NORTH CAROLINA
DEPARTMENT of
COMMERCE

Roy Cooper
GOVERNOR

Machelle Baker Sanders
SECRETARY

May 23, 2024

North Carolina Utilities Commission
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Re: Docket No. E-100, Sub 190, In the Matter of Biennial Consolidated Carbon Plan and Integrated Resource Plans of Duke Energy Carolinas, LLC and Duke Energy Progress, LLC, Pursuant to N.C.G.S. § 62-110.9 and § 62-110.1(c)

Dear Chair Mitchell and Commissioners,

On behalf of the North Carolina Department of Commerce ("Department" or "Commerce"), I submit this Consumer Statement regarding Docket No. E-100, Sub 190. Providing increased certainty of North Carolina's path to achieving a 70% reduction in power sector carbon emissions by 2030 and carbon neutrality by 2050 will create economic opportunities for the people and businesses in our state.

North Carolina has access to an ever-increasing range of clean energy resources, including solar, storage, onshore and offshore wind. The North Carolina Utilities Commission ("Commission") has the authority to demonstrate a commitment to these clean energy resources and to a modern electric grid to ensure their full integration. Offshore wind is a reliable, zero-emissions energy resource with operating characteristics (e.g., high-capacity factor and night and daytime generation) that pair exceedingly well with solar and storage – the development of which the Commission has already directed.

The Department supports the expansion of clean energy across North Carolina, as we continue to respond to increasing corporate demand for access to clean energy resources to power activities. Expanding the deployment of clean energy resources, offshore wind in particular, has the potential to unlock significant economic investment and job creation opportunities through the entire State. The Department is aware that industry leaders are awaiting a final order from the Commission before they make decisions on clean energy deployments in North Carolina, as well as clean energy manufacturing and supply chain investments. We commend Duke Energy Carolinas, LLC and Duke Energy Progress, LLC (collectively, "Duke") for including up to 2.4 gigawatts ("GW") of offshore wind resources

by 2035 in its supplemental submission,[1] but implore both Duke and the Commission to set a path forward in the 2024 Carbon Plan that directs the deployment of at least 6.0 GW of offshore wind by mid-2030s. This level of deployment is achievable with the wind energy areas currently held under lease off our coast, will unlock billions in capital expenditures and tens-of-thousands of good-paying jobs for North Carolinians, and boost Duke towards its mandate to achieve carbon neutrality by mid-century – a true win-win-win scenario.

About the North Carolina Department of Commerce and NC TOWERS

The duty of the Department is "to actively encourage the expansion of existing environmentally sound North Carolina industry" and "to actively encourage the recruitment of environmentally sound national and international industry into North Carolina".[2] In keeping with this statutory duty, the Governor directed the Secretary to establish the North Carolina Taskforce for Offshore Wind Economic Resource Strategies ("NC TOWERS " or the "Taskforce") pursuant to Section 3 of Executive Order No. 218, *Advancing North Carolina's Economic and Clean Energy Future with Offshore Wind.*[3] The Taskforce is directed to provide expert advice to the Governor and the General Assembly on ways to advance offshore wind energy projects in North Carolina, with a special focus on economic development and job creation.[4] The Taskforce first convened in February 2022, and has since met quarterly to:

- Identify economic and workforce opportunities and challenges presented by the offshore wind industry.
- Recommend policies and programs to capture strategic opportunities that foster a thriving offshore wind workforce and business community.
- Provide advice for developing the state's offshore wind supply chain, workforce, and infrastructure.
- Foster and support equitable access to opportunities for underserved communities.
- Recommend policies and guidelines that advance offshore wind energy projects.

In accordance with Section 3 of E.O. 218, administrative and expert staffing is provided by the Department to support the Taskforce in the execution of its charge. Commerce is striving to meet the goals Governor Cooper set out in Executive Order Nos. 80,[5] 218, and 246[6] to address the climate crisis by transitioning the state to a clean energy economy. As evidenced by the record-breaking level of investment in 2023 alone, this transition to a

[1] Duke Energy. Verified Amended Petition For Approval Of 2023-2024 Carbon Plan and Integrated Resource Plans. https://starw1.ncuc.gov/NCUC/PSC/PSCDocumentDetailsPageNCUC.aspx?DocumentId=2b7f861a-2c48-404d-9e75-f4e6d7142702&Class=Filing (January 31, 2024).
[2] N.C. Gen. Stat. § 143B-428
[3] Executive Order 218. Advancing North Carolina's Economic and Clean Energy Future with Offshore Wind. https://governor.nc.gov/documents/files/executive-order-no-218/open (June 9, 2021).
[4] All Taskforce-related materials, including membership and bios, meeting agendas, PowerPoint slide presentations, meeting recordings, and accompanying reports are available on the NC TOWERS webpage (https://www.nccommerce.com/about-us/boards-commissions/nc-taskforce-offshore-wind-economic-resource-strategies-nc-towers).
[5] Executive Order 80. North Carolina's Commitment to Address Climate Change and Transition to a Clean Energy Economy. https://governor.nc.gov/documents/files/executive-order-no-80-north-carolinas-commitment-address-climate-change-and-transition-clean-energy/open (October 29, 2018).
[6] Executive Order 246. North Carolina's Transformation to a Clean, Equitable Economy. https://governor.nc.gov/executive-order-no-246/open (January 9, 2022).

clean energy economy has already and will continue to profoundly improve the economic well-being and quality of life for all North Carolinians, from the mountains to the coast, through job creation, investment of billions of dollars, and the promise of a sustainable clean energy future for generations to come.[7]

In its 2022-2023 Annual Report submitted to the Governor and the General Assembly by Commerce Secretary Machelle Baker Sanders,[8] the Taskforce found that "[s]tates that have enacted offshore wind energy development or procurement targets have a competitive advantage over North Carolina in securing supply chain commitments from original equipment manufacturers and Tier 1 suppliers." According to the latest estimates from the National Renewable Energy Laboratory ("NREL"), the East Coast offshore wind supply chain alone is worth more than $200 billion in capital expenditures and will be accompanied by tens-of-thousands of jobs over the next 10 years. The Taskforce expressed concern that "without legislative, regulatory, ***or clear market signals***, the window of opportunity for our state to capture these investments and jobs for North Carolinians diminishes [and is captured by other states] every day." (emphasis added).

The Need for Certainty and Predictability

Companies that operate in the clean energy sector, and specifically in the growing offshore wind industry – whether it be in project development, installation, operations and maintenance, manufacturing, supply chain, professional services, or any number of other support and ancillary functions – will be ever more inclined to invest or expand in North Carolina with regulatory certainty. Conversely, a lack of regulatory certainty regarding the future of offshore wind discourages investments in the State. This regulatory certainty can be articulated in policies like the Carbon Plan, through which the state has defined a predictable pathway to achieve electricity-sector decarbonization that includes a directive to deploy offshore wind energy resources off our coast as soon as practicable.

At present, the leaseholders of the wind energy areas ("WEAs") located off our shores do not have a viable path to market for the electricity their projects will generate. The Commission can provide certainty as these lessees seek to proceed with developing these capital-intensive, logistically complex infrastructure projects by directing Duke to deploy at least 6.0 GW[9] of offshore wind by the mid-2030s. A clear and unambiguous market signal in the 2024 Carbon Plan to deploy this level of offshore wind by the mid-2030s will jump-start project development and unlock our ability to "grab our unfair share of those [offshore wind] jobs and investments for the people of North Carolina."[10]

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[7] Momentum Builds for the Clean Energy Economy in 2023 as Over 14,100 Jobs and Billions in Investment Come to North Carolina. https://www.commerce.nc.gov/news/press-releases/2023/12/18/momentum-builds-clean-energy-economy-2023-over-14100-jobs-and-billions-investment-come-north (December 18. 2023).

[8] NCTOWERS 2022-2023 Annual Report to the Governor and the General Assembly. https://www.commerce.nc.gov/annual-report-north-carolina-taskforce-offshore-wind-economic-resource-strategies-nctowers/download?attachment. (June 30, 2023)

[9] According to Kitty Hawk Wind, TotalEnergies, and Duke Energy, the combined potential energy generation of the three leaseholds is up to 6.7GW. (Kitty Hawk up to 3.5GW, TotalEnergies and Duke Energy, each up to 1.6GW.)

[10] WRAL Tech Wire. https://wraltechwire.com/2023/11/10/nc-is-ready-to-grab-unfair-share-of-clean-energy-economy-says-top-economic-development-leader/ (November 10, 2023).

One Example of Many

The difference that regulatory certainty and market signals make cannot be overstated, especially for long-lead time offshore wind projects. Take, for example, the progress towards developing North Carolina's Kitty Hawk Wind Project compared to the SouthCoast Wind project in Massachusetts. The following table sets out key information about each project, including the dates on which each lease was executed, the size, estimated energy generation potential upon build out, and the status towards completing significant milestones for which the federal Bureau of Ocean Energy Management ("BOEM") is responsible.

Project	**Kitty Hawk Wind**		**SouthCoast Wind**
State	North Carolina		Massachusetts
Date Lease Executed	**November 1, 2017**		**April 1, 2019**
Closest Distance to Shore	> 27 miles (Corolla)		20 miles (Nantucket)
Leased Area	> 122,000 acres		> 127,000 acres
Estimated Energy Generation	3.5 GW		2.4 GW
BOEM Milestones[11,12]	**North**[13]	**South**[14]	
NOI to Prepare an EIS	July 2021	*December 2025*	November 2021
Availability of DEIS	*July 2025*	*February 2027*	February 2023
Anticipated EIS completion	*April 2026*	*October 2027*	*December 2024*
Anticipated EIS Record of Decision	*May 2026*[15]	*December 2027*	--
Anticipated Decision on Permit Approval	***August 2026***	***April 2028***	***March 2025***

Table Legend:
Normal Font: known/established data
Italics: Future dates, as determined by lead agency
Bold Font: Indicates emphasis

The disparity in the timing of these project milestones is immediately apparent. The Kitty Hawk Wind Project received its lease from BOEM in November 2017, and 15 months later, SouthCoast executed its lease in April 2019. In July 2021, BOEM noticed its intent to prepare an Environmental Impact Statement ("EIS") for Kitty Hawk Wind North (a tranche representing approximately 40% of the total lease area) while BOEM noticed the intent to

[11] Bureau of Ocean Energy Management. SouthCoast and Kitty Hawk North Wind Energy Project Activities. https://www.boem.gov/renewable-energy/state-activities/kitty-hawk-north-wind-project and https://www.boem.gov/renewable-energy/state-activities/southcoast-wind-formerly-mayflower-wind

[12] Federal Permitting Improvement Steering Council. Federal Infrastructure Permitting Dashboards for Kitty Hawk North Wind Project. https://www.permits.performance.gov/permitting-project/fast-41-covered-projects/kitty-hawk-north-wind-project and SouthCoast Wind Energy Project. https://www.permits.performance.gov/permitting-project/fast-41-covered-projects/southcoast-wind-energy-llc-southcoast-wind

[13] In June 2022, the project name changed from Kitty Hawk Wind Project to Kitty Hawk North Wind Project to reflect the developer's decision to segment the project. The dates included in this cell are those associated with the Kitty Hawk Wind North Project.

[14] Federal Permitting Improvement Steering Council. Executive Director Determination on Request to Extend FAST-41 Final Completion Date by More Than 30 Days [for Kitty Hawk Wind South Project]. https://www.permits.performance.gov/sites/permits.dot.gov/files/2023-11/2023-11-28%20Kitty%20Hawk%20South%20ED%20Determination.pdf. (November 28, 2023).

[15] Federal Permitting Improvement Steering Council. Executive Director Determination on Request to Extend FAST-41 Final Completion Date by More Than 30 Days [for Kitty Hawk Wind North Project]. https://www.permits.performance.gov/sites/permits.dot.gov/files/2024-03/2024-03-25%20Kitty%20Hawk%20North%20ED%20Determination.pdf (March 25, 2024).

prepare an EIS for SouthCoast Wind in November 2021. After these analogous notices, progress on SouthCoast has largely proceeded in accordance with regulatory timelines while the Kitty Hawk Wind Project lags demonstrably. The significant differences in timelines for these two projects – which on their face are similar in scope, scale, and complexity – seems to be that SouthCoast Wind is buttressed by legislative and regulatory certainty whereas Kitty Hawk Wind North is not.

In 2022, the Commonwealth of Massachusetts enacted *An Act Driving Clean Energy and Offshore Wind* (Chapter 179 of the Acts of 2022),[16] codifying the state's goal to procure 5.6 GW of offshore wind generation by 2027. This directive alone provides a clear and certain path for project developers, original equipment manufacturers and down-tier supply chain companies, providers of workforce training, reskilling, and education, and others industry players to make investments because there is and will be a path to market offshore wind energy generated. This provision demonstrates Massachusetts' commitment to offshore wind being a part of the state's energy resource mix. This provision also demonstrates that a state signal is a strong inducement for federal alignment on permitting and other regulatory activities. In short, BOEM has the justification to queue up Massachusetts' projects in the Bureau's regulatory review pipeline. No such statutory inducement currently exists for North Carolina's projects, and as a result, they are falling to the back of BOEM's queue for review. This lack of certainty, predictability, and a viable path to market cuts another way – Kitty Hawk Wind currently has no analogous justification to prompt BOEM for a timelier review of their project. However, N.C. Gen. Stat. § 62-110.9(1) empowers the Commission to adopt a Carbon Plan that incorporates a procurement goal for offshore wind. This action alone would be enough to end this regulatory stalemate.

North Carolina's Offshore Wind Economic Opportunity and What's at Stake

According to our Department's 2021 offshore wind and infrastructure supply chain analysis,[17] the burgeoning U.S. offshore wind sector provides an opportunity for North Carolina businesses to compete for roughly $100 billion of the $140 billion market of investment by 2035. A recent recalculation of the East Coast offshore wind capital expenditure opportunity compiled by NREL reveals that this number has ballooned to $200 billion. Over the past two-and-a-half years, the Department has seen evidence that North Carolina's greatest asset to the domestic offshore wind industry is our leadership in manufacturing – our manufacturing gross domestic product ("GDP") is ranked 1st among East Coast states and 5th nationwide. We are well equipped to both bring new business opportunities and help existing businesses pivot into this industry to take advantage of the growing supply chain needs and help mitigate domestic supply chain scarcity. The Inflation Reduction Act includes lucrative tax incentives (30%) for clean energy equipment

[16] State of Massachusetts. An Act Driving Clean Energy and Offshore Wind (Chapter 179 of the Acts of 2022). https://malegislature.gov/Laws/SessionLaws/Acts/2022/Chapter179. (August 11, 2022).

[17] NC Department of Commerce. Building North Carolina's Offshore Wind Supply Chain: The roadmap for leveraging manufacturing and infrastructure advantages. https://files.nc.gov/nccommerce/documents/Policymaker-Reports/Report_North-Carolina-OSW-Supply-Chain-Assessment_BVGAssociates_asPublished-Mar3-2021.pdf (March 2021).

manufacturing that can be increased to as much as 50% of the project cost with specific workforce commitments (10%) and siting the facility in a particular location (10%).[18]

The recent clean energy manufacturing investments in the battery and electric vehicle ("EV") sectors is evidence that North Carolina clearly enjoys the value proposition desired by business and industry. Including offshore wind in the 2024 Carbon Plan will not only result in deployment of a predictable carbon-free energy resource, but also create an attractive market environment for billions in capital investments across the offshore wind value chain.

Including significant levels of offshore wind in the 2024 Carbon Plan will lead to more and faster development of offshore wind projects off the North Carolina coast, which directly leads to more jobs, investment, and economic opportunities in our state.[19] As evidenced following the 2022 Carbon Plan, punting on offshore wind has resulted in limited-to-no supply chain and workforce investments in North Carolina, while at the same time we have seen billions of dollars invested along the East Coast, the Gulf of Mexico, and now in California. Each one of these investments is an opportunity lost for jobs, economic mobility, and community capital investment in North Carolina. In the year spanning August 2022 through September 2023, more than $7.7 billion was invested in the U.S. offshore wind industry and the number of companies supporting this supply chain rose 54% to 4,100 companies across all 50 states.[20] Yet, North Carolina, despite our leading economic indicators and value proposition is clearly not securing our fair share, much less an "unfair" greater share of the clean energy investments that the State could secure by including significant levels of offshore wind in the 2024 Carbon Plan.[21]

Provide Certainty Now for North Carolina's Offshore Wind Energy Future

Now is the time for the Commission to provide a clear path for offshore wind energy in the state. Business planning and investment, like energy planning, involve decisions that manage risk and uncertainty across potential futures. The 2022 Carbon Plan did not provide certainty for North Carolina's offshore wind energy future. If the 2024 Carbon Plan fails to select a path that directs the development of long lead offshore wind energy resources, the State will miss a window of opportunity that is quickly closing. Many private-sector investors committed to the clean energy transition as well as those seeking business development opportunities in the offshore wind industry will continue choosing

[18] Internal Revenue Service. Credits and Deductions Under the Inflation Reduction Act of 2022. https://www.irs.gov/credits-and-deductions-under-the-inflation-reduction-act-of-2022. March 18, 2024.

[19] As part of their winning bids for the Carolina Long Bay lease areas, Duke Energy Renewables Wind and TotalEnergies Renewables committed a total of $42 million investments in domestic workforce training and supply chain development. https://www.doi.gov/pressreleases/biden-harris-administration-announces-winners-carolina-long-bay-offshore-wind-energy (May 11, 2022).

[20] White House. Fact Sheet: Biden-Harris Administration Advances Offshore Wind Transmission, Strengthens Regional Supply Chain Buildout, and Drives Innovation. https://www.whitehouse.gov/briefing-room/statements-releases/2023/09/21/fact-sheet-biden-harris-administration-advances-offshore-wind-transmission-strengthens-regional-supply-chain-buildout-and-drives-innovation/#:~:text=In%20just%20the%20last%20year,companies%20across%20all%2050%20states. (September 21, 2023).

[21] American Clean Power Association. OSW Investments Map. https://public.tableau.com/app/profile/american.windoenergy.association/viz/OSW_Investments_Map/OSWInvestments.(Accessed April 24, 2024).

other states over North Carolina. Providing certainty on North Carolina's offshore wind energy future provides certainty for North Carolina's economic development future.

The offshore wind industry is at a critical stage: North Carolina's leaseholders are contemplating scaling back or stopping progress on their projects;[22] manufacturers are deciding where to invest billions of dollars in facilities to manufacture foundations, towers, blades, and nacelles; and original equipment manufacturers are determining from where to procure the over 8,000 component parts in the offshore wind supply chain. To fully realize our state's economic growth potential, it is imperative that the 2024 Carbon Plan sends a clear and immediate market signal that offshore wind is an important component of North Carolina's strategy to reduce carbon emissions pursuant to House Bill 951. North Carolina can and should serve the growth of the domestic offshore wind industry. However, even more potential jobs and investments would accompany development of the Kitty Hawk Wind Project[23] and the two leaseholds in Carolina Long Bay with a commitment to significant levels of offshore wind energy in the 2024 Carbon Plan.

Include Offshore Wind from Leases off the North Carolina Coast
Over the past several years, the Department has come to understand that:

1. Offshore wind is a reliable, strategic, least-cost, zero-emission energy resource whose operating characteristics (e.g., high-capacity factor and night and daytime generation) complement those of other zero-emission energy resources (e.g., solar, battery storage, etc.).
2. While the offshore wind industry has experienced some significant headwinds over the past 12 months due to macroeconomic (inflation, rising interest rates, and an ever-constrained supply chain) and geopolitical (Russia's invasion of Ukraine) conditions, U.S. offshore wind projects are proceeding with at least 12 GW under contract and an anticipated additional 19 GW contracted in calendar year 2024 alone.
3. The Inflation Reduction Act and the regulations implementing the massive manufacturing and production tax credits make offshore wind projects 30% to 50% less costly, but those tax credits will begin phasing out in 2032, well before the date Duke projects offshore wind coming online in its current model.
4. Offshore wind has been proven dependable, is presently commercially viable, and in many nations, is cost-competitive, with 63 GW deployed globally in 2023.[24] In contrast, small modular nuclear reactors and retrofitting natural gas plants to be powered by hydrogen have not reached commercial viability since the 2022 Carbon Plan, and unlike offshore wind, have not been tested by decades of real-world application.

[22] Email communication from Seth Theurekauf (BOEM) to Jennifer Mundt (Commerce). Status of Carolina Long Bay Joint Site Assessment Plan (SAP). April 18, 2024.
[23] Avangrid. Avangrid Releases Kitty Hawk Wind Economic Impact Report. https://www.avangrid.com/w/avangrid-releases-kitty-hawk-wind-economic-impact-report#:~:text=The%20report%20finds%20that%20the,the%20City%20of%20Virginia%20Beach. (March 7, 2024).
[24] Statista. Global Offshore Wind Power Market – Statistics and Facts. https://www.rtllu.org/?_=%2Ftopics%2F2764%2Foffshore-wind-energy%2F%23KJWqMdlUIBn8PPpbQwnhk4LmbIAuGFCs. (April 12, 2024).

5. Further, and most importantly, with a directive in the 2024 Carbon Plan, offshore wind resources can be available to North Carolina starting in 2030.

The Department asks the Commission to support our efforts to advance offshore wind energy projects in North Carolina and the once-in-a-generation opportunity for economic development and job creation. In directing a path with sizable offshore wind, we will improve the economic well-being of North Carolinians and facilitate the state's transition to a clean energy economy. A stated directive for offshore wind deployment will support the State's carbon reduction requirements and provide regulatory certainty for our fledgling market. Such a commitment will drive continued economic well-being and opportunities for enhanced quality of life for all North Carolinians now and into the future.

Sincerely,

Jennifer Mundt
Assistant Secretary of Clean Energy Economic Development
North Carolina Department of Commerce

The following NC TOWERS Members Endorse this Consumer Statement

Jen Banks, Permitting and Development Director, NC
TotalEnergies Renewables USA, LLC

Christopher Chung, Chief Executive Officer
Economic Development Partnership of North Carolina

Kevin Dick, President and Chief Executive Officer
Carolina Small Business Development Fund

Dave Goss, Retired Economic Development Consultant

Perry Harker, Vice-President Corporate and Community Education
Carteret Community College

Steve Kalland, Executive Director
North Carolina Clean Energy Technology Center

Karly Lohan, North Carolina Program Manager
Southeastern Wind Coalition

Ashley McLeod, Stakeholder Engagement Director
Avangrid Renewables-Kitty Hawk Wind

Michele Querry, Southeast Regional Director
Chambers for Innovation and Clean Energy

Greg Richardson, Executive Director
North Carolina Commission of Indian Affairs

John Szoka, Chief Executive Officer
Conservative Energy Network

Wit Tuttell, Vice President, Tourism
Economic Development Partnership of North Carolina