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March 14, 2022

**VIA ELECTRONIC FILING**

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

**RE: Petition for Authorization of 2022 Solar Procurement Program  
Docket Nos. E-2, Sub 1297 and E-7, Sub 1268**

Dear Ms. Dunston:

Enclosed for filing in the above-referenced proceedings on behalf of Duke Energy Carolinas, LLC and Duke Energy Progress, LLC is their *Petition for Authorization of 2022 Solar Procurement Program*.

Page 7 of Attachment 3 contains confidential information and is being filed under seal and under separate cover. The Companies will make this information available to other parties pursuant to an appropriate confidentiality agreement.

If you have any questions, please do not hesitate to contact me. Thank you for your attention to this matter.

Sincerely,

Jack E. Jirak

Enclosure

cc: Parties of Record

OFFICIAL COPY

Mar 14 2022

**STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH**

DOCKET NO. E-2 SUB 1297  
DOCKET NO. E-7 SUB 1268

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of  
Duke Energy Carolinas, LLC, and ) **DUKE ENERGY CAROLINAS, LLC’S**  
Duke Energy Progress, LLC 2022 ) **AND DUKE ENERGY PROGRESS, LLC’S**  
Procurement Pursuant to Session ) **PETITION FOR AUTHORIZATION OF**  
Law 2021-165, Section 2(c) ) **2022 SOLAR PROCUREMENT**  
 ) **PROGRAM**

NOW COME Duke Energy Carolinas, LLC (“DEC”) and Duke Energy Progress, LLC (“DEP”) (collectively, “Duke Energy” or the “Companies”), by and through counsel, pursuant to Section 2.(c) of North Carolina Session Law 2021-165 (“HB 951”) and the North Carolina Utilities Commission (“Commission” or “NCUC”) *Order Opening Separate Dockets and Establishing Procedural Deadlines* (“Procedural Order”), and hereby petition the Commission for authorization of the Companies’ 2022 solar procurement program (“Petition”).

Duke Energy proposes to commence a system-wide solar procurement (“2022 SP”) request for proposal (“RFP”) targeting a minimum of 700 megawatts (“MW”) of utility-owned and third-party solar energy resources in North Carolina and South Carolina to serve customers’ future energy needs as part of the Companies’ 2022 Carolinas Carbon Plan and in furtherance of Duke Energy’s integrated Carolinas energy transition (“2022 SP Program”).

In support of this Petition, the Companies respectfully show the Commission the following:

## I. INTRODUCTION AND SUMMARY

On October 13, 2021, Governor Roy Cooper signed into law HB 951, which directs the Commission to develop a Carbon Plan with the Companies, including stakeholder input, that “takes all reasonable steps to achieve a seventy percent (70%) reduction in emissions of carbon dioxide emitted in the State from electric generating facilities owned or operated by electric public utilities from 2005 levels by the year 2030[.]” S.L. 2021-165 § 1(1).

Section 2.(c) of HB 951 authorizes the Commission to direct the Companies to procure solar energy facilities in 2022 “if, after stakeholder participation and review of preliminary analysis developed in preparation of the initial Carbon Plan, the Commission finds that such solar energy facilities will be needed in accordance with the criteria and requirements set forth in Section 1 of [HB 951] to achieve the authorized carbon reduction goals.”

On January 10, 2022, the Companies filed a letter in Docket No. E-100, Sub 179 notifying the Commission and interested stakeholders of the Companies’ plans to engage with North Carolina and South Carolina stakeholders on the potential need for a 2022 solar procurement, as contemplated by HB 951.

Since January, the Companies have held a robust stakeholder engagement process to design a 2022 SP Program framework and discuss the Companies’ preliminary analysis regarding the need for the procurement as part of the future Carolinas Carbon Plan. As a result of these discussions and analyses, the Companies and stakeholders have developed plans for a system-wide 2022 SP RFP targeting at least 700 MW of new solar resources across the Carolinas.

The Companies' 2022 SP Program builds on past North Carolina and South Carolina renewable energy procurements, including the recent Competitive Procurement of Renewable Energy ("CPRE") Program established pursuant to N.C. Gen. Stat. § 62-110.8. Recognizing that HB 951 does not contain prescriptive solar volumes to be procured, the Companies have worked to propose a flexible need-based procurement in which the volume will ultimately be aligned with the initial Carolinas Carbon Plan and its solar cost assumptions. The 2022 SP RFP approach allows the Companies to commence the procurement in a timely manner in advance of the filing of the Companies' initial proposed Carolinas Carbon Plan, while allowing the Commission an opportunity to be informed by the full Carbon Plan analysis as well as feedback from other intervenors.

Similar to the CPRE Program, the 2022 SP Program will utilize a competitive solicitation process to procure new least cost solar energy resources in North Carolina and South Carolina, and will, in accordance with HB 951, enable DEC's and DEP's system operators the ability to dispatch, operate, and control third-party solar qualifying facility ("QF") generating facilities in the same manner as the utility's own generating resources.<sup>1</sup>

The Companies also value transparency and recognize the importance of promoting effective and fair market participation throughout the new 2022 SP solicitation process. Accordingly, the Companies are engaging Charles River Associates ("CRA") as Independent Evaluator ("IE") to manage the procurement and independently evaluate both utility ownership and third-party proposals bid into the 2022 SP.

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<sup>1</sup> Like the prior CPRE Program, the 2022 SP provides QF sellers an alternative to North Carolina's and South Carolina's standardized "must-take" avoided cost rate framework that allows QFs to sell power at competitively determined avoided cost rates designed to take into account the Companies' operational needs and to deliver environmental attributes of solar generation to customers. The Federal Energy Regulatory Commission ("FERC") has recognized that "a state may also have alternative programs [under its authority to implement PURPA] that QFs and electric utilities may agree to participate in...." *Winding Creek Solar LLC*, 151 FERC ¶ 61,103 at P 6, *Order Denying Reconsideration*, 153 FERC ¶ 61,027 (2015).

## II. REQUEST FOR EXPEDITED COMMISSION AUTHORIZATION

As noted in the Companies' stakeholder engagement informational filings, Commission authorization of the Companies' 2022 solar procurement program framework is needed in order to allow the Companies to expeditiously commence a 2022 SP RFP that aligns with the upcoming 2022 Definitive Interconnection System Impact Study ("DISIS") Cluster. Aligning the 2022 SP RFP timeline with the DISIS Cluster process is essential to facilitating efficient generator interconnection review of RFP projects this year. If the Companies do not commence a 2022 SP Program in alignment with the 2022 DISIS Cluster, the 2022 SP Program would be aligned with the 2023 DISIS and delayed one year, most likely also delaying the RFP winners' commercial online dates and delaying the benefits of least cost new solar energy resources to Duke Energy's customers.

The Companies' preliminary analysis in advance of the Carolinas Carbon Plan supports procuring new least cost solar energy resources through the 2022 SP Program across DEC's and DEP's North Carolina and South Carolina territories. Through this Petition, the Companies are proposing a two-step process. First, the Companies are at this time requesting Commission authorization to launch the RFP with a target minimum quantity of 700 MW. Second, the Companies request that the Commission issue a subsequent order, no later than November 1, 2022, that establishes the final solar resource procurement target as part of the Commission's review of the Companies' initial Carolinas Carbon Plan and intervenor comments. Expedited review and authorization to commence a 2022 SP RFP process under the framework presented herein is in the public interest and will provide North Carolina and South Carolina solar energy developers an immediate

opportunity to work with the Companies to deploy new clean energy resources throughout the Carolinas.

### III. STAKEHOLDER ENGAGEMENT

In furtherance of HB 951's directives to seek stakeholder input in developing the Carolinas Carbon Plan, the Companies have engaged a broad range of North Carolina and South Carolina stakeholders to inform the Companies' development of the 2022 SP Program. In total, approximately 115 individuals external to Duke Energy representing over 45 stakeholder organizations participated in these meetings, as described in Attachment 1: 2022 Solar Procurement Stakeholder Meeting Attendance to this Petition.

The Companies have held three open stakeholder meetings to discuss the potential for a 2022 SP RFP, in addition to calls and meetings held with Public Staff and solar industry stakeholders. The major topics of discussion during the three stakeholder meetings are described below:

**January 20, 2022:** Overview of Part I, Section 2.(c) of HB 951 and initial framing discussion on the timing, request for proposal process, and mechanics of a potential 2022 solar procurement.

**February 7, 2022:** Discussion of Duke Energy's preliminary analysis of the need for new solar resources to meet customers' future energy needs based upon DEC's and DEP's North Carolina and South Carolina 2020 Integrated Resource Plans ("IRP"), discussion of the Companies' proposal to issue an RFP for solar resources using an independent evaluator, and discussion of options for designing the RFP to control costs for customers.

**February 25, 2022:** Discussion of the Companies’ preliminary analysis of the need for solar resources and 700 MW initial minimum target quantity, discussion of key elements of 2022 SP RFP framework incorporating stakeholder input from prior meetings, further refinement on role and responsibilities of an IE to oversee the procurement, and issues related to responsibility for funding System Upgrades and risk mitigation.

Following each meeting, the Companies reported to the Commission on the status of stakeholder engagement and key issues discussed. As a result of the stakeholder process, the Companies believe that there was general consensus among stakeholders on the need for a 2022 SP Program and on many of the requisite elements of the 2022 SP RFP that aligns with DISIS. The Petition identifies areas where input from active stakeholders was received through the stakeholder process as well as areas where stakeholder recommendations are still under evaluation.<sup>2</sup> As was the case in CPRE, the Companies plan for stakeholder engagement to continue during the 60-day pre-solicitation process in advance of issuing the 2022 SP RFP, as discussed in Section VI.a below.

#### **IV. NEW SOLAR RESOURCES ARE REQUIRED TO MEET THE COMPANIES’ FUTURE RESOURCE NEEDS**

Section 2.(c) of HB 951 authorizes the Commission to undertake a preliminary review of analysis developed by the Companies in preparation of the initial Carolinas Carbon Plan to determine whether a 2022 solar procurement is “needed” to meet the resource planning goals of the Carbon Plan. The Companies’ analysis prepared in advance

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<sup>2</sup> Statements regarding stakeholder input made in this Petition are not intended to represent complete consensus amongst all stakeholders or that there was stakeholder alignment on all elements of the 2022 SP Program. The Commission has provided a procedural schedule for intervention and comment to allow all interested parties to advance their positions to the Commission.

of the initial Carolinas Carbon Plan and discussed with stakeholders supports procuring new solar resources through a 2022 SP.

Recognizing that the Carolinas Carbon Plan is under development, and will not be filed until May 16 or fully reviewed and approved by the Commission until the end of 2022, the Companies' preliminary analysis is largely based upon the Companies' most recent system-wide 2020 IRPs. All 2020 IRP portfolios in both North Carolina and South Carolina support the near-term need for least cost, new solar energy resources. Procuring the proposed 700 MW initial minimum target volume of new solar energy resources in 2022 is also expected to be needed under all reasonable and feasible future scenarios to meet HB 951's 2030 planning goals.

To develop this initial minimum target volume, the Companies evaluated DEC's and DEP's "system-wide" need for solar resources across both states as the Companies plan and operate the grid on a system-wide basis. Including both North Carolina and South Carolina territories in the 2022 SP Program is consistent with the system-wide approach taken in CPRE and prior renewable energy procurements to develop the lowest cost portfolio of resources, regardless of location. In contrast, limiting the procurement to North Carolina and excluding South Carolina resources could preclude participation of competitive projects, which may raise costs for customers.

In considering the initial minimum target volume, it was also important for the Companies to consider when resources procured pursuant to a 2022 SP Program would become operational. The Companies recognize that the time from receiving an interconnection agreement to receiving permission to operate for new utility-scale transmission-connected solar projects in the Carolinas can be a multi-year process. While

the Companies are actively working to identify and achieve efficiencies in the interconnection process, current analysis suggests that solar procured in a 2022 SP RFP would likely not achieve interconnection and commercial operation prior to 2026 and could extend later in the decade if significant network upgrades are required to achieve interconnection. Duke Energy and stakeholders also discussed that because current interconnection construction timelines estimate 2022 DISIS projects coming online in 2026 at the earliest, there may only be four DISIS clusters for new generation facilities to both complete the interconnection study process and complete construction to come online by 2030. The 2022 SP Program initial minimum target volume seeks to strike the right balance between opportunity and risk by procuring a target volume that should be achievable in today's market at a reasonable cost to customers based upon the best information available today.

The Companies' 2020 North Carolina and South Carolina IRPs provide indicative quantities of solar resources needed by 2035 under multiple portfolios. These portfolios were developed under various resource planning and carbon policy futures and align, to varying degrees, with the goals of the Companies' still-under-development initial Carolinas Carbon Plan.

**Figure 1: 2020 IRP Portfolios Need for New Solar by 2030**

	IRP (Portfolio A2)	IRP (Portfolio B)	IRP (Portfolio C1)	IRP (Portfolio D)	IRP (Portfolio E)
Description	Base w/ No CO2 Policy – SC Modified IRP	Base w/ CO2 Policy	Earliest Practicable Coal Retirement – SC Modified IRP	70% with Wind	70% with SMR
<b>2030 CO<sub>2</sub> Reduction</b>	57%	59%	66%	70%	71%
<b>2035 CO<sub>2</sub> Reduction</b>	56%	62%	66%	73%	74%
<b>Total Solar by YE2030</b>	9,200	9,690	11,790	11,375	11,375
<b>Total Solar by YE2035</b>	10,350	12,325	15,550	16,240	16,240
<b>Incremental Solar by YE2030</b>	2,400	2,890	4,990	4,575	4,575

The “incremental solar by year end 2030” is in addition to the 6,800 MW of solar already online, or forecasted to come online during this period, from “must take” QF purchases and from existing programs such as CPRE and Green Source Advantage. In all scenarios, the Companies’ 2020 IRPs projected that a minimum of 2,400 MW of new solar is needed between 2026 and 2030. The 2020 IRP portfolios that include accelerated, system-wide carbon emission reductions align more closely with the resource planning goals of HB 951 and suggest that over 4,500 MW of incremental solar will be needed between 2026 and 2030.

The Companies’ preliminary analysis developed based upon DEC’s and DEP’s 2020 IRPs indicates that 700 MW of new solar resources is needed to come online as early as 2026 and is the initial minimum target volume that should be procured through the 2022 SP across DEC’s and DEP’s North and South Carolina territories. Establishing this initial

minimum targeted volume of 700 MW in advance of the approval of the Carolinas Carbon Plan based upon preliminary analysis is responsive to market participant stakeholders and should ensure a robust market response to the 2022 SP RFP. Through the proposed Carolinas Carbon Plan to be filed in May, the Companies plan to propose, for Commission approval, a more exact need and target volume of solar resources to be procured through the 2022 SP Program. The proposed Carolinas Carbon Plan will also provide updated “Carbon Plan-informed” analysis supporting the exact volumes proposed to be procured through the 2022 SP Program, as further addressed in Section VI.c below.

**V. 2022 SP PROGRAM WILL PROCURE A BALANCED PORTFOLIO OF UTILITY-OWNED AND THIRD-PARTY SOLAR RESOURCES**

The 2022 SP Program is designed to accomplish the General Assembly’s requirement that new solar generation selected by the Commission under the Carbon Plan should achieve a balanced portfolio of utility-owned assets as well as third-party PPAs. Specifically, HB 951 provides that fifty-five percent (55%) of new solar generation under the Carbon Plan is to be “supplied from solar energy facilities that are utility-built or purchased by the utility from third parties and owned and operated and recovered on a cost of service basis by the soliciting electric public utility.” S.L. 2021-165 § (1).2.b. The remaining forty-five percent (45%) of the total MW<sub>AC</sub> of any solar energy facilities procured under the Carbon Plan shall be supplied through the execution of PPAs with third parties pursuant to which the electric public utility purchases solar energy, capacity, and environmental and renewable attributes from solar energy facilities owned and operated by third parties that are 80 MW<sub>AC</sub> or less that commit to allow the procuring electric public utility rights to dispatch, operate, and control the solicited solar energy facilities in the same manner as the utility’s own generating resources (“Controllable PPA resources”). *Id.* The

Companies are designing the 2022 SP Program to achieve the 55%/45% allocation of utility ownership and third-party Controllable PPA resources established in HB 951.

As required by HB 951, the new utility-owned solar resources procured through the 2022 SP RFP will provide environmental and renewable attributes for customers and, like CPRE, the Companies' purchase of energy and capacity from third-party providers of Controllable PPA resources will include all associated environmental and renewable attributes.

## **VI. OVERVIEW OF 2022 SOLAR PROCUREMENT FRAMEWORK**

The Companies have developed the 2022 SP framework with input from stakeholders to procure new least cost and reliable solar resources throughout the Carolinas as a first step in meeting the resource planning goals outlined in HB 951. The Companies plan to utilize the below framework to administer the 2022 SP RFP, utilize the DISIS Cluster to provide interconnection estimates to evaluate 2022 SP bids, and to recover purchased power costs associated with PPA resources under the Program through the Companies' annual fuel clause proceedings.

In order to implement the 2022 SP Program in a timely manner, the Companies are proposing the below procedural schedule and framework allowing for issuance of the 2022 SP RFP in summer 2022 to align with DISIS.

### **a. Procurement Schedule and Framework**

Expedited Commission authorization of the 2022 SP Program is needed to align the procurement with the upcoming 2022 DISIS Cluster that closes to new Interconnection Requests on June 29, 2022. The general framework for the 2022 SP RFP will be similar to the recent CPRE Program RFPs and include a 60-day pre-solicitation process followed by a 45-day solicitation bid window, multi-step bid evaluation process, and contracting

periods. The pre-solicitation process will commence April 1, 2022.<sup>3</sup> A detailed schedule of the 2022 SP RFP process is as follows:

**Figure 2: 2022 SP RFP Milestone Schedule**

2022 SP Plan Milestone	Target Date <sup>4</sup>
Onboarding of Independent Evaluator and RFP Development; Post draft RFP documents and pro formas; RFP Stakeholder Mtg 1; Open Comment period on RFP documents for Market Participant feedback	4/1/-4/30/2022
Incorporate comments, RFP Stakeholder Mtg 2, post final RFP documents/pro formas	5/1 - 5/30/2022
Carbon Plan Filing Identifies 2022 SP Target Volume	5/16/2022
2022 SP RFP filed with NCUC; IE Pre-Issuance RFP Report filed with NCUC	5/30/2022
2022 SP RFP bid window	5/31/2022 – 7/15/2022
“Step 1” (w/ Phase 1 DISIS estimates)	7/16/2022 – 11/30/2022
NCUC approval of 2022 SP Target Quantity	11/1/2022
Invitation to Step 2 and security due for Step 2	11/27 – 12/22/2022
"Step 2" (w/ DISIS Phase 2 estimates)	12/23/2022 – 5/25/2023
Winners announced	5/25/2023
PPA Resource contracting window	5/25/2023 – 6/24/2023

As illustrated in Figure 2, just like CPRE, there will be a robust pre-solicitation process with review and input from stakeholders and market participants to develop and finalize the 2022 SP solicitation documents. During this 60-day process, the Companies plan to engage with the IE to develop the 2022 SP RFP, post the RFP draft and PPA and asset acquisition agreements for market participants’ review and comment, host two stakeholder meetings regarding the 2022 SP RFP process and documents, and post the final RFP, PPA and asset acquisition agreements by the planned May 31, 2022 bid window opening date.

<sup>3</sup> The Companies recognize that Commission authorization of the 2022 SP Program will not be issued by April 1, 2022. Pre-solicitation stakeholder engagement will commence prior to a Commission determination that the Companies should proceed with a 2022 SP Program in advance of approving the Carbon Plan.

<sup>4</sup> Target dates are subject to further review and discussion with IE and market participant input during pre-solicitation stakeholder engagement process.

The pre-solicitation process will be facilitated by the IE, similar to the administration of the CPRE Program pre-solicitation process.

Following the pre-solicitation process, the Companies will file the 2022 SP RFP and PPA with the Commission for informational purposes along with the IE's initial report on the 2022 SP RFP. Shortly thereafter, the Companies will issue the 2022 SP RFP and open the RFP bid window, which will close on July 15, 2022, to ensure that all bids are established in the DISIS Cluster prior to the close of the bid window. By aligning the 2022 SP Program with the 2022 DISIS Cluster, the Companies can use the 2022 DISIS Cluster to procure new resources and to help achieve the targeted resources in the Carbon Plan.

**b. Joint Implementation of 2022 SP Program**

Duke Energy has determined that DEC and DEP jointly issuing the 2022 SP Program, similar to the CPRE Program, will be the most efficient approach to ensure consistency in the evaluation and contracting processes and to develop least cost portfolios of new solar energy resources for the Companies' customers. DEC and DEP plan to use the RFP process for price discovery rather than pre-designating specific minimum targets or specific allocations between the two utilities. A system-wide, joint procurement without specific allocations best ensures that the lowest cost portfolio of assets can be sourced under the 2022 SP Program for all customers.

This joint approach received stakeholder support and aligns with the Companies' preliminary analysis that at least 700 MW of solar generation could be procured by the Companies, whether in DEC's or DEP's service territory, to reliably meet future system needs. Specific to cost recovery, however, DEC and DEP will separately contract with winning bids and seek recovery of utility-owned resources located within each utility's

assigned Balancing Authority Area. Each utility will be independently responsible for the full cost of renewable energy resources procured within its service territory.

**c. Carolinas Carbon Plan Informed Volume**

As addressed in Section IV above, the Companies' preliminary analysis indicates that at least 4,500 MW of new solar energy resources are needed to meet HB 951's resource planning goals by 2030. To that end, subject to the Commission's approval, the Companies are signaling to the market Duke Energy's plans to open a 2022 SP Program to procure at least the initial minimum target volume of 700 MW.

The final procurement amount will be a "Carbon Plan-informed" target volume. More specifically, the Companies, with stakeholder input, are proposing a structure whereby the final targeted procurement amount will be based upon the solar cost inputs and resource planning results of the Carolinas Carbon Plan. This will be accomplished by using the assumed cost of solar capacity and energy and related System Upgrades that is being used to develop the Carolinas Carbon Plan ("Carbon Plan Solar Reference Cost") to determine the final targeted MW volume of new solar energy resources to be procured through the 2022 SP. Under this approach, the final 2022 SP target volume, which will be filed on May 16 and is requested to be approved by the Commission by November 1 (in advance of short list selection at end of Step 1 bid evaluation by November 30), will be informed by the extensive modeling work for the Carolinas Carbon Plan, which will create a recommended resource mix that fully considers system reliability, relative technology cost estimates, forecasted technology price changes, and annual estimated interconnection limits for interconnecting new solar energy resources.

The Carbon Plan-informed target quantity of solar resources will also be set based upon the amount of solar selected by the Carolinas Carbon Plan that comes online in 2026

(since the 2022 DISIS projects are expected to come online in 2026 at the earliest). While interconnection construction timelines vary by project, using the 2026 forecasted solar quantity and associated 2026 Carbon Plan Solar Reference Cost provides a reasonable method to determine a 2022 SP target volume and recognizes that additional Carbon Plan informed solar procurements are anticipated to be held in future years (the plans for which will be addressed in the Companies' Carolinas Carbon Plan). Some stakeholders advocated for a more robust procurement volume based upon forecasted solar needs beyond 2026. The Companies considered this approach but determined that targeting the 2026 forecasted solar quantity as the initial 2022 SP procurement target reasonably takes into consideration both the forecasted changing costs of solar over time and the Companies' forecasted annual interconnection capacity.

The Companies also discussed with stakeholders and plan to include in the 2022 SP RFP a second Carbon Plan-informed cost control mechanism to potentially adjust the target volume downward or upwards by up to 20% depending on the competitiveness of bids submitted into the 2022 SP RFP. Specifically, the RFP will use the competitive RFP price discovery process to determine whether it is reasonable to adjust the target volume based upon a comparison of the cost of the most competitive solar portfolio bid into the RFP as compared to the Carbon Plan Solar Reference Cost.<sup>5</sup>

Duke Energy and stakeholders were generally aligned that the Companies and IE should be evaluating the total resource cost of new solar before selecting RFP winners

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<sup>5</sup> The Companies are also evaluating a stakeholder recommendation to make proposal selections at the end of DISIS Phase 1 where a proposal is determined to be least cost under the initial Step 1 evaluation and its System Upgrades are either fully determined under an executed IA or the Interconnection Customer is determined in DISIS Phase 1 not to have interdependencies with other Interconnection Customers in the Cluster.

which includes proposal costs and network upgrade and distribution upgrade (collectively, “System Upgrade”) costs. Projects would be ranked on this basis to develop a short list of proposals that could achieve the target volume. The IE and the Companies will calculate the weighted average cost of the total portfolio of Utility Ownership Track and PPA Track resources (as further discussed in Section VI.d and VI.e) along with their respective System Upgrade costs. If the weighted average cost is greater than or equal to 110% of the Carbon Plan Solar Reference Price, the target volume may be decreased by as much as twenty percent (20%) (subject to 700 MW minimum target), effectively eliminating the highest cost proposals from selection in the 2022 SP and deferring some of the modeled procurement volume to the future.<sup>6</sup> If the weighted average cost is less than or equal to 90% of the Carbon Plan Solar Reference Price, the target volume may be increased by up to 20% above the target volume thereby capturing more competitively priced, low cost solar energy resources for customers through the 2022 SP because they are less expensive than assumed in the Carolinas Carbon Plan.

This Carbon Plan-informed volume approach is designed to both mitigate the risk of unreasonable System Upgrade costs for customers and to recognize that a large amount of solar is expected to be needed in the Carolinas Carbon Plan and will need to be procured to come online through 2030. The Companies’ proposal thus provides a mechanism to adjust the amount procured based on cost to customers as reflected in the actual bid prices. This approach helps to ensure the Companies are taking into account market signals and the cost of potential System Upgrades assigned to proposals when procuring solar resources for North and South Carolina customers during this initial procurement.

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<sup>6</sup> Similar to CPRE, the targeted procurement volume is a target and limited deviations may also be acceptable to achieve the least cost portfolio of resources bid into the RFP.

However, Duke Energy and stakeholders agreed that the minimum target of 700 MW should limit the downside volume adjustment to encourage robust market participant response to the 2022 SP by making sure it is worthwhile for participants to incur the time and expense needed to bid. Robust market participation will maximize the benefits of the competitive procurement process to reduce the cost of new solar resources as much as possible.

The Companies, the Public Staff, and other stakeholders have also discussed an additional limited termination right cost control measure to mitigate the risk of material changes to System Upgrade costs late in the DISIS Cluster process. Specifically, for Controllable PPA Track proposals, the Companies are also planning to include a limited termination right provision in the PPA—similar to the CPRE Tranche 3 PPA—that would allow DEC or DEP to terminate the PPA if the Upgrade costs assigned to a project increase above a specified threshold to be included in the RFP. That proposal will be further evaluated in the upcoming RFP pre-solicitation process.

#### **d. Utility Ownership Procurement Track**

Procurement of new solar energy resources through the utility ownership track of the 2022 SP will be designed similar to the CPRE Program. Any utility self-developed proposals will be submitted to the IE for review in advance of third-party asset acquisition proposals. As in CPRE, there will be three avenues for third-party developers to submit asset acquisition proposals into the RFP: “Asset Transfer,” “Asset Transfer plus EPC”, and “Build Own Transfer.”

For “Asset Transfer” proposals, the offering third-party developer is proposing to sell a fully developed project and be responsible for, including but not limited to, project siting, land control, development, site investigation, surveying, title work, permitting,

limited engineering, and all interconnection studies. Under Asset Transfer, the utility and third-party developer would enter into an Asset Purchase Agreement (“APA”) in which the developer assigns and/or transfers all project assets, rights, obligations, etc. to the utility upon satisfaction of all development milestones and closing conditions, which generally occur prior to the start of construction. The utility will then be responsible for final engineering, procurement, and construction of the facility, while the developer will be responsible for executing and maintaining the facility’s Interconnection Agreement until the point which it is assigned to the utility at APA closing.

For “Asset Transfer plus EPC,” the third-party developer is proposing to sell a fully developed project and is responsible for, including but not limited to, project siting, land control, development, site investigation, surveying, title work, permitting, engineering, all interconnection studies and all procurement and construction of the facility pursuant to an Engineering, Procurement and Construction (“EPC”) Agreement. Under Asset Transfer plus EPC, the utility and third-party would enter into an APA similar to Asset Transfer. The parties would also enter into a fixed price EPC Agreement in which the third-party developer is responsible for final engineering, procurement, and construction of the facility. Again, similar to Asset Transfer, the developer is responsible for executing and maintaining the facility’s Interconnection Agreement until the point which it is assigned to the utility at APA closing.

The final avenue for third-party developed resources to be acquired in the 2022 SP is through “Build Own Transfer” or “BOT” whereby a third-party developer is proposing to sell a fully developed and constructed, turn-key, facility to the utility at a fixed price. The developer is responsible for all project development activities, including but not

limited to, project siting, land control, development, site investigation, surveying, title work, permitting, engineering, and all interconnection studies. Under this type of proposal, the utility and third-party would enter into a Built Transfer Agreement (“BTA”) in which the developer is responsible for all development scope, engineering, procurement, and construction of the facility. The third-party developer is responsible for executing and maintaining the facility’s Interconnection Agreement until the point which it is assigned to the utility at BTA closing, upon satisfaction of closing conditions, which is generally between mechanical completion and placed in service milestones.

Each of these utility ownership asset acquisition proposal options were available in CPRE Tranches 1 and 2 and the forms and agreements to be used for utility ownership asset procurement in the 2022 SP Program will be substantially similar to those used in the CPRE Program.

**e. Controllable PPA Procurement Track**

The Companies plan to procure the most reliable and least cost portfolio of solar energy from North Carolina and South Carolina developers through third-party PPAs that can be operated and controlled in the same manner as the Companies’ own generating resources. Controllable PPA resource contracts will be for 25 years and provide Duke Energy contracted rights to carbon-free generation in the Carolinas through at least the year 2050, thereby providing customers greater cost certainty toward the 2050 CO<sub>2</sub> emission reduction goals under HB 951. Active stakeholders have not expressed objection to the 25-year PPA term.

Similar to CPRE, the 2022 SP PPAs will specifically include rights to issue Control Instructions or take actions to dispatch down the facilities, without compensation to the sellers, equating to five percent (5%) in DEC and ten percent (10%) in DEP of the annual

expected output of energy (MWhs) that the facility would have generated, but did not generate due to issued Control Instructions. If this annual threshold (5% or 10%) is exceeded, the 2022 SP PPA then provides that seller shall be compensated at the full contract price for each MWh of energy that could have been generated but was not due to the dispatch down Control Instruction.<sup>7</sup> Consistent with the Companies' current form CPRE PPAs/Renewable PPAs, the 2022 SP PPA also provides for Control Instructions up to and including rights to full curtailment of the facility during "Emergency Conditions" or "Force Majeure" conditions without compensation. The Companies believe this approach is reasonable and meets the 2022 SP's objective of procuring least cost resources through pro forma contracts that define limits and compensation for resource dispatch and curtailments.

Certain market participant stakeholders as well as the Public Staff have noted that the PPA generation control and related compensation structure should be reviewed prior to the next solar procurement to determine whether alternative contractual arrangements to those proposed for the 2022 SP Program might deliver greater dispatchability and control to the Companies at a lower cost to customers while minimizing revenue risk for third-party developers. There are many complexities still to be worked through with alternative contracting arrangements, and the Companies support further stakeholder engagement on this issue and plan to review other contracting options prior to a future solar procurement in 2023.

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<sup>7</sup> Similar to CPRE, the PPA's uncompensated curtailment rights and potential for compensation above the contracted level of curtailment are part of the product being procured under the 2022 SP and any compensation provided under the PPA for energy that could have been generated but was not due to Control Instructions will also be recovered through the fuel clause.

**f. Independent Oversight and Bid Evaluation to Ensure Transparency and Fairness in RFP**

To support the 2022 SP Program effort and to align with stakeholder feedback and to assure a fair and transparent procurement process, the Companies are engaging a new IE to oversee the 2022 SP. Both the Companies and stakeholders support Duke Energy engaging an IE to manage the 2022 SP RFP.

**i. IE Scope of Work and Reporting to Commission**

The IE will assist DEC and DEP in procuring the lowest cost resources by ensuring competitive and fair practices are implemented throughout the 2022 SP Program. As detailed in Attachment 2: Duke Energy Independent Evaluator Scope of Work for 2022 Solar Procurement (“IE Scope of Work”), the IE will develop a 2022 SP RFP website and have a significant role managing the market participant engagement process. Throughout the 2022 SP, the IE will be available and responsive to market participant inquiries, providing an option for direct inquiries via the SP RFP website, similar to the CPRE Program. The IE will also be responsible for reviewing the draft RFP and providing input to the Duke Energy evaluation team to ensure reasonable transparency and consistency with accepted industry standards and practices for competitive solicitations. Prior to issuance of the 2022 SP RFP, the IE will provide written feedback to the Duke Energy evaluation team on the draft RFP and also develop a “Final RFP Assessment Report” for filing with the NCUC and Public Service Commission of South Carolina (“PSCSC”) at the time Duke Energy files its final RFP with the Commission. The Final RFP Assessment report is targeted to be filed on or about May 31, 2022, in advance of the bid window opening.

During the bid evaluation process, the IE will be responsible for the initial review of proposals submitted into the 2022 SP Program to ensure bids meet all applicable bidder requirements set forth in the RFP. The IE will also perform an independent evaluation of both utility and third-party owned proposals submitted into the 2022 SP Program to ensure the Companies' evaluation team selects proposals in a fair and unbiased manner that results in a portfolio of new solar energy resources that minimizes long-term costs and risk for the Companies' customers. In response to certain market participant stakeholders' concerns about Duke Energy submitting self-developed proposals into the RFP, Section 2 of the IE Scope of Work specifically provides that "[i]f DEC or DEP submit self-build bids into the RFP as utility-ownership bid proposals, the IE will independently evaluate and rank these utility-ownership bid proposals to provide transparency that Duke self-build bids were fairly evaluated compared to third party acquisition bids." The Companies will provide the IE with all data and information necessary to perform a thorough examination of the bidding process and bids received through the 2022 SP.

At the conclusion of the 2022 SP, the IE will be required to file a "Post Solicitation Report" with the Commission to provide its independent assessment and certification that the 2022 Solar RFP solicitation process was conducted in an open, transparent, and non-discriminatory manner.

ii. Charles River Associates

Subject to Commission authorization to proceed with the 2022 SP Program, Duke Energy plans to engage CRA to serve as the IE of the 2022 SP RFP. The Companies and stakeholders discussed engagement of CRA as the 2022 SP Program IE during the stakeholder process and stakeholders were generally supportive of retaining CRA as IE of

the 2022 SP Program. CRA's proposal and cost estimate to act as IE is being provided as Attachment 3: Charles River Associates 2022 Solar Procurement Proposal.

As illustrated in Attachment 3, CRA has the capabilities, experience, and expertise to ensure the success of a utility RFP and other generation procurement mechanisms. CRA has designed and managed successful capacity RFPs for multiple utilities including but not limited to Dominion Energy South Carolina, DTE, Monongahela Power, Northern Indiana Public Service Company, and Hoosier Energy. CRA also has experience implementing standard offer service procurement auctions for The Duquesne Light Company, AES Ohio (Dayton Power & Light), and FirstEnergy's Ohio Utilities.

Other Duke Energy Corp. subsidiaries have also previously engaged CRA to facilitate solicitations in other jurisdictions. Since 2011, CRA has served as the auction manager for Duke Energy Ohio's solicitations to identify suppliers for default service obligations. CRA is also currently engaged as IE of Duke Energy Indiana's ("DEI") 2022 all source procurement. Although still ongoing, CRA has been successful in designing and implementing DEI's all source procurement to date and the Companies believe CRA has the capabilities to perform the duties in the IE Scope of Work included herein.

The Companies plan to proceed with retaining CRA to manage the upcoming pre-solicitation process and to provide IE services for the 2022 SP RFP.

iii. IE Costs to be Recovered from Market Participants

The IE will contract with, and be paid by, the Companies. Duke Energy and the Public Staff agree that the cost of the IE's services should be funded by market participants through proposal and winner's fees similar to the CPRE RFP framework. The Companies

will manage the contract terms with the IE and provide such contract to the Public Staff, once executed.

**g. Plans for Aligning 2022 SP with DISIS and Managing Cluster Study System Upgrade Risk**

Duke Energy and stakeholders have discussed at length the interrelationship between the generator interconnection process and 2022 SP RFP's bid evaluation process to ensure that the 2022 SP Program can be efficiently administered as part of the Companies' first annual DISIS Cluster, with the interconnection request window closing in June. The 2022 SP RFP is designed to provide reasonable transparency to prospective bidders regarding known areas of constraint, reduce potential process risks for the DISIS Cluster, and mitigate the unquantified System Upgrade cost risks for proposal sponsors bidding into the 2022 SP RFP.

**i. Grid Locational Guidance for Market Participants**

Competitively procuring low cost proposals through the 2022 SP Program necessarily requires an evaluation of System Upgrade cost to interconnect new solar energy resources to the Companies' transmission systems. Oftentimes, congested areas have the highest System Upgrade costs. Similar to the CPRE Program, the Companies plan to provide market participants with grid locational guidance during the pre-solicitation process and post this guidance on the IE's website indicating known transmission and distribution capacity limitations resulting from the amount of existing or proposed generation in a particular area. This grid locational guidance is intended to provide market participants with information regarding areas on the transmission system where System Upgrade costs are likely to be high based upon recent transmission system impact studies.

ii. FERC and State-Jurisdictional Interconnection Customers Bidding into 2022 SP will be Evaluated Together in 2022 DISIS

The new DISIS Cluster Study process approved by the NCUC, PSCSC, and FERC and integrated into the respective North Carolina Interconnection Procedures (“NCIP”), South Carolina Generator Interconnection Procedures (“SC GIP”) Appendix Duke CS, and FERC Joint Open Access Transmission Tariff Attachment J–Large Generator Interconnection Procedures (“LGIP”) requires DEC and DEP to study both state-jurisdictional interconnection request and FERC-jurisdictional interconnection requests as part of the same Cluster.<sup>8</sup> Similar to the CPRE Program, Interconnection Customers seeking to offer PPA proposals into the 2022 SP Program will be QFs offering to sell the full output of the facility to the interconnected utility at the point of interconnection. These Interconnection Customers will be state-jurisdictional<sup>9</sup> and subject to the DISIS Cluster process under the NCIP or SC GIP Appendix Duke CS, as applicable. Utility Ownership Track proposals will predominantly be FERC-jurisdictional interconnections subject to the DISIS study process in Section 10.2 of the LGIP.<sup>10</sup>

All Utility-Ownership Track and Controllable PPA Track proposals that bid into the 2022 SP RFP will be treated as meeting applicable project Readiness Milestone 1 and (if still under consideration and not released from RFP) Readiness Milestone 2

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<sup>8</sup> The NCIP, SC GIP and LGIP each provide for a DISIS-integrated Resource Solicitation Cluster framework for evaluating proposals submitted to the Utility/Resource Planning Entity as part of a Resource Solicitation Process. The Companies are still evaluating the need for and benefit of developing a DISIS-integrated Resource Solicitation Cluster framework.

<sup>9</sup> See *Order No. 2003*, 104 FERC ¶ 61,103 at P 813 (2003) (explaining that “[w]hen an electric utility is obligated to interconnect under Section 292.303 of the Commission's Regulations, that is, when it purchases the QF's total output, the relevant state authority exercises authority over the interconnection and the allocation of interconnection costs”).

<sup>10</sup> A proposal that seeks to both bid into the PPA Track and Utility Ownership Track of the 2022 SP should enter the DISIS as State-jurisdictional Interconnection Customer. Additional detail on interconnection jurisdiction will be identified in the 2022 SP RFP.

requirements under the applicable NCIP, SC GIP, and LGIP as offering to sell the output of the proposed generating facility through a resource solicitation process.

iii. System Upgrade Costs to be Segregated for Future Cost-of-Service Recovery Subject to Potential PPA Re- Pricing Mechanism to Minimize Customer Costs

As the Commission is aware, System Upgrades are increasingly required in order to accommodate new generating resources on Duke Energy's system. As explained above, the cost of those System Upgrades will be taken into account when determining the most cost-effective resources for customers. No matter the RFP structure, customers will ultimately bear the cost of those needed System Upgrades. In the case of Controllable PPA resource offers, the recovery of assigned System Upgrade costs will occur either through the PPA price (and ultimately through fuel rates) if funded by the QF or through base rates if funded by the utility. In CPRE, the Commission approved a structure whereby the System Upgrade costs were recovered through base rates, and that approach has worked relatively smoothly to date, limiting the complexity of the procurement and selection process.

Duke Energy and stakeholders are aligned that the 2022 SP RFP will receive more competitive bid prices by removing the System Upgrade cost uncertainty from the bidding process. This uncertainty can be removed for bidders by following the CPRE Program's approach of not requiring PPA Track proposals received during the initial RFP window to directly fund System Upgrade costs (which would raise their PPA offers to cover not only an assumed cost of System Upgrades but also revenue uncertainty due to System Upgrade cost uncertainty).

While the cost of interconnection facilities between the generating facility and the generator's point of interconnection ("POI") can be reasonably projected based upon the

size of the generating facility and the voltage of the line to which the generator proposes to interconnect, the System Upgrade costs beyond the POI can vary dramatically depending on the grid's capability to integrate additional generation at a requested POI. Duke Energy and stakeholders agree that requiring market participants to price in the risk of unknown and potentially significant System Upgrades could significantly and unnecessarily increase the total cost of renewable energy facilities that bid into the 2022 SP RFP. To mitigate this risk, the Companies are requiring the initial Controllable PPA Track bids be made assuming that the Companies are funding the System Upgrades and that the Companies will include the System Upgrade costs in the evaluation of projects to select the least cost portfolio. Market participants will develop Proposals that include only the generating facility and interconnection facilities costs, while the Companies will separately plan to recover any System Upgrade costs through future adjustments to general cost of service to be reviewed and approved by the Commission in future general rate case proceedings.

Once DISIS Phase 2 System Upgrades are established, the Companies are evaluating whether to require Controllable PPA Track short list proposals to provide a separate bid for the project under the assumption that the bidder will be required to directly fund the now-known System Upgrade costs and should adjust their PPA price to reflect that arrangement. Under this approach, only the PPA price would be updated and no other aspect of the proposal may change. In addition, the initial bid, in which upgrades were not the responsibility of the bidder will remain in effect. The Companies will then determine whether the original PPA bid (received at the closing of the RFP window) combined with the revenue requirement of the utility funded upgrades or the second PPA bid (received with updated Phase 2 System Upgrade cost estimates, in which the developer directly funds

the System Upgrades) will be selected to go forward in the evaluation and selection process. This approach could be utilized to ensure that customers pay the lowest overall cost for the combined portfolio of Controllable PPA resource contracts, inclusive of System Upgrades.

Before deciding whether to require the alternative “second bid including System Upgrades” approach, the Companies plan to engage with the IE and stakeholders during the RFP pre-solicitation process to determine if the additional work and time required to evaluate the second bids is manageable and does not overly complicate the procurement process.

iv. Projects with Executed Interconnection Agreements are eligible to bid into the 2022 SP

Projects which have executed an Interconnection Agreement (“IA”) but have not executed a PPA prior to the closing of the bid window will also be allowed to participate in the 2022 SP Program under both the Utility Ownership Track and Controllable PPA Track. Such projects will not be required to participate in the DISIS Cluster, but, like CPRE, will be responsible for funding their contracted-for System Upgrades in accordance with the terms and conditions of their executed IA.

**h. Plans for System-Wide Cost Recovery**

The utility-owned resources and third-party PPA proposals procured under the 2022 SP Program will be “system supply resources” delivering energy and capacity to the Companies’ grid to serve all North Carolina retail, South Carolina retail, and wholesale jurisdictional customers. As such, the Companies are planning to allocate the cost of energy, capacity, and renewable and environmental attributes generated by facilities procured through the 2022 SP Program to all jurisdictions and customers. This allocation

method is appropriate because the energy delivered by facilities procured through the 2022 SP Program is needed to meet DEC's and DEP's future system-wide resource needs, and these new solar resources provide system-wide benefits by serving all customers within the Companies' balancing authority areas.

2022 SP PPA costs allocated to the NC retail jurisdiction will be recovered through the North Carolina fuel clause pursuant to N.C. Gen. Stat. § 62-133.2.<sup>11</sup> Utility-owned resources will be recovered through base rates. If directly funded by the Companies, the NC retail allocated portion of the System Upgrade costs will be recovered through base rates.

### **CONCLUSION**

WHEREFORE, the Companies respectfully request that the Commission (i) issue an order granting the Companies' request for authorization to commence the 2022 Solar Procurement Program; (ii) approve an initial minimum target volume of 700 MW to be procured through the 2022 SP RFP subject to adjustment as described herein; (iii) establish any further procedures or proceedings the Commission determines may be needed to review and to approve the final solar resource procurement target as part of the Commission's review of the Companies' Carolinas Carbon Plan by no later than November 1, 2022, and (iv) grant such other and further relief as the Commission deems just and reasonable and in furtherance of the public interest.

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<sup>11</sup> N.C. Gen. Stat. § 62-133.2(a1) 4.-5.

Respectfully submitted, this the 14<sup>th</sup> day of March 2022.

/s/ Jack E. Jirak

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# **ATTACHMENT 1**

2022 Solar Procurement Stakeholder Meeting Attendance

Docket No. E-2, Sub 1297

Docket No. E-7, Sub 1268

## 2022 Solar Procurement Stakeholder Meeting 1 Attendance

Name	Organization
Ettore de Martino	Alleans Renewables
Omi Ogolo	Alleans Renewables
Alex Haley	Alleans Renewables
John Gorman	Ameresco
Austin Cadd	Apex Clean Energy
Abiola Ayinde	Apex Clean Energy
Christina Cress	Bailey & Dixon, LLP
Kim Campbell	Bailey & Dixon, LLP
Chris Norqual	Birch Creek Development
Landon Abernethy	Birdseye Renewable Energy
Jon Vague	Birdseye Renewable Energy
Heyward Lathrop	Birdseye Renewable Energy
Jenise Clancey	Birdseye Renewable Energy
Michael Wallace	BrightNight Power
Chris Carmody	CCEBA
John Burns	CCEBA
Randall Jenks	Core Solar LLC
Julius Horvath	Core Solar LLC
Peter Stein	Cypress Creek Renewables
Tyler Norris	Cypress Creek Renewables
Nicole Miller	Cypress Creek Renewables
Glen Snider	Duke Energy
Michael Quinto	Duke Energy
Nate Gagnon	Duke Energy
Sammy Roberts	Duke Energy
George Flowers	Duke Energy
George Brown	Duke Energy
Jason Martin	Duke Energy
Jack Jirak	Duke Energy
Graham Tompson	Duke Energy
Matthew Kalemba	Duke Energy
Kenneth Jennings	Duke Energy
Angela Tabor	Duke Energy
David Johnson	Duke Energy
Benjamin Smith	Duke Energy
Rebecca Dulin	Duke Energy
Jim Northrup	Duke Energy
Kendal Bowman	Duke Energy
Sam Wellborn	Duke Energy
Nate Finucane	Duke Energy

Maura Farver	Duke Energy
Benjamin Smith	Duke Energy
Justin LaRoche	Duke Energy
Elena Cardenas	Ecoplexus Inc.
Mattan Shrager	Ecoplexus Inc.
Seth Studer	Ecoplexus Inc.
Rishabh Gupta	Ecoplexus Inc.
Thomas Kiggen	Environmental Defense Fund
Ben Snowden	Fox Rothschild LLC
Donna Robichaud	Geenex Solar LLC
Lesley Williams	Geenex Solar LLC
Doug Scott	Great Plains Institute
Trevor Drake	Great Plains Institute
Emma Johnson	Greengo Energy
Jennifer Ahearn	Guidehouse
Tim Holder	hep Petra
Jim Armfield	Holocene Clean Energy
Kaley Bangston	Invernergy
Kaylie Sampson	Invernergy
Adam Ledet	Invernergy
Tess Rogers	McGuire Woods
Kristin Athens	McGuire Woods
Tracy DeMarco	McGuire Woods
Brett Breitschwerdt	McGuire Woods
Tim Dodge	NCEMC
Benjamin Smith	NCSEA
Jeff Thomas	NCUC - Public Staff
Mike Maness	NCUC - Public Staff
Michelle Boswell	NCUC - Public Staff
Lucy Edmondson	NCUC - Public Staff
Dustin Metz	NCUC - Public Staff
Robert Josey	NCUC- Public Staff
Layla Cummings	NCUC- Public Staff
Jay Lucas	NCUC- Public Staff
Nadia Luhr	NCUC- Public Staff
James McLawhorn	NCUC- Public Staff
Andrew Brown	Nextera Energy
Casey Tomasiak	Nextera Energy
Ryan Ledonne	Palladium Energy LLC
Nobel Chang	Palladium Energy LLC
Piper Miller	Pine Gate Renewables
Logan Secord	Pine Gate Renewables
Sean Andersen	Pine Gate Renewables

Adam Stein	Pine Gate Renewables
Eric Burton	Pine Gate Renewables
Charlene Mortyn	Pine Gate Renewables
Steven Levitas	Pine Gate Renewables
edrisa cham	Savion Energy
Derek Sunderman	Savion Energy
Matt Hooper	Savion Energy
Erich Miarka	Savion Energy
Jeff James	Savion Energy
Anthony Sandonato	SC Office of Regulatory Staff
Nicholas Jimenez	SELC
Madeline Schwartz	Soltage LLC
Chaim Grushko	Soltage LLC
Stephanie Sienkowski	Soltage LLC
Jonathan Roberts	Soltage LLC
Stephen Rutherford	Soltage LLC
Dennis Richter	Solterra Partners LLC
Paul Fleury	Southern Current LLC
Hamilton Davis	Southern Current LLC
Ola Olaniyi	Not Provided
Matthew Dockery	Not Provided

## 2022 Solar Procurement Stakeholder Meeting 2 Attendance

Name	Organization
Swain Whitfield	Alliance Consulting Engineers
John Gorman	Ameresco
Abiola Ayinde	Apex Clean Energy
Christina Cress	Bailey & Dixon, LLC
Kim Campbell	Bailey & Dixon, LLC
Heyward Lathrop	Birdseye Renewable Energy
Jenise Clancey	Birdseye Renewable Energy
Brooks Camp	Birdseye Renewable Energy
Jon Vague	Birdseye Renewable Energy
Chris Carmody	CCEBA
John Burns	CCEBA
Randy Jenks	Core Solar, LLC
Julius Horvath	Core Solar, LLC
Peter Stein	Cypress Creek Renewables
Nicole Miller	Cypress Creek Renewables
Tyler Norris	Cypress Creek Renewables
John Eskew	Cypress Creek Renewables
Terri Edwards	Duke Energy
Steve Immel	Duke Energy
Jim Northrup	Duke Energy
Susan Snow	Duke Energy
Tara McKendry	Duke Energy
George Flowers	Duke Energy
Nicholas Lalley	Duke Energy
Justin LaRoche	Duke Energy
Scott Fandrich	Duke Energy
Maura Farver	Duke Energy
Kendal Bowman	Duke Energy
Sam Wellborn	Duke Energy
Nate Finucane	Duke Energy
Gray Thompson	Duke Energy
Sammy Roberts	Duke Energy
Angie Tabor	Duke Energy
Jason Martin	Duke Energy
David Johnson	Duke Energy
Ben Smith	Duke Energy
Gian Framingheddu	Duke Energy
Mark McKeage	Duke Energy
Jeff Riggins	Duke Energy
George Brown	Duke Energy

Amy Dlugokecki	Duke Energy
Ken Jennings	Duke Energy
Jack Jirak	Duke Energy
Kerry Powell	Duke Energy
Matt Kalembe	Duke Energy
Jason Higginbotham	Duke Energy
Glen Snider	Duke Energy
Rebecca Dulin	Duke Energy
Maura Farver	Duke Energy
Seth Studer	Ecoplexus Inc.
Morgan Hylton	Fayetteville Public Works Commission
Dustin Doty	Fayetteville Public Works Commission
Ben Snowden	Fox Rothschild LLP
Donna Robichaud	Geenex Solar Inc.
Lesley Williams	Geenex Solar Inc.
Doug Scott	Great Plains Institute
Emma Johnson	GreenGo Energy
Tim Holder	hep Petra
Jim Armfield	Holocene Clean Energy
Adam Ledet	Invenergy
Michelle Pavan	Invenergy
Radha Soorya	Longroad Energy
Matthew Thornton	Longroad Energy
Nathan Adams	Longroad Energy
Tess Rogers	McGuire Woods
Kristin Athens	McGuireWoods
Tracy DeMarco	McGuireWoods
Brett Breitschwerdt	McGuireWoods
Lisa Federico	Narenc
Sanja Ryan	Narenc
John Thigpen	Natural Resources Defense Council and City of Charlotte
Tirrill Moore	NC Attorney General's Office
Tim Dodge	NCEMC
Benjamin Smith	NCSEA
Michelle Boswell	NCUC- Public Staff
Layla Cummings	NCUC- Public Staff
James McLawhorn	NCUC- Public Staff
Jay Lucas	NCUC- Public Staff
Lucy Edmondson	NCUC- Public Staff
Jeff Thomas	NCUC- Public Staff
Mike Maness	NCUC- Public Staff
Nadia Luhr	NCUC- Public Staff

Robert Josey	NCUC- Public Staff
Dustin Metz	NCUC- Public Staff
Casey Tomasiak	Nextera Energy
Ben Stockdale	Pine Gate Renewables
Daniel Wahlen	Pine Gate Renewables
Dalia Jimenez	Pine Gate Renewables
Adam Stein	Pine Gate Renewables
Steven Levitas	Pine Gate Renewables
Eric Burton	Pine Gate Renewables
Logan Secord	Pine Gate Renewables
Erich Miarka	Savion
Jeff Solomon	Savion Energy
Robert Lawyer	SC Office of Regulatory Staff
Gretchen Pool	SC Office of Regulatory Staff
Dustin Metz	SC Office of Regulatory Staff
Lauren Bowen	SELC
Nick Jimenez	SELC
Chaim Grushko	Soltage LLC
Maddie Schwartz	Soltage LLC
Dennis Richter	Solterra Partners, LLC
Hamilton Davis	Southern Current LLC
Sarah Elgradawy	United Renewable Energy

## 2022 Solar Procurement Stakeholder Meeting 3 Attendance

Name	Organization
John Gorman	Ameresco
Manuel Portocarrero	Apex Clean Energy
Abiola Ayinde	Apex Clean Energy
Kim Campbell	Bailey & Dixon, LLC
Christina Cress	Bailey & Dixon, LLC
Brooks Camp	Birdseye Renewable Energy
Rebecca Cheatham	Birdseye Renewable Energy
Jenise Clancey	Birdseye Renewable Energy
Heyward Lathrop	Birdseye Renewable Energy
Chris Carmody	CCEBA
John Burns	CCEBA
Peter Stein	Cypress Creek Renewables
Harrison Cole	Cypress Creek Renewables
Tyler Norris	Cypress Creek Renewables
Terri Edwards	Duke Energy
George Flowers	Duke Energy
Mark McKleage	Duke Energy
Bailey McGalliard	Duke Energy
Ken Jennings	Duke Energy
Jim Northrup	Duke Energy
Loriael Joyner	Duke Energy
Jason Martin	Duke Energy
John Freund	Duke Energy
Jason Higginbotham	Duke Energy
Justin LaRoche	Duke Energy
Nate Finucane	Duke Energy
Jack Jirak	Duke Energy
Ben Smith	Duke Energy
David Johnson	Duke Energy
Susan Snow	Duke Energy
Casey Tomasiak	Duke Energy
Sam Wellborn	Duke Energy
Jeff Riggins	Duke Energy
Sammy Roberts	Duke Energy
Kerry Powell	Duke Energy
Angie Tabor	Duke Energy
Glen Snider	Duke Energy
George Brown	Duke Energy
Maura Farver	Duke Energy
Matthew Kalemba	Duke Energy

Morgan Hylton	Fayetteville Public Works Commission
Dustin Doty	Fayetteville Public Works Commission
Benjamin Snowden	Fox Rothschild LLC
Emma Johnson	Greengo Energy
Tim Holder	hep Petra
Michelle Pavan	Invenergy
Adam Ledet	Invenergy
Radha Soorya	Longroad Energy
Nathan Adams	Longroad Energy
Tracy DeMarco	McGuire Woods
Kristin Athens	McGuire Woods
Brett Breitschwerdt	McGuire Woods
Sam Kliewer	Meridian Renewable Energy Corporation
Lisa Federico	Narenco
Luis Martinez	Natural Resources Defense Council
Tim Dodge	NCEMC
Benjamin Smith	NCSEA
Michelle Boswell	NCUC - Public Staff
Jeff Thomas	NCUC - Public Staff
James McLawhorn	NCUC - Public Staff
Lucy Edmondson	NCUC - Public Staff
Dustin Metz	NCUC - Public Staff
Robert Josey	NCUC - Public Staff
Jay Lucas	NCUC - Public Staff
Nadia Luhr	NCUC - Public Staff
Tony Giustino	Not Provided
Daniel Wahlen	Pine Gate Renewables
Ben Stockdale	Pine Gate Renewables
Piper Miller	Pine Gate Renewables
Logan Secord	Pine Gate Renewables
Adam Stein	Pine Gate Renewables
Steve Levitas	Pine Gate Renewables
Eric Burton	Pine Gate Renewables
Tom Delafield	RES
Matt Delafield	RES
Erich Miarka	Savion Energy
Jeff Solomon	Savion Energy
Anthony Sandonato	SC Office of Regulatory Staff
Gretchen Pool	SC Office of Regulatory Staff
Lauren Bowen	SELC
Dave Rogers	Sierra Club
Stephanie Sienkowski	Soltage, LLC
Jonathan Roberts	Soltage, LLC

Maddie Schwartz	Soltage, LLC
Bryan Jacob	Southern Alliance for Clean Energy
Hamilton Davis	Southern Current LLC
Marshall Conrad	Strata Clean Energy

## **ATTACHMENT 2**

Duke Energy Independent Evaluator Scope of Work for  
2022 Solar Procurement

Docket No. E-2, Sub 1297

Docket No. E-7, Sub 1268

## Duke Energy Carolinas, LLC/Duke Energy Progress, LLC

### Independent Evaluator Scope of Work for 2022 Solar Procurement

Subject to oversight by the Independent Evaluator (“IE”) pursuant to the process described in this scope of work, Duke Energy Carolinas, LLC/Duke Energy Progress, LLC (together, the “Companies” or “Duke”) plan to issue a request for proposals (“RFP”) on or about June 1, 2022 to procure utility-owned and third party power purchase agreement (“PPA”) solar resources to serve customers’ future energy needs. Issuance of the 2022 Solar RFP is time sensitive due to the need to align the RFP with the initial Definitive Interconnection System Impact Study (“DISIS”) Cluster Study Request Window which closes on June 29, 2022 per the Companies’ applicable FERC, North Carolina (NC) and South Carolina (SC) interconnection procedures.

#### 1. ENGAGEMENT AND PRE-SOLICITATION PROCESS

- a. Duke plans to engage the IE on or before April 1, 2022, in order for the IE to facilitate a 60-day pre-solicitation process in coordination with Duke’s 2022 Solar RFP evaluation team. Prior to contracting with the IE, the prospective IE shall provide Duke with written documentation of its qualifications to act as IE, estimated costs for managing the 2022 Solar RFP as described herein, and shall disclose any work it has done for any Duke Energy Corporation subsidiary or any other market participant in the last three years as well as identify any potential ownership interest in any market participant.
- b. The IE shall set up and maintain a website to facilitate administration of the 2022 Solar Procurement. The website will remain live through the fourth quarter of 2023 as needed.
- c. During the pre-solicitation process, Duke plans for the IE to host two RFP pre-solicitation engagement meetings via video conference with market participants and the NC Public Staff/SC Office of Regulatory Staff. Meeting 1 will cover the overall RFP process. Meeting 2 will review comments from market participants and other stakeholders to the draft RFP. Additional meetings may be established during the RFP pre-solicitation process at the request of the Duke evaluation team.
- d. The IE will participate in joint virtual meetings and discussions (via Teams), as needed, with the Duke evaluation team and the NC Public Staff/SC Office of Regulatory Staff, upon request, regarding the overall RFP process and to review comments on the 2022 solar procurement RFP.
- e. In addition to administering the 60-day RFP pre-solicitation process, the IE will complete a thorough assessment of the 2022 Solar RFP design and bid evaluation process and provide input to the Duke evaluation team to ensure reasonable transparency and consistency with accepted industry standards

and practices for competitive solicitations.<sup>1</sup> The IE will review the openness and transparency of the RFP development process and shall assess whether the RFP provides all potential bidders substantial and meaningful information regarding transmission constraints, levels of congestion, and interconnections, subject to appropriate confidentiality safeguards. The IE will also review stakeholder comments to the draft RFP. At least 10 days prior to Duke's issuance of the 2022 solar procurement RFP, the IE will submit its assessment of the draft RFP to the Duke evaluation team for use in finalizing the 2022 Solar RFP documents.

## 2. INDEPENDENT EVALUATION OF PROPOSALS

- a. During the Step 1 evaluation process as described in Attachment 1, the IE will manage the bidding process and independently evaluate and rank utility-ownership proposals including utility self-developed projects and third-party asset acquisition projects. The IE will also independently evaluate and rank all PPA bids. The IE will adhere to the same methodology and scoring used by the Duke evaluation team consistent with the 2022 Solar RFP documents. If DEC or DEP submit self-build bids into the RFP as utility-ownership bid proposals, the IE will independently evaluate and rank these utility-ownership bid proposals to provide transparency that Duke self-build bids were fairly evaluated compared to third party acquisition bids. The IE will provide the results of its evaluation and proposed ranking to the Duke evaluation team in advance of the conclusion to the Step 1 evaluation process for consideration in developing the shortlist of bids proceeding to the Step 2 evaluation. The Duke evaluation team shall be responsible for the selection of both ownership and PPA projects after the Step 2 evaluation process. The IE shall review the Duke evaluation team's selection of bids to ensure that all bids were evaluated in a transparent and non-discriminatory manner.

## 3. REPORTS TO NCUC AND PSCSC

The IE will be required to file the following RFP Assessment and Post Solicitation reports with the North Carolina Utilities Commission ("NCUC") and Public Service Commission of South Carolina ("PSCSC"):

- a. Final RFP Assessment: The IE will complete an assessment of the final 2022 Solar RFP for filing with the NCUC and PSCSC at the time Duke files its final RFP. This filing is targeted to be filed on May 31, 2022.
- b. Post Solicitation Report: The IE will complete a Post Solicitation Report to be filed with the NCUC and PSCSC to provide an independent assessment and certification that the 2022 Solar RFP solicitation process was conducted in an open, transparent, and non-discriminatory manner. The Report will

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<sup>1</sup> See *Allegheny Energy*, 108 FERC ¶ 61,082 at P 18 (2004).

address whether the proposals (both for utility ownership and PPAs) selected by the Duke evaluation team were selected in a fair and unbiased manner and resulted in a portfolio that minimizes long-term costs and risks for Duke's retail customers among available resources eligible for the procurement. To the extent that the IE's final rankings differed from the Duke evaluation team's ranking of PPA bids or utility ownership bids, the Post Solicitation Report should explain the differences and why the IE and Duke evaluation team were or were not able to reconcile the differences. The Post Solicitation Report will also address the adequacy of communication with stakeholders and bidders during the RFP process. This Post Solicitation Report will be filed within 30 days of the final project selection.

The IE's Post Solicitation Report should include an analysis of whether or the extent to which:

- a. resources selected minimize long-term costs for Duke's retail customers taking into consideration overall system costs and risks,
- b. the solicitation process was conducted fairly, transparently, and consistently for all market participants,
- c. screening factors and weights were applied consistently to all PPA bids and utility-ownership bids,
- d. credit and security requirements, liquidated damages provisions, resource performance and operational characteristics, warranties and other similar requirements were appropriately applied to bid evaluation and appropriately affected the outcome of the solicitation process,
- e. the IE was provided with access to all data, information and models relevant to the solicitation process to permit full and timely evaluation, testing and verification of assumptions, models, inputs, outputs, and results.

#### 4. OTHER RESPONSIBILITIES

In addition to the IE's responsibilities listed above, the IE shall also undertake the following other responsibilities:

- a. If requested by the NC Public Staff and/or SC Office of Regulatory Staff, the IE will participate in additional meetings related to final selection by the Duke evaluation team.
- b. Participate in any NCUC or PSCSC public meeting, technical conference or ex parte briefing (if scheduled) related to the 2022 Solar RFP design and execution.

- c. Monitor all aspects of the solicitation process from the RFP issuance through the selection of bids.
- d. Verify the basis for selection of the initial shortlist of bids that were invited to Step 2 based upon Duke's bid evaluation methodology and consideration of price and non-price factors.
- e. Verify the basis for final selection of bids based upon Duke's bid evaluation methodology and consideration of price and non-price factors.
- f. Advise Duke's evaluation team and NC Public Staff and SC Office of Regulatory Staff of any issue that might reasonably be construed to affect the integrity of the solicitation process and provide Duke an opportunity to remedy the defect identified. Advise NC Public Staff and SC Office of Regulatory Staff of significant changes or unresolved issues as they arise.
- g. Independently score all of the PPA bids and utility ownership bids to determine whether the selections for the initial and final shortlists are reasonable.
- h. Compare the IE's and Duke evaluation team's scoring and evaluation of the competing bids and attempt to reconcile and resolve any scoring differences in collaboration with Duke evaluation team.
- i. Participate in any additional meetings with market participant or other parties on request and with notice to the Duke evaluation team.

*[This attachment provides the IE with an overview of the planned 2022 Solar RFP bid evaluation process. The IE will have an opportunity to provide input on this process prior to RFP issuance in June 2022.]*

**Planned Evaluation Process for 2022 Solar RFP**

**Bid Window and Initial Bid Review Process:**

1. The IE shall announce the opening of the 2022 Solar RFP solicitation to the market participants via the IE website and identify the bid window opening and closing dates during which market participants may submit proposals into the 2022 Solar RFP.
2. The IE shall be responsible for initial review of proposals submitted into the 2022 Solar RFP to ensure bids meet all applicable bidder requirements set forth in the RFP. Either prior to or after the bid window closing date, the IE may, in its discretion, allow a market participant to modify or clarify its proposal to cure a non-conformance that would otherwise require elimination of the proposal. The IE may consult with the Duke evaluation team to determine whether a proposal meets the requirements for proposals set forth in the 2022 Solar RFP. In addition to evaluating each proposal's compliance with 2022 Solar RFP requirements, the IE will also validate that the proposal (i) is an advanced stage proposal with an executed Interconnection Agreement or (ii) has submitted a complete Definitive Interconnection System Impact Study ("DISIS") Cluster interconnection request and met initial M1 readiness requirements, as applicable.

**Transparency of Evaluation Process:**

3. In order to ensure a fair and transparent evaluation of all utility ownership proposals, any self-developed project proposal (meaning any project that the utility proposes to bid in to the 2022 Solar RFP that are not sourced from third-party asset acquisition offers bid in the RFP) shall be submitted by the Duke proposal team directly to the IE in advance of the date that it will receive asset acquisition offers submitted under the Utility Ownership Track. Once submitted, utility self-developed proposals cannot be modified, except to cure a non-conformance that would otherwise require elimination of the proposal, as reasonably determined by the IE, where allowing the correction will not be unfair to other market participants.
4. Once the bid window closes, the IE will provide all asset acquisition proposals to the utility proposal team for evaluation and further cost development. The utility proposal team will evaluate the non-price factors for all proposals and determine which proposals meet the threshold requirements and therefor are projects it agrees to sponsor. For asset transfer proposals in which the utility is responsible for constructing the project, the Utility will develop cost estimates to complete the full construction of the project. The Utility proposal team will then submit a list of sponsored asset acquisition proposals along with all required cost and performance data needed to complete the evaluation and selection of utility ownership proposals. Once the sponsored self-developed and asset acquisition proposals have been confirmed with the IE, the Step 1 evaluation process

officially commences, and the utility proposal team should not have a role in the Step 1 evaluation of utility ownership bids.

5. At no time shall information regarding the 2022 Solar RFP process be shared with any market participant, unless the information is shared with all competing participants contemporaneously and in the same manner.
6. The Duke evaluation team or the IE may request further information from any market participant regarding its proposal during the process of evaluating and selecting proposals. The IE shall be notified of and involved as determined necessary by the IE in any communications between the Duke evaluation team and any market participant(s). Market participants should direct any questions to the IE.
7. The 2022 Solar RFP shall identify all price and non-price factors to be considered by the Duke evaluation team and the IE in the evaluation of proposals. The Duke evaluation team and the IE shall evaluate all proposals based upon the evaluation methodology set forth in the 2022 Solar RFP and shall conduct their respective evaluations in a fair and appropriate manner designed to ensure equitable review of all proposals.
8. The Duke evaluation team shall undertake all reasonable efforts to facilitate the IE's evaluation of proposals and shall provide timely responses to IE request for information regarding any aspect of the 2022 Solar RFP documents and the evaluation methodology.

## **Bid Evaluation Process**

### **Step 1: Initial Short List Development Phase:**

9. The RFP shall have two "tracks" for evaluation: the Utility Ownership Track and the PPA Track. A market participant may submit a bid in both tracks; however a utility self-build may only participate in the Utility Ownership Track.
10. The price evaluations for Utility Ownership Track (asset acquisition and any utility self-developed proposals) will be for the full life of the asset. The PPA Track price evaluation will be for 25 years. Both the evaluation team and the IE will complete evaluations for all bids in each track and provide quantitative levelized cost of energy (LCOE) estimates for each project. The evaluation team and the IE will each rank the bids for each track using the price evaluation methodology described in the 2020 Solar RFP and shall each develop a list of proposals ranked in the order from most competitive to least competitive.
11. The IE and the evaluation team will independently score and rank the projects as follows:
  - a. The Utility Ownership Track non-price evaluation will be combined with the price evaluation to develop an overall score and ranking of utility ownership projects to achieve the targeted utility ownership capacity set forth in the 2022 Solar RFP.
  - b. The PPA Track non-price evaluation will be combined with the price evaluation to develop an overall score and ranking of PPA Track projects to achieve the targeted PPA capacity set forth in the 2022 Solar RFP.

12. The IE and the Duke evaluation team shall meet as needed during the Step 1 evaluation process to discuss the evaluation methodology, review their respective evaluation and ranking of projects and to determine initial ranking of proposals designed to meet the objectives of the RFP.
  - a. If there are discrepancies in the rankings, the IE and the Duke evaluation team will work to resolve those discrepancies.
13. Upon completion of the DISIS Phase 1 interconnection cost estimates, the Duke interconnection study team administering DISIS will provide information to the IE and Duke evaluation team regarding the allocation of network upgrades to each proposal and identify the overall total cost estimate for each network upgrade and which projects (both RFP and non RFP) contribute to upgrades assigned to RFP bidders.. The Duke evaluation team and the IE will evaluate potential risks and prospective changes to network upgrade costs assigned to projects in the DISIS Cluster and then determine whether the original ranking of proposals needs to be modified to recognize the system upgrade costs assigned to each proposal based upon the allocated network upgrades in DISIS Phase 1.
14. The IE and the Duke evaluation team will assign allocated Phase 1 network upgrades to each DISIS Cluster bid and also evaluate potential risks and prospective changes to network upgrade costs assigned to projects in the DISIS Cluster. The IE and Duke evaluation team will assess the ranked portfolio of projects to develop the initial short list utility ownership portfolio and initial shortlist PPA portfolio of projects designed to meet the overall RFP objectives. The upgrade re-allocation risk assessment will also be taken into consideration in creating this short list.
15. At the conclusion of DISIS Phase 1, the Duke evaluation team shall determine whether advanced stage proposals with Interconnection Agreements or proposal with only stand-alone and non-interdependent network upgrade cost assignments in DISIS Phase 1 may preliminarily be selected as final shortlist bids and proceed to the contracting phase without further evaluation in Step 2. The IE shall also independently evaluate this ranking and assess the risk of potential changes to the ranking of proposals in Step 2 that would not support selection of proposals at this stage of the evaluation process. The IE will notify the RFP participants if their projects have been selected to proceed to the contracting phase at the conclusion of Step 1.
16. The Duke evaluation team will select the portfolio of RFP projects to proceed to DISIS Phase 2 and continue to the Step 2 evaluation. The IE will notify the RFP participants if their projects have been included in the shortlisted RFP portfolio of utility ownership and PPA project proposals selected to proceed to Step 2 evaluation process. For proposals selected to continue to be evaluated in the RFP or proceed immediately to the contracting phase, the IE will answer questions and assist the market participants in verifying that they are meeting the required security/collateral requirements, as specified in the 2022 Solar RFP, by the applicable deadlines in order to proceed to Step 2 of the evaluation process. Security/collateral required in the 2022 Solar RFP will be held by Duke and must be received to proceed to the final bid evaluation process to be completed during the DISIS Phase 2 study.

**Step 2: Final Shortlist Ranking Phase:**

17. Upon completion of the DISIS Phase 2 interconnection study process, the Duke interconnection study team will provide updated cost estimate information with the Phase 2 Study results to the IE and the Duke evaluation team. The Duke evaluation team and IE will include the updated network upgrade cost assignments in the LCOE and re-rank the projects based on both the network upgrade cost estimates for each project and the risk of assigned costs increasing due to other projects that share upgrade costs dropping out. The evaluation team and IE will also calculate the LCOE of the network upgrades for each project based upon the results of the DISIS Phase 2 study report(s).
  - b. The Duke evaluation team and IE may also ask for additional information from the interconnection study team and Transmission Planning Group as it relates to potential risks and changes to network upgrade costs based upon the utility's future local transmission plan.
18. The Duke evaluation team will identify the final short list, the IE will provide their feedback, and the Duke evaluation team will make the final selection of utility ownership and PPA winners designed to meet the overall RFP objectives.

**Selection of Proposals and Contracting Phase:**

19. Market Participants shall be notified by the IE that they have been selected by the Duke evaluation team to proceed to the contracting phase under either the Utility Ownership Track or PPA Track and will commence negotiation during the approximately thirty (30) day contracting period. The IE will facilitate negotiation meetings to the extent requested by the Duke evaluation team.
  - a. If an RFP winner fails to sign a contract by the established contracting deadline, the contract offer will be revoked and another project (or projects) from Step 2 may be offered a contract to fill the gap. These projects may have less time available to complete the contract given that it must be done by the end of the DISIS Customer Engagement Window 3 (currently estimated for June 24<sup>th</sup>, 2023).
20. After the contracting period closes and all PPAs and asset acquisition agreements have been executed, the IE will file its 2022 Solar RFP Post Solicitation Report with the NCUC and PSCSC certifying its independent evaluation of the 2022 Solar RFP process.

# **ATTACHMENT 3**

## **Charles River Associates 2022 Solar Procurement Proposal**

Docket No. E-2, Sub 1297

Docket No. E-7, Sub 1268



VIA EMAIL

March 7, 2022

Benjamin Smith  
Generation & Regulatory Strategy  
Duke Energy  
550 South Tryon Street  
Charlotte, North Carolina, 28202  
Re: Duke Energy Carolinas & Duke Energy Progress Independent Evaluator Scope of Work for 2022 Solar Procurement

Dear Ben:

We appreciate the opportunity to submit this proposal to Duke Energy Carolinas, LLC (“DEC”) and Duke Energy Progress, LLC (“DEP”) and, together with DEC, “Duke”) as an Independent Evaluator (“IE”) for the upcoming 2022 Solar Request for Proposals (“RFP”) process. The RFP plan, which will be filed for approval on or about June 1, 2022, will seek to procure utility-owned solar projects and third-party power purchase agreements (“PPA”) for solar resources.

The issuance of the RFP is time critical as it needs to align with the initial Definitive Interconnection System Impact Study (“DISIS”) Cluster Study Request Window. That process closes on June 29, 2022 per Duke’s applicable FERC, North Carolina (“NC”) and South Carolina (“SC”) interconnection procedures. To that end, Duke is seeking an experienced IE to oversee the development of the RFP, host associated stakeholder process, and independently execute the RFP and evaluate bids. The evaluation process will be conducted in parallel by Duke and both CRA and Duke will review RFP responses generally in accordance with the process blueprint derived from North Carolina’s Competitive Procurement of Renewable Energy (“CPRE”) process .

It is CRA’s understanding that the 2022 RFP will target two product classes - projects for utility ownership and 25-year PPAs. 55% of the target MW awarded will be for asset acquisition. 45% will be sourced from the 25-year PPA bids. Currently there are no restrictions on the share of the total MW or mix of ownership structures within DEC, DEP, NC or SC.

Utility self-build proposals will be allowed to participate in the RFP through the utility ownership asset class however, no affiliate of Duke will participate in the process. As a result, the process may not need to be executed in strict conformance with the FERC Edgar/Allegheny standards. However prudent design suggests a process that is consistent with affiliate transaction guidelines given the potential for self-build proposals. To this end, the RFP must be open, transparent and non-discriminatory to allow non-affiliated bidders to compete on a level playing field with self-build proposals. Accordingly, as IE, we will ensure a robust, consistent, and fair procurement process that is in line with industry practice.

The remainder of this proposal describes the key tasks, deliverables, and proposed commercial terms.

## I. Tasks, Deliverables, and Timeline

CRA will serve as the Independent Evaluator on Duke’s 2022 Solar RFP and will execute the process consistent with all jurisdictional requirements prescribed by the North Carolina Utilities Commission

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(“NCUC”) and Public Service Commission of South Carolina (“PSCSC”). CRA will support Duke to develop the RFP and host the stakeholder engagement process associated with the RFP development. CRA will ensure that stakeholder input is evaluated and considered and potentially incorporated into the competitive procurement design

CRA will execute the RFP process, including process marketing, manage bidder and stakeholder communication and conduct bidder information sessions related to the opportunity. In addition, CRA will draft and finalize written reports in support of NC and SC regulatory requirements.

CRA will independently evaluate the RFP responses, in parallel, alongside Duke. The technical review of projects and assessment of consistency with technical specifications will be conducted by Duke. CRA will communicate the outcome of the technical review to any bidder disqualified based on such considerations.

Other elements of the bid review will be conducted independently by both Duke and the IE using a consistent evaluation framework. Both CRA and Duke will perform an economic evaluation of bids using a levelized cost of energy (“LCOE”) or similar evaluation framework and the evaluation will include other review elements to be determined in advance of the RFP launch. The purpose of the parallel track evaluation is to ensure accuracy and agreement between Duke and the IE. Since it is expected that there will be self-build proposals, we will adhere to oversight principles set out in *Allegheny Energy Supply Co, LLC, 108 FERC 61082 (2004)* (“Allegheny”) expanded from Boston Edison Company re: Edgar Electric Energy Co., 55 FERC ¶61,382 (1991) (“Edgar”). Accordingly, CRA will provide the following services:

#### 1. Pre-Solicitation Process Administration

- a. **Set-up and maintain a website to facilitate administration of the 2022 Solar Procurement:** CRA will develop and host an Information Website for the RFP. The Information Website will act as a repository for key process information and documents and will facilitate communication between Duke, CRA and parties interested in the RFP process including but not limited to potential bidders. The Information Website will include an FAQ section that will allow for a fair and equitable dissemination of information about the process among all potential bidders. We will maintain the website until at least the 4<sup>th</sup> Quarter of 2023. The domain name can be transferred or the site maintenance can be extended, as needed, upon mutual agreement.
- b. **Pre-solicitation engagement meetings:** CRA will host two RFP pre-solicitation engagement meetings via video conference with market participants, and both NCUC and PSCSC staff. The two meetings will cover the overall RFP process and review the comments from market participants and other stakeholders on the RFP draft. CRA will host additional meetings to the extent the Duke evaluation team determines additional meetings are warranted. CRA has hosted similar meetings across a variety of jurisdictions including for Dominion Energy in South Carolina IRP and all-sources RFP engagements. Through those and others, CRA has established off-the-shelf protocols to solicit, document, compile and adjudicate stakeholder feedback. In addition, CRA will use Microsoft Teams or WebEx (whichever is preferred) to allow for stakeholders to register and attend the webinars.
- c. **Meetings with the NCUC and PSCSC:** Serving as the IE, CRA will attend any meetings with regulatory commission staff in NC and SC upon request. CRA will be

prepared to discuss the overall RFP process. Discussions would include a review comments received on the RFP together with our recommendations regarding such feedback and confirmation of whether such feedback was reflected in the draft of the RFP.

- d. *Assessment of the 2022 Solar RFP Design:*** As is common in other RFPs, the IE oversees the development of the RFP working closely with the sponsoring utility teams. The collaborative approach ensures a balance between compliance with industry standards and local regulatory criteria, ensures a level playing field for non-affiliates and supports development of a process that meets Duke and customer needs. As CRA understands this engagement, Duke will take a lead role in developing the RFP process and documents relying heavily on the CPRE materials available. CRA will work with Duke to adapt those materials for the 2022 RFP. As part of this task, we will also review the openness and transparency of the RFP development process, and whether it provided potential bidders substantial and meaningful information regarding transmission constraints, congestion levels, and other interconnection related information to guide bidder proposal development.<sup>1</sup> As part of the oversight of the RFP development, CRA will review stakeholder comments and determine which stakeholder recommendations should be reflected in the RFP. CRA will submit its documented assessment of the 2022 solar RFP to the Duke evaluation team at least 10 days prior to issuance. This assessment will be used by Duke to finalize the 2022 Solar RFP documents.

## 2. Independent Evaluation of the Proposals

- a. *Evaluation of the Proposals:*** CRA will administer the entire solicitation process and independently evaluate and rank all proposals – including utility-ownership proposals, self-build projects, and third-party PPAs. In serving as the IE, CRA will adhere to the methodology and protocols developed prior to the issuance of the solicitation. The IE will provide the results of its evaluation and proposed ranking to the Duke evaluation team in advance of the conclusion of Step 1 of the evaluation process. The IE will receive and accept feedback from Duke regarding Duke's technical and economic assessment of projects prior to finalizing the evaluation results. After submission of the evaluation results, the IE will oversee the Duke evaluation team's process for selection of both ownership and PPA projects. To that end, CRA will review the Duke evaluation team's selection of bids and ensure such selection was conducted in a transparent, fair, and non-discriminatory manner consistent with the documented process for the RFP.

## 3. Reports to the NCUC and PSCSC

- a. *Final RFP Design Assessment:*** As noted above as part of task 1(d), CRA will document its final RFP design assessment in a report form for filing with the NCUC and PSCSC. We will develop the report in accordance with the regulatory timeline for filing of May 31, 2022.
- b. *Post Solicitation Report:*** After the conclusion of the RFP process, CRA will prepare an independent assessment and certification of the 2022 Solar RFP. That report will
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include a determination whether the process was conducted in an open, transparent, and non-discriminatory manner. To the extent that CRA final rankings deviate from the Duke evaluation team's ranking of bids, the report will identify discrepancies and discuss why the teams were unable to reconcile the differences. In addition, we will review whether:

- i. The proposals, both for utility ownership and PPAs, were selected in a fair and unbiased manner that minimizes long-term costs and risks for Duke's retail customers.
- ii. The communication with stakeholders and bidders during the RFP process was adequate.
- iii. The screening factors and weights were applied consistently across all bids, including PPA bids and utility-ownership bids.
- iv. The following factors were appropriately applied to the bid evaluation and appropriately affected the outcome of the solicitation process:
  1. Credit and security requirements,
  2. Liquidated damages provisions,
  3. Resource performance and operational characteristics, and
  4. Warranties and other similar requirements.
- v. The access that the IE was provided to data, information and models relevant to the solicitation process permitted a full and timely evaluation, testing and verification of assumptions, models, inputs, outputs, and results.

#### **4. Other Responsibilities**

- a. In addition, or in conjunction with the responsibilities addressed above, CRA will ensure that we undertake the following additional responsibilities:
  - i. If requested by the NC Public Staff and/or SC Office of Regulatory Staff, participate in additional meetings related to final selection by the Duke evaluation team.
  - ii. Participate in any NCUC or PSCSC public meeting, technical conference or ex parte briefing (if scheduled) related to the 2022 Solar RFP design and execution.
  - iii. Monitor all aspects of the solicitation process from the RFP issuance through the selection of bids.
  - iv. Verify the basis for selection of the initial shortlist of bids that were invited to Step 2 based upon Duke's bid evaluation methodology and consideration of price and non-price factors. While CRA will not necessarily re-evaluate bids during Step 2, CRA will oversee the cost allocation process and re-evaluation executed by the Duke team to ensure the process is reasonable and consistent. Step 2 may require multiple iterations as projects are allocated costs and re-evaluated.

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- v. Verify the final selection of bids based upon Duke's bid evaluation methodology and consideration of price and non-price factors.
- vi. Advise Duke's evaluation team and NC Public Staff and SC Office of Regulatory Staff of any issue that might reasonably be construed to affect the integrity of the solicitation process and provide Duke an opportunity to remedy the defect identified. Advise NC Public Staff and SC Office of Regulatory Staff of significant changes or unresolved issues as they arise.
- vii. Independently score all of the PPA bids and utility ownership bids to determine whether the selections for the initial and final shortlists are reasonable.
- viii. Compare the CRA and Duke evaluation teams' scoring and evaluation of the competing bids and attempt to reconcile and resolve any scoring differences in collaboration with Duke evaluation team.
- ix. Participate in any additional meetings with market participant or other parties on request and with notice to the Duke evaluation team.

Deliverables:

1. An RFP website and dedicated e-mail handle facilitating the RFP process.
2. Documentation setting forth the results of our Independent Evaluation for internal use and comparison, in Word, Excel and PowerPoint format, in draft (for discussion purposes) and final form.
3. A report documenting our Final RFP Design Assessment in Microsoft Word and PDF format.
4. A post-solicitation report in Microsoft Word and PDF format.
5. Associated written testimony and/or affidavit to enter the written reports into the docket, as required.
6. Other testimony as required.

Timeline: (PROPOSED, FOR DISCUSSION PURPOSES)

The following dates are based on Duke's planning efforts to date and represent Duke's initial schedule intentions. As part of its role as Independent Evaluator, CRA work with Duke to review and finalize these dates during its initial review of the proposed RFP process under this scope of work.

Task	Completion Date
CRA Contract Finalized	April 1, 2022
Kickoff Meeting	TBD
RFP Planning Meeting	April 1, 2022
Stakeholder Meeting: Overall RFP Process	April 14, 2022 (tentative)
Draft RFP Released	April 25, 2022 (tentative)

Task	Completion Date
Stakeholder Meeting: Draft RFP Review	May 9, 2022 (tentative)
IE submission of the draft RFP assessment	May 20, 2022
RFP filed with NCUC and SCPSC	May 31, 2022
Issue RFP	TBD
Proposals Due	TBD
Final Selection	On or about August 31, 2022

## II. Project Team

We have assembled a team of professionals highly experienced in resource procurement, planning and stakeholder engagement. Below we describe the core team members that will be actively involved throughout the project as well as a set of subject matter experts whose expertise may be drawn upon from time to time.

### Core Team

#### *Bob Lee*

Bob Lee is a Vice President in CRA's Auctions & Competitive Bidding Practice. Mr. Lee has designed and managed successful capacity RFPs for DTE, Monongahela Power, Northern Indiana Public Service Company, Hoosier Energy and other utilities. In addition, he currently serves as Auction Manger on standard offer service procurement auctions for The Duquesne Light Company, AES Ohio (Dayton Power & Light), Duke Energy Ohio and FirstEnergy's Ohio Utilities. Mr. Lee has testified before the Public Utilities Commission of Ohio, the Public Service Commission of West Virginia, The Indiana Utility Regulatory Commission and has submitted testimony to FERC related to competitive procurements and procurement process design. He has played key roles on open season transmission capacity auctions as well as structured sales and procurement processes in a range of industries including agriculture, telecom, insurance and intellectual property. Before joining CRA's Auctions & Competitive Bidding practice, Mr. Lee was a member of CRA's Energy & Environment Practice and continues to provide non-auctions consulting in that industry. Prior to joining CRA, he held senior staff positions with Putnam, Hayes and Bartlett and the PA Consulting Group. He holds a B.A. in Mathematics from Boston College and a MSIA (MBA) from Carnegie Mellon University in Pittsburgh. Bob will manage the RFP process for Duke and act as Officer-in-Charge (OIC) for the RFP work. He will interact at regular intervals with the Duke team on all RFP related issues.

#### *Dean Koujak*

Dean Koujak is a Principal in the energy practice of CRA. Dean provides energy market and procurement advisory services to utilities and other stakeholders in the electric power industry. Prior to joining CRA, Dean was a Director in the Energy Practice of Navigant, which was later acquired and rebranded as Guidehouse, Inc. Throughout his career, he served as a consultant to Utilities and other stakeholders in the industry advising on procurement, large scale renewable development, renewable portfolio standards compliance, utility business strategy, decarbonization pathways, transmission infrastructure planning, grid modernization, non-wires solutions, power markets matters (NYISO/PJM/ISO-NE/MISO), energy efficiency program implementation, utility contract negotiations, electric resource planning, regulatory compliance strategy, M&A and industry litigation. He has

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managed multiple key utility initiatives throughout all stages of the projects including planning, design, implementation and execution. Over time, he has enabled electric utilities to successfully plan, evaluate, select, and contract over 10 GW of capacity from thermal, renewable, storage and demand response resources. He has supported and been engaged on competitive power procurement and electric market matters across the U.S. and Canada. Dean is highly qualified in independent procurement oversight and implementation and has served in a variety of capacities in this regard including as an independent evaluator, administrator, independent monitor, and independent observer. In addition, he has developed regulatory filings and reports submitted before Public Utility Commissions on matters pertaining to resource procurement, in addition to distributed energy resources, renewable portfolio standards, rate design, non-wires alternatives and utility organizational modernization.

*Thomas Haratym - Senior Associate*

Thomas Haratym is a senior associate in the Energy Practice of CRA. He supports investors, utilities, and other electric power industry clients to assess key value drivers and economic viability of generation, storage, and transmission assets. Mr. Haratym's expertise encompasses ISO/RTO energy and capacity market dynamics, U.S. power market fundamentals, production cost modeling, and power technology cost trends, as they pertain to transaction diligence and utility portfolio analysis. He holds a BAsC in Mechanical Engineering from the University of Waterloo.

*Eliza Gedney*

Eliza Gedney is a member of CRA's Auctions and Competitive Bidding practice. Eliza has managed the day to day execution of RFP for Duke Energy Indiana, Hoosier Energy, NIPSCO, Monongahela Power and DTE. She has supported CRA experts through regulatory testimony before the public utility commissions of West Virginia and Indiana related to asset acquisitions. She currently serves as the project lead for CRA default service processes for Duke Energy Ohio, AES Ohio (Dayton Power and Light Company) and Duquesne Light. Eliza holds a BS in Finance from the University of Notre Dame.

*Kalin McGowan*

Kalin McGowan is a Consulting Associate in CRA's Auctions and Competitive Bidding practice. Kalin is experienced in managing the end-to-end process of RFPs and has worked with Duke Energy Indiana, NIPSCO, Hoosier Energy, and Consumers Energy. She currently serves as the project lead for CRA default service processes for FirstEnergy Pennsylvania and Ohio Utilities. Kalin holds a BS in Mathematics and Economics from Trinity College.

### III. Fees

CRA will operate on a time and materials basis. For the scope indicated above, we estimate approximately \$ [REDACTED] in total fees. There are several aspects of the proposal that contribute to the uncertainty associated with the scope. These include uncertainty around the potential number of pre-solicitation stakeholder meetings and the mechanism and requirements related to stakeholder dispute resolution; the number and scope of pre-solicitation meetings with regulatory staff in NC and SC; and the iterative process associated with Step 2 of the bid evaluation. As CRA currently understand the current status of the process, there is some uncertainty related to Step 2 and whether bidders would rebid projects or if costs would simply be assigned and handled as a pass through. As a result of the current scope uncertainty, please recognize that this is an indicative estimate and does not represent a cap on costs. Out of pocket expenses, which are expected to be less than 5% of the total budget, will be billed at cost.

## IV. Project References

Below we have described engagements in the last several years where CRA team members have played a substantial role in resource procurement, independent monitoring and evaluation. Additional information, including other experience statements can be provided upon request.

- **Duke Energy Indiana** – Served as IE for DEI's 2022 all sources RFP process. Worked closely with the DEI team to design and execute the all-sources process. The solicitation is currently ongoing.
- **Northern Indiana Public Service Company** – served as the IE for NIPSCO's 2018, 2019 and 2021 all sources RFP processes. Designed and executed the process to identify resources to replace certain retiring coal fired generation.
- **Consumers Energy** – designed and executed a 2021 procurement process sollicitating thermal resources in MISO's local resource zone 7
- **Dominion Energy South Carolina** – currently engaged with DESC on a stakeholder process in advance of the release of an all sources RFP process. The RFP has arisen out of a joint settlement agreement between the Company and stakeholders related to the replacement of DESC's Urquhart peaker capacity
- **Hoosier Energy** – Designed and executed an all-sources RFP for Hoosier Energy, a rural electric coop in Indiana.
- **Duquesne Light Company** – designed and executed a 2021 RFP process to identify solar resources in support of Duquesne's renewable energy requirements in Pennsylvania.
- **Duke Energy Ohio Standard Offer Service** – Since 2011, CRA has served as the auction manager for solicitations to identify suppliers for Duke Energy Ohio's default service obligation for non-shopping customers and percentage of Income Payment Plan customers.
- **Duke Energy** – CRA worked with Duke Energy to evaluate options for increased coordination among utilities in the southeast. The analysis resulted in a proposal for a centralized, automated, intra-hour energy exchange called the Southeast Energy Exchange Market (SEEM)
- **Xcel Southwestern Public Service Independent Evaluator** – Served as IE on SPS's RFI for Tolk and other Coal generation unit replacement options and associated analyses.
- **Arizona Public Service 2020 All-Source RFP** – Served as the Independent Monitor for APS on the 2020 All-Source RFP.
- **Xcel Sherco RFP IA** – Served as Independent Auditor on the RFP for 500 MW of Solar.
- **DTE Energy 2019 All-Source RFPs for Wind and Solar Resources** – Provided expert procurement advisory, monitoring and evaluation to DTE in its 2019 All-Source RFP.
- **Independent Observer of the Maui Electric Company RFPs** – Appointed by the Hawaii Public Utilities Commission to serve, over the course of 4 years, as an Independent Observer. Covered two RFPs for Variable Dispatchable Renewable Generation and PPA negotiations.
- **Arizona Public Service 2019 Solar plus Storage RFP, Battery-Ready Solar RFP** – Served as the Independent Monitor on the RFP for approximately 100 MW of Solar plus Storage (4 hour).
- **American Electric Power 2017 RFP for Solar** – Served as the Independent Evaluator of the AEP 2017 RFP for Solar.

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- **NYPA Large Scale Renewable RFP I and II** – Supported NYPA in the development of the RFP, management and evaluation of utility-scale renewable proposals (Wind, Solar), including those with Storage combinations, to comply with the CES.
- **NJ SREC-II Based Financing Program** – On behalf of Jersey Central Power & Light, Atlantic City Electric, and Rockland Electric Company, served as the Solicitation Manager of the SREC-II program – a competitive solicitation offering a 10-year SREC PSA for competitively bid projects.
- **CIC/SaskPower CCGT 2019 RFP** – On behalf of the Crown Investments Corporation of Saskatchewan, served as the Value for Money independent advisor for a Combined Cycle Generating facility.
- **ConEd BQDM Reverse Auction** – Advised in the designed, development and implementation of a reverse auction for demand response as a non-wire alternative.
- **2010 LIPA Generation and Transmission RFP** – Advised on the development, design and evaluation of an “All-Source” style resource RFP which assessed a wide range of resource options proposed to LIPA, including HVDC Transmission, combustion turbine generation, hydro energy imports, off-shore wind farms, and battery storage.
- **FirstEnergy Ohio REC Compliant RFP** – From 2011 to 2020, served, annually, as the independent RFP manager on behalf of the FirstEnergy Ohio Utilities to procure their annual RPS requirements for Non-Solar and Solar RECs.

#### GENERAL TERMS AND CONDITIONS

Applicable terms and conditions covering this engagement are set forth in Attachment 1 below. If you agree to the retention of CRA on these terms, please either sign and return an electronic copy of this letter or confirm your acceptance by email. Thank you for your confidence in our ability to assist Duke. We look forward to working with you.

Sincerely,

Charles River Associates



Robert Lee  
Vice President

Enclosure

Accepted by:

Duke Energy Carolinas, LLC / Duke Energy Progress, LLC

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Signature

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Print Name and Title

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Date

## **Attachment 1: Terms and Conditions**

### **Confidentiality**

All of CRA's work for clients is confidential. CRA staff members and consultants have signed confidentiality agreements and are obligated not to disclose any confidential information or documents used or obtained in the course of our work. This obligation of confidentiality does not apply to data or information which: (1) is or becomes generally available to the public other than as a result of a disclosure by CRA or any of its representatives; or (2) was in CRA's possession prior to the time it was disclosed to CRA by you; or (3) is disclosed to CRA by a third party who is under no obligation of confidentiality to you. Should CRA be compelled by any valid court or administrative order to disclose any confidential information held in connection with this engagement, we will first notify you and will cooperate, to the extent practicable, with any attempts to legally limit or avoid such disclosure.

### **Relationship**

The role of CRA is solely that of an independent contractor. In no event shall this agreement or any work performed by CRA create a relationship of principal and agent, partnership or joint venture, or any fiduciary relationship between the parties. This agreement may be terminated, at the discretion of either party, on ten (10) days' written notice, or earlier with the consent of both parties. CRA will be compensated for all services rendered and expenses incurred by CRA up to the date of termination.

Under this agreement, CRA will provide consulting services and will report on the progress of our work, either orally or, if requested, in written form. CRA will offer independent, objective opinions and analysis.

### **Data Handling**

Any nonpublic information you have supplied to CRA will be kept confidential with at least the same degree of care as we use for our own materials. It is your obligation to inform CRA at the outset of the engagement of any special data handling, storage, or destruction requirements. CRA shall take appropriate steps to accommodate your data handling, storage, and destruction needs on the understanding that certain measures may incur additional expense, which shall be borne by you. Unless other terms are agreed or there is an order or other legal requirement to the contrary, upon the conclusion of the provision of services under this retention, CRA may destroy or return to you all information related to this retention (hard-copy or electronic). CRA reserves the right to bill you for such destruction or re-delivery activities. CRA reserves the right to maintain copies (at its expense) of such material as it deems necessary for administrative, legal, or regulatory purposes, subject to the confidentiality provisions above. The terms of this paragraph shall survive the termination and/or the expiration of this agreement.

### **Liability**

The total liability of CRA shall be limited to the total amount of fees paid to CRA under this engagement. Under no circumstances shall CRA be liable for any (1) loss of profits; (2) loss of sales; (3) loss of turnover; (4) loss of or damage to business; (5) loss of data; (6) business interruption; (7) wasted management or other staffing; (8) loss of customers; (9) indirect, consequential, incidental, or special damages. For the purposes of this paragraph, the term "loss" includes a partial loss or reduction in value as well as a complete or total loss. None of the foregoing exclusions and limitations

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on liability shall apply in respect of (a) liability in negligence causing personal injury or death; (b) liability for fraudulent misrepresentation; or (c) any other liability which cannot by law be excluded or limited (as appropriate). The terms of this paragraph shall survive termination and/or the expiration of this agreement.

### Intellectual Property

You acknowledge and agree that in performing the services for you under this retention, CRA may utilize proprietary works, including without limitation software, tools, models, specifications and other materials, that were developed by CRA or a third party prior to the start of or outside of this engagement ("Preexisting Materials"). CRA owns all right, title and interest in and to the Preexisting Materials and (a) to the extent (i) CRA incorporates Preexisting Materials into the work product, or (ii) any intellectual property rights in such Preexisting Materials are required in connection with the development, use or commercialization of any work product; and (b) all fees to CRA pursuant to this agreement have been fully-paid by you, CRA shall grant you a fully-paid, non-transferable, non-exclusive, royalty-free user license to use the Preexisting Materials, limited to the purposes as stated within this retention agreement.

### Reports

CRA's reports, and any portions or drafts thereof, are prepared for your use in connection with this matter and shall not be made available to any other party without the prior authorization of CRA, provided, however, that any such materials may be shared with your directors, officers, employees and agents, including accountants, legal counsel and other advisors to the extent necessary in connection with this engagement.

### Billing and Payment

All invoices are due and payable upon receipt. CRA accepts payment via wire or EFT/ACH transfer. Our remittance instructions are provided below. CRA reserves the option to charge interest on invoices that are outstanding more than thirty (30) days, at a rate equal to the lower of 1.5 percent per month or the maximum rate permitted under applicable law. The obligation to pay CRA's fees and expenses is not contingent upon the results of the services or any suit or matter in connection with which the services are provided. Any objection with respect to CRA's invoices must be made by the client in writing within five (5) business days following receipt of the invoice to which objection is made. CRA reserves the right to suspend and/or terminate services, withhold any report or deliverable, and to prohibit the client from using or permitting the use of any report or any portion thereof until all of CRA's fees and expenses incurred to date have been paid in full. CRA may request a retainer at any time. CRA's hourly rates and costs are subject to periodic change. From time to time you may ask CRA to provide estimates of the likely costs of the engagement or of a particular phase or period of work. You agree that (1) these estimates are provided for your own internal budgeting processes, (2) you will remain responsible for CRA's fees on a time and materials basis in the event that they exceed any estimate that we have given; and (3) these estimates are not binding on CRA unless CRA agrees in writing as an amendment to this agreement that such estimates shall be binding. Expenses for travel, outside photocopying and data acquisition are billed at cost.

<b><u>Domestic Wire Transfer:</u></b>	<b><u>International Wire Transfer:</u></b>	<b><u>ACH/EFT:</u></b>
Acct Name: CRA International, Inc. DBA: Charles River Associates	Acct Name: CRA International, Inc. DBA: Charles River Associates Bank Name: Citizens Bank	Acct Name: CRA International, Inc. DBA: Charles River Associates Bank Name: Citizens Bank

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Bank Name: Citizens Bank Bank Address: 1 Citizens Drive, Riverside, RI 02915 Routing/ABA: 011500120 Account Number: 1139714659	Bank Address: 1 Citizens Drive, Riverside, RI 02915-3019 SWIFT Code: CTZIUS33 Account Number: 1139714659	Bank Address: 1 Citizens Drive, Riverside, RI 02915-3019 Routing/ABA: 211070175 Account Number: 1139714659
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Please include the CRA project number and/or the invoice number with your payment to ensure that it is appropriately credited.

Remittance advices and general invoice inquiries should be sent to [CRA\\_AR@crai.com](mailto:CRA_AR@crai.com).

### Miscellaneous

In the event that the scope and/or parties to this retention change after the commencement of CRA's services hereunder, CRA reserves the right to decline to provide further services and terminate this retention without liability, unless CRA determines that such change in scope and/or parties will not create a conflict of interest for CRA. Any change to the scope or terms of this engagement will be agreed in writing, with e-mail deemed sufficient. You will from time to time provide to us such information and documentation as we may request to comply with our obligations under applicable anti-money laundering or similar legislation in any relevant jurisdiction. We may decline to act or to continue to act for you until you have complied with any such request.

In the event that CRA is required to undertake collection efforts for unpaid invoices, client shall also be responsible for payment of CRA's reasonable attorneys' fees and costs associated therewith. If CRA is required by government regulation, protective order, subpoena, or other similar legal requirement that may arise during or after the pendency of this agreement, to produce or destroy documents or provide personnel as witnesses with respect to the services or this agreement, CRA shall be reimbursed for its professional time and expenses, as well as reasonable attorneys' fees and expenses, including the allocable cost of in-house counsel, incurred in responding to such requests.

Neither party shall be liable in damages or have the right to terminate this agreement for any delay or default in performing hereunder if such delay or default is caused by conditions beyond its control including, but not limited to acts of God, government restrictions, wars (declared or undeclared), acts or threats of terrorism, pandemic, insurrections and/or any other cause beyond the reasonable control of the party whose performance is affected.

The client may not use the name, trade name or mark of CRA, any of its subsidiaries or its employees in any marketing or similar promotional materials, including websites or press releases without the express written consent of CRA, unless required by law.

The parties to this agreement hereby submit to the personal jurisdiction of the courts of the Commonwealth of Massachusetts, agree that any dispute that may arise in connection with this agreement shall be resolved by the courts of the Commonwealth of Massachusetts, and governed under the laws of the Commonwealth of Massachusetts without regard to conflicts of laws. The parties to this agreement hereby waive the right to a trial by jury on any matters arising under or related to this agreement. Charles River Associates is a registered trade name of CRA International, Inc., which is the entity being retained herein.

### Entire Agreement

This agreement constitutes the complete and exclusive statement of the parties in relation to the subject matter hereof; sets forth all obligations of the parties in relation to the subject matter hereof; supersedes

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all prior or simultaneous written or oral proposals, estimates and understandings relating thereto, all of which are expressly excluded.

