

NORTH CAROLINA TASKFORCE *for* OFFSHORE WIND RESOURCE STRATEGIES

2021-2022 ANNUAL REPORT

TO THE GOVERNOR AND THE GENERAL ASSEMBLY



2021-2022 Annual Report to the Governor and the NC General Assembly

Submitted by:

Machelle Baker Sanders, Secretary of the NC Department of Commerce
On behalf of the NC TOWERS Taskforce

June 30, 2022

As directed by:

Section 3.C. of Executive Order 218



Executive Summary

In June 2021, Governor Roy Cooper [established the North Carolina Taskforce for Offshore Wind Economic Resource Strategies](#) (NC TOWERS or Taskforce) in Section 3 of Executive Order No. 218, [Advancing North Carolina's Economic and Clean Energy Future with Offshore Wind](#).

The Taskforce provides expert advice to Governor Cooper and state policymakers on ways to [advance offshore wind energy projects](#) in North Carolina, with a special focus on economic development and job creation.

The Taskforce first convened in February 2022, and is working 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 environmental justice and equitable access to opportunities for underserved communities
- Recommend policies and guidelines that advance offshore wind energy projects

This report is an overview of the NCTOWERS' activities to-date and sets out next steps for its future work.

All Taskforce-related materials, including meeting agendas, PowerPoint slides, meeting recordings, and accompanying reports are available on the [NCTOWERS webpage](https://www.nccommerce.com/about-us/boards-commissions/nc-taskforce-offshore-wind-economic-resource-strategies-nc-towers) (<https://www.nccommerce.com/about-us/boards-commissions/nc-taskforce-offshore-wind-economic-resource-strategies-nc-towers>).



Activities

On [February 3, 2022](#), Taskforce Chair and Chief of Staff for the Department of Commerce (Commerce), Marqueta Welton, convened NCTOWERS for its inaugural meeting in Wilmington, NC. Chair Welton welcomed Commerce Secretary Machel Baker Sanders, Governor Roy Cooper, and Wilmington Mayor Bill Saffo to present introductory remarks and each reinforced the [charge to the Taskforce](#). Members of NCTOWERS¹ were introduced as were staff who are supporting the work of Taskforce.

The Taskforce received a [presentation highlighting the key findings and recommendations](#) from the [Building North Carolina's Offshore Wind Supply Chain Report](#), prepared by expert consultants on behalf of Commerce. Andy Geissbuehler, former principal with BVG Associates and one of the report's co-authors, presented with Jennifer Mundt (Commerce's Assistant Secretary for Clean Energy Economic Development) and John Hardin (Executive Director for the Office of Science, Technology, and Innovation).

Chair Welton created four subcommittees, supported by staff, for NCTOWERS members to participate in and efficiently address the duties and directives set out in Section 3 of E.O. 218. Members were asked to identify which subcommittee best suited their expertise and interests and most requests for subcommittee membership were honored. The subcommittees were instructed to meet at least monthly and to be prepared to convey any findings, recommendations, and action items to the full Taskforce at its quarterly meetings.

The [four subcommittees](#) as initially proposed are as follows:

1. Economic Opportunity and Business Development: *to research, evaluate, and recommend policies and programs to help grow NC's OSW industry supply chain and build strategic economic partnerships*
2. Workforce, Education, and Training Opportunity Development: *to research, evaluate, and make recommendations regarding policies and programs that will grow a diverse and competitive NC offshore wind workforce*
3. Infrastructure, Environmental Justice, and Inclusion: *to research, evaluate, and make recommendations regarding transmission and OSW-related infrastructure that foster environmental justice and provide for equitable access*

¹ NCTOWERS members and their affiliations are included in Appendix A.



4. Outreach and Engagement: *to identify and engage OSW stakeholders in North Carolina and beyond with a communications strategy that advocates for policies prioritizing OSW development*

In addition to Taskforce members, interested stakeholders and members of the public were invited to participate in the subcommittees' work. All individuals expressing interest in joining subcommittee efforts are welcome to both participate in subcommittee meetings and help inform their deliverables.

An update of each subcommittee's work and planned next steps, as well as the list of its members, is included later in this report.

NCTOWERS held its second business meeting on [May 5, 2022](#), in Wilmington, NC. Taskforce member and Executive Director of the NC Ports, Brian Clark, provided a [presentation on North Carolina's ports assets](#). Prior to the scheduled Offshore Wind Business Panel Discussion, Chair Welton asked Jennifer Mundt and John Hardin to provide brief descriptions of their experiences at Wind Europe in Bilbao, Spain, and at the International Offshore Wind Partnering Forum (IPF) in Atlantic City, New Jersey.

Susan Fleetwood, Executive Director for Economic Development in Commerce, moderated an expert panel of offshore wind business leaders representing several tiers of the industry supply chain, including developers, trade associations, parts and fabrication suppliers, and consulting. To complement the business panel and provide some level setting, NCTOWERS support staff and NCDOT Freight and Logistics Program Manager, Dana Magliola made a presentation on Supply Chain for Economic Development.

Jennifer Mundt provided an update and status of the federal auction of the two Carolina Long Bay (Wilmington East Wind Energy Area) leases areas off the southern North Carolina coast scheduled for May 11, 2022. She also shared that Commerce published a guidance document [articulating certain facts regarding the development of the OSW industry as well as North Carolina's fundamental values regarding this development](#) and discussed how it pertained to the pending lease auction.

The co-chairs representing each subcommittee provided reports to the full Taskforce on their respective subcommittee's activities.

Following Taskforce remarks and discussion, Chair Welton announced the dates and proposed locations for the upcoming meetings for the calendar year and adjourned the meeting.



Next Steps

Meetings

NCTOWERS will continue to meet quarterly in pursuit of its work. The next business meeting is scheduled for August 4, 2022, in Elizabeth City, NC, and the final meeting for 2022 will be held on November 1, 2022, in Morehead City, NC. Additional details regarding venue, timing, and the agendas will be announced.

Goals/Actions for 2022-2023

- Schedule and provide for ongoing engagement with Avangrid, Duke Energy Renewables, and TotalEnergies to ensure the companies' alignment with the charge and duties of the Taskforce and work towards meeting the OSW development goals set out in EO 218.
- Identify, develop, and implement measurable actions for the Taskforce and the subcommittees to accomplish by February 2023 and July 2023.
- Create, publish, and maintain a master OSW engagement calendar that lists all state, federal, local government, as well as related stakeholder and advocate meetings on the topic of OSW, to be maintained and updated accordingly.



Subcommittee on Economic Opportunity and Business Development (Economic Opportunity) 2022 Review and Next Steps

Summary

The charge of the Subcommittee on *Economic Opportunity and Business Development* is to research, evaluate, and recommend policies and programs to help grow North Carolina's OSW industry supply chain and build strategic economic partnerships. To this end, the subcommittee's activities focus on ways the state can:

- Identify, articulate, map & publicize its strategic advantages/priorities
- Educate, assist & train existing North Carolina industries/companies about OSW opportunities
- Recruit new industries/companies to North Carolina to serve OSW opportunities
- Develop new industries/companies/technologies in North Carolina to serve OSW opportunities
- Identify organizations and entities with which to partner and champion outcomes
- Increase OSW industry research, development, and innovation in the state

The Subcommittee on has met monthly since NCTOWERS first convened in February 2022. During the subcommittee's first meeting on March 14, 2022, the members reviewed and discussed the findings and implications of the following five recent reports focused on the OSW market and industry supply chain:

- *The Demand for a Domestic Offshore Wind Energy Supply Chain*. 2022. National Renewable Energy Laboratory. NREL/TP-5000-81602. <https://www.nrel.gov/docs/fy22osti/81602.pdf>
- *Achieving American Leadership in the Wind Supply Chain*. 2022. U.S. Department of Energy. <https://www.energy.gov/sites/default/files/2022-02/Wind%20Supply%20Chain%20Fact%20Sheet%20Final.pdf>
- *Wind Energy: Supply Chain Deep Dive Assessment*. 2022. U.S. Department of Energy. <https://www.energy.gov/sites/default/files/2022-02/Wind%20Energy%20Supply%20Chain%20Report%20-%20Final.pdf>
- *U.S. Offshore Wind Market Report & Insights*. 2022. Business Network for Offshore Wind. Available only to Business Network members (NC Commerce is a member)
- *Building North Carolina's Offshore Wind Supply Chain: The roadmap for leveraging manufacturing and infrastructure advantages*. 2021. BVG Associates, on behalf of the NC Department of Commerce. <https://www.nccommerce.com/business/key-industries-north-carolina/energy/offshore-wind-industry>



Based on those readings, the subcommittee members distilled the following 10 key takeaways:

1. The U.S. is still years away from having a mature domestic offshore wind supply chain.
2. Most components in the early 2020s will be sourced from European suppliers.
3. Many U.S. companies seeking manufacturing opportunities will likely need to establish relationships with foreign manufacturers.
4. Most of the manufacturing jobs will be concentrated in the *supporting* supply chains instead of in fabrication of the final products.
5. Key industries include port development & operations, steel fabrication, break-bulk logistics and cargo handling, maritime/shipbuilding, electrical and turbine component mfg. & assembly, and subsea cable manufacturing.
6. The wide range of Tier 2 and Tier 3 components required for OSW projects represents an opportunity for existing businesses.
7. Efforts centered around knowledge sharing (e.g., mentoring and educational programs) and industry networking would ease the transition into the offshore wind industry for many companies.
8. Few U.S. ports have sufficient capabilities to fully support OSW activities, although several ports are actively investing in infrastructure upgrades.
9. New vessels are required to alleviate risks of missing the national offshore wind energy target.
10. Expansion in wind technology R&D could increase the competitiveness of the U.S. supply chain for offshore wind and allow U.S. suppliers to scale up.

In preparation for its second meeting on April 1, 2022, the subcommittee's co-chairs and staff carefully reviewed the 48 recommendations in the March 2021 *Building North Carolina's Offshore Wind Supply Chain* report to: (a) omit ones that have already been implemented or that are clearly within the jurisdictions of other subcommittees, and (b) combine/merge recommendations that were very similar in nature or that were redundant. This reduced the total number of recommendations to 18, upon which the staff distributed an online survey to the subcommittee members and staff and asked them independently to rank the 18 recommendations. At its second meeting, the subcommittee then reviewed and discussed the rankings in more detail to develop a collective understanding and ranking of the recommendations.



Outcomes and Deliverables

Building on its work to date, in subsequent meetings the subcommittee will organize its work streams into the following three broad categories and group the recommendations into each:

- **Existing Industry Support:** Helping existing businesses learn about the OSW industry, find supply chain opportunities, and overcome obstacles to enter the OSW supply chain and expand
- **New Business Recruitment:** Articulating North Carolina's value proposition, identifying gaps in the supply chain, and recruiting external businesses to fill the gaps
- **Infrastructure Support:** Sites and infrastructure needed to serve OSW supply chain expansion/attraction/recruitment opportunities

Next steps and Future Strategies

In the coming year, the subcommittee will research and develop each of the recommendations in more depth, providing key information such as a more detailed description of the recommended action, the gap/challenge being addressed, implementation details (e.g., which organizations and people should be involved, the timeline for implementation, cost, and potential sources funding) and expected outcomes. In addition, the subcommittee will continue to collaborate with other NCTOWERS subcommittees on relevant crossover issues and constituencies.

Cochairs: *Michele Querry & Justin Sosne*

Members: *Chris Chung, Brian Clark, Dave Goss, Hayes Framme, John White*

Staff liaisons: *Susan Fleetwood & John Hardin*



Subcommittee on Workforce, Education, and Training Opportunity Development (Workforce) 2022 Review and Next Steps

Summary

The Subcommittee on *Workforce, Education, and Training Opportunity* (Workforce Subcommittee) has met monthly since NCTOWERS first convened in February 2022. The Workforce Subcommittee was established to research, evaluate, and make recommendations regarding policies and programs that will grow a diverse and competitive offshore wind workforce in North Carolina. During the first three monthly meetings, members further shaped the subcommittee's scope of work, established goals, designated leads, and formed committees to achieve the three goals.

During the committee's first meeting, the co-chairs led members through a guided discussion where members unanimously agreed to adopt the workforce development recommendations found in the *Building North Carolina's Offshore Wind Supply Chain* as the committee's year one action plan. The subcommittee established three aligned goals to advance the recommendations:

- Goal 1: Conduct a job skills analysis for offshore wind occupations by November 2022.
- Goal 2: Develop an inventory of industry-relevant training already available for offshore industry occupations by November 2022.
- Goal 3: Promote new and existing offshore wind training opportunities to North Carolina and the offshore wind industry by December 2022.

In the meetings to follow, the Workforce Subcommittee formed three committees responsible for directing progress towards each goal and determining an action item to be accomplished within the next month. The subcommittee's final meeting of Fiscal Year 2021-2022 will include presentations from the National Renewable Energy Laboratory (NREL), the North Carolina Department of Commerce's Labor and Economic Analysis Division (LEAD), and updates from the three goal-oriented committees.



Outcomes and Deliverables

In May 2022, the Workforce Subcommittee established committees and identified deliverables to be accomplished by June 2022.

Goal	June Deliverable
1 - Conduct a skills analysis for OSW occupations	<p>Of the known OSW occupations, identify the top high leverage occupations that will require new skills and training.</p> <p>Partner with Commerce’s Labor and Economic Analysis Division to analyze the occupations using NCcareers.org and O*NET.</p>
2- Develop an inventory of industry-relevant training already available for the OSW industry occupations	<p>Partner with the NCCCS, UNC System Office, and the NCICUs to identify relevant clean energy training opportunities and emerging wind training opportunities.</p> <p>Identify other relevant training opportunities from public and private providers.</p> <p>Identify best practices and training opportunities available in SMART-POWER states.</p>
3- Promote OSW training opportunities to NC and to the OSW industry	<p>Partner with the Outreach and Education Committee to develop an outreach plan once the OSW skills analysis and training inventory are complete.</p> <p>Identify audiences for initial awareness meetings</p>

Next steps and Future Strategies

In the coming year, the Subcommittee will:

- Serve as topic lead for the November 2022 Quarterly Taskforce meeting devoted to workforce development
- Identify strategies to increase credential attainment and access to aligned training to prepare the state’s workforce for offshore wind related jobs.



- Partner with the NC Workforce Credentials Advisory Council to host focus groups with industry representatives to identify clean energy and offshore wind energy non-degree credentials that are valuable to employers.
- Complete a job skills analysis for at least one category of offshore wind occupations
- Create and publish an inventory of offshore wind or related training programs that already exist
- Continue to collaborate with other NCTOWERS subcommittees on relevant crossover issues and constituencies.

Cochairs: *Perry Harker & Dan Segovia*

Members: *Kevin Dick, Secretary Walter Gaskin, Bob Peele, Alvin Warwick, Phylliss Craig-Taylor*

Staff liaisons: *Dr. Andrea DeSantis, Dr. Jenni Harris, and Emily Roach*

Subcommittee on Infrastructure, EJ, and Inclusion

2022 Review and Next Steps

Summary

The Subcommittee on Infrastructure, EJ, and Inclusion (Subcommittee) met twice since NCTOWERS first convened in February 2022. This Subcommittee is charged with researching, evaluating, and making recommendations regarding transmission and offshore wind (OSW)-related infrastructure in North Carolina that foster EJ and provide for equitable access. Implicit in this work, is the identification and prioritization of actions to address opportunities and challenges, the review and identification of best practices that foster EJ and equitable access and identifying organizations and entities with which to partner and champion outcomes. At its meetings, the Subcommittee discussed the concepts of EJ and inclusion and how they fold into developing offshore wind projects for North Carolina. Several reports and supporting materials were shared with the members to level set the Subcommittee's work and plan for future efforts.

Outcomes and Deliverables

In May 2022, the Subcommittee adopted the following scoping statements on which to align and guide its work:

- *Infrastructure*: The physical infrastructure relating to the construction, installation, and onshoring of power with a goal of advancing projects while mitigating environmental and natural resource impacts.
- *Environmental Justice*: The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. In other words, providing a forum where everyone's needs are considered and all voices are heard when governments make decisions that will affect the environments in which we live, work, play, and pray.
- *Inclusion*: The principle by which the OSW sector shall engage industry, communities, and stakeholders.

Next Steps and Future Strategies

In the coming year, the Subcommittee will:

1. Serve as topic lead for the August 2022 Quarterly Taskforce meeting.
2. Liaise with Duke Energy Renewables and TotalEnergies representatives with regards to their company's plans to develop their Carolina Long Bay leases.
3. Liaise with Avangrid Renewables representatives with regards to their plans to develop the Kitty Hawk Wind lease area.



4. Work with Avangrid Renewables, Duke Energy Renewables, and TotalEnergies to determine specific communities which may be impacted by infrastructure investments; catalog and better understand relevant stakeholders for now-defined area(s).
5. Continue to collaborate with other NCTOWERS subcommittees on relevant crossover issues and constituencies.

Cochairs: *Steve Kalland & Ashley McLeod*

Members: *Daniel Govoni, Arketa Howard, Kevin Lackey, Mark McIntire, Trish Murphey, Glen Skinner*

Staff liaisons: *Dana Magliola & Jennifer Mundt*

Subcommittee on Outreach & Engagement

2022 Review and Next Steps

Summary

The Subcommittee on *Outreach & Engagement* (Subcommittee) has met monthly since NCTOWERS first convened in February 2022. Monthly meetings covered actions and strategies to:

- Identify and engage offshore wind stakeholders in North Carolina
- Promote recommendations from the NC TOWERS taskforce to stakeholders and policy-makers
- Connect governments and organizations working on offshore wind advancement in North Carolina

Outcomes and Deliverables

As of June 2022, the Subcommittee has:

- Identified more than 700 offshore wind stakeholders in North Carolina and gathered contact information for these stakeholders
- Drafted a survey to gauge information needs and level of engagement of key stakeholders
- Begun planning for informational materials to increase level of awareness and understanding of offshore wind opportunities in North Carolina
- Begun planning for a series of roundtable discussions to be held with key stakeholders in coastal communities

Next Steps and Future Strategies

In Fiscal Year 2022-23, the Subcommittee will:

- Launch stakeholder survey – survey will be available to public on NC TOWERS webpage
- Create informational materials to increase level of awareness and understanding of offshore wind opportunities in North Carolina
- Launch monthly newsletter on offshore wind efforts in North Carolina – newsletter signup available to public on NC TOWERS webpage
- Launch series of roundtable discussions with key stakeholders in coastal communities
- Continue to collaborate with other NCTOWERS subcommittees on relevant crossover issues and constituencies.

Cochairs: *Mayor Ben Cahoon & Susi Hamilton*

Members: *Greg Andeck, Gray Blount, David Kelly, Rep. Grier Martin, Jaime Simmons, Wit Tuttell*

Staff liaisons: *Lex Janes & Gena Renfrow*



Appendix A

NCTOWERS Membership

Member	Role / Organization
Marqueta Welton, Chair	Chief of Staff, NC Dept. of Commerce
Greg Andeck	Director of NC Strategy & Government Relations, National Audubon Society
Gray Blount	Captain/Owner/Operator Desperado Sportfishing
Ben Cahoon	Mayor, Nags Head, NC
Christopher Chung	CEO, Economic Development Partnership of NC
Brian Clark	Executive Director, NC Ports
Phyllis Craig-Taylor	Professor of Law, NCCU School of Law
Kevin Dick	President & CEO, Carolina Small Business Development Fund
Hayes Framme	Senior Manager Government Relations & Communications, Orsted
Walter Gaskin	Secretary, NC Dept. of Military & Veterans Affairs
David Goss	Economic Development Consultant, Perquimans County
Daniel Govoni	Policy Analyst, NC Dept. of Environmental Quality
Susi Hamilton	Economic Development Advisor, NC Dept. of Transportation
Perry Harker	VP, Corporate and Community Education, Carteret Community College
Arketa Howard	Mid-Atlantic Regional Director of Business & Policy Affairs for OSW, Crowley
Stephen Kalland	Executive Director, NC Clean Energy Technology Center
David Kelly	NC Office Director, Environmental Defense Fund
Kevin Lackey	Director of Business Development, Brunswick Business & Industry Development
Grier Martin	Chair, Military Affairs Commission
Mark McIntire	Director, Government Affairs, Energy & Stakeholder Engagement, Duke Energy
Ashley McLeod	Stakeholder Engagement Director, Avangrid Renewables-Kitty Hawk Offshore
Trish Murphey	Executive Assistant for Councils, NC Division of Marine Fisheries
Bob Peele	Director, NC Marine Industrial Park Authority
Michele Querry	Director of Economic Development, Carteret County
Greg Richardson	Executive Director, NC Commission for Indian Affairs, NC Dept. of Administration
Dan Segovia	Business Manager, Ironworkers Local 848
Jaime Simmons	Program Manager, Southeastern Wind Coalition
Glenn Skinner	Executive Director, NC Fisheries Association
Justin Sosne	Head of the UK Government's North Carolina Office
Wit Tuttell	Director, Visit NC, EDPNC
Alvin Warwick	Business Manager, International Brotherhood of Electrical Workers
John White	Chief Lobbyist and Manager of NC State and Local Affairs, Dominion Energy