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Mar 08 2022

March 8, 2022

VIA ELECTRONIC FILING

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

**RE: 2022 Solar Procurement Stakeholder Engagement Meeting 3 Update
and Plans for 2022 Solar Procurement Plan Filing
Docket No. E-100, Sub 179**

Dear Ms. Dunston:

Duke Energy Carolinas, LLC ("DEC") and Duke Energy Progress, LLC ("DEP" and together with DEC, the "Companies") hereby provide the North Carolina Utilities Commission ("Commission") a copy of the Companies' presentation to stakeholders from the third meeting, held on February 25, 2022, to discuss a potential 2022 Solar Procurement, as well as information regarding the Companies' plans to file a 2022 Solar Procurement Plan with the Commission on or about March 14, 2022.

The Companies held a third stakeholder meeting to discuss a potential 2022 Solar Procurement with North Carolina and South Carolina stakeholders on Friday, February 25, 2022. Approximately 100 individuals attended the session, and stakeholders were provided the opportunity to provide comments verbally, via chat or by email. During this third stakeholder meeting, the Companies addressed their preliminary analysis of the need for solar resources, key elements of a 2022 solar Request for Proposal ("RFP") framework that incorporates stakeholder input received during prior stakeholder meetings, the role and responsibilities of an independent evaluator to oversee the procurement, and issues related to funding network upgrades and risk mitigation. A copy of the Companies' presentation is being filed with this letter.

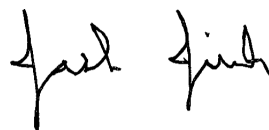
After seeking and incorporating stakeholder feedback from the three solar procurement stakeholder meetings held to date in 2022, the Companies now plan to file their 2022 Solar Procurement Plan with the Commission on or about March 14, 2022, pursuant to Section 2.(c) of HB 951. The Companies' 2022 Solar Procurement Plan will

present preliminary analysis demonstrating that additional solar facilities will be needed to achieve the authorized carbon reduction goals and that commencing a procurement in 2022 is necessary. To align this procurement with the 2022 Definitive Interconnection System Impact Study, the Commission must also approve the procurement plan in advance of the Companies' filing of the initial proposed Carbon Plan with the Commission. The procurement framework retains the vast majority of practices developed through the Competitive Procurement of Renewable Energy Program, modified based on HB 951 and stakeholder feedback. The Companies will also present their proposed schedule for developing the RFP with continued stakeholder input during a 60-day pre-solicitation process to commence April 1, 2022.

The Companies look forward to continuing to engage with both North Carolina and South Carolina stakeholders on these and other important resource planning issues and will continue to seek to identify areas of consensus where possible and will leverage any such consensus in developing their 2022 Solar Procurement RFP. Market participants and other stakeholders interested in participating in any future 2022 solar procurement stakeholder meetings should contact the Companies at 2022SolarRFP@duke-energy.com to receive communications regarding the stakeholder process. Market participants and other stakeholders may also continue to send comments and feedback to the Companies via this same email address.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Jack Jirak", written in a cursive style.

Jack E. Jirak

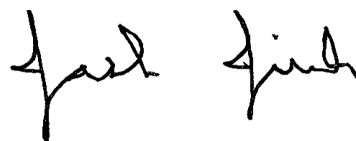
cc: Parties of Record

Enclosure

CERTIFICATE OF SERVICE

I certify that a copy of Duke Energy Carolinas, LLC and Duke Energy Progress, LLC's 2022 Solar Procurement Stakeholder Engagement Meeting 3 Update and Plans for 2022 Solar Procurement Plan Filing, in Docket No. E-100, Sub 179, has been served by electronic mail, hand delivery or by depositing a copy in the United States mail, postage prepaid, to parties of record.

This the 8th day of March, 2022.

A handwritten signature in black ink, appearing to read "Jack Jirak".

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2022 Carolinas Solar Procurement Strategy

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Mar 08 2022

FEBRUARY 25, 2022



BUILDING A SMARTER ENERGY FUTURE®

Safety Moment – Be Safe When Using Ladders

- Many springtime outdoor projects involve the use of ladders: cleaning out your gutters, working on a construction site, trimming trees or painting your home.
- When you use a ladder, ensure that it is set up properly and set firmly on even ground.
- Be sure that you are using a ladder of an appropriate height, do not stand on a ladder's bucket shelf and avoid using a metal ladder near electrical sources.
- If you fall off a ladder, you can suffer from dislocated limbs, broken bones and traumatic brain injury, so be sure to use extra caution.



Agenda

Topic	Presenter	Time
Welcome and Safety Moment	Terri Edwards	2:00 pm
Evidence of Need	Maura Farver	2:05 pm
Schedule	Maura Farver	2:20 pm
Carbon Plan-Informed Volume	Maura Farver	2:40 pm
RFP Framework and Eligibility	Maura Farver	3:00 pm
Independent Evaluator Enhancements	George Brown	3:15 pm
Utility and PPA Tracks	George Brown	3:30 pm
Network Upgrade Cost Risk	George Brown	3:35 pm
Q&A	All	3:45 pm

Planning for 2022 Carolinas Solar Procurement

HB 951 provides for the Commission to direct a 2022 procurement based upon the NCUC determination of the need for such procurement:

Part 1 Section 2.(c) “The Commission is **authorized to direct the procurement of solar energy facilities in 2022** by the electric public utilities 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 this act to achieve the authorized carbon reduction goals.”



Requires stakeholder participation and review of preliminary analysis developed in preparation of the initial Carbon Plan



Evidence of the need for solar

Duke and stakeholders seem to agree there is a need for solar

- The “preliminary analysis” that Duke will present in March filing will be based on 2020 IRP scenarios as preliminary benchmark for future need for solar in least cost resource portfolio.
- Preliminary analysis supports 700 MW target minimum for 2022 Solar Procurement.
- Actual Targeted volume to be determined once in-progress Carbon Plan is filed.
- System-wide procurement of solar is a benefit to both NC and SC and allows a wider scope of resources to compete, bringing lowest cost to customers.

2022 Procurement Preliminary Analysis of Need

- Modeling from 2020 NC IRPs and SC Modified IRPs provides indicative quantity to inform need for solar energy resources

	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
2030 CO ₂ Reduction	57%	59%	66%	70%	71%
2035 CO ₂ Reduction	56%	62%	66%	73%	74%
Total Solar by 2030	9,200	9,690	11,790	11,375	11,375
Total Solar by 2035	10,350	12,325	15,550	16,240	16,240
Incremental Solar by YE2030*	2,400	2,890	4,990	4,575	4,575
Incremental Solar by YE2035*	3,550	5,525	8,750	9,440	9,440

*Assumes 6,800 MW of solar in base plan without HB951

Key Elements of the RFP

Will require two NCUC approvals in 2022

- For this approach to work, NCUC will have to approve:
 - Overall RFP structure: March Procurement Plan filing will request this approval by May 13th.
 - Target quantity (based on May Carbon Plan filing and the quantity the model selects for 2026) by November 1, 2022.

Pre-Solicitation Timeline

Task	Target Date
22P Pre-filing Stakeholder Meeting 3	2/25/2022
File “Procurement Plan” with Commission(s) (overall structure)	3/14/2022
Onboarding of Independent Evaluator	4/1/2022
Post draft RFP documents and pro formas for MP feedback	4/1/2022
Comment period on RFP documents, RFP Stakeholder Mtg 1	4/1 - 4/30/2022
Incorporate comments, RFP Stakeholder Mtg 2, post final RFP documents/pro formas	5/1 - 5/30/2022
Commission(s) (requested) approval date for Procurement Plan	5/13/2022
Final RFP filed with NCUC; IE Assessment Report filed with NCUC	5/30/2022
2022 PV RFP bid window	5/31/2022 - 6/29/2022

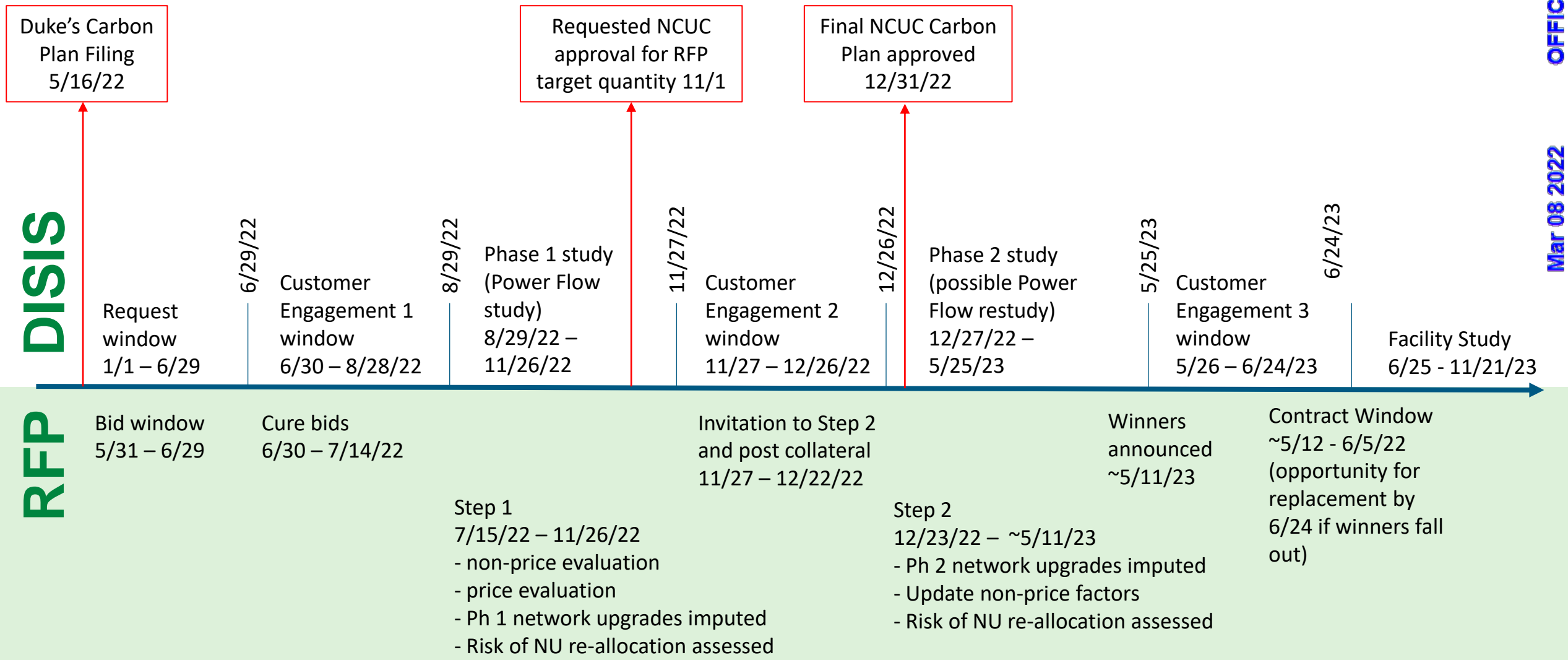
RFP Timeline

Task	Target Date
"Cure" bids	6/30 – 7/14/2022
"Step 1" (w/ Ph 1 DISIS estimates)	7/15/2022 – 11/30/2022
Invitation to Step 2 and security due for Step 2	11/27 – 12/22/2022
"Step 2" (w/ DISIS Ph 2 estimates)	12/23/2022 – 5/11/2023
Winners announced	5/11/2023
Contracting window	5/12/2023 – 6/5/2023

RFP Aligning with DISIS Timeline

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Proposal for 2022 PV RFP

Carbon-Plan informed quantity with a floor

- Target solar MW quantity will be established based on the new solar additions in 2026 selected in the Carbon Plan, and will be approved by NCUC (requested for 11/1)
- Minimum of 700 MW (385 MW utility-owned, 315 MW PPA) will be procured
 - With a targeted minimum, customers need a protective “backstop” for unreasonable network upgrade costs
- Target MW quantity may be adjusted based on how actual bid prices compare to the prices assumed in the planning model, for both utility ownership and PPAs.
 - Bids will be stacked in rank order of lowest LCOE, inclusive of upgrades. The bid prices (with network upgrades) up to the target quantity will be used in a weighted average.
 - If that weighted average is greater than or equal to 110% of the price assumed in the model (including network upgrades), the target quantity can be decreased as much as 40%.
 - If that weighted average is less than or equal to 90% of the price assumed in the model (including network upgrades), the target quantity can be increased by up to 20% of the target.
- Limited termination right with $LCOT > \$[X]/MWh$

2022 Solar Procurement Framework

Resolution of Issues from Stakeholder Meeting 1 and 2

- The 2022 Solar RFP will only be for solar, not solar + storage.
 - Adding storage complicates the production profile and makes using a Carbon-Plan check-and-adjust methodology unwieldy.
- Network upgrades considered in the ranking but separated for cost of service recovery for PPAs and most asset acquisitions (similar to CPRE and other transmission investments)
 - Enables more aggressive offers in the RFP by removing upgrade cost uncertainty from the bidding process.
 - Exception for FERC assets sales: If the Developer retains ownership of the project until right before COD, it must fund the upgrades itself, but Duke will reimburse the developer upon closing.
- PPA term will be 25 years.
- No specified DEC/DEP allocation

2022 Solar Procurement Eligibility

Transitional Cluster Study timeline does not align with RFP

- Projects with an existing LGIA may participate and would pay for their own network upgrades.
- Projects in the Transitional Cluster Study would have to exit TCS and re-enter DISIS to be eligible for the 2022 RFP.
 - State projects in TCS are required to have a signed PPA by 9/26/2022 to continue to Facility Study
 - Allowing TCS to participate adds greater uncertainty to the DISIS base case and makes comparison between TCS and DISIS projects extremely difficult

Stage	Start	End
Transitional Cluster (TC) Phase 2 Study	3/31/2022	8/27/2022
TC Engagement 3	8/28/2022	9/26/2022
TC Facility Study	9/27/2022	2/23/2023
TC Interconnection Agreement	2/24/2023	3/25/2023

Independent Evaluator Roles and Responsibilities

- Manage RFP administration and MP coordination
- Coordinate pre-solicitation MP engagement process
- Review 2022 Solar RFP design and bid evaluation process.
- Provide input to the Duke evaluation team to ensure reasonable transparency and consistency with accepted industry standards and practices for competitive solicitations
- Issue Assessment Report to Commissions before RFP bid window opening.
- Perform independent evaluation and ensure Duke evaluation team selects projects in a fair and unbiased manner that results in portfolio that minimizes long-term costs and risks for Duke's customers
- Issue Post Solicitation Report to Commissions certifying results and that RFP was conducted in open, transparent, and non-discriminatory manner



Ensuring Non-Discriminatory Treatment of Bids

To mitigate stakeholder concern regarding self-developed projects

- The IE will receive all bids directly from Market Participants, including Duke self-developed projects. It will then furnish non-price and price project information to the Duke Evaluation Team.
- Equipment and technical requirements for Asset Acquisitions will be defined in the RFP.
- Duke and IE will each independently perform price evaluations of all utility ownership projects (asset acquisition and Duke self-developed offers) and PPA bids to rank order them.
 - If there are discrepancies in the ranking, Duke and IE will resolve them. If they cannot be resolved, Duke will provide a rationale for the discrepancy for the IE report about why rankings are different and why the ultimate choice was made. The IE will include its rationale for its ranking as well.
- Duke will submit self-developed bids to the IE in advance of receipt of third-party asset offers.
 - Self-developed bids cannot change once submitted
- IE will review Duke's non-price evaluation (including technical due diligence) of all bids.
- No communication between Market Participants and the Duke Evaluation Team except through the IE.

Utility Ownership Track

Similar to CPRE approach

- Duke plans to utilize the same three types of utility ownership proposal types that were offered in CPRE:
 - asset transfer
 - asset transfer plus EPC
 - BOT (build-own-transfer)
- Will utilize a similar approach in which form agreements and technical specs are provided in advance and developers will bid projects to those specs.
- Non-price factors including technical design are reviewed by Duke team that would ultimately execute the projects (project development team)

PPA Track

Similar to CPRE approach

- Duke plans to request solar PPA bids for single 25-year contract term. Same product as CPRE.
 - Sellers up to 80 MW delivering full capacity and energy output to interconnected utility
 - Seller must be certified as QF
 - Renewable/environmental attributes transferred to utility
 - Dispatch, operate, and control rights same as CPRE - limited uncompensated curtailment rights (10% DEP, 5% DEC).

Network Upgrades and Selection

- Cluster Process creates interdependency risk between projects that share funding of network upgrades.
 - Relying solely on financial analysis ignores DISIS Cluster interdependency risk
 - Quantification of Interdependency risk is challenging
- Selection Process should evaluate interdependency risk in order to protect customers from excessive costs should too many projects drop out
- If no other projects share a given upgrade cost, the cost estimates are unlikely to change.
- If other projects share those upgrade costs, are they among the RFP short-list/winners or not?
 - Short list and RFP winners are more likely to continue through and achieve COD.
 - Non-RFP projects are also likely to be part of Cluster. What is their prognosis for moving forward?

You may continue to submit
written questions to:

2022SolarRFP@duke-energy.com

Q&A