis approach evolved over time and was not finalized until mid-January 2019. The teams and the IA were in agreement as to the components of the required analysis.

TRANSMISSION

1. Standard Analysis Results Document

The format for the analysis report was proposed by the IA, tested, and was utilized successfully by the T&D Team as a way to document the analysis results for Proposals in the Competitive Tier. The following topics are included in each bid interconnection cost analysis:

- Proposal Information
- Study Purpose
- Study Conclusions
- Interconnection Configuration for the Proposed Proposal
- System Location of Proposed Proposal
- Analysis Structure and Assumptions
- Transmission or Distribution System Delivery Impacts
- Transmission or Distribution Facilities Estimate Including Upgrade Project Description
- Estimated Cost and Construction Time of Network Improvements

Individual analysis reports were completed for each Proposal in the Competitive Tier.

2. Analysis Results for Each Proposal

The T&D Evaluation team received the Proposal ranking in late November of 2018, 7 weeks after the Proposal closing date. At this point, the analysis of the individual Proposals began. The analysis results were produced in three steps: Analysis Content, Analysis Process and Results, and Track Progress and Status for All Proposals.

3. Analysis Content

The analysis content was driven by the bid analysis document. Each section of the analysis document helped to form the basis for the necessary network upgrades for each Proposal. To help the T&D Team understand and produce the required analysis and documentation of the analysis results, the IA met with the team approximately once a week. Each meeting had predetermined discussion topics that led to individual assignments, with results covered in subsequent meetings. These meetings began in February of 2018 and continued through mid-May 2019.

4. Analysis Process and Results

a. Evaluate in Ranked Order

The process for determining costs for each Proposal started with their ranked order. Proposals that were highest ranked had the lowest Proposal costs and were studied first; each Proposal was analyzed individually.

b. Apply Distribution Factor Test

If a Proposal location was within a previously identified constrained zone, a quick test was applied to determine whether the loading of constrained lines was likely to be too high as a result of connecting said project. Bidding into a constrained area did not disqualify a Proposal from being selected.

The Distribution factor (“DFAX”) is a measure of the percentage of a facility’s output that flows on a transmission element. Three percent (3%) is a commonly accepted threshold in the industry for assessing whether generators, loads, or transfers may materially impact the flow on a line or transformer.

Proposals in pre-identified constrained areas were screened against a 3% DFAX threshold on constrained facilities. Proposals that had > 3% DFAX on one or more constrained facilities in a pre-identified constrained area were excluded from further evaluation. The basis for this exclusion was unrelated to any impact on the cost of the Proposal (cost of upgrade may be spread across multiple projects) and was solely based on the inability to address constraints by July 1, 2021. While CPRE did not prohibit submission of Proposals in constrained areas, CPRE supporting documentation (i.e. locational guidance) indicated that Proposals in these constrained areas would have an increased likelihood of being subjected to system impact upgrades based on the level of activity in the queue. Proposals that did not have > 3% DFAX on one or more constrained facilities in a pre-identified constrained area were further evaluated, however projects whose necessary upgrades could not be completed by July 1, 2021 were removed from consideration.

c. Apply Standard System Planning Models

Both thermal overload and reactive capability analyses were completed using standard System Planning guidelines and models. The results of these analyses were reported in detail in the standard document for each Proposal. Four DEP Proposals completed bid analysis documents: two for distribution projects and two for transmission projects. Twelve bid analysis documents were completed for DEC Proposals: all were transmission projects.

d. Determine Network Upgrade Equipment Requirements

The analysis indicated whether there were any electrical deficiencies following the addition of the bid project. From there, the network upgrades needed to replace the deficiencies were determined. Standard unit cost tables were prepared based upon a project's completed history. The standard costs were then applied to each Proposal using the same costs for each construction unit for each Proposal.

e. Evaluate Impact on Commercial Operating Date of Upgrade Requirements.

After the extent of the upgrade requirements was known, the time taken to complete the field construction was predicted. It was important to understand this length of time when determining whether a Proposal could be operational by the time required in the RFP. The standard Proposal cost analysis document did not adequately recognize the importance of the construction timing requirement; the evaluation team suggests changing this document for Tranche 2.

f. Complete Reactive Capability Evaluation

The check performed by Duke Energy transmission planners was to confirm the plant design provided by the developer, or to advise the MP on the MW limitation.

Note that the DEC and DEP power factor requirements were published on OASIS in their respective Facility Interconnection Requirements documents. Developers were expected to design their plants to meet these requirements. The check performed by Duke Energy transmission planners was to confirm or correct the plant design provided by the developer.

The Evaluation Team also conducted a reactive capability evaluation. The following is an example of language used in one of the reports; "The maximum allowable size for a capacitor bank associated with a facility was 3.3 Mega-Volt Amperes Reactive ("MVAR"), which allowed the MP to compensate only for plant losses. With or without a 3.3 MVAR capacitor bank installed and in service, the requested MW output met the reactive" capability requirements set forth in DEC's FCR document, and the reactive power range was between 8.9 MVAR lagging and 5.6 MVAR leading.

g. Track Progress and Status for All Proposals

During the Proposal cost evaluation process, it was necessary to track status and progress for each individual Proposal. Individual records were maintained for DEC and for DEP. For all evaluation participants to have equal access to the same data, these files were maintained centrally and made available to authorized individuals on a regular basis.

DISTRIBUTION

As discussed below, there were three distribution Proposals that were bid into DEP: 67-01, 67-02, and 83-04. There was one such Proposal in DEC: 118-04. The process for considering distribution Proposals differs from the method that was used for transmission Proposals and will be covered separately below.

1. Analysis of Distribution Content

The distribution Proposals were restricted to a maximum of 20 MW and were required to connect at a distribution voltage. Because of their smaller size, distribution projects fit into more locations on the electric system. Thus, these projects were evaluated on the impact that they would make on a single circuit or on a single substation. Once the Proposal location was known, the analysis of electrical impact could begin. Distribution Proposals were also evaluated for their power flow impact on the transmission system. The same report document outline used for transmission was also used for distribution, but the smaller sizes of the distribution Proposals led to differences in analysis content and emphasis.

2. Distribution Analysis Process

The Distribution evaluation team had only four Proposals to evaluate. Coupled with the smaller amount of required analysis, this resulted in a significantly smaller workload. To assist in providing guidance for the Distribution team, the IA participated in team meetings approximately every other week. Discussion topics were prepared by the IA, which led to specific assignments and follow up items.

The overall analysis process, despite its smaller scope, was quite similar to that followed by the T&D Team. For example, the distribution analysis process was driven by the documentation requirements of the analysis template. The Distribution team was the first to thoroughly test the viability of the analysis document format.

L. VERIFICATION OF COST ANALYSIS RESULTS

One of the IA's critical responsibilities was ensuring that all MPs were treated justly and evenly. Additionally, the analysis process needed to align with industry standards and conform to normal evaluation processes used by Duke. The verification process began once all bid evaluation results were available. In mid-April 2019, the IA sent a request for in-depth verification data to both the Transmission and Distribution analysis teams, and the subsequent verifications occurred separately.

TRANSMISSION ANALYSIS VERIFICATION

As a part of the verification process, the Evaluation teams, through the IA, made informational requests of the MPs and used their responses to develop transmission network upgrade costs specific to each individual bidder. These requests were organized to investigate three main issues: Basis for Standard Costs, Testing of Load Flow Results, and Distribution Factor Validation.

1. Basis for Standard Costs

A review of the standard cost units applied to the network upgrade costs for the individual Proposals showed that "Modify Relay and Communication Equipment" was by far the most used cost. Thus, it was selected as the unit for more in-depth analysis.

DEP transmission Proposals did not have any upgrade cost adders for the two Proposals analyzed. Therefore, the focus was on DEC for this analysis. In the 12 winning DEC Proposals, the cost for communication equipment applied to the Proposals differed as follows:

- 4 Proposals connecting at 100 kV had costs of \$225 K
- 1 Proposal connecting at 44 kV had a cost of \$192 K
- 6 Proposals connecting at 100 kV had costs of \$450 K

A request was made of the T&D Team to provide an explanation of these differences. Their response is provided below:

Only 2 of the 12 bids (83-06, 83-07) had scoped estimates since they had completed Facilities Study (and an executed IA). The other 10 bids relied on the standard cost template—for which there isn't really a "standard" cost when it comes to relay/communication modifications since those are project and station specific. The per station estimate in the standard cost template is high more often than not but does not exceed the per station estimate associated with 83-07. Furthermore, some of the bids are on radial lines and others are on network (or network capable) lines, which influences the number of stations to which project may need communication.

For the purpose of CPRE, a \$225 K estimate is indicative of communication needs to a single station, whereas a \$450 K estimate is indicative of communication needs to two stations. Any other estimates are indicative of a scoped estimate rather than an estimate based on the standard cost template.

As solar projects completed Facilities Studies, the relay/communication modification estimates likely lowered as a result of having more points of data. Nonetheless, any estimate was subject to project/station specific variance that could not be determined until detailed scoping and estimating has occurred, which did not happen until after a System Impact Study was performed. Recent Facilities Study Estimates are provided in Figure 38.

The above explanation speaks to the variability of communication costs and showed that in many cases modifications were needed at multiple stations. The table provided illustrates actual data was variable but within the range of the standard cost for the "Modify Relay and Communication Equipment Standard".

2. Testing of Load Flow Results

A second area that was identified for more intensive investigation was the load flow results for two Proposals, one Proposal (143-05) that was selected as a winning bid and one Proposal (234-02) that

Figure 38

Queue #	Estimate
NC2017-03020	\$73,569
NC2017-03020	\$73,569
NC2017-03016	\$52,728
NC2017-03016	\$52,728
NC2017-03009	\$57,380
NC2017-03009	\$72,702
NC2017-02981	\$25,742
NC2017-02981	\$25,742
NC2017-02980	\$38,924
NC2017-02980	\$38,924
NC2016-02976	\$117,450
3164	\$96,689
3164	\$126,241
3164	\$110,437
8346	\$141,620
10191	\$117,321
10191	\$100,120
10191	\$83,274
42690	\$95,508
42690	\$95,855
42696-01	\$423,844
42893-01	\$76,520
42893-01	\$42,435

was not selected as a winning bid. A request was made by the IA to provide the load flow results for Proposal 143-05. An excerpt of the provided load flow is shown in Figure 39.

Each line of the table contains information associated with an identified contingency; the green area includes Proposal 143-05, and the blue area contains the base case data. The “% Diff” column contains a calculation that provides a delta between the individual contingencies with and without the addition of the generation addition of Proposal 143-05. Note the little difference and thus little system impact as a result of the addition of this Proposal.

Figure 39

2021s CPRE 143-05						2021s CPRE Base					% Diff.
New Rating	Rating	Pre-Cont	Post-Cont	Percent	Occurrences	Rating	Pre-Cont	Post-Cont	Percent	Occurrences	
117	117	95.3	106.3	90.1	-	-	-	-	-	-	-
24.2	24.2	10.9	21.9	90.3	-	24.2	10.9	21.9	90.3	-	0
42.9	42.9	19.4	39.4	91.7	-	42.9	19.4	39.4	91.7	-	0
42.9	42.9	19.3	39.4	91.8	-	42.9	19.3	39.4	91.8	-	0
85	85	38.3	78.6	92.5	-	85	38.3	78.6	92.5	-	0
85	85	38.3	78.6	92.5	-	85	38.3	78.6	92.5	-	0
84	84	39.1	78.6	93.6	-	84	39.1	78.6	93.6	-	0
84	84	39.1	78.6	93.6	-	84	39.1	78.6	93.6	-	0
22.9	22.9	10.4	21.9	95.8	-	22.9	10.4	21.9	95.8	-	0
42.1	42.1	23.6	40.6	96.4	-	42.1	23.6	40.6	96.4	-	0
183	183	70.9	167.1	91.3	-	183	70.9	167.1	91.4	-	0.1
129	129	74.4	119.8	92.1	-	129	74.5	120	92.3	-	0.2
41.6	41.6	25.9	39.6	95.1	-	41.6	25.9	39.6	95.3	-	0.2
41.9	41.9	28.8	41.8	99.7	-	41.9	28.8	41.8	99.9	-	0.2
292	292	154.2	266.7	90.4	-	292	155	268.1	90.9	-	0.5
292	292	154.2	266.7	90.4	-	292	155	268.1	90.9	-	0.5
85	85	38.3	78.2	92	-	85	38.3	78.6	92.5	-	0.5
84	84	39.1	78.2	93.1	-	84	39.1	78.6	93.6	-	0.5

The losing Proposal, 234-02, was also examined for analysis accuracy. A report produced by the T&D Team shows the comment below for Proposal 234-02:

The tap line that 234-02 (83-10) and 336-03 are proposed on cannot accommodate both projects. If both projects are built, the project deemed to have the later queue position or to be less favorable will have to upgrade nearly 5 miles of 100 kV with an assumed cost on the order of \$7.5 MM. Either project is also subject to constraints that have been identified on the DUK/SCEG interface that would require an Affected System Study with SCEG to determine potential adverse impacts on a neighboring system. The upgrades on the DUK side of the DUK/SCEG interface cannot be completed by 7/21.

The requested load flow results for this Proposal, which are included below, illustrate the overload condition.

Figure 40

Monitored Element	Contingency	Limit	FlowInit	
306001 3CLARK H 115 308584 3BIGCOWHEADP 115 1	CLARKHILL-JST_MCCRMCK	119	217.5	Clark Hill 115 kV
309800 3MCCORMICKPV 115 339150 3JST-SC 115 1	CLARKHILL-CH_BGCWHD	119	217.5	Clark Hill 115 kV
306242 BUSH RIV 100 308226 NEWBERRYPV(A 100 1	CLINTONB_ANGSB	65	106.7	Champion 100 kV
306242 BUSH RIV 100 308579 TRINITYPV 100 1	CHAMPIONWH-BR_NWBRRY(D)	146	234.8	Champion 100 kV
306232 3BUSH R 115 307892 3NWBYC6 115 1	NEWBERRYWA	79	123.5	Newberry 115 kV

The results shown on line 5 at the bottom of the chart indicate that the Newberry – Bush River 115 kV line would be overloaded following the addition of this Proposal.

3. Distribution Factor Validation

The previous section discussed the application of the distribution factor, specifically how any distribution factor over 3% was an industry accepted indicator of significant contribution. Continuing with the analysis of failed Proposal 234-02, the IA requested distribution factor calculation results for the Newberry - Bush River 115 kV line. The chart below shows the distribution factor calculation results for each of the five lines shown in the table above.

M. STEP 2 PROCESS CONCLUSIONS

Based upon the entire body of work that was required to complete the system upgrade cost analysis for both transmission and distribution Proposals, the following conclusions are offered:

- The analysis process was the same for all bidders, being evenly and fairly applied to all Proposal s
- The T&D Team successfully adopted the standard Proposal cost analysis report format suggested by the IA. Modifications were identified by the team and were incorporated into the final document. These modifications were made to tailor the format to Duke requirements and standard practices.
- All T&D Team members worked well and focused on the tasks required to produce Proposal cost analysis results in a timely manner. Sufficient resources were available to complete the required tasks.
- The IA felt that communication with both teams and with the Account Managers was open and honest with a joint dedication to achieving quality and timely results.
- The verification tests proposed by the IA demonstrated a firm foundation for accurate cost analysis.
- CPRE tranche 1 was an excellent learning experience. Participants were open to suggested modifications in approach and were willing to attempt alternative solutions. The resulting analysis process will serve as a solid foundation going forward.

XII. SUBJECT MATTER AREAS

A. LEGAL TEAM REVIEW

The IA's legal team performed several tasks for Tranche 1 of the CPRE program. Prior to Proposal submission, the legal team prepared a Site Control Acknowledgement Affidavit. Following the Proposal closure date, the Legal Team reviewed the following documents for completeness: Site Deed, Site Lease, Site Control Acknowledgement, Title Insurance Copy, Title Insurance, Title Insurance Report, Boundary Survey, Description of the Site, Easements, Environmental Studies, Facility Descriptions, Facility Permits, Other Permits, the Project Map, Project Map with Landmarks, and the Sitemap.

A compilation of this review was organized and submitted to the IA. Based on the Legal Team's review of the documents, the Proposals were scored by category as follows: permitting will be complete at the commercial operations date, project site control for the full term, and site control to the point of the interconnectivity. The Legal Team reviewed the above documents again for accuracy and to determine how they scored. A large portion of the Legal Team's time during the scoring process was spent reviewing easements for the transmission path and looking at leases and deeds to verify control coincided with the duration of the project.

B. FINANCIAL TEAM REVIEW

The Financial review conducted for CPRE Tranche 1 evaluated the credit-worthiness factors identified in the RFP (see Appendix F, item 6 – "Credit Worthiness"). The purpose of the financial review, as stated in the RFP, was to determine the "financial assurances to meet schedule and milestones in PPA." The credit worthiness of a Proposal was assigned five percent of the Proposal score, equal to 50 points of the total maximum score of 1000 points.

The financial review compiled information from the Proposal including information regarding ownership, plans for Proposal and performance security, and credit ratings. The Financial Review was conducted on all Proposals that advanced to the Step 2 evaluation. Given that Proposal security was required for all third-party Proposals that were advanced to the Step 2 evaluation, Duke's credit requirements and potential damages were secured by the Proposal security:

Proposal Security Amount represents a fair and reasonable pre-estimation of the damages due to Duke Energy..." and "represents a reasonable estimate of Duke Energy's losses in the event of (i) Bidder's withdrawal of the Bid following its selection for further evaluation in the Step 2 Evaluation Process, or (ii) Bidder's failure to execute the Agreement with Duke Energy for the Bid if selected as a winning Proposal or failure to provide Performance Assurance as required under the Agreement.

The Financial Review assigned points based on the method of Proposal security selected by each MP advanced to the Step 2 evaluation. Credit-worthy MPs were assigned the maximum score (50 points). Non-credit worthy MPs were evaluated based on the various forms of Proposal security (cash, Letter of Credit, or Surety Bond) submitted to ameliorate credit risk. A non-credit worthy MP who posted cash for the Proposal security was assigned 50 points. A non-credit worthy MP who posted a Letter of Credit or a Surety Bond for Proposal security was assigned 45 points. Bidders who dropped out of Tranche 1 for failure to post Proposal security or for other reasons were not evaluated.

C. PROJECT SUFFICIENCY TEAM REVIEW

The IA Project Sufficiency Team was responsible for performing a detailed technical evaluation of each Proposal. The technical evaluation included a complete review of the project design and equipment specifications as well as a review of the experience of the MP's Project Team. This due diligence review was completed to confirm that any project the IA recommended for a PPA was technically capable of providing the service proposed.

To begin the evaluation, the PST reviewed each submitted Proposal form and identified the "pre-coded" data fields in the on-line Proposal form needed for evaluation of the project. The IA created an Evaluation File system, which was then used to develop a file repository for the PST evaluation of individual Proposals. The "Custom Reports" tool on the IA website was utilized to draw relevant data from each submitted Proposal.

The PST developed five custom reports:

1. Generating Facility (technical description of the site)
2. Solar Design (design and equipment specifications)
3. Storage Design (design and technical specification)
4. Project Status Summary
5. Proposal Summary

The PST also reviewed documents uploaded to the CPRE website by MPs, which included:

- Description of the project site
- Facility Description
- Inverter Warranty
- Operations (project costs)
- Project Map
- PV Ongoing Maintenance
- Single Line Drawing
- Site Map
- Site Plan
- Solar Information
- Specification Sheet (solar panels)
- Storage Spec Sheet
- Storage Experience
- Renewable Facilities Experience

In its initial examination, the PST reviewed each Proposal and its associated uploaded documents to determine whether the response was "complete and conforming," that is whether it provided all of the required information and met the RFP criteria. The PST found a number of deficiencies or questions about the project design. For example, some of the MPs entered the total installed DC rating in MW DC instead of kW DC. In some instances, data entries were left blank or the information that was entered required clarification. In each case where deficiencies or questions were noted, the PST posted messages to the MP's confidential Message Board providing the MP the opportunity to cure or clarify the information provided. Ultimately, all of the submitted Proposals were corrected and deemed conforming. No Proposals were rejected in the initial review and no Proposals were withdrawn by an MP.

Following the preliminary ranking of complete and conforming Proposals, the PST proceeded through its evaluation in the Initial Tier Ranking order. All Proposals were reviewed for the sufficiency of the project, with projects receiving a full technical review as they were included in the Competitive Tier. This approach permitted the best-ranked Proposals to proceed to the Step 2 review without delay, and those drawn from the Competitive Tier Reserve were reviewed sequentially.

The PST completed the relevant sections or subsections of the Sample Scoring Sheet for each of the Proposals. The PST addressed the following subsections: Experience of the Project Team, Equipment to be used, Required Control Equipment, and Quality of Project Design. A complete breakdown of scoring requirements can be found in Appendix F of the RFP.

XIII. ACQUISITION PROCESS AUDIT

A. OVERVIEW

The IA conducted an audit of the CPRE Tranche 1 Asset Acquisition program. The Asset Acquisition program was designed for Duke to acquire Renewable Energy Resources consistent with the CPRE requirements to be developed through either a Renewable Resource Asset Transfer plus Engineering Procurement and Construction (“EPC”) agreement, a Build Own Transfer (“BOT”) agreement, or a Renewable Resource Asset Transfer Agreement. The DEP/DEC team could submit Proposals¹⁶ chosen to be sponsored from the Offers presented on the AA Silo of the IA Website, and projects to be developed directly by Duke. Proposals for direct development by Duke were required to be submitted no later than October 8, 2018, which was at least one day before other MPs. The deadline for developers to submit Asset Acquisition Proposals was October 9, 2018. Asset Acquisition Proposal were evaluated by the DEP/DEC team and if selected, were converted by the DEP/DEC Team into a \$/MWH price that was evaluated by the IA in the same exact same manner as other PPA proposals. The DEP/DEC team was required to submit its sponsored Asset Acquisition proposal via the IA Website on November 16, 2018. The time between October 9, 2018, and November 16, 2018 was used by the DEP/DEC team to evaluate the Asset Acquisition Proposals.

Proposals for sponsorship by the DEP/DEC team were identified to the IA and the Proposal data was directly transferred to either DEC or DEP, as appropriate. This transfer avoided errors in the transfer of data and ensured that each sponsored project was evaluated with data presented to the DEP/DEC team by the developer.

The DEP/DEC team selected five projects Duke would agree to acquire and sponsor in CPRE. Once submitted on the IA Website by the DEP/DEC team, the sponsored projects were evaluated using the same standards as all other Proposals. The IA’s initial ranking of Proposals was adjusted once the sponsored projects were received and evaluated.

The AA Audit focused on the review of the design and execution of the Duke AA program. The review of the Duke Evaluation process included meetings with the Duke DEP/DEC Team to confirm the data collected on the IA Website was consistent with the information necessary for the DEP/DEC team to review offers from developers during the development of the on-line Proposal Form and after offers from developers. The criteria used by the IA in the review of the Asset Acquisition Offers included confirming the Offer was in compliance with CPRE, whether the Offer would meet the Required Commercial

¹⁶ To avoid confusion, “Proposal” is used for projects submitted in DEC or DEP. “Offer” is used for projects submitted for acquisition consideration.

Operating Date (“RCOD”), and whether the project was capable of operation within the CPRE requirements

MPs were permitted to propose a project for a PPA and also to be acquired by Duke. Part of the IA’s review included comparison of the five Duke-sponsored AA Proposals that were sponsored with the PPA submissions by MPs of the same projects. In every case when a project was proposed for a PPA by a developer and also submitted as a sponsored project for acquisition, the Duke-sponsored Proposal was found to provide greater Net Benefit.

B. AUDIT OBJECTIVE

As a requirement of the Duke CPRE Tranche 1, the IA performed an audit of the Duke Asset Acquisition Offer evaluation, assessment, and selection process. This audit was to determine whether the offers submitted to the Duke DEP/DEC team were complete and compliant with the CPRE requirements for eligibility. Further, IA reviewed the projects selected for acquisition to determine whether the DEP/DEC team materially modified the projects before submitting them into the CPRE program.

MPs could elect to submit Proposals for a PPA to DEC or DEP, as an Asset Acquisition Offer conforming to one or more of the AA structures, or the MP could offer a project as both seeking a PPA and an Asset Acquisition Offer. Twenty AA Offers were submitted in the CPRE Tranche 1. Figure 41 summarizes the submissions.

Figure 41

	Asset Transfer with EPC	Build Own Transfer ("BOT")	Asset Transfer
Proposed	9	7	4
Sponsored (DEC)	3	0	0
Sponsored (DEP)	0	2	0

C. THE AUDIT

Subsequent to the submission of projects being sponsored for acquisition, the IA Audit team met with members of the DEP/DEC team for the purpose of reviewing the selection process. The review included review of the criteria for selection, identification of the ranking of each offer, why certain projects were not selected for acquisition, identification of any design change requested by the DEP/DEC team, and final contracts with each project selected for acquisition.

Duke provided the following information to the IA:

- Evaluation Methodology Overview: described the process implemented to review, evaluate and rank all AA Offers received. This included non-economic (technical) and economic evaluation criteria.
- Assessment process summary: rank ordered the 20 AA Offers.
- Selection process for each of the five sponsored AA Offers.
- A summary of Capacity Cost in normalized \$/MWh AC, Total Energy in MWh, and COD for the 5 sponsored projects.

The IA also reviewed the non-economic and economic evaluation criteria used in evaluation and scoring for each of the 20 AA Offers and found the criteria to be appropriate.

1. DEP/DEC Team Evaluation Methodology Overview

The DEP/DEC team developed an evaluation process to review, evaluate, and rank the AA Offers. This process included both a technical (non-economic) evaluation and an economic evaluation with detailed criteria and a point system to score each Offer. The technical evaluation was used to assess the Offers to determine if the Offer met development, technical, and quality standards. An economic evaluation was conducted only if the Offer passed the technical evaluation.

The criteria for the technical (non-economic) evaluation included:

- a. Status of site control
- b. Quality of system design (optimal DC/AC ratio, NCF, constructability)
- c. Design standards meet DEC/DEP requirements
- d. Zoning and entitlements/community outreach
- e. Site investigation/environmental studies
- f. Project schedule
- g. MP experience
- h. Status of interconnections

Each of the non-economic criteria had a ten-point scoring system. All scores were multiplied by five, with a total of 400 points available. A minimum score of 200 points was required for the non-economic evaluation. If the resulting score was less than 200 points, the Offer was eliminated, and an economic evaluation of the Offer was not conducted. If the Offer's score was greater than 200 points, a detailed economic evaluation was conducted.

The DEP/DEC team conducted financial modeling using inputs such as project capex, project production estimates, and project operations and maintenance cost. The economic evaluation was assigned a maximum point score of 600 points and the Offers were ranked based on the combined non-economic and economic score of the Offer. The offers for acquisition by BOT or EPC were compared side by side. The DEP/DEC team considered project risk, including but not limited to environmental risk, development risk, construction risk, cost and schedule risk. Eight Proposals did not pass the non-economic evaluation and were eliminated.

The final Offer selection was based on the combined economic and non-economic evaluations. The Duke AA Evaluation Methodology was comprehensive and balanced. The CPRE guidelines included examples of technical scoring criteria and the DEP/DEC team criteria were consistent with the CPRE program guidelines. The non-economic criteria for the technical evaluation, including the weighting and the scoring, were reasonable and appropriate to meet Duke's specification, standards, and quality for a Company-owned asset. The scoring and weighting were similar to the scoring and weighting used by the IA in evaluating and ranking the PPA Proposals; in both cases the non-economic scoring had a 400-point maximum score and the economic score had a 600-point maximum. The AA evaluation criteria were applied consistently to each of the 20 AA Offers.

2. Assessment Process

The DEP/DEC team created individual Excel spreadsheets to document the evaluation and scoring of each Offer. DEC received a total of six Offers and DEP received 14. From the 20 individual spreadsheets the IA prepared a summary Excel spreadsheet of the 20 AA Offers in rank order that included the Offer scoring, the disposition of the Offer, and highlights (notable deviant scores) of the reasons for the disposition of the Offer. The Offers were ranked and scored as follows:

Figure 42

DEC					
Masked Offer #	Non-Economic	Economic	Total	Observations:	Disposition
111-11	210	420	630	Secured proper zoning and permits (2/10) - Status of Interconnection (0/10) - Economic (7/10)	project was sponsored
111-12	265	360	625	Economic Criteria (6/10)	project was sponsored
111-13	260	300	560	Status of interconnection (0/10) - Economic Criteria (5/10)	project was sponsored
111-14	250	120	370	Economic Criteria (2/10)	project was not selected to be sponsored
111-15	190	N/A	190	Site Investigation - Interconnection - Economic - (0/10) -	project did not pass non-economic evaluation
111-16	135	N/A	135	Site Control - Quality of system - Zoning Permits - Site Investigation - Interconnection Study - Economic Criteria - (0/10) -	project did not pass non-economic evaluation

Figure 43

DEP					
Masked Offer #	Non-Economic	Economic	Total	Observations:	Disposition
11-1	200	480	680	Zoning permit - Site Investigation - Interconnection status -(0/10)- Economic Criteria (8/20)	project was sponsored
11-2	295	360	655	Interconnection Status (0/10) - Economic Criteria (6/10)	project was sponsored
11-3	250	300	550	Interconnection Status (0/10) - Economic Criteria (5/10)	project was not selected to be sponsored
11-4	300	240	540	Project Schedule (0/10) - Economic Criteria (4/10)	project was not selected to be sponsored
11-5	325	180	505	Economic Criteria (3/10)	project was not selected to be sponsored
11-6	275	180	455	Project Schedule (0/10) - Economic Criteria (3/10)	project was not selected to be sponsored
11-7	210	240	450	Interconnection Status (0/10) - Economic Criteria (4/10)	project was not selected to be sponsored
11-8	225	180	405	Zoning permit - Site Investigation - Interconnection Status - (0/10) - Economic Criteria (3/10)	project was not selected to be sponsored
11-9	190	N/A	190	Site Control - Site Investigation - Project schedule (0/10)	project did not pass non-economic evaluation
11-10	175	N/A	175	Site Control - Site Investigation - Interconnection Status - (0/10)	project did not pass non-economic evaluation
11-11	175	N/A	175	Zoning Permit - Interconnection Status - (0/10) - Site Investigation (2/10) - Quality of system (3/10)	project did not pass non-economic evaluation
11-12	175	N/A	175	Zoning Permit - Interconnection Status - (0/10) - Site Investigation (2/10) - Quality of system (3/10)	project did not pass non-economic evaluation
11-13	125	N/A	125	Site Control - Quality of System - Zoning Permit - Site Investigation - Interconnection Studies - (0/10)	project did not pass non-economic evaluation
11-14	125	N/A	125	Site Control - Quality of System - Zoning Permit - Interconnection Status - (0/10)-	project did not pass non-economic evaluation

Since the evaluation was completed in a step function process where projects were eliminated due to the non-economic factors and only the technically viable projects were advanced to the economic evaluation, there was no need to re-rank the projects. There was no single criterion that eliminated an Offer, but rather a number of criteria that varied for each Offer contributed to an Offer's elimination. Eight projects were eliminated because they did not pass the minimal 200-point score in the non-economic evaluation. Of those eight projects, project site control and zoning was a common factor for their elimination. Of the remaining 12 Offers, 7 were not selected to be sponsored primarily because the project economic evaluation resulted in less competitive pricing. A total of 5 projects were selected to be sponsored: 3 projects in DEC and 2 projects in DEP.

The DEP/DEC team indicated that the only design changes or modifications made from the initial Offers were inverter selections. All MPs included non-company approved inverters in their original interconnection application, and the five Duke-sponsored Proposal MPs were informed that the inverters would need to be updated. The IA conducted a review and comparison of the Duke-sponsored Offers and the corresponding MP PPA and affirmed that there were no apparent design changes or modifications from the initial Offers, except for 11-1.

In response to the IA's inquiry as to why the Self-Build team selected only five projects, the Self-Build team indicated that there was a total capital investment that was authorized for CPRE Tranche I participation (self-build proposal and sponsored asset acquisition Offers) and sponsoring more than the five would have increased the likelihood of exceeding the authorized capital. The authorized amount was not requested by or shared with the IA.

3. Selection Process

Figure 44 presents the five Duke-sponsored Proposals.¹⁷

Figure 44

Proposal #	Total Energy (MWh)	COD
DEC		
111-11	159,546	12/31/2020
111-12	129,670	12/31/2020
111-13	166,675	12/31/2020
DEP		
11-1	196,557	12/31/2020
11-2	205,041	12/31/2020

As stated above, each of the five Duke-sponsored Proposals had a corresponding and competing PPA Proposal from a Market Participant for the same facility. There was no requirement in the RFP for an MP to offer the same facility design in its PPA Proposal for a specific facility, nor was there a requirement

¹⁷ Proposal numbers are "blinded."

that an MP offer a PPA Proposal corresponding to its AA Proposal to Duke. In this instance, there was a corresponding PPA Proposal for each Duke-sponsored Proposal.

With the exception of one of the five Duke-sponsored Proposals, which will be discussed later, the IA determined that each Duke-sponsored Proposal was essentially consistent in design and anticipated performance with the corresponding MP PPA Proposal for the same facility. This review was accomplished through several steps including:

- Review of the AA Silo on the CPRE website (submission documents, cure documents, correspondence, etc.);
- Review of the materials provided to the IA by Duke personnel in response to this Audit;
- Comparison of the Proposal Forms for each Duke-sponsored Proposal with the Proposal Form for its corresponding MP PPA Proposal; and
- Review and comparison of the annual energy, load profiles, capacity, and capacity factor of each Proposal.

In this analysis the IA compared the essential components of each of the five “pairs” of the Duke-sponsored and the corresponding PPA Proposals. The purpose of the analysis was to determine any differences between the Duke-sponsored Proposals and the corresponding MP PPA Proposals since each was derived from the same facility.

The IA reached four conclusions from the analysis of Duke-sponsored and MP PPA pairs. First, in four of the pairs, the Duke-sponsored Proposal had a significantly higher Net Benefit than its corresponding MP PPA Proposal. Given that the capacities, capacity factors, and energy profiles were virtually identical with each pair, the difference in Net Benefit was entirely explained by the lower prices offered in the Duke-sponsored Proposal.

Second, in the fifth pair, the capacity of the Duke-sponsored Proposal and the MP PPA Proposal was consistent. However, the Net Benefit of the Duke-sponsored AA Proposal was greater than the MP’s PPA Proposal. The IA sought to understand why there was a larger pricing differential in this pair versus the other four pairs.

Third, the IA analysis of the fifth pair concluded that the energy and capacity benefits showed that the “raw” benefit (costs avoided by the Proposal) on a \$/MWh basis was virtually identical for both the Duke-sponsored Proposal and MP PPA Proposal. The total annual energy for the Duke-sponsored Proposal for this facility was 7% greater than the annual energy projected by the MP PPA for the same facility, thus providing an explanation of the greater pricing variance for the Duke-sponsored Proposal in this pair as compared to the pricing variance for the other four pairs in which the Duke-sponsored Proposal included the same quantity of energy as its corresponding MP PPA Proposal.

In summary, the energy profiles of the fifth pair were nearly identical resulting in nearly identical \$/MWh benefits for this pair regardless of the scale of the energy. The IA concluded that the higher quantity of energy in the Duke-sponsored Proposal reasonably explained the greater pricing differential in this pair as compared to the pricing differential in the other four pairs.

D. AUDIT CONTRACT REVIEW

The IA reviewed the status of contracts for each of the sponsored Proposals when the IA met with the DEP/DEC team and confirmed there were no binding commitments between the DEP/DEC team and the relevant developers. The DEP/DEC team confirmed that MPs were asked to submit a redline copy to the standard agreements provided in the RFP along with their AA Proposals. The DEP/DEC team confirmed that they had reviewed all redlined documents provided with Offers and would commence final contract negotiations when it was known if a sponsored Proposal was selected as a finalist.

The IA also reviewed the AA Silo of the Website for review of contract communications. This included communications in writing on the Message Board and communications contained in cure documents uploaded by the MPs. The written messages included the scheduling of, and action items from, several telephone conference calls between the parties.¹⁸

The IA Website clearly documented and preserved all such information exchanges and negotiations between Duke and MPs regarding such topics as:

- Commercial details including progress payments in the asset transfer contracts to establish the final negotiated \$/kW price of each Proposal
- PVsyst¹⁹ input/output forms
- Reference projects of similar or greater size than the proposed project
- Development and construction scope to be performed in-house and to be subcontracted by the MP
- Complete and detailed financial information on the MP and its financing partners
- The existence of a Fee-in-Lieu-of-Taxes (“FILOT”) agreement in place with the authority having jurisdiction²⁰
- An unredacted version of the lease agreement to allow Duke to confirm the structure of the lease

Based on this review, the IA concluded that communications between Duke and the MPs were well documented, unbiased, and consistent with Duke’s evaluation and ranking of Proposals.

E. ACQUISITION AUDIT CONCLUSIONS

The Duke AA Evaluation Methodology was a comprehensive and balanced process. The Proposals submitted by the DEP/DEC team were compliant with the requirements of the CPRE program. The evaluation criteria were applied on a consistent basis to each of the 20 Asset Acquisition Offers submitted. The non-economic and economic criteria, as well as the weighting and the scoring, were reasonable and appropriate to meet Duke’s specifications and standards for a Company-owned asset. Duke’s scoring and weighting were similar to the scoring and weighting used by the IA in evaluating and ranking the PPA

¹⁸ Duke offered to share meeting notes from the telephone conference calls if the IA requested them.

¹⁹ PVsyst is a solar photovoltaic preliminary design tool for use by architects, engineers and researchers.

²⁰ Duke stated that such an agreement is integral to determining whether the project meets Duke’s economic and project schedule requirements.

Proposals. In both cases the non-economic scoring had a 400-point maximum score and the economic score had a 600-point maximum. The five Proposals with the highest combined non-economic and economic scores were selected to be sponsored by Duke.

The DEP/DEC team provided the opportunity for comments on draft form agreements at the time MPs submitted projects for acquisition. The DEP/DEC team did not have non-negotiable pro-forma agreements for developers, as was done with the pro-forma PPA for the DEP and DEC solicitations. Similarly, there was no binding letter of intent or MOU that bound the MP to abide by the form agreement or hold their asset acquisition bid price. That shortcoming was highlighted when one MP withdrew the Offer behind a Duke-Sponsored Proposal on June 26, 2019: 12 days before the end of the contracting period. Because there was no binding commitment, the developer was not penalized for withdrawing the Offer, and the DEP/DEC team was without recourse to enforce the commitments received from the developer. As identified in the "Lessons Learned" section above, the IA and Duke will recommend improvements to the Asset Acquisition structure, such as a letter of intent or MOU between Duke and the developer of an Asset Acquisition project that will improve the certainty and clarity of the process.

XIV. FINALISTS

Twelve Proposals were selected as winners for DEC at the end of Step 2 on April 9, 2019. The projects ranged from seven MW to 80 MW for a total group of selected proposals totaling 515 MW. Two of those selected Proposals included storage. On July 8, 2019, one of the 12 winning Proposals for DEC withdrew. The identity of the MPs that withdrew are identified in Confidential Attachment 1.

After being selected as a finalist for DEC, one of the MPs indicated a desire to amend the PPA price bid due to changes in the cost of materials. The IA declined to permit the change. Subsequently the MP asserted the desire to withdraw claiming that Duke personnel affirmatively declared that the interconnection for the associated project would not be completed in time to meet the in-service date the MP identified in its Proposal. The claim was erroneous. The MP defaulted by failing to complete the PPA proffered by Duke. With both requests for the right to withdraw the MP requested release of the Proposal security. The IA declined to support the release of the Proposal security. At that time there were no longer any competitive and available Proposals in DEC to consider as a replacement. Therefore, the final result for DEC from Tranche 1 of CPRE is 464.5 MW of renewable capacity.

Three Proposals were quantified as potential winners in DEP at the end of Step 2. The RFP established that up to 80 MW would be selected, with the possibility of exceeding that amount by up to 5%. The selection of all three finalist Proposals would result in a total of 167 MW being selected, which was unacceptable. For this reason the IA recommended Duke accept two Proposals in DEP for a total of 87 MW. The best ranked Proposal was from a small project, which necessitated selecting the next best ranked Proposal in order to get close to the Tranche 1 goal for DEP. On June 26, 2019, Duke Energy informed the IA that the utility self-developed Proposal (which was a conversion of an Asset Acquisition Proposal) that was selected as a winning Proposal in DEP was withdrawing along with another utility self-developed conversion of an Asset Acquisition Proposal. The reason for the withdrawal of the DEP Asset Acquisition Proposal is described in the report above, that is the developer and Duke were unable to agree

on a final price for the project. The IA reviewed the ranking of DEP projects and immediately contacted the parties representing the next most competitive and available Proposal. They were able to proceed to contracting and executed a PPA within the timeline required by the RFP. Therefore, the final result for DEP from Tranche 1 of CPRE is 85.72 MW of renewable capacity.

XV. CONCLUSIONS

The Tranche 1 experience identified opportunities for improvement for Tranche 2. While an improved process should produce an even more robust response from the marketplace, none of the issues identified in this report should be understood to be a fatal flaw in the initial program design. Indeed, the IA believes Tranche 1 was successful in establishing a viable process for competitive procurement of resources.

The IA is hopeful that the Commission, Duke, and stakeholders will embrace the recommended changes presented as Lessons Learned, and further implementation of improvements before the Tranche 2 Proposal date.

APPENDIX A
SAMPLE PRICE SCORING SHEET

SCORING SHEET

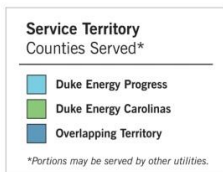
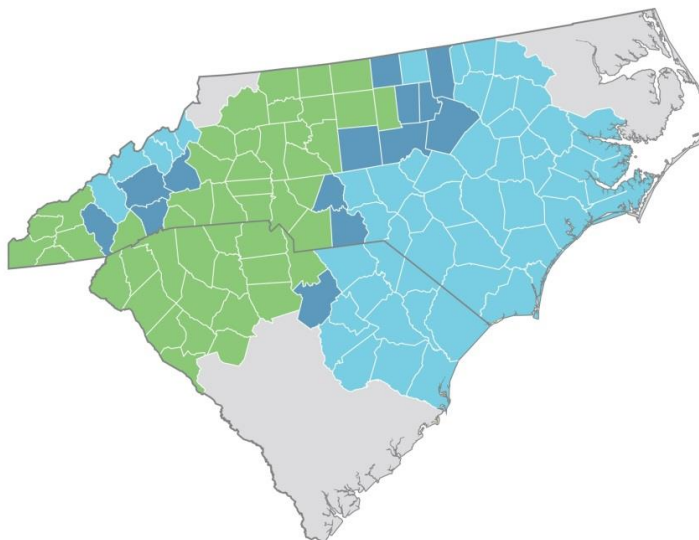
Bid Scoring Categories	Bid Score	% of Bid Score	Description	Individual Categories	Maximum Scoring	Section Score
1. Price Score		60%	Includes fixed and variable bid costs	The price score will be calculated on the basis of the bid's projected total cost per MWH	600	
2. Project Development Criteria		15%	Respondent must show sufficient evidence of ability to provide services included in proposal for the contract term Evidence of operational capability to provide proposed services	-Demonstrate that permitting will be complete to meet COD -Experience of project team -Project Site control for full term -Site control to POI for full term	30 30 50 50	
3a. Facility Project Characteristics		15%	Evidence of equipment designed to meet specifications	-Equipment to be used -Required control equipment (TBD) -Quality of project design	30 30 30	
3b. Transmission Project Characteristics			Interconnection Transmission Rights	-Submitted completed interconnected request and obtained a queue number	50	
4. Project Characteristics		4.5%	Value of Project Characteristics	Demonstrates ability to meet performance guarantee and liquidated damages pursuant to the PPA	45	
5. Historically Underutilized Businesses		.5%	Ownership by Minorities (to be defined)	Ascertain that at least 51% of venture is owned by eligible minority	5	
6. Credit Worthiness		5%	Financial assurances to meet schedule and milestones in PPA	-Confirms meeting all Duke credit requirements -Project financing confirmed -Bond rating -Net tangible worth -Liquidity	50 /or/ 20 10 10 10	
Total Score	1,000	100%			1,000	

APPENDIX B LOCATIONAL GUIDANCE

Overview

Duke Energy offers energy services to approximately 7.4 million customers in the Carolinas, Florida, Ohio, Kentucky and Indiana. The Carolinas area is comprised of Duke Energy Carolinas (DEC) and Duke Energy Progress (DEP). The DEC service territory is approximately 24,000 square miles and serves 2.5 million residential, commercial and industrial customers. Primary transmission voltages in DEC are 500kV, 230kV, 161kV, 100kV, 66kV, and 44kV. The DEP service territory is approximately 32,000 square miles and serves 1.5 million residential, commercial and industrial customers. Primary transmission voltages in DEP are 500kV, 230kV, and 115kV.

Carolinas Service Territory



Planning the Transmission System

The analysis performed by Duke Energy in planning the transmission system is based on good utility practice and NERC Reliability Standards. The analysis is performed to ensure reliable service can be provided to all customers considering that outage events (lightning, car accidents, equipment failure, faults, etc.) that cause transmission and generation elements to be removed from service can and do occur. Outage events can impact the voltage levels and the power flows on the transmission system in ways that would stress the system beyond its capabilities if the system were not properly planned, resulting in customer outages or poor power quality. Addition of new transmission and distribution connected load and generation requires ongoing analysis to ensure continued operation within limits. When analysis indicates limits will be exceeded, modifications or upgrades to the system must be identified to ensure continued reliable operation. The decisions to upgrade or modify system elements are made by applying reliability standards on an equivalent basis to all interconnection requests, and selected solutions to system issues are identified to minimize costs to the total body of Duke Energy customers.

When a new generation project requests transmission interconnection, Duke Energy is required to assess the impact of the new generation on the electric system. The assessment identifies locations where modification or upgrade of the transmission system will be necessary to maintain reliable service to all interconnected electricity customers, including consideration of possible outage events. The assessment includes the impacts of distribution-interconnected generation projects, which also affect transmission system loadings.

As a result of analyses performed to date, Duke Energy has identified areas where modification and upgrade of the system would be required if generator projects in the queue were to be interconnected. The areas where proposed projects have already indicated a need for transmission upgrades are identified on the constrained area maps. In other words, projects already under consideration, located in constrained areas, have resulted in demands exceeding the transmission grid capability and, if they are pursued to commercial operation, will require additional transmission capacity. Any new or additional transmission or distribution interconnection requests submitted in these constrained areas, after those currently in the queue for analysis, will possibly contribute to additional upgrade needs that may add project costs.

The need for transmission system upgrades is subject to the final disposition of the individual projects, i.e., whether or not they are pursued to commercial operation. Thus, the need for transmission system upgrades can be subject to change as additional projects are analyzed or individual projects decide not to continue with the interconnection process. Therefore, the identification of constrained areas should be considered a snapshot based on conditions known at the time. However, developers of potential projects in the identified constrained areas should be aware that there is a risk of additional transmission grid upgrades, which could result in additional costs and lead time requirements for the project. This would include distribution interconnected projects, which also impact transmission system loadings.

DEC Generator Interconnection Requirements - Overview

Transmission level projects participating in the DEC CPRE are likely to interconnect to either the 100 or 44 kV system. Unless a project is interconnecting directly to an existing 100 kV station, the project will interconnect via a tap to a single 100 or 44 kV transmission circuit. For 100 kV projects tapping a single circuit, this design will typically include a three-way gang operated air break switch in line with the main line and a breaker (or circuit switcher) on the tap line at the point of change in ownership. For 44 kV projects tapping a single circuit, this design will typically include a 4-pole bent in line with the main line, disconnect switches, and a breaker (or circuit switcher) on the tap line at the point of change in ownership. For both 100 kV and 44 kV projects, the design will include a transfer trip scheme for faults anywhere on the main or tap line.

Transmission level projects participating in the CPRE may be permitted to interconnect directly to an existing 230 kV station. Any 230 kV interconnections not directly into an existing station require the generation aggregated at a new station to exceed 120 MW.

For additional details, refer to the DEC Facility Connection Requirements located under Generator Interconnection Information at the DEC OASIS website²¹.

Constrained Areas in DEC

For DEC, the constrained area map (Attachment 1) represents areas of the transmission system where there are either known transmission constraints that would be aggravated by increased generation or transmission constraints that are created by queued generation. These transmission constraints have been identified by either Transmission Planning or System Operations and have been confirmed through transmission studies of one or more generator interconnection requests. Transmission upgrades to mitigate the constraints already identified would exceed \$10 million, and lead time is dependent upon the scope of work but would exceed 1 year, and possibly be as long as 3-4 years. Generator interconnection requests in areas not identified as constrained may also require transmission upgrades, but transmission studies are required in order to make this determination.

There are three constrained areas identified in DEC. In Guilford and Rockingham counties, off-peak conditions can drive post-contingency thermal loading issues on 100 kV lines that emanate from Dan River. Increased generation in these two counties will make the 100 kV lines in the Dan River area more susceptible to both off-peak and on-peak loading issues. The other two constrained areas shown are areas on DEC's system with the highest penetration of queued solar generation. The six county area near DEC's southern border including Newberry, Laurens, Greenwood, Abbeville and portions of Greenville and Anderson counties has over 1600 MW of queued solar generation. The other is a three county area

²¹ <https://www.oasis.oati.com/duk/index.html>

located near the DEC/DEP border including Chester, Lancaster and Union (NC) counties that has over 600 MW of queued solar generation.

A DEC constrained infrastructure list is available that documents the individual transmission lines and substations that are in the constrained areas.

Additional transmission line mapping information can be found at the Energy Zones Mapping Tool website²².

DEP Generator Interconnection Requirements - Overview

To connect to the DEP 230 or 115 kV transmission system, a generating plant should be at least 20 MW in size. Plants between 20 and 100 MW will typically be tapped off a 230 or 115 kV transmission line. This design will typically include line switches added to the main line on either side of the tap, a single radial breaker in the tap line, and a transfer trip scheme for faults anywhere on the main or tap line. DEP will typically build and own the transmission tap line and the breaker station adjacent to the generator substation. To connect to the DEP 500 kV system, a generating plant must be at least 500 MW.

If the total generation at a single site (or within a one mile radius) exceeds 100 MW, then a full transmission switching station (e.g. a three-breaker ring bus) will be required. If the total tapped generation along an entire line exceeds 200 MW, then a full transmission switching station (e.g. a three-breaker ring bus) will be required somewhere on the line (location to be determined on a case-by-case basis considering specific local conditions). If a generating plant connects to a DEP switching station, the generator owner will typically build and own the radial transmission line from the generating plant to the DEP switching station.

For additional details, refer to the DEP Facility Connection Requirements located under Generator Interconnection Information at the DEP OASIS website²³.

Constrained Areas in DEP

For DEP, the constrained area map (Attachment 1) represents areas of the DEP transmission system where additional generator interconnections have a high likelihood (depending on ultimate development decisions) of causing transmission problems requiring significant, expensive, and long-lead-time transmission upgrades. The constrained areas were determined by Transmission Planning from prior studies and knowledge of the DEP transmission system. Generator interconnections in regions that are not identified as constrained are not guaranteed to be without transmission problems. Studies will

²² <https://ezmt.anl.gov/>

²³ <https://www.oasis.oati.com/cpl/index.html>

determine if there are any issues requiring transmission upgrades caused by generator interconnection requests in areas not identified as constrained.

In the greater Cumberland and Richmond County regions of North Carolina, extending across the state line into much of DEP's service territory in South Carolina, significant solar generation additions in the 2014-2017 timeframe, on both the transmission and distribution systems, have loaded the DEP transmission system to its limits. Any new generation in this area will cause transmission line overloads. Identified solutions exceed \$100 million in transmission upgrades and would take at least 4 years to complete.

In the greater Brunswick County region of North Carolina, existing limits on the transmission system can cause limitations in operation of the Brunswick nuclear generators. These thermal and dynamic stability limitations require that the output of the Brunswick nuclear generators be substantially reduced following the outage of any one transmission line in the area. This includes forced outages or planned maintenance outages of transmission lines in the Brunswick County region. Any additional generation in this region would cause additional, unacceptable limitations in operation of the Brunswick nuclear generators without the addition of costly transmission solutions. The estimated cost of the identified transmission solution for this issue exceeds \$100 million and would take at least 5 years to complete.

A DEP constrained infrastructure list is available that documents the individual transmission lines and substations that are in the constrained area.

Additional transmission line mapping information can be found at the Energy Zones Mapping Tool website²⁴.

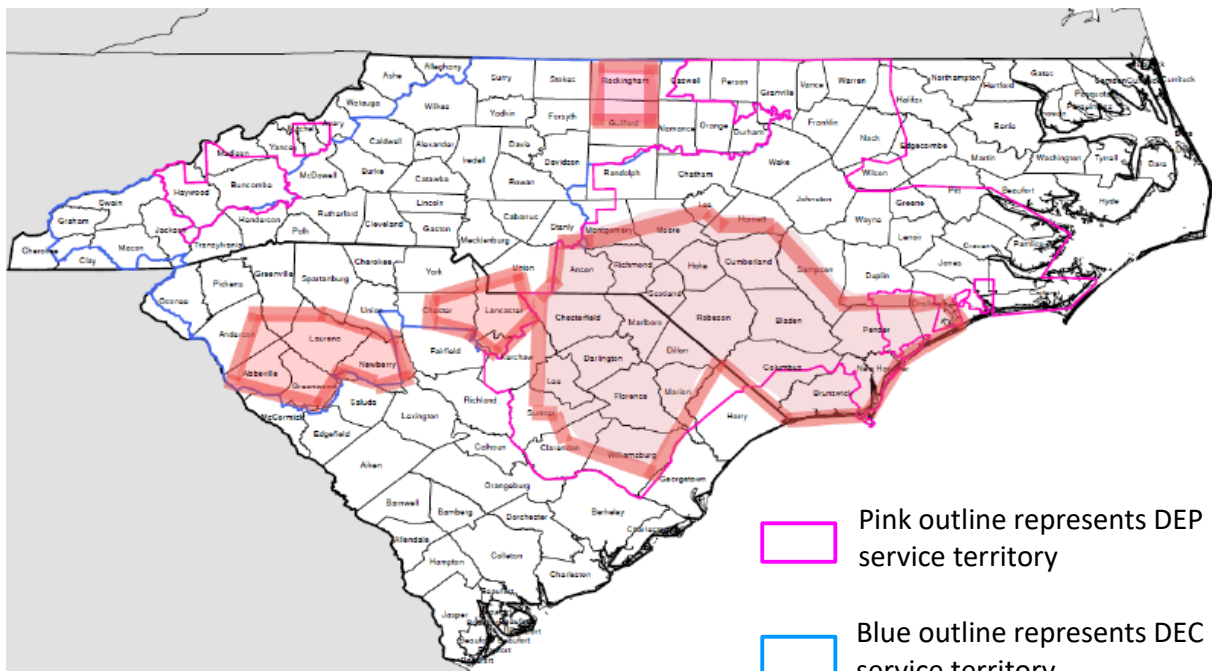
Connecting Smaller Generators to the DEC and DEP Distribution Systems

Guidelines for the connection of smaller generators to the DEC and DEP Distribution Systems are provided in the Duke Energy Method of Service Guidelines²⁵. In general, projects between 10 and 20 MW may be able to connect directly to a retail substation depending the voltage class of the distribution circuit, the voltage class of the transmission line serving the retail station, and other specific local factors described in the guidelines. Projects less than 10 MW may be able to connect to a general distribution circuit depending the voltage class of the distribution circuit, the voltage class of the transmission line serving the retail station, and other specific local factors described in the guidelines.

²⁴ <https://ezmt.anl.gov/>


²⁵ <https://www.duke-energy.com/home/products/renewable-energy/generate-your-own>

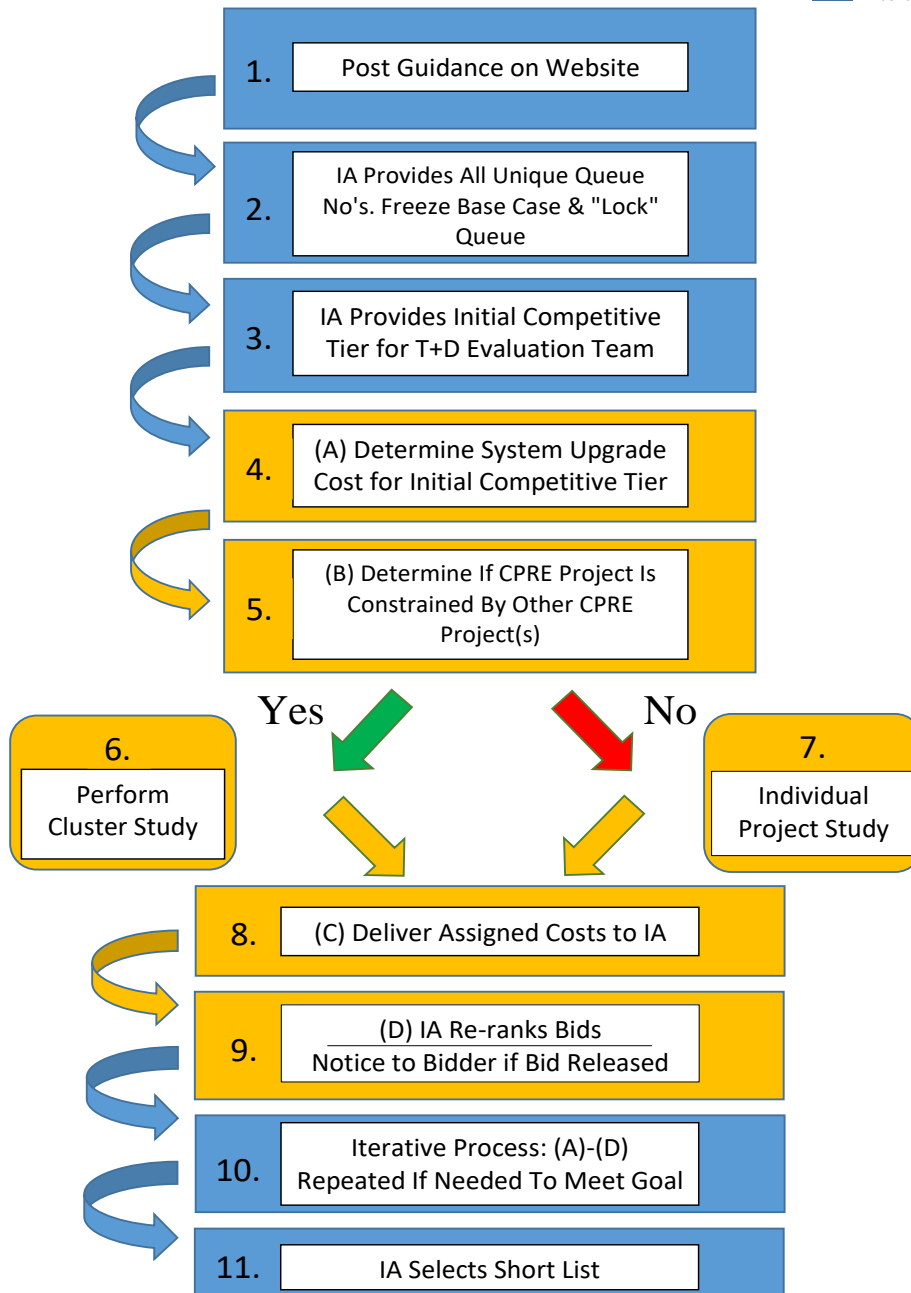
Attachment 1 DEC and DEP Constrained Areas



APPENDIX C
FLOW CHART OF STEP 2 ITERATIVE PROCESS

CPRE STEP 2

 =Iterative Process



**ATTACHMENT 1
TRANCHE 1 FINAL RESULTS
Report page 3**

DEC

Proposal #	Contracting Party	Parent Company	Location	MWs AC	Storage Included ?
118-01	Partin Solar, LLC	Southern Current, LLC	Elkin, NC	50	
143-06	Carolina Solar Power, LLC	Duke Energy Renewables	Cleveland County, NC	50	
83-07	Duke Energy Carolinas, LLC	Duke Energy	Catawba County, NC	69.3	
60-01	X-Elio Energy SC York, LLC	X-Elio North America INC	York, SC	30	
57-23	Sugar Solar, LLC	Cypress Creek Renewables	Yadkinville, NC	60	
336-02	Westminster PV1, LLC	Ecoplexus, Inc.	Rutherfordton, NC	75	✓
336-01	Oakboro PV1, LLC	Ecoplexus, Inc.	Oakboro, NC	40	✓
143-04	Carolina Solar Power, LLC	Duke Energy Renewables	Surry County, NC	22.6	
83-06	Duke Energy Carolinas, LLC	Duke Energy	Gaston County, NC	25	
258-02	JSD Management, LLC	JSD Management, LLC	Woodruff, SC	20	
143-05	Carolina Solar Power, LLC	Duke Energy Renewables	Cabarrus County, NC	22.6	
DEC Total:				464.5	

DEC Winning Proposals that Withdrew

Proposal #	Contracting Party	Location	MWs AC	Storage Included?
93-01	Stanly Solar, LLC	Albemarle, NC	50	

DEP

Proposal #	PPA Contracting Party	Parent Company	Location	MWs AC	Storage Included?
67-1	Cardinal Solar, LLC	National Renewable Energy Corporation	Marion, SC	7.02	
188-1	Trent River Solar, LLC	Silver Creek Intermediate, LLC	Pollockville, NC	78.7	
DEP Total:				85.72	

DEP Winning Proposals that Withdrew

Proposal #	Contracting Party	Location	MWs AC	Storage Included?
95-2	Duke Energy Carolinas, LLC	Richlands, NC	79.8	

PROFESSIONAL SERVICES AGREEMENT

INDEPENDENT ADMINISTRATOR SERVICES
FOR THE NORTH CAROLINA COMPETITIVE PROCUREMENT
OF RENEWABLE ENERGY PROGRAM

This Professional Services Agreement (this “**Agreement**”) is entered into as of January 9, 2018 (the “**Effective Date**”) by and between Duke Energy Business Services, LLC, as agent for and on behalf of Duke Energy Carolinas, LLC and Duke Energy Progress, LLC (“**Duke Energy**”), and Accion Group, LLC, a New Hampshire limited liability company (“**Consultant**”). Duke Energy and Consultant are referred to herein individually as a “**Party**,” and collectively as the “**Parties**.”

Duke Energy Business Services, LLC is entering into this Agreement as agent for and on behalf of each of the Duke Energy companies designated above individually and not jointly. As such, no such company for which Duke Energy is acting as agent shall have any liability to Consultant unless and until it (or its agent on behalf of such company) issues a work authorization under this Agreement and then any such liability shall be several and not joint with any other such company. Each work authorization is a separate contractual commitment of the company (or its agent on behalf of such company) that issues such work authorization and not a commitment of any other company.

RECITALS

WHEREAS, the North Carolina Utilities Commission (the “**Commission**”) has recently adopted Rule R8-71, to implement the Competitive Procurement of Renewable Energy (the “**CPRE**”) program enacted by Part II of Session Law 2017-192, as codified at Section 62-110.8 of the North Carolina General Statutes and as implemented in Commission Rule R8-71 (the “**CPRE Rule**”);

WHEREAS, the CPRE Rule provides that Duke Energy shall contract with a third-party independent administrator, the engagement of whom shall be subject to the approval of the Commission, to administer Duke Energy’s upcoming CPRE solicitations and to perform the duties of the third-party independent administrator identified in the CPRE Rule, which duties include, without limitation, providing technical expertise and services in the area of competitive renewable energy facility procurement;

WHEREAS, Consultant is in the business of providing consulting services similar to those required to be provided by the third-party independent administrator as described in the CPRE Rule;

WHEREAS, on December 8, 2017, Duke Energy filed its initial comments and recommendations that the Commission approve the Consultant as the third-party independent administrator and, on January 9, 2018, the Commission issued an Order approving Consultant to act in such capacity; and

WHEREAS, each of Duke Energy and Consultant desires to enter into this Agreement to enable Duke Energy to utilize Consultant to provide the third-party independent administrator services required under the CPRE Rule;

NOW, THEREFORE, in consideration of the recitals, the mutual promises herein and other good and valuable consideration, the receipt and sufficiency of which the Parties acknowledge, the Parties, intending to be legally bound, stipulate and agree as follows:

1. Definitions.

“**Deliverables**” means: (a) all drawings (stamped or certified as required by law), all charts, graphs, studies, reports, computer programs, software and other related documents; (b) all supporting documentation for such drawings, charts, graphs, studies, reports, computer programs, and all training documentation related thereto; and (c) all tangible media upon which the information is recorded, including disks, tapes, chips, all of which are specified for delivery by Consultant to Duke Energy in the Agreement.

“**Duke Energy PII**” has the meaning set forth in Attachment A.

“**Services**” means all services and related obligations to be performed by Consultant under the Agreement as required by Subsection (d)(5) of the CPRE Rule, including, without limitation, (i) monitoring Duke Energy’s compliance with CPRE program requirements, (ii) reviewing and commenting on draft CPRE program filings, plans, and other documents, (iii) facilitating and monitoring permissible communications between Duke Energy’s evaluation team and other participants in the CPRE request for proposal solicitations, (iv) developing and publishing the CPRE program methodology that shall ensure equitable review between Duke Energy’s self-developed proposals as addressed in subsection (f)(2)(iv) of the CPRE Rule and proposals offered by third-party market participants, (v) receiving and transmitting proposals, independently evaluating the proposals and monitoring post-bid negotiations between Duke Energy’s evaluation team and participants who submitted winning proposals, (vi) evaluating Duke Energy’s self-developed proposals for the Commission, (vii) providing an independent certification to the Commission in the CPRE compliance report that all Duke Energy and third party proposals were evaluated under the published CPRE program methodology and that all proposals were treated equitably through the CPRE request for proposal solicitations.

“**Specifications**” means that certain Statement of Work, attached hereto as Exhibit A.

2. Order of Precedence. The “**Agreement**” shall mean and shall consist of the following documents, listed in their order of priority in the event of a conflict: (a) any Amendment or Change Order signed by both parties, (b) the Duke Energy Purchase Order issued to Consultant, as applicable, to which these terms and conditions are attached or included; (c) these terms and conditions; and (d) any exhibit(s), schedule(s), or descriptions and Specifications incorporated into the Agreement.

3. Scope of Work; Schedule; Term.

(a) Consultant shall furnish all required labor, materials, transportation and supervision necessary to perform, in a professional manner and in accordance with applicable law (including the CPRE Rule), any Services to be provided hereunder. Consultant shall organize and staff all Work so as to complete it in a timely manner at the lowest reasonable cost to Duke Energy. Consultant represents that it is qualified and equipped to undertake the Services described herein. The Parties hereto hereby acknowledge and agree that the Consultant, and the Services to be performed hereunder, remain subject to ongoing Commission oversight during the Term.

(b) Time is of the essence with respect to Services to be performed hereunder. Consultant shall notify Duke Energy within 24 hours of its first knowledge that any completion date(s) will not be met.

(c) The term of this Agreement shall commence on the Effective Date and shall continue until the earlier of (i) the completion of the CPRE Program and (ii) the fourth (4th) anniversary of the Effective Date (the “**Term**”), unless extended by written agreement between Duke Energy and the Consultant, or unless sooner terminated at any time during the Term in accordance with the terms and conditions hereof.

4. **Inspection and Acceptance.** Duke Energy’s inspection or acceptance of the Services shall not relieve Consultant of its obligation to comply with the terms of the Agreement. Duke Energy shall have ninety (90) days from the successful completion of the Services under the Agreement to confirm that the Services were performed in accordance with the Specifications. Excluding any latent errors or omissions and subject to the warranty obligations set forth herein, any Services not rejected by Duke Energy shall be deemed accepted. If Duke Energy determines that the Services were not performed in accordance with the Specifications, Duke Energy must notify Consultant in writing, during such acceptance period, of the discrepancies. Duke Energy and Consultant agree to work together for a period not to exceed thirty (30) days to resolve these discrepancies.
5. **Assigned Personnel.** Consultant shall assign properly licensed, qualified, and competent supervision and personnel to perform the Services. Key personnel shall not be removed or replaced without prior written notice to Duke Energy, which consent shall not be unreasonably withheld. Personnel provided by Consultant under this Agreement shall at all times remain the sole responsibility of said Consultant for purposes of personal and professional liability. Consultant shall secure and protect its own materials, tools, equipment and the Services, including Duke Energy provided materials and equipment. Consultant shall provide Duke Energy with periodic progress reports as requested by Duke Energy. The price shall include, and the Consultant shall be responsible for the payment to its employees of all compensation, taxes, assessments for unemployment insurance, social security and disability benefits, and other fees, benefits (including health and retirement) and taxes which are based upon the compensation paid to persons employed by Consultant or its subcontractors for the performance of any Services. Consultant agrees to indemnify, defend and hold Duke Energy and its directors, officers, employees and administrators of Duke Energy’s benefit and health plans harmless from all claims, liabilities or expenses related to such compensation.
6. **Changes in Services.** Duke Energy may change the scope of Services with the approval of the Commission and agreement of the Consultant from time to time through the use of a “**Change Order**”. If Consultant’s price or schedule will be affected by the change, Consultant must submit a request for a Change Order under the Agreement and Duke Energy must approve such change in scope in writing through the issuance of a Change Order prior to Consultant starting the changed Services. Additionally, in the event the parties are unable to agree to the terms of the Change Order, or in the event of an emergency, Duke Energy may, at any time, provide Consultant with a written change directive to make changes in, additions to and omissions from the Services or the schedule, and Consultant shall promptly proceed with the performance of Services so changed once approved by the Commission. Claims for additional compensation or time for performance must be itemized and supported with adequate documentation. Services

performed outside the scope or schedule set forth in this Agreement which are not requested by a Change Order or written change directive may not form the basis of a claim for additional compensation or time. If an omission or a reduction in scope is made from the Services, a decrease in compensation shall be agreed to by both parties.

7. **Payment.** Consultant shall invoice Duke Energy, with proper documentation, for all Services performed during the prior month or as otherwise set forth in the Purchase Order. The price to be paid for the Services to be performed hereunder are set forth in Exhibit B. If Services are being performed on a time-and-materials basis, the invoice shall include a statement or be accompanied by time sheets showing each employee's name, classification, hours worked, and the applicable rate of compensation to Consultant. If any equipment has been used for which a charge applies, the invoice must also specify the equipment used, hours of usage and rate of reimbursement for use. Any tax paid on material or equipment must be shown separately from the sale or rental price of those items. Duke Energy shall pay Consultant, upon submission of proper invoices and supporting documentation, the price due and owing for Services performed within forty five (45) days after receipt of the invoice. Duke Energy may withhold and offset payment if Duke Energy disputes Consultant's compliance with the terms of the Agreement, including but not limited to amounts that are incorrectly invoiced, and may withhold and offset any amount sufficient to reasonably protect Duke Energy from loss, damage or expense of any claim or lien against Duke Energy arising in connection with this Agreement. Duke Energy's payment does not constitute acceptance of the Services. The Purchase Order number must appear on all invoices and notices.

8. **Taxes.** Consultant shall be responsible for, and shall pay directly, any and all corporate and individual taxes that are measured by net income, profit or gross receipts imposed by any governmental authority on Consultant, its employees or subcontractors due to the execution of any agreement or the performance of or payment for Services in accordance with the Agreement. The price for the Services shall include all applicable foreign, federal, state and local taxes imposed on the Consultant by a governmental authority with respect to this Agreement. Consultant assumes exclusive liability for all sales, use or privilege taxes applicable to any materials, supplies, equipment or tools purchased, rented, leased, used or otherwise consumed by Consultant in conjunction with the performance of the Services. Consultant shall invoice the sale of tangible personal property separately from the provision of labor or Services. Tangible personal property includes materials, parts or other property that Consultant installs, incorporates, furnishes or otherwise supplies for Duke Energy's use or consumption that becomes the property of Duke Energy. Invoices for tangible personal property sold or leased to Duke Energy shall contain a note stating, "Property Transferred to Duke Energy". Taxes shall be billed as a separate line item on the original invoice for taxable purchases. When sales tax is not billed on the original invoice for taxable purchases, Duke Energy is not responsible for the sales tax and such tax is the sole obligation of the Consultant. When Services are to be performed in South Carolina, Consultant shall submit prior to commencement of Services, a properly completed State of South Carolina, Department of Revenue, Nonresident Taxpayer Registration Affidavit Income Tax Withholding form, Form I-312. If Duke Energy is exempt from the payment of any applicable sales or use taxes or has a direct payment permit with respect to such taxes, Consultant may access such certificate or permit, duly executed and issued by the appropriate governmental authority at <http://www.duke-energy.com/pdfs/legal/DirectPayPermit.pdf>. If Consultant fails to avail itself of such certificate or permit, Consultant shall be responsible for and shall pay any sales, use or privilege tax resulting from such failure.

9. **Warranty.** Consultant warrants that the Services provided: (i) will be performed in accordance with the highest professional standards and will be free from defects in design and fit for its intended purpose, (ii) will be performed in a timely manner as required by the Agreement and performed and supervised by qualified personnel, and (iii) will conform to the requirements of this Agreement and any attachments hereto, including, but not limited to, the Specifications. Consultant further warrants that all application software developed or implemented by Consultant under this Agreement, when used in accordance with its associated documentation, shall not infringe upon the intellectual property rights or marks of a third party. Consultant further represents and warrants that it is not a party to nor subject to any agreement or order which would limit, prevent or restrict its performance of any Services. In the event any portion of the Services furnished to Duke Energy fails to comply with this warranty obligation, Consultant will promptly re-perform the Services that were performed incorrectly or otherwise do not comply fully with this warranty without additional compensation from Duke Energy or, at Duke Energy's election, if re-performance is impractical or impossible in Duke Energy's sole discretion, will refund the amount paid to Consultant for the Services. If Consultant fails to commence and pursue corrective action as hereinabove provided, or in the event of an emergency, Duke Energy may correct the defective Services itself or hire others to do so and all costs to make such correction shall be paid by or back charged to the Consultant.
10. **Insurance.** Commencing with the performance of the Services hereunder, and continuing until the termination of the Agreement including during the performance of any warranty services, Consultant (and any tier subcontractors) shall maintain or cause to be maintained occurrence form insurance policies as follows: (a) Workers' Compensation specific to the applicable statutory requirements for the Services to be performed; provided that Consultant (or its subcontractor(s)) must notify Duke Energy if it is exempt from the statutory Workers' Compensation requirements; (b) Employer's Liability Insurance of not less than \$1,000,000 each accident/employee/disease; (c) Commercial General Liability Insurance having an available limit of at least \$1,000,000 per occurrence/\$2,000,000 in the aggregate for contractual liability, personal injury, bodily injury to or death of persons, and/or loss of use or damage to property, including but not limited to products and completed operations liability (which shall continue for at least three (3) years after completion), and premises and operations liability coverage (d) Commercial/Business Automobile Liability Insurance (including owned, non-owned or hired autos) having an available limit of at least \$1,000,000 each accident for bodily injury, death, property damage, with any fellow employee exclusion removed, and contractual liability; (e) Umbrella/Excess Liability insurance with available limits of at least \$1,000,000 per occurrence and follow form of the underlying Employer's Commercial General and Auto Liability insurance, and provide at least the same scope of coverages thereunder; (f) Professional Liability/Errors & Omissions (E&O) Insurance (claims-made form acceptable with reporting requirements of at least three (3) years after completion) with no resulting bodily injury or property damage exclusion with available limits of at least \$1,000,000 each claim, and (g) if accessing Duke Energy PII, Cyber Risk/Privacy Data protection liability insurance covering claims arising from breaches of security; violation or infringement of any right privacy, breach of federal, state, or foreign security and/or privacy laws or regulations; data theft, damage, destruction, or corruption, including without limitation, unauthorized access, unauthorized use, identity theft, theft of Duke Energy PII, transmission of a computer virus or other type of malicious code information security or data breaches, or misappropriation of data; with available limits of at least \$1,000,000 each occurrence and in the aggregate. All insurance policies provided and maintained by Consultant and each subcontractor shall: (i) be underwritten by insurers which are rated A.M. Best "A- VII" or higher; (ii) specifically include Duke Energy and its directors, officers, employees, affiliates,

subcontractors, and joint owners of any facilities as additional insureds, including for completed operations, with respect to Consultant's or its subcontractors' acts, omissions, services, products or operations, whether in whole or in part, excluding, however, for Worker's Compensation/Employer's Liability, E&O, and, if applicable, Cyber Risk/Privacy Data insurance; (iii) be endorsed to provide, where permitted by law, waiver of any rights of subrogation against Duke Energy and its directors, officers, employees, affiliates and subcontractors, and joint owners of any facilities; (iv) provide that such policies and additional insured provisions are primary with respect to the acts, omissions, services, products or operations of Consultant or its subcontractors, whether in whole or in part, and without right of contribution from any other insurance, self-insurance or coverage available to Duke Energy and its affiliates; and (v) contain a standard cross liability clause and separation of insured and severability of interest provisions except with respect to the limits of the insurer's liability. Any deductibles or retentions shall be the sole responsibility of Consultant and its subcontractors. Evidence of such coverage shall be provided via Consultant's certificate of insurance furnished to Duke Energy prior to the start of Services, upon any policy replacement or renewal and upon Duke Energy's request. All insurance policies shall provide that the insurer will provide at least thirty (30) days' written notice to Consultant, who in turn shall provide at least thirty (30) days' written notice to Duke Energy prior to cancellation or non-renewal of any policy (or ten (10) days' notice in the case of non-payment of premium). Consultant's compliance with these provisions and the limits of insurance specified herein shall not constitute a limitation of Consultant's liability or otherwise affect Consultant's indemnification obligations pursuant to this Agreement. Any failure to comply with all of these provisions shall permit Duke Energy to suspend all Services until compliance is achieved. The failure by Consultant to provide any or accurate certificates of insurance, or Duke Energy to insist upon any or accurate certificates of insurance, shall not be deemed a waiver of any rights of Duke Energy under this Agreement or with respect to any insurance coverage required hereunder. If there is a claim related to the Services under this Agreement, Consultant or its applicable subcontractors shall, upon Duke Energy's request, provide a copy of any or all of its required insurance policies, including endorsements in which Duke Energy is included as an additional insured.

11. **Force Majeure.** Force Majeure shall mean: (a) war, riots, insurrection, rebellion, floods, hurricanes, tornadoes, earthquakes, extreme and unanticipated weather conditions, and other natural calamities; (b) acts or inaction of any government authority which directly impact the Services; (c) explosions or fires arising from lightning or other natural causes unrelated to acts or omissions of the Party; or (d) delays in obtaining goods or services from any subcontractor caused solely by the occurrence of any of the events described in the immediately preceding subparts (a) through (c). Such acts, events or conditions listed in (a) through (d) above shall only be deemed a Force Majeure to the extent they: (i) directly impact the Services and are beyond the reasonable control of the Party claiming a delay, (ii) are not the result of the willful misconduct or negligent act or omission of such Party claiming a delay (or any person over whom that Party has control), (iii) are not an act, event or condition, the risk or consequence of which such Party has expressly assumed under the Agreement, and (iv) cannot be cured, remedied, avoided, offset, or otherwise overcome by the prompt exercise of reasonable diligence by the Party (or any person over whom that Party has control). Any delays in performance by Duke Energy or Consultant shall not constitute a default hereunder if and to the extent such delays of performance are caused by a Force Majeure event. The scheduled completion date shall be adjusted to account for any Force Majeure delay. The affected Party shall exercise all reasonable efforts to overcome and mitigate the effects of any force majeure event at its own cost.

12. **Compliance with Laws and Procedures.** (a) Consultant and its subcontractors, if any, shall observe and abide by all applicable laws, federal, state and local, and the rules and regulations of any lawful regulatory body acting thereunder in connection with the Services, including but not limited to the following: Executive Order 11246, Executive Order 13672 and Executive Order 13496 (29 CFR Part 471, Appendix A to Subpart A), and all amendments of the foregoing that may be made from time to time, the Americans with Disabilities Act, Fair Labor Standards Act of 1938, the Rehabilitation Act of 1973, the Vietnam Era Veterans' Readjustment Assistance Act of 1974, as amended, and their respective implementing regulations, which are made a part hereof as if set out herein. **This contractor (Duke Energy) and subcontractor (Consultant) shall abide by the requirements of 41 CFR 60-300.5(a) and 60-741.5(a). These regulations prohibit discrimination against qualified individuals on the basis of protected veteran status or disability, and require affirmative action by covered prime contractors and subcontractors to employ and advance in employment qualified protected veterans and individuals with disabilities.** Consultant and its subcontractors, if any, shall also comply with all applicable Duke Energy health, safety and security rules, programs or procedures. To the extent applicable, during the performance of this Agreement, Consultant shall observe and abide by the Equal Employment Opportunity provisions contained in 41 C.F.R. 60-1.4, 41 C.F.R. 60-300.5(a) and 41 C.F.R. 60-741.5(a), and the reporting clause set forth in 41 C.F.R. 61-300.10, and all amendments of the foregoing that may be made from time to time, all of which are incorporated herein by reference. In addition, Consultant shall comply with the following Federal Acquisition Regulation ("FAR") clauses as indicated and as applicable: (i) FAR 52.203-13, Consultant Code of Business Ethics and Conduct (Purchase Orders that exceed \$5 million and have a performance period of more than 120 days); (ii) 52.219-8, Utilization of Small Business Concerns (Purchase Orders that exceed \$150,000); (iii) 52.222-26, Equal Opportunity (all Purchase Orders unless Consultant is exempt from EO 11246); (iv) 52.222-35, Equal Opportunity for Veterans (all Purchase Orders of \$100,000 or more unless Consultant is exempt); (v) 52.222-36, Affirmative Action for Workers with Disabilities (Purchase Orders that exceed \$15,000 unless Consultant is exempt); (vi) 52.222-40, Notification of Employee Rights Under the National Labor Relations Act (Purchase Orders that exceed \$10,000 unless Consultant is exempt); (vii) 52.222-50, Combating Trafficking in Persons (all Purchase Orders) and (viii) 52.222-55, Minimum Wages Under Executive Order 13658 (all Purchase Orders). (b) Consultant shall fully comply with all export and import control laws and regulations with regard to any Services performed by Consultant or with regard to information supplied by Duke Energy to Consultant under this Agreement. In particular, Consultant shall not directly or indirectly use, export, re-export, distribute, transfer or transmit any such Services or information in whole or in part, in any form without all required United States and foreign government licenses and authorizations, including but not limited to any applicable export controls of the U.S. Nuclear Regulatory Commission, the U.S. Department of Energy or the U.S. Department of Commerce. In no event shall Duke Energy be obligated under this Agreement or any other agreement to provide access to or furnish any Services or information except in compliance with applicable United States export control laws, regulations, policies, licenses and approvals. For any Services that are to be performed in South Carolina, Consultant certifies that it will comply with the applicable requirements of Title 8, Chapter 14 of the South Carolina Code of Laws and agree to provide, upon request any documentation required to establish that Consultant and its subcontractors are in compliance with Title 8, Chapter 14 of the South Carolina Code of Laws. Consultant shall provide to Duke Energy written evidence of Consultant's compliance with this requirement at least five days prior to beginning any Services subject to this requirement. (c) To the extent applicable, by entering into this Agreement, Consultant and its subcontractors agree to

comply with the provisions of the Foreign Corrupt Practices Act (FCPA) for any business transactions occurring outside the United States of America.

13. **Safety.** Consultant and its personnel involved in performance of the Services including, but not limited to, employees, subcontractors and agents, shall comply with all Duke Energy environmental, safety and security procedures, policies and regulations (inclusive of: i) Duke Energy's Health and Safety Handbook; ii) Duke Energy's Health and Safety Supplemental Requirements; iii) Duke Energy's Environmental Handbook; and iv) Duke Energy's Safety and Security procedures – all while on Duke Energy's premises to achieve an injury-free workplace and all as amended from time to time; provided that such rules and procedures do not conflict with the Occupational Safety and Health Act of 1970 (“OSHA”), or any revisions or amendments to OSHA or successor legislation, or other safety laws, rules and regulations. Written alternative work practices that provide equivalent safety may be submitted to Duke Energy and used by Consultant in the performance of Services upon Duke Energy's written approval. In addition, Consultant must follow detailed technical safety specifications when they are provided. Consultant shall comply with and enforce all laws, rules, and regulations applicable to safety and health standards, including but not limited OSHA. If Consultant employs non-English speaking persons, Consultant shall ensure that a bilingual person fluent in speaking, reading and writing both English and the applicable non-English language is available at the jobsite where the non-English speaking person(s) are working for purposes of safety and hazard related communications, communicating technical information, emergency responses, and similar issues. Consultant shall further ensure that all written and verbal safety training, hazard communications, and work rules are provided in the appropriate language for such non-English speaking employees or persons. Consultant shall not, and shall not permit any worker, employee, or other party to bring any firearm or other weapon of any type upon any property owned or controlled by Duke Energy. Further, Consultant shall not permit or tolerate the introduction or use of intoxicating liquor, narcotic drugs, gambling, or gambling paraphernalia at any Duke Energy site or during the performance of the Services. Any employee, independent contractor, or agent of Consultant found engaging in such activities shall be removed and permanently barred from Duke Energy property, including any and all Duke Energy sites.
14. **Infringement.** Consultant warrants that its performance of the Services and the provision of the Deliverables will not infringe upon or violate any trademarks, patents, copyrights, trade secrets, or other third party property rights, If the performance of Services or Deliverables is held in any action to constitute infringement, or the use of the Services or Deliverables is enjoined, Consultant, at its expense, shall procure for Duke Energy the right to continue use of the Services or Deliverables, or replace the Services or Deliverables with non-infringing Services or Deliverables that satisfy the applicable Specifications and are satisfactory to Duke Energy, or modify the Services or Deliverables in a manner that satisfies the applicable Specifications and is satisfactory to Duke Energy so that the Services or Deliverables become non-infringing. Consultant agrees to indemnify, defend and save Duke Energy harmless from and against any liability or damages, including attorneys' fees, arising out of any alleged infringement or violation.
15. **Intellectual Property; Deliverables.** During the performance of the Services, Duke Energy may provide Consultant with technical data, web content, customer lists, and other data. All right and interest in the Duke Energy data will remain with Duke Energy. Consultant shall be responsible for any discrepancies, errors or omissions in any Deliverables prepared by it, without regard to whether such documents have been reviewed or approved by Duke Energy. No such approval,

review or lack of review shall be deemed an approval or acceptance by Duke Energy and shall not create any liability on the part of Duke Energy. Duke Energy's approval, either with or without comments or modification(s) of any Deliverables furnished by Consultant shall not relieve Consultant of any responsibility or liability imposed upon it by any provisions of this Agreement.

16. Confidentiality; Publicity and Use of Marks.

(a) **Definition:** Each Party agrees that any Personal Information (as defined below) and information relating to the other Party's business, including but not limited to, intellectual property, information security systems that could be used to gain unauthorized access or pose a security threat to a Party, generation plans and customer, employee, retiree, shareholder or supplier information, or technical, financial, administrative and internal activities or any business plans and methods, operating and technical data, reports, drawings, operating documents, project documents, reports, and all non-public information, financial or otherwise, data specific to each Party and its business or its customer or group of customers, including, but not limited to, electricity or natural gas consumption, bulk electric system, electric distribution system, Critical Energy Infrastructure Information (as defined by the Federal Energy Regulatory Commission at 18 C.F.R. § 388.113, as amended), load profile, billing history, or credit history that is or has been obtained or compiled by Duke Energy in connection with supplying electric services or gas services to such customers, is considered confidential and proprietary information, including, without limitation all outage schedules, customer consumption, billing and credit data, and any and all other data or information written, oral or other media form that is: (i) disclosed at any time to either Party in connection with or incidental to the Services contemplated by this Agreement; (ii) processed at any time by either Party in connection with or incidental to the Services contemplated by this Agreement, (iii) derived by either Party from the information described in (i) or (ii) above; or (iv) marked "Confidential" or contains a similar marking ((i) – (iv) collectively referred to as "**Confidential Information**"). "**Personal Information**" means: any information relating to an identified or identifiable individual, including, but not limited to, name; postal address; email address or other online contact information (such as online user ID); telephone number; date of birth; Social Security number (or its equivalent); driver's license number (or other government-issued identification number); account information (including financial account information); payment card data (including primary account number, expiration date, security code, full magnetic strip data or equivalent on a chip, or pin number); access code, password, security questions and answers; medical information; health insurance information; biometric data; Internet Protocol (IP) address; or any other unique identifier.

(b) **Definition Exclusions:** Except with respect to "Personal Information," "Confidential Information" shall not include any information that: (i) was already known to the receiving Party at the time it was disclosed by the disclosing Party; (ii) was available to the public at the time it was disclosed by the disclosing Party; (iii) becomes available to the public after being disclosed by the disclosing Party through no wrongful act of, or breach of this Agreement by the receiving Party; (iv) is received by the receiving Party without restriction as to use or disclosure from a third party; or (v) is independently developed by the receiving Party without benefit of any disclosure of information by the disclosing Party. For the avoidance of doubt, Personal Information is considered Confidential Information and the terms of this Agreement (including those in this Section 16) apply to such information regardless of (i) – (v) above.

(c) **Disclosure Prohibited:** Each Party agrees that it shall not use (except in connection with

the provision and receipt of Services as described in this Agreement) share, transfer, disclose, or publish or otherwise provide the Confidential Information of the other Party to any third party (including affiliates and subcontractors) for any reason unless approved in writing by the disclosing Party.

1. Consultant agrees not to disclose the Confidential Information of a Duke Energy business unit to any other Duke Energy entity during the Term hereof and at any time subsequent thereto without the prior written consent of Duke Energy. For purposes of clarity, Duke Energy shall not disclose, nor approve the disclosure of, any proprietary customer information without the prior consent of the applicable customer. Consultant shall not disclose or transmit any PII to Duke Energy without the prior written consent of Duke Energy.
2. Where Consultant, with the consent of Duke Energy, provides to a third party access to Duke Energy Confidential Information, Consultant shall impose obligations on such third party that are substantially similar to those imposed on Consultant in this Section 16. Consultant shall only retain subcontractors that Consultant reasonably can expect to be suitable and capable of performing the delegated obligations in accordance with this Section 16. Consultant shall be responsible for, and remain liable to Duke Energy for, any such third party's compliance with this Section 16.
3. Consultant shall not disclose or transmit any Personal Information to Duke Energy without prior written consent of Duke Energy.

(d) **Use Restrictions:** Each Party agrees to use Confidential Information solely for the purpose of this Agreement and shall disclose the other Party's Confidential Information only to its employees with a need to know such information for the performance of this Agreement and only after such employees understand and agree to be bound by the terms at least as restrictive as those contained in this Section. Each Party shall (i) provide training, as appropriate, regarding the privacy, confidentiality and information security requirements set forth in this Section 16; and (ii) exercise the necessary and appropriate supervision over its relevant employees to maintain the appropriate privacy, confidentiality and security of Confidential Information. Each Party shall be responsible for, and remain liable to Duke Energy for, its employees' compliance with this Section 16.

(e) **Degree of Care:** Each Party agrees to protect the Confidential Information of the other Party with at least the same degree of care used to protect its own most confidential information.

(f) **Court Order:** To the extent the Parties have an existing non-disclosure or other confidentiality agreement which covers the same subject matter as this Agreement in effect as of the effective date of this Agreement, this Section shall supersede such agreement unless otherwise agreed by the Parties. If the receiving Party is requested or ordered by a court or governmental entity to disclose any or all of the Confidential Information, the receiving Party shall (i) promptly notify the disclosing Party of the existence, terms and circumstances surrounding the request or order; (ii) consult with the disclosing Party on the advisability of taking steps to resist or narrow the request or order; (iii) cooperate with the disclosing Party in any lawful effort the disclosing Party undertakes to obtain any such relief and with any efforts to obtain reliable assurance that confidential treatment will be given to that portion of Confidential Information that is disclosed; and (iv) furnish only the minimal portions of Confidential

Information as the receiving Party is advised by counsel is legally required to be disclosed, unless the disclosing Party expressly authorizes broader disclosure in writing.

(g) Storage and Encryption of Duke Energy Confidential Information and Duke Energy PII:

- a. Consultant shall not store, access, or maintain any Duke Energy Confidential Information outside the United States (including its territories and protectorates); provided that the Parties acknowledge that Consultant shall be permitted to back up the CPRE request for proposals (“RFP”) website to be maintained CPRE to an offsite server located in the United States.
- b. Consultant shall encrypt all Duke Energy electronically stored Duke Energy Confidential Information in its possession both at rest and in transit
- c. Consultant shall encrypt all Duke Energy electronically-stored Duke Energy PII data elements listed in Attachment A., using the following design elements:
 - i. The Duke Energy PII shall be encrypted in all applications where the Duke Energy PII is initially acquired.
 - ii. Decryption of data elements of the Duke Energy PII shall only occur in a consuming application, or in output, with a Legitimate Business Requirement for native data elements of the Personal Information. (A “Legitimate Business Requirement” is a need that supports or fulfills the provision of a Service under this Agreement.)
 - iii. Access to a fully decrypted data element of the Duke Energy PII is provided only to individuals/entities with a Legitimate Business Requirement for such access, where such access is authenticated using identity management techniques.
 - iv. Masking output is utilized to provide access to, or display, a portion of decrypted data in the absence of a Legitimate Business Requirement for decrypted access (i.e. mask all but last 4 digits of social security number on reports).
 - v. Custom application(s) will be developed to accommodate ad hoc database queries returning decrypted results appropriate for the individual’s Legitimate Business Requirement.
- d. Consultant shall use encryption algorithms used for the Duke Energy Confidential Information and the Duke Energy PII that are currently endorsed by NIST (www.nist.gov), and such algorithms shall be updated as such NIST endorsements are updated from time-to-time. Consultant may not use proprietary encryption algorithms.
- e. Consultant shall employ encryption / decryption key management such that the keys are managed confidentially.

(h) Return of Confidential Information: Promptly upon the expiration or earlier termination of this Agreement, or such earlier time as Duke Energy requests in writing, Consultant will return to Duke Energy or its designee, or render unreadable or undecipherable if return is not reasonably feasible or desirable to Duke Energy (which decision will be at Duke Energy’s sole discretion), each and every original and copy in every media of all Duke Energy Confidential Information in Consultant’s possession, custody or control including all information and materials that contain or are derived from Duke Energy Confidential Information (“**Data Return Requirements**”), unless Consultant is required to keep copies of such Duke Energy Confidential Information by law, and then only to the extent necessary for compliance. To the extent Consultant is required to keep copies of Duke Energy Confidential Information by law, Consultant shall provide Duke Energy with a written, detailed inventory of such information and a citation to the applicable law

for each such item, in advance of keeping such copies. Promptly following any return or alternate action taken to comply with the Data Return Requirements, Consultant will provide to Duke Energy a written certification from one of Consultant's officers certifying that such return or alternate action occurred.

(i) **Vendor Network:** Upon request, Duke Energy may provide Consultant access to an external network to access the Internet ("**Vendor Network**") while Consultant works on-premises at a Duke Energy facility. Consultant agrees that any use of the Internet and electronic mail through the Vendor Network will be solely for necessary business purposes.

(j) **Internal Network:** Duke Energy's internal network ("**Internal Network**") is independent of the Vendor Network. Consultant agrees that it may access the Internal Network solely for the purpose of performing the Services. The Internal Network contains Duke Energy Confidential Information, which Consultant may be required to access to perform the Services. Consultant agrees that access to the Internal Network for other purposes, or the use of the Internal Network to access other non-Services-related networks, is strictly forbidden, and Consultant is responsible and liable for all damages for such unauthorized access or all damages arising resulting from such actions; and Consultant agrees that such activity may result in the discontinuation of any and all Duke Energy network access.

(k) **Internet Access:** In accordance with Duke Energy's existing Internet usage policies, Consultant and its employees shall not access any gambling, pornography or hate or violence sites from either the Vendor Network or the Internal Network; introduce any viruses, worms, Trojan horses or other bugs or errors in any Duke Energy network; or forward any chain letters, executable "ready to run" files or other files which may cause damage to Duke Energy's computer or network systems. Duke Energy reserves the right to monitor Consultant's use of the Vendor Network, the Internal Network, the Internet through the Vendor and Internal Networks, and Duke Energy's information systems for these or other unauthorized or unlawful activities.

(l) **Access Termination:** Duke Energy reserves the right, in its sole discretion, to terminate Consultant's access to and use of the Vendor Network or Internal Network at any time, for any reason, and without notice to Consultant.

(m) **Compliance with Privacy Laws** Consultant shall comply, and shall require its subcontractors to comply, with (i) all applicable international, federal, state, provincial and local laws, rules, regulations, directives and governmental requirements currently in effect and as they become effective relating in any way to the privacy, confidentiality or security of Confidential Information ("**Privacy Laws**"); (ii) all applicable industry standards concerning privacy, confidentiality or information security including, without limitation, the ISO/IEC 27001 and ISO/IEC 27002 Standards, the National Institute of Standards and Technology ("**NIST**") Framework for Improving Critical Infrastructure Cybersecurity and the Payment Card Industry Data Security Standard ("**PCI DSS**"); and (iii) applicable provisions of Duke Energy's written requirements currently in effect and as they become effective relating in any way to the privacy, confidentiality or security of Confidential Information, or applicable privacy policies, statements or notices that are provided to Consultant by Duke Energy in writing.

(n) **Consultant's Security Procedures; Consultant's Security Program Requirements.** (1). In addition to any other privacy, confidentiality or security requirements set forth herein, Consultant will maintain a comprehensive data and systems security program ("**Security**

Program”), which encompasses (but is not limited to) any of Consultant’s goods that contain software (including firmware) (“**Software**”) executed or installed on any device connected to such Software or connected to a Duke Energy information system or network); which program shall include, but may not be limited to, reasonable and appropriate technical, organizational, administrative and physical security measures to (i) ensure the security and confidentiality of and (ii) protect against the destruction, loss, and unauthorized access, acquisition, use disclosure or alteration of: (x) Duke Energy Confidential Information, (y) Duke Energy’s information systems, and (z) Duke Energy’s networks. (2). Without limiting the generality of the foregoing, Consultant’s Security Program shall, (unless otherwise agreed in advance, in writing) at a minimum: (i) use industry standard software and hardware data and system security tools generally available on the market and shall not use Consultant’s proprietary technology; (ii) include secure user authentication protocols; secure access control measures; reasonable monitoring of systems on which Confidential Information is maintained; appropriate segregation of Confidential Information from information of Consultant or its other customers; effective systems for identifying and responding to threats; effective systems for identifying and addressing information security vulnerabilities; and appropriate personnel security and integrity procedures and practices; and (iii) use best practice cyber security and coding practices that address issues identified in the then current Open Web Application Security Project Top 10, and the SysAdmin, Audit, Networking, and Security (“**SANS**”) Top 25 Programming Errors, and SANS top 20 critical controls. (3). Consultant shall promptly, upon Duke Energy’s request: (y) disclose to Duke Energy IT Security all backdoors, embedded credentials and interactive remote management/support capabilities, and (z) verify that unused features have been disabled. The content and implementation of Consultant’s Security Program shall be fully documented in writing by Consultant. Upon Duke Energy’s request, Consultant shall permit Duke Energy to review such documentation and/or inspect Consultant’s compliance with the Security Program. (4). Consultant agrees to: (a) notify Duke Energy, in accordance with Section 30 hereof (and with a copy to cirhotline@duke-energy.com) as soon as reasonably possible; but in no case later than twenty-four (24) hours after it becomes aware of any threatened, attempted or successful breach or loss of, destruction of, unauthorized access to, acquisition of, use of, disclosure of, or other compromise of (x) Duke Energy Confidential Information (y) Duke Energy’s information systems, or (z) Duke Energy’s computer networks (each such event referred to herein as a “**Security Event**”). Notwithstanding the twenty-four (24) hour requirement set forth above, Consultant agrees to provide such notification within thirty (30) minutes after it becomes aware of any such Security Event that is reasonably likely to have a material adverse effect on the integrity or operation of a Critical Cyber System (as defined below). Such notice shall summarize in reasonable detail the effect on Duke Energy; (b) immediately investigate and perform a root cause analysis of the Security Event; (c) cooperate fully with Duke Energy and remediate the effects of such Security Event; and (d) provide Duke Energy with such assurances as Duke Energy shall request that such Security Event is not likely to recur. The content of any filing, communication, notice, press release or report related to any Security Event must be approved by Duke Energy prior to any publication or communication. “**Critical Cyber System**” means any computer or information network, system, facility, equipment, hardware device, or software which, if mis-used, degraded, destroyed, or rendered unavailable, would adversely affect the reliable operation of Duke Energy’s bulk electric systems, nuclear facilities or electric distribution system. (5) Upon the occurrence of a Security Event involving (i) Confidential Information in the possession, custody or control of Consultant or for which Consultant is otherwise responsible, or (ii) Critical Cyber Systems accessed by or accessible to Consultant in connection with Consultant’s performance of the Services for or on behalf of Duke Energy, Consultant shall reimburse Duke Energy on demand for all Notification Related Costs (as defined

below) incurred by Duke Energy arising out of or in connection with any such Security Event. "Notification Related Costs" shall include Duke Energy's internal and external costs associated with investigating, addressing, and responding to the Security Event, including but not limited to: (i) preparation and mailing or other transmission of notifications or other communications to consumers, employees or others as Duke Energy deems reasonably appropriate; (ii) establishment of a call center or other communications procedures in response to such Security Event (e.g., customer service FAQs, talking points and training); (iii) public relations and other similar crisis management services; (iv) legal, consulting forensic expert and accounting fees and expenses associated with Duke Energy's investigation of and response to such event; and (v) costs for commercially reasonable credit monitoring or identity protection services.

(p) **Data Security and Compliance Audits:** If Consultant: (i) provides any Software that is installed on a Duke Energy computer or network; or (ii) has access to, or stores or processes any Duke Energy Confidential Information; or (iii) connects its computer systems, Software, and/or applications to any Duke Energy network, including but not limited to, the Vendor Network or Internal Network, then Duke Energy shall have the right to monitor Consultant's compliance with the terms of this Section and perform data security and system integrity audits ("**Audits**") on any of Consultant's applicable systems and/or applications used to provide the Software or Services. Consultant hereby grants permission to Duke Energy to perform such Audits.

- a. On an annual basis, Consultant, at Consultant's expense, shall require auditors to conduct an examination of the controls placed in operation and a test of operating effectiveness, as defined by Statement on Standards for Attestation Engagements No. 16, Reporting on Controls at a Service Organization ("**SSAE 16**"), of the services performed by Consultant for or on behalf of Duke Energy and issue SOC 1 and SOC 2 reports (Type II) thereon (collectively "**SOC Reports**") for the applicable calendar year. Consultant shall submit the proposed control objectives to Duke Energy for approval prior to conducting the audit. Consultant shall deliver to Duke Energy a copy of the SOC Reports within six (6) weeks after conducting the SSAE 16 assessment for the calendar year. Consultant shall correct any audit control issues, deficiencies or weaknesses identified in any SOC Reports, at no additional cost to Duke Energy. If specific audit recommendations are not implemented by Consultant, then Consultant should implement such alternative steps as are reasonably satisfactory to Duke Energy for the purposes of minimizing or eliminating the risks identified in any such SOC Report.
- b. If Consultant does not cause a SSAE 16 examination to the controls placed in operation and a test of operating effectiveness to be conducted as described in paragraph (a) above and deliver the SOC Reports to Duke Energy, Duke Energy shall, at its discretion, conduct an audit, or have an audit conducted by a designated representative, at Duke Energy's expense at a date and time mutually agreed to by Duke Energy and Consultant. Such Audits shall include, but shall not be limited to, physical inspection of facilities and equipment, external scan, process reviews, and reviews of system configurations, including firewall rule sets, and any information or materials in Consultant's possession, custody or control, relating in any way to Consultant's obligations under this Section. Duke Energy has the right to review copies of the internal scans that have been performed on Consultant's internal servers connected to the Internal Network.
- c. To the fullest extent permitted by law, Consultant hereby waives the benefit of any state or federal law which may provide a cause of action against Duke Energy based on actions permitted under this Section.

- d. Should the Audits result in the discovery of material data security or system integrity risks to Duke Energy, Duke Energy shall notify Consultant of such risks and Consultant shall respond to Duke Energy in writing with Consultant's plan to take reasonable measures to promptly correct, repair or modify its network or application to effectively eliminate the risk, at no cost to Duke Energy, and Consultant shall have 10 (ten) business days to cure such data security or system integrity risks, unless Duke Energy agrees to a longer period of time for such cure. If a data security or system integrity risk is, in good faith, found by Duke Energy and such risk cannot be alleviated in the timeframe contemplated by this Section, based on the nature of the risk, Duke Energy may terminate its network connection to Consultant immediately with or without notice to Consultant without cost or liability to Duke Energy.
- e. Upon Duke Energy's written request, Consultant shall complete and submit to Duke Energy an information security due diligence questionnaire provided by Duke Energy within the time-frame requested by Duke Energy.

(q) **Injunctive Relief:** Each Party agrees that any use, disclosure or handling of Confidential Information in violation of this Section or any applicable Privacy Law, or any other violation of this Section 16 (including a Security Event) may cause immediate and irreparable harm to the other Party and either Party shall be entitled to equitable relief, including an injunction and specific performance, in addition to all other remedies available at law or equity. Therefore, each Party agrees that the other Party may obtain specific performance and injunctive or other equitable relief for any such violation (in addition to its remedies at law) without proof of actual damages and without the necessity of securing or posting any bond in connection with such remedy.

(r) **Duke Energy Name and Logo; No Publication.** Consultant shall not use Duke Energy's (including Duke Energy's parent, affiliates and/or subsidiaries) name or the fact that Consultant is performing Services for Duke Energy in any press releases, media statements or public communications or otherwise publicize this Agreement without Duke Energy's prior written consent; which shall be at Duke Energy's sole discretion. Consultant shall not use Duke Energy's (including Duke Energy's parent, affiliates and/or subsidiaries) name, logos, copyrights, trademarks, service marks, trade names, or trade secrets in any way without Duke Energy's prior written consent, which shall be at Duke Energy's sole discretion; and Duke Energy shall not be deemed to have granted Consultant a license of, or granted Consultant any rights in, any of the foregoing by entering into this Agreement, provided that Duke Energy hereby grants permission to Consultant to utilize Duke Energy's name and logo on the CPRE RFP website and other CPRE RFP materials. Additionally, Consultant agrees to cooperate with Duke Energy in maintaining good community relations. Duke Energy will issue all public statements, press releases, and similar publicity concerning any Services, its progress, completion, and characteristics. Consultant shall not make or assist anyone to make any such statements, releases, photographs or publicity without prior written approval of Duke Energy. If applicable to Consultant's performance of Services under this Agreement, Consultant represents and warrants that all Services have been completed in adherence to Duke Energy's web accessibility guidelines which are set forth at <https://www.duke-energy.com/customer-service/accessibility>.

17. **Termination for Default; Suspension.** (a) If Consultant defaults under any term of the

Agreement or a Purchase Order and does not cure that default within 15 days after Duke Energy gives Consultant written notice of default, Duke Energy shall be entitled to seek an order from the Commission: (i) to suspend its performance under the applicable Purchase Order; (ii) to terminate the applicable Purchase Order or the Agreement and have no further obligation to Consultant; (iii) to declare all or part of Consultant's obligations to Duke Energy under the applicable Purchase Order immediately due and payable; and (iv) to pursue any other right or remedy Duke Energy may have. Duke Energy shall be entitled to set off all of its losses, costs and damages against all amounts Duke Energy owes Consultant. Upon any such termination, Consultant shall immediately stop work on the terminated portion of the Agreement or as otherwise required by Duke Energy to complete any portion of the Services. Consultant shall not be entitled to any profit or overhead on that portion of the Services not performed, nor any other damages. Upon termination, Duke Energy shall not be liable to Consultant for Consultant's lost profits on the terminated portion of the Agreement. Upon termination of a Purchase Order, Consultant shall provide to Duke Energy all portions of any Deliverable created prior to such termination. (b) Duke Energy may temporarily suspend all or any portion of the Services hereunder for a reasonable period of time. In such event, Consultant shall cease all Services and subsequently resume performance of the Services in accordance with notice from Duke Energy. Consultant's time for performance shall be extended in the event of such suspension but Consultant shall not be entitled to any additional compensation or delay damages, except for direct charges and costs related to demobilization and remobilization of personnel and equipment, if any, as agreed to by Duke Energy.

18. **Indemnification.** To the maximum extent permitted by law, Consultant shall indemnify, defend and hold harmless Duke Energy (including its parent, subsidiary and affiliate companies), its officers, employees, agents, and any other party with an ownership interest in the premises from and against all liability, loss, costs, claims, damages, expenses, judgments, and awards, whether or not covered by insurance, arising or claimed to have arisen in whole or in part: (a) from acts or omissions of, or as a result of Services performed or omitted from being performed, or as a result of negligence by Consultant, its subcontractors, materialmen, or assignees and their agents or employees, which resulted in: (i) injury (including mental or emotional) to or death of any person, including employees of Duke Energy (including its parent, subsidiary and affiliate companies) or (ii) damage to or destruction of any property, real or personal, including without limitation property of Duke Energy (including its parent, subsidiary and affiliate companies) and its other contractors, Duke Energy's (including its parent, subsidiary and affiliate companies') employees and fellow employees; (b) out of injuries sustained and/or occupational diseases contracted by Consultant, its employees, Consultant's subcontractors or Consultant's assignee's employees, if any, of such a nature and arising under such circumstances as to create liability by Duke Energy (or its parent, subsidiary or affiliate companies) or Consultant under the Workers' Compensation Act, and all amendments thereto, of the state having jurisdiction, including all claims and causes of action of any character against Duke Energy (and its parent, subsidiary and affiliate companies) by any employee of Consultant, its subcontractors or assignees, or the employer of such employees, or any person or concern claiming by, under or through them resulting from or in any manner growing out of such injuries or occupational diseases; (c) from any breach of, act or omission related to, or failure of Consultant to comply with the terms and obligations set forth under Section 16 (Confidentiality; Publicity and Use of Marks); (d) from all third party claims due to Consultant's breach of the Purchase Order and (e) from demands, actions or disputes asserted by any subcontractors, employees or suppliers of Consultant. Indemnification shall include all costs including attorney's fees reasonably incurred in pursuing indemnity and defense claims under or enforcement of this Agreement. Consultant waives all

rights of recovery, including for contribution, against Duke Energy and its directors, officers, employees, affiliates and subcontractors, and joint owners of any facilities for any matters to which this Section may apply.

19. **Waiver of Consequential Damages.** Excluding Consultant's indemnity obligations set forth herein and excluding any liability under Section 16, neither Party shall be liable to the other Party for any incidental, indirect, special, punitive or consequential damages (including without limitation any damages relating to lost profits) ("**Consequential Damages**") arising in connection with this Agreement unless such Consequential Damages are due in whole or in part to either Party's misrepresentation; fraud; willful, wanton, or reckless act or omission; or any other intentional conduct of either Party.
20. **Liens.** Consultant shall not file or permit to be filed any lien with respect to the Services, and to the extent permitted by law, expressly waives any right to file or cause to be filed a lien. Consultant, in its subcontracts, shall require all subcontractors, to the extent permitted by law, to expressly waive the right to file any liens against Duke Energy's property and, if requested, provide Duke Energy with copies of such waivers. Consultant shall immediately bond off any lien against Duke Energy and shall indemnify Duke Energy for any costs or expenses resulting from a breach of this Section. In the event that rights to a mechanic's lien are claimed upon Duke Energy's property by a subcontractor of Consultant, Consultant shall expeditiously obtain a bond or release of said mechanic's lien. Upon Consultant's failure to expeditiously obtain said bond or release, Duke Energy may proceed to obtain the bond or release of the mechanic's lien and Consultant shall be liable to Duke Energy for any costs and expenses, including attorneys' fees, which are incurred by Duke Energy in obtaining said bond or release.
21. **Assignment and Subcontracting.** Consultant may not subcontract, assign, or otherwise transfer this Agreement without the prior written consent of Duke Energy. If subcontracting is permitted by Duke Energy, Consultant shall continue to be responsible for the completion of this Agreement.
22. **Audit of Records.** During the term of this Agreement and for a period of four (4) years thereafter, Duke Energy shall have the right to inspect, copy, and audit at all reasonable times at Consultant's offices the books and records of Consultant relevant to this Agreement, including any amounts owing under this Agreement and compliance by Consultant with each of its obligations under this Agreement. If any audit by Duke Energy reveals charges or costs charged to or paid by Duke Energy that are not proper, are not supported by necessary documentation or records, or exceed the rates or amounts permitted hereunder, then Duke Energy shall be entitled upon demand to a refund from Consultant of all such amounts, plus interest thereon from the date of payment by Duke Energy until the date of refund by Consultant at a rate of the lesser of (i) one percent (1%) per month or (ii) the maximum rate permitted by applicable law. To permit an efficient audit of the books and records of Consultant, Consultant shall require that any employee or subcontractor of Consultant shall at all times record his or her time of actual work on time sheets in a form reasonably acceptable to Duke Energy.
23. **Qualifications; Screening Measures; Drug Policy.** (a) Consultant shall comply, and shall require its subcontractors to comply, with all applicable labor, employment, and immigration laws that may impact Consultant's obligations under this Agreement, including but not limited to federal, state and local laws, rules and regulations, and executive orders that are now or that become applicable to the Consultant during the period the Consultant is performing the Services

hereunder. Without limiting the foregoing, Consultant shall comply strictly with all laws relating to the verification of its workers' eligibility to work in the United States, including the Immigration Reform and Control Act of 1986 and Form I-9 requirements. For any Services performed at a Duke Energy site or Duke Energy customer site and/or requiring access to Duke Energy assets, Consultant and its subcontractors shall participate in E-Verify, perform all required employment eligibility and verification checks, and cooperate with the scope, timing, documentation, etc., of audits requested by Duke Energy, which shall be performed by a third party immigration attorney selected by Duke Energy. Consultant shall maintain all required employment records for at least three years following an employee's date of hire or one year following an employee's termination. (b) By providing an employee or subcontractor under this Agreement to perform Services at a Duke Energy site, a Duke Energy customer site and/or requiring access to Duke Energy assets, Consultant warrants and represents that the Minimum Screening Guidelines (as set forth at <http://www.duke-energy.com/pdfs/legal/minimumscreeningguidelines.pdf>) have been completed with respect to such employee or subcontractor and that they did not reveal any information that could adversely affect such employee's or subcontractor's suitability for employment by Consultant or competence or ability to perform duties under this Agreement following an individualized assessment of the specific facts and circumstances and consideration of Duke Energy's Potential Disqualification Criteria, which are set forth at <http://www.duke-energy.com/pdfs/legal/PotentialDisqualificationCriteria.pdf>. For Consultant's employees or subcontractors who are performing Services on a Duke Energy site or a Duke Energy customer site, the screening measures set forth under "Supplemental Labor with Access to Duke Energy Assets" in the Minimum Screening Guidelines shall have been completed. For Consultant's employees or subcontractors who are not performing Services on a Duke Energy site, but who may or may not have access to Duke Energy's assets, the screening measures set forth under either i) "Contracted Service Baseload Work or Contracted Service Other *without* access to Duke Energy assets" or ii) "Contracted Services Baseload Work or Contracted Services Other *with* access to Duke Energy assets and/or badged facilities access" in the Minimum Screening Guidelines shall have been completed. Generally, Duke Energy will rely on Consultant to make a determination as to whether to disqualify a candidate based on the Potential Disqualification Criteria. However, if there is a question as to a candidate's qualifications, Consultant may seek additional input from Duke Energy. Consultant may also perform other screening measures as a reasonably prudent employer would deem appropriate; provided, however, that nothing in this Section shall be interpreted as authorizing or requiring Consultant to perform any screening measures or disqualify any worker in a manner that violates the federal Fair Credit Reporting Act, Title VII of the Civil Rights Act of 1964 or any other applicable law. Consultant agrees to use additional screening measures that may be required by Duke Energy based upon audit results to ensure Consultant's compliance with this Section. Except where prohibited by law, Consultant will have the ongoing duty to inform Duke Energy immediately upon learning that one of Consultant's or its subcontractors' employees, agents or independent contractors is not suitable for performance of the Services. Except where prohibited by law, should Consultant learn after assigning an individual to provide Services at a Duke Energy site or requiring access to the Duke Energy assets that Consultant, acting reasonably, considers would adversely affect such personnel's suitability for performance of the Services, Consultant will promptly advise Duke Energy and remove the individual immediately from performing Services at a Duke Energy site or on the Duke Energy assets. Duke Energy, in its sole discretion, shall have the option of barring from the Site any person whom Duke Energy determines does not meet the qualification requirements set forth above. (c) Consultant acknowledges that it is aware of Duke Energy's Alcohol and Drug Free Workplace Policy ("**Policy**") as revised or updated by Duke Energy from

time to time. <https://portal.duke-energy.com/OurCompany/Policies/HumanResources/Documents/2014%20HR%20Policies/Alcohol%20and%20Drug-Free%20Workplace%20Policy.docx> Consultant and its subcontractors shall implement and administer an alcohol/drug abuse policy acceptable to Duke Energy and at least as stringent as that of Duke Energy and further acknowledges that any employee, contractor or subcontractor of Consultant performing Services under this Agreement shall be subject to “for cause” testing on the basis of Duke Energy’s reasonable suspicion of a violation of Duke Energy’s policy. Duke Energy may, at its sole discretion, upon notice to Consultant, audit Consultant’s substance abuse testing records relating to the Services. Duke Energy encourages Consultant to offer employee assistance to all employees who test positive and to have employees visit a Substance Abuse Program (SAP).

(i) For any Services to be performed by Consultant at Duke Energy Fossil/Hydroelectric generation properties for Fossil Hydro Operations, participating Renewable Generation sites, and Project Management & Construction within Duke Energy Indiana, Duke Energy Ohio, Duke Energy Kentucky, Duke Energy Carolinas, Duke Energy Progress and Duke Energy Florida, Consultant’s drug and alcohol policy shall be consistent with either the Coalition for Construction Safety (“CCS”) (formerly MICCS) and/or the Construction Owners Association of the Tri-State (“COATS”) COATS/Bethesda substance abuse testing programs; and Consultant and its subcontractor(s) will use those programs, which includes initial testing and random testing. In order to be eligible to work on a Duke Energy site, Consultant’s and its subcontractors’ employees must possess a valid CCS or COATS ID Card and/or show as valid status in the CCS data system. A valid drug screen chain-of-custody form, documenting a pending result of a drug test performed within the past five days, may be accepted to access a Duke Energy site while testing is in process. Acceptance, however, depends upon the Duke Energy managing organization, facility requirements and special circumstances. Consultants must confer with their designated Duke Energy Consultant interface for applicability. The following are the minimum substance abuse testing parameters:

- (A) Use of a Substance Abuse and Mental Health Services Administration (“SAMHSA”) approved laboratory.
- (B) Use of a Medical Review Officer (“MRO”) for confirmation of positive test results.
- (C) Use of a NIDA 5 Panel Drug Screen with the following ng/ml cutoff and confirmation levels:

Drug	Ng/ml Cutoff	Ng/ml Confirmation
Marijuana (THC, Cannabinoids)	50	15
Amphetamines	500	250
MDMA – Ecstasy	500	250
Cocaine	150	100
Phencyclidine (PCP)	25	25
Opiates	2000	2000
6-AM - Heroin	10	10

- (D) Use of an evidential breath-testing device to detect the consumption of alcohol with a positive cutoff level of .04 percent.
- (E) Unless otherwise prohibited by applicable law, Consultant and its subcontractors shall conduct post-accident testing, as well as testing when there is an objective reasonable basis to do so as determined by Consultant or by Duke Energy.
- (ii) While performing services for Duke Energy, Consultant and its subcontractors shall be subject to random drug and alcohol testing when providing services at any Duke Energy facility. The random selection method used by CCS/COATS shall be truly random and credible. Random substance abuse testing may be on any day or night and generally encompasses up to approximately 15% of Consultant's employees on site at a given time. At Duke Energy's discretion, random testing percentages may be adjusted higher or lower where Duke Energy deems appropriate.
- (iii) Immediately upon receipt of test results, Consultant shall remove from the job site any Consultant or subcontractor employee who tests positive or in any way does not comply with the Policy. Consultant shall not allow an employee who tests positive to return to the Services for the duration of the project, unless, at a minimum, the following steps are completed by the employee: (a) the employee completes an evaluation with an SAP; (b) the SAP must, at a minimum, recommend the following: (1) some type of treatment or education beyond the initial assessment; (2) at least 3 follow-up tests in the 12 months following the return-to-duty test; (c) a minimum of 14 days must pass from the date of the positive test (date of that collection) before a test can be administered; and (d) the employee presents Midwest Toxicology with written documentation from a qualified SAP that states the employee is fit for duty (ready to return to work), has completed an evaluation, and has at least started some form of education or treatment beyond the initial evaluation. The written documentation should be on the SAP's letterhead and be personally signed by the SAP.
- (iv) Operating nuclear stations are covered by a separate set of supplemental terms and conditions.
24. **Cooperation.** The Parties shall reasonably cooperate in the performance of the Services, including without limitation, Consultant coordinating with Duke Energy and others who are performing work at or near the area of the Services and Duke Energy providing Consultant with timely access to relevant and available data and information of Duke Energy. If so requested by Duke Energy, Consultant shall provide, in a format acceptable to Duke Energy, status reports containing detailed information related to the Services performed for Duke Energy. Consultant shall cooperate with Duke Energy by ensuring the continuity of its personnel assigned to perform the Services for Duke Energy by (i) obtaining fifteen (15) day prior written consent of Duke Energy before removal or reassignment of any personnel, (ii) replacing personnel with other personnel that have substantially the same or superior qualifications as those being replaced or reassigned, and (iii) providing a minimum of ten (10) days transition period, at no additional cost to Duke Energy, during which time the replacement will work with the incumbent.
25. **Compliance with Regulatory Code of Conduct.** Consultant acknowledges that Consultant may be given access to or otherwise become aware of certain operational information of Duke Energy, the disclosure of which to other departments or affiliates of Duke Energy is prohibited

by federal law. Such operational information includes, but is not limited to (a) planned outage schedules, (b) events of forced outages and generator derating, (c) construction schedules, (d) operational practices at Duke Energy's generating stations, and (e) transmission system operation and planning data. Consultant shall, and shall require its subcontractors to (i) maintain the strict confidentiality of such operational information, and (ii) not share such operational and planning information with any third parties, including any other departments or affiliated entities of Duke Energy, without the prior written consent of Duke Energy, which shall be granted in Duke Energy's sole discretion.

26. **Fraud and Ethics.** Consultant shall be familiar with and shall adhere to the principles of Duke Energy's Supplier Code of Conduct located at http://www.duke-energy.com/pdfs/Supplier_Code_of_Conduct.PDF as well as Consultant's ethics and compliance guidelines. Consultant shall promptly report any fraud, illegal activity, fiscal waste or abuse, or other violations of Duke Energy's Supplier Code of Conduct by any party, including Consultant's suppliers and service providers. Such activity may be reported by contacting: (a) Duke Energy's contract administrator or assigned project manager; (b) Duke Energy's EthicsLine managed by an independent third party at 866.8ETHICS (866.838.4427), which may be called anonymously, or by web submittal at <https://ethicsline.duke-energy.com/>; or (c) by sending an e-mail to Duke Energy's Ethics and Compliance Office at EthicsOfficer@duke-energy.com.
27. **Diverse Suppliers.** For any Agreement in which the total compensation to Consultant will equal or exceed \$700,000, Consultant shall adopt and utilize a subcontracting plan (a) to use subcontractors who meet the description of at least one of the categories of diverse suppliers set forth at <http://www.duke-energy.com/suppliers/supplier-diversity-definitions.asp> ("Diverse Suppliers") and (b) to use Local Suppliers, as defined below. Consultant shall: (x) use commercially reasonable efforts to utilize Diverse Suppliers and Local Suppliers; and (y) provide Duke Energy a quarterly status report in Duke Energy's Power Advocate reporting tool and in a format reasonably acceptable to Duke Energy containing Consultant's Diverse Supplier and Local Supplier spend. Duke Energy's designated auditors shall have the right of access during normal business hours to inspect Consultant's records related to compliance with this Section. For the purposes of this Section, "**Local Supplier**" shall mean a subcontractor of Consultant who has a headquarters or branch within at least one of the states in which the applicable products or Services are provided under this Agreement.
28. **Cyber Security.** Should Consultant or any of its employees, subcontractors, representatives, or any other similarly authorized third parties under the control of Consultant who will be providing Services hereunder on behalf of such Consultant require or be permitted cyber access or unescorted physical access to Duke Energy's assets, which are classified as "critical" under NIST 800-53 and/or ISO 27001-2004 for Cyber Security or the regulatory requirements of the North American Electric Reliability Corporation (NERC), all such persons shall be required to meet certain pre-requisites prior to access to any such critical assets. Therefore, when any secured electronic or physical access is needed or permitted, all persons identified above in this provision shall: (a) successfully complete the Duke Energy-administered background screening requirement; (b) take the Duke Energy-administered Cyber Security training entitled Information Security Awareness Training located at <http://www.duke-energy.com/suppliers/Consultant-training.asp>; and (c) be given a company identification number in the Duke Energy Human Resources Management System (HRMS) for tracking purposes. In the event that Consultant (i) determines that any of the persons permitted access pursuant to this Section no longer require access or (ii) terminates the employment of any of the persons permitted access pursuant to the

Section, Consultant shall notify Duke Energy within 24 hours of such determination or termination.

29. **Permits.** Consultant will obtain, at its expense, all permits and licenses required to perform the Services, unless otherwise specified in the Purchase Order.
30. **Notices; Lien Agent.** Each Party shall designate a representative for the receipt of notices, which may be changed from time to time. All notices required to be given under the Agreement shall be in writing and delivered by fax, personal delivery, email, or U.S. mail. Notices shall be effective upon receipt or such later date specified in the notice.
31. **Miscellaneous.** Consultant shall be an independent contractor in the performance of the Agreement. and nothing contained in the Agreement shall be so construed as to justify a finding of the existence of any relationship between Duke Energy and Consultant inconsistent with that status. Consultant shall have exclusive control of and responsibility for its labor relations. The failure of either Party in any one or more instances to insist upon performance of any of the terms or conditions of this Agreement, or to exercise any right or privilege contained in this Agreement, or the waiver of any breach of the terms or conditions of this Agreement, shall not be construed as thereafter waiving any such terms, conditions, rights or privileges, and the same shall continue and remain in full force and effect as if no waiver had occurred. The Agreement, including all exhibits and applicable Purchase Orders, constitutes the entire agreement of the parties and supersedes any oral or written understandings, proposals or other communications by the parties prior to this Agreement. The terms and conditions of the Agreement shall be binding upon and inure to the benefit of any and all successors and/or assigns of Duke Energy and Consultant. Notwithstanding any provision herein, the Agreement shall not confer or be construed in any manner to confer, directly or indirectly, any rights, privileges, benefits, and/or remedies, upon any parties other than the parties hereto and their respective successors and/or permitted assigns. Amendments to the Agreement must be in writing and signed by both parties. Headings are provided for the convenience of the parties, and shall not affect the interpretation of any provision. **DUKE ENERGY HEREBY GIVES NOTICE THAT IT OBJECTS TO THE INCLUSION OF ANY DIFFERENT OR ADDITIONAL TERMS PROPOSED BY CONSULTANT.** Any and all additional or different terms and conditions contained in any of Consultant's acceptance, invoices, bills or other commercial documents are hereby rejected and shall not become part of the Agreement between the parties and any reference to Consultant's proposal is solely for the purpose of incorporating the description and specifications of any Services contained therein to the extent that such description and specifications do not conflict with the Specifications attached hereto as Exhibit A.
32. **Remedies.** The remedies in this Agreement are cumulative and in addition to all rights and remedies at law and in equity.
33. **Survival.** All sections of this Agreement providing for indemnification or limitation of or protection against liability shall survive the termination, cancellation, or expiration of this Agreement.
34. **Disputes.** Notice of any claim by Consultant shall be made in writing to Duke Energy within five (5) calendar days after the first day of the event giving rise to such claim or Consultant shall be deemed to have waived the claim. Written documentation and supporting data shall be promptly submitted to Duke Energy. Consultant shall proceed diligently with the performance of the

Appendix B

Services, as directed by Duke Energy, regardless of any pending claim or dispute. The Parties shall attempt to resolve any claims, disputes and other controversies arising out of or relating to this Agreement (collectively, “**Disputes**”) promptly by negotiation between individuals who have authority to settle the Dispute and who are at a higher level of management than the persons with direct responsibility for administration of this Agreement. All negotiations pursuant to this Section are to be deemed confidential and shall be treated as compromise and settlement negotiations for purposes of applicable rules of evidence. If the Dispute has not been resolved by negotiation within sixty (60) days of the disputing Party’s notice, then either Party may initiate litigation. Either Party shall have the right, in its discretion, to include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in any litigation. This Agreement shall be governed and construed in accordance with the laws of the State of North Carolina, except that the North Carolina conflict of law provisions shall not be invoked in order to apply the laws of any other state or jurisdiction. Venue for any such action shall lie exclusively in the appropriate state or federal courts in and for the State of North Carolina. Consultant and Duke Energy agree to relinquish and waive their rights to a trial by jury in any action brought hereunder. If any term or provision of this Agreement is determined to be illegal or unenforceable, the Agreement shall remain in full force and effect and the illegal or unenforceable term or provision shall be deemed stricken.

35. **Conflict of Interest.** Consultant warrants that it has given no commissions, payments, gifts, kickbacks, lavish or extensive entertainment or other things of value to any employee or agent of Duke Energy or anyone else in connection with this Agreement in violation of Duke Energy’s Supplier Code of Conduct, which can be viewed at http://www.duke-energy.com/pdfs/Supplier_Code_of_Conduct.PDF and acknowledges that the giving of any such payments, gifts, entertainment, or other things of value is strictly in violation of Duke Energy’s policy and may result in the cancellation of this Agreement and any other agreements between the parties. Consultant shall notify Duke Energy’s ethics department of any such solicitation by any of Duke Energy’s employees or agents.
36. **Nuclear Station Services.** If any of the Services will be performed by Consultant inside the Owner Controlled Area of a Duke Energy nuclear station (other than Services performed at fossil units within the Owner Protected Area), the terms and conditions of Duke Energy Nuclear Supplement NS0001 shall apply to this Agreement, and such terms are hereby incorporated by reference as if set forth herein in full.

IN WITNESS THEREOF, the Parties have caused this Agreement to be executed by their duly authorized representatives as of the Effective Date.

Duke Energy Business Services, LLC, as agent for and on behalf of Duke Energy Carolinas, LLC and Duke Energy Progress, LLC	Accion Group, LLC
By: <i>Shenna Patterson</i>	By: <i>Harold T. Judd</i>
Print: Shenna Patterson	Print: HAROLD T. JUDD
Title: Senior Sourcing Specialist	Title: PRESIDENT

OFFICIAL COPY

Feb 25 2020

Appendix B

**Attachment A
Duke Energy PII**

Duke Energy Personally Identifiable Information (“**Duke Energy PII**”) means that portion of Duke Energy Confidential Information that is subject to any Privacy Laws, including but not limited to, any information collected by Duke Energy or its subsidiaries and affiliates that uniquely identifies a person, or from which a person can be reasonably identified, and the collection, use or disclosure of which is governed by applicable law or regulation.

Encryption requirements

The following Duke Energy PII data elements must be encrypted:

1. Social Security Number
2. State ID Card Number
3. Driver's License
4. Checking Account Number
5. Savings Account Number
6. Credit Card Number
7. Debit Card Number
8. Passport Number
9. Fingerprints
10. Biometric Data
11. Digital Signatures
12. Stock or other security certificate or account number
13. Parent's Legal Surname prior to marriage
14. Medical Information
15. Health insurance information
16. Employer or taxpayer identification number
17. Insurance policy number
18. Passwords, PINs, or other access codes
19. Private Phone Numbers
20. Vital record
21. Unique electronic identifier, routing code, account number, credit card number, or debit card number, in combination with any required security code, PIN, access code, or password that would permit access to an individual's financial account
22. Other numbers or information which may be used to access a person's financial accounts or numbers or information issued by a governmental or regulatory entity that uniquely will identify an individual

Exhibit A
Statement of Work

This Statement of Work (“SOW”) issued pursuant to the Master Services Agreement, effective January 9, 2018, between Duke Energy Business Services, LLC, as agent for and on behalf of Duke Energy Carolinas, LLC and Duke Energy Progress, LLC (“**Duke Energy**”), and Accion Group, LLC, a New Hampshire limited liability company (“**Consultant**”), of which it is a part.

I. General services provided by Consultant:

- a) Support Commission oversight of the CRPE Program by among other activities, providing technical expertise and services in the area of competitive renewable energy facility procurement process designed to ensure that all proposals are treated equitably;
- b) Provide ongoing information and support to the Commission, the Public Staff and the Companies’ Evaluation Team, as necessary, including timely responding to written request for information related to CPRE Program implementation.
- c) Consult on the design of the CPRE Program structure and process, as defined in Paragraph (f) of the CPRE Rule

II. Independence Requirement

Consultant is required to disclose any financial interest involving the Companies implementing CPRE Programs or any potential market participant reasonably anticipated to participate in the CPRE Program, including but not limited to all substantive assignments for the Companies, any of the Companies’ affiliates, or any other potential market participant during the preceding three (3) years.

III. Specific Consultant Duties

- a) Duties of Consultant, acting as CPRE Independent Administrator under this Statement of Work (SOW), include those identified in Subsection (d)(5) of the CPRE Rule, and include the following:
- b) Monitor compliance with CPRE Program requirements, including any Green Source Advantage (GSA) Program standard offer procurement, as directed by Duke Energy and approved by the Commission to be included within future CPRE Program RFP solicitations. If Duke Energy identifies GSA Program standard offer procurement to be included within a future CPRE Program RFP, the CPRE Independent Administrator shall oversee the GSA Program standard offer procurement as directed by Duke Energy in a manner generally consistent with the scope of work identified for the CPRE Program.
- c) Review and comment on draft CPRE Program filings, plans, and other documents, including any documents developed to address integration of the GSA Program standard offer procurement process into the CPRE Program procurement process.
- d) Facilitate and monitor permissible communications between the electric public utilities’ Evaluation Team and other participants in the CPRE RFP solicitations.
- e) Establish and maintain the list of prospective bidders that are likely to participate in the CPRE Program Solicitation(s), and inform potential market participants of issuance of CPRE Program solicitation.
- f) Conduct bidder qualification based upon the Companies’ CPRE guidelines, as initially approved by the Commission and updated from time to time by the Companies.
- g) Implement the CPRE Request for Proposal (RFP) structure and process as described in subsection (f) of the CPRE Rule and evaluate submitted proposals under the CPRE Program Methodology.
- h) Oversee communications and separation requirements between the Evaluation Team, Proposal Teams, Duke energy affiliates, a proposals for acquisition, and other and CPRE market participants, as required in subsection (e) of the CPRE Rule.

Appendix B

- i) Develop and publish the CPRE Program Methodology that shall ensure equitable review between an electric public utility's Self-developed Proposal(s) as addressed in subsection (f)(2)(iv) and subsection (b)(4) and proposals offered by third-party market participants.
- j) Receive and transmit proposals.
- k) Independently evaluate the proposals.
- l) Monitor post-bid negotiations between the electric public utilities' Evaluation Team and participants who submitted winning proposals.
- m) Evaluate the electric public utility's Self-developed Proposals for the Commission.
- n) Provide an independent certification to the Commission in the CPRE Compliance Report that all public utility and third party proposals were evaluated under the published CPRE Program methodology and that all proposals were treated equitably through the CPRE RFP Solicitation(s).
- o) Prepare a final certification report as to the conduct and outcome of each CPRE solicitation completed during a given year for filing by the Companies as part of their annual CPRE Program Plan requirements, as described in Subsection (h)(2)(ix).
- p) Perform all other obligations required of the Independent Administrator under and in accordance with (1) applicable law, including, but not limited to NCUC Rule R8-71 and (2) the Program Guidelines, Program Plan and other CPRE RFP Solicitation documents developed and approved for issuance by Duke.
- q) Provide testimony and other filings as requested by Duke or requested by the Commission.
- r) Develop and maintain the Independent Administrator website as required under applicable law and as further developed in collaboration with the Evaluation Team.
- s) Immediately report any violation of any CPRE Program requirement or applicable law to the NCUC.
- t) Conduct a pre-issuance market participants conference and other technical conferences, as appropriate.

Appendix B

Exhibit B

Pricing Information

Consultant Hourly Rates are shown in the table below and will be held constant throughout the Term of this Agreement.

[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]

Categories of expenses

- a) Fees will be charged on an hourly basis. Consultant will not charge for travel time or secretarial services.
- b) Supplies procured at the request of Duke Energy will be charged on an actual cost basis.
- c) Other direct costs: Consultant may charge for printing and production costs at 10 cents per page for standard copies and \$1.00 per page for color copies. In the event that Consultant must use outside services to copy or produce materials, these costs will be billed at actual charges incurred. Consultant will not charge for faxes, Internet usage or other overhead items. Telephone, postage and express delivery charges are billed at cost. Significant expenses will require Duke Energy's prior written consent or Duke Energy will not accept responsibility of the reimbursement of the same.
- d) Travel costs will be billed at actual cost in accordance with Exhibit C, Guidelines for Consultant Expense Reimbursement.
- e) Website Design and Hosting will be invoiced on an annual basis at the rates set forth in the table below.

Activity	Unit Price	12 Months	Each Add'l. Year
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Exhibit C

Guidelines for Consultant Expense Reimbursement

Travel expenses

Reasonable, actual, and customary travel expenses will be reimbursed by Duke Energy upon submission of an itemized list of expenses and associated receipts. Duke Energy reserves the right to refuse payment of any expenses deemed unreasonable or inappropriate by the Duke Energy approver.

Reasonable expenses include:

- Coach class domestic airfare and business class international airfare
- Consultant employees will be required to utilize non-refundable/penalty airfares for business travel on the project to ensure maximum airfare savings to Duke Energy. Therefore, Consultant employees should plan their travel in advance and use caution to avoid changes which could result in penalty fees. The following process for airline ticket issuance will be utilized to ensure compliance with airline ticketing rules and regulations:
 - Unless otherwise agreed, for consecutive week engagements on behalf of Duke Energy, Consultant employees will purchase a one-way, refundable coach ticket to project location to begin travel process. Subsequent tickets will be roundtrip, non-refundable, 14-day advanced notice, Saturday-night stayover tickets for travel to Consultant employees' home location. At the end of the project work, Consultant employees will purchase a one-way, refundable coach ticket to return from project location to home location.
 - *Any Consultant rebates or commissions received on airline tickets must be netted against the gross ticket price. Only the net ticket price should be billed to Duke Energy.*
- Per night hotel rates at a business class hotel.
- Meals at reasonable and actual cost within the range of the then current domestic per diem rates set by the U.S. Government.
- Transportation to and from airports. Transportation should be shared if multiple people are traveling together. If a rental car is the most cost effective alternative to airport transportation (i.e. taxis, shuttles), Duke Energy will reimburse the cost of the most economical car consistent with the requirements of the trip. No luxury vehicle costs will be reimbursed.
- Mileage for use of personal vehicle at the effective IRS rate per mile.
- Business meals, which will require information on attendees and companies represented.
- Reasonable gratuities.

Expenses which will not be reimbursed include:

- Transportation (limousine, taxi) wait times.
- Commuting travel between Consultant employees' home and their company office.
- "Miscellaneous" or "other" charges submitted without proper receipts and explanations.
- Entertainment.

Other Expenses

From time to time, expenses that are not travel-related may be incurred. Significant expenses will require Duke Energy's prior written consent or Duke Energy will not accept responsibility of the reimbursement of the same. Receipts and descriptions of these expenses are also required. Duke Energy reserves the right to refuse payment of any expenses deemed unreasonable or inappropriate by the Duke Energy approver.

Examples of this type expense might be:

- Messenger services.
- Copying Services.
- Long distance phone calls on other than Duke Energy Business.
- Computerized research.



CERTIFICATION

TO: Phillip Cathcart
FROM: Harold T. Judd, Independent Administrator
DATE: February 25, 2020
RE: CPRE 2019 Process Certification

In January 2018 Accion Group, LLC, incorporated in the State of New Hampshire, was approved by the North Carolina Utility Commission ("NCUC") to serve as Independent Administrator ("IA") for the Competitive Procurement of Renewable Energy Program ("CPRE"). CPRE was divided into annual "Tranches" as independent solicitations with the Tranche 1 being released in 2018 and completed in July 2019. Tranche 2 was released in August 2019. The IA participated in the preparation of the Tranche 1 and Tranche 2 CPRE documents and provided the Website through which all information about the CPRE Program was available to interested parties. The IA conducted the monthly Stakeholder sessions required by the NCUC starting in August 2019. All communications with Market Participants ("MP") was conducted through the IA Website and all Proposals were received on the IA Website.

Any Proposals from DEC/DEP Proposal Team and the DER Proposal Team in Tranche 1 were received on October 8, 2018, and Proposals from MPs were received on October 9, 2018. The IA was responsible for the evaluation of all Proposals (referred to in the CPRE Program as "Step 1") and for reporting a preliminary ranking of Proposals to the Duke Transmission Evaluation Team for determination of what, if any, system improvements would be required to accommodate the associated projects (referred to as the "Step 2" process). The Proposal date for Tranche 2 is March 9, 2020.

The Website remained the host of all CPRE activities through the Step 2 evaluation process and until each PPA was executed on July 8, 2019 and Performance Assurance security was provided.

All Proposals were evaluated using the same criteria and evaluation modeling, consistent with the CPRE Program Methodology. All Proposals and all participants were treated equitably and the IA is unaware of any bias towards or against any participant.

A handwritten signature in blue ink, appearing to read "Harold T. Judd", written over a horizontal line.

Harold T. Judd
President, Accion Group, LLC

The State of New Hampshire
County of Merrimack

This instrument was acknowledged before me on the 25th day of Feb., 2020 by Harold T. Judd.

A handwritten signature in blue ink, appearing to read "Sheri L. Vincent-Crisp", written over a horizontal line.

Sheri L. Vincent-Crisp, Notary Public, State of New Hampshire
My Commission expires April 20, 2021