



RHODE ISLAND

Executive Office of Commerce

317 Iron Horse Way, Suite 203
Providence, Rhode Island 02908

March 22, 2019

Luly E. Massaro, Commission Clerk
Rhode Island Public Utilities Commission
89 Jefferson Boulevard
Warwick, RI 02888

RE: Docket No. 4929

Dear Ms. Massaro:

Enclosed for filing with the Rhode Island Public Utilities Commission (PUC) is the Rhode Island Commerce Corporation's Advisory Opinion to the Rhode Island Public Utilities Commission on the proposed Power Purchase Agreement (PPA) between the Narragansett Electric Company, d/b/a National Grid, and DWW Rev I, LLC, also known as the Revolution Wind offshore wind project developed by Ørsted U.S. Offshore Wind (Docket No. 4929).

Please contact me at 401-222-5047 if you have any questions regarding this filing.

Sincerely,

A handwritten signature in blue ink that reads 'Stefan Pryor'. The signature is written in a cursive, flowing style.

Stefan Pryor
Secretary of Commerce

cc: Docket No. 4929 Service List

ADVISORY OPINION PROPOSED REVOLUTION WIND PROJECT

Public Utilities Commission Docket #4929

Rhode Island Commerce Corporation



Economic impact analysis prepared by:

Appleseed

appleseed 

March 22, 2019

The Rhode Island Commerce Corporation submits its Advisory Opinion on the Proposed Revolution Wind Project in accordance with R.I.G.L. § 39-31-7(c)(1)(ii) which provides that the Commerce Corporation shall “provide an advisory opinion on the expected statewide economic impacts resulting from” any projects proposed pursuant to § 39-31-4 and docketed by the Public Utilities Commission, “within 60 days from the docketing date.”

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1. Executive Summary

On February 7, 2019, the Public Utilities Commission (“PUC”) docketed a proposal made by the Narragansett Electric Company d/b/a National Grid (“National Grid”), pursuant to R.I.G.L. § 39-31, et. seq. -4, for the Revolution Wind project (the “Project”). Pursuant to R.I.G.L. § 39-31-7(c)(1)(ii) the Rhode Island Commerce Corporation (“Commerce Corporation”) prepared this Advisory Opinion (the “Opinion”) on the expected statewide economic impacts resulting from the Project with third-party economic impact analysis prepared by Appleseed, an economic consulting firm (“Appleseed”).

As proposed, the Project is a 400-megawatt offshore wind farm located in federal waters off the coast of Rhode Island consisting of up to 50 wind turbines and developed by Deepwater Wind (“Deepwater”), a Providence-based offshore wind company acquired by Ørsted A/S (“Ørsted”).

Appleseed analyzed the Project’s expected statewide economic impacts for the Commerce Corporation. This analysis estimates that the Project will have a positive economic impact on Rhode Island’s economy, generating 2,767 jobs and a one-time increase of \$282.2 million in the state’s gross domestic product (GDP) during a three-year construction period¹. Once the Project becomes operational in late 2023, Appleseed estimates the Project will yield 86 full-time-equivalent jobs and a \$8.12 million increase in the state’s annual GDP. These benefits are in addition to any energy market effects the Project may involve for Rhode Island ratepayers

As part of the procurement, Ørsted committed to \$40 million investment in Rhode Island ports, and an additional \$4.5 million to fund research, workforce, and supply chain development initiatives to further enhance the growth of the offshore wind industry in the state.

¹ Jobs measured as person-years of employment

Economic Impact Analysis prepared by Appleseed

Appleseed is an economic consulting firm with experience conducting economic impact analyses and economic development studies—including on offshore wind farm projects. At the Commerce Corporation’s request, Appleseed used the IMPLAN model to assess the statewide economic impact of the Project.

The IMPLAN input-output modeling system is an industry-standard modeling tool commonly used in economic impact studies. It relies on regional economic base data and information collected by the analyst, Appleseed, as well as information on the Project, in this case provided by National Grid and Ørsted. The model’s impact estimates focus on expenditures that would have a direct, current impact on the Rhode Island economy. Economic output under the analysis measures the total sales by Rhode Island companies (including the “sale” of labor by Rhode Island households) generated by the project. Employment impacts are measured in person-years, which are equivalent to the time worked by one person who is employed full-time for a year.

The Appleseed analysis does not consider the potential impact of any increases or decreases in the cost of electric power that might result from the anticipated shift from other power sources to offshore wind.

Ørsted and the Rhode Island Commerce Corporation have been in regular contact and are working collaboratively to take measurable steps to ensure this project is beneficial to Rhode Island's economy and its workforce. The Commerce Corporation expects Ørsted will generate the maximum number of opportunities for local businesses to participate in the Projects development.

Additionally, the Commerce Corporation assesses the Project will have a positive economic impact on the state's business climate, Rhode Island's growing offshore wind supply chain, and create significant employment and wage-earning opportunities for the state's skilled workforce.

2. Methodology & Assumptions

Appleseed completed a third-party economic analysis to assess the potential statewide economic impact of the Project. Appleseed is an economic consulting firm with experience conducting economic impact analyses and economic development studies—including on offshore wind farm projects. Appleseed used the IMPLAN model to assess the statewide economic impact of the Project.

In preparing this Advisory Opinion, the Commerce Corporation consulted the Office of Energy Resources (“OER”), the Department of Environmental Management (“DEM”), the Department of Labor and Training (“DLT”), the Quonset Development Corporation (“QDC”), and the Coastal Resources Management Council (“CRMC”) for their relevant expertise on matters pertaining to the Project and the offshore wind industry more broadly.

3. Statewide Economic Impacts of Revolution Wind Project

A. Third-party Economic Analysis of Project

Introduction

The Rhode Island Commerce Corporation (the “Corporation”) is charged under Rhode Island General Law 39-31.17 with reviewing the economic benefits accruing to Rhode Island from the development and operations of Revolution Wind, a 400-megawatt offshore wind farm to be developed by Ørsted/ Deepwater Wind LLC (“DWW”) at a site approximately 15 miles south of the Rhode Island coast. Pursuant to that requirement, the Corporation asked Appleseed – a firm with more than twenty years of experience in economic impact analysis – to assess the benefits of Revolution Wind.

This report summarizes the results of Appleseed’s assessment. We conclude that the project will have:

- A substantial, positive impact on Rhode Island’s economy – including 2,767 person-years of employment and a one-time addition of \$282.2 million to the state’s gross domestic product – during a three-year construction period; and
- A more modest annual impact – including 86 full-time-equivalent jobs and an \$8.12 million increase in Rhode Island’s annual GDP – after the wind farm begins operating in late 2023.²

Appleseed’s analysis of construction and operating impacts is based on data on construction and operating impacts provided by Deepwater Wind to Navigant, and used in Navigant’s October 2018 report on the impact of Revolution Wind on Rhode Island’s economy.

Construction

As shown in Table 1, DWW has estimated that development of the Revolution Wind offshore wind farm would cost a total of approximately \$1.61 billion.

Table 1: Revolution Wind estimated total project cost (\$ millions)

Component	Estimated cost
Turbine equipment	\$510.0
Materials and other equipment	547.2
Labor	145.9
Development services/other services	233.3
Insurance	31.3
Miscellaneous	140.7
Total	\$1,608.4

² Appleseed’s analysis does not take into account the potential impact of any increases (or decreases) in the cost of electric power that might result from the anticipated shift from other power sources to offshore wind. These costs are the subject of a separate analysis now being prepared for the state.

After excluding certain expenditures that would not have a direct, current impact on Rhode Island's economy (most notably the cost of turbines and related power generating and transmission equipment), in-state spending on development of the proposed project is estimated to total approximately \$306.1 million.

In its analysis of the impact of this investment, Appleseed used the IMPLAN input-output modeling system, a modeling system that can be used to analyze the effects of a change in inputs (such as a large-scale capital project, the opening of a new plant, or a major change in public policy) on economic outputs (such as jobs, wages, and gross domestic product) within a given geographic area. First developed for the U.S. Forest Service in the 1970s, IMPLAN was spun off to the University of Minnesota in 1985, and later to a private corporation – the Minnesota IMPLAN Group, now simply called IMPLAN. In addition to its modeling software, IMPLAN also provides and regularly updates detailed state- and county-level data for use in analyzing state and local economic impacts.

Using IMPLAN, Appleseed estimates that direct expenditures of \$306.1 million will directly and indirectly generate:

- 2,767 person-years³ of work in Rhode Island, with \$177.8 million in earnings (in 2022 dollars);
- Approximately \$500.5 million in statewide economic output⁴; and
- A one-time increase of \$282.2 million in Rhode Island's GDP.

These impacts are summarized below in Table 2. The project's *direct impact* is the impact of the Sponsor's direct spending on construction, including both hard and soft costs. Its *indirect impact* is the effect of spending by contractors for goods and services (insurance, construction materials, etc.) purchased from other Rhode Island businesses. Its *induced impact* is the effect of in-state household spending by Rhode Island residents directly or indirectly employed on the project.

Table 2: Direct, indirect and induced impact of construction and related spending (employment in person-years; income, value-added and output in millions of 2022 dollars)

	Employment	Earnings	Value added	Output
Direct Effect	1,592	\$108.6	\$165.5	\$306.1
Indirect Effect	469	30.6	48.2	81.0
Induced Effect	706	38.6	68.5	113.4
Total Effect	2,767	\$177.8	\$282.2	\$500.5

³ A person-year is equivalent to the time worked by one person who is employed full-time for a year. It could for example represent the work of two people who are each employed full-time for six months; or the work of one person who is employed half-time for two years.

⁴ Output is a measure of the total sales by Rhode Island companies (including the "sale" of labor by Rhode Island households) generated by the project.

In addition to the impacts on employment, earnings, output and state GDP cited in Table 2, direct spending of \$306.1 million would generate a projected one-time increase of approximately \$11.33 million in taxes paid to the State during construction, including:

- \$6.67 million in state personal income taxes paid by Rhode Island workers employed on the project, or whose jobs are indirectly attributable to the project;
- \$2.91 million in state sales taxes paid on those workers' taxable household spending; and
- \$1.76 million in state business taxes.

The activity reflected in Table 2 will occur primarily from 2021 through 2023.

The anticipated wage rates for construction jobs are shown below in Table 3. Anticipated wage rates are the median hourly wage for these occupations in Rhode Island, as of 2017.

Table 3: Anticipated wages during construction

Occupation	RI median hourly wage ⁵
Architect	\$40.36
Construction manager	\$47.10
Carpenter	\$22.82
Electrician	\$27.42
Plumber	\$27.71
Painter	\$18.85
Laborer	\$19.39

Fringe benefits associated with these jobs are expected to be in accordance with industry norms, with the cost of such benefits generally ranging between 22 and 28 percent of wages. Workers who fill these jobs are expected to be drawn primarily from the Providence-Warwick RI-MA New England City and Town Area (NECTA).

Annual operations

Revolution Wind is expected to begin operating by the end of 2023. DWW estimates that ongoing operation and maintenance of the proposed wind farm (excluding interest costs and repayment of principal) will cost approximately \$29.506 million. Of this total, DWW estimates that approximately \$7.42 million will be spent on wages and salaries paid to Rhode Island workers and purchases of goods and services from Rhode Island suppliers. Using IMPLAN, Appleseed estimates (as shown in Table 4) that in 2024, ongoing operations would directly and indirectly support:

- 86 full-time-equivalent jobs in Rhode Island, with approximately \$5.76 million in annual earnings (in 2024 dollars);
- \$13.49 million in annual statewide economic output; and
- An increase of \$8.122 million in Rhode Island's annual GDP.

⁵ Rhode Island Department of Labor and Training, Occupational Employment Statistics, 2017

Table 4: Direct, indirect, induced and total impact of ongoing operations, 2024 (employment in FTE; earnings, value-added and output in millions of 2024 dollars)

	Employment	Earnings	Value added	Output
Direct Effect	50	\$3.533	\$4.156	\$7.424
Indirect Effect	13	0.925	1.641	2.341
Induced Effect	23	1.305	2.325	3.725
Total Effect	86	\$5.763	\$8.122	\$13.490

In addition to the impacts on employment, earnings, output and state GDP cited in Table 4, ongoing operations would generate a projected gross increase of approximately \$338,000 in taxes paid to the state annually beginning in 2024, including:

- \$216,000 in state personal income taxes paid by Rhode Island workers directly employed by Revolution Wind and its suppliers, or whose jobs are indirectly attributable to the operations of those businesses;
- \$94,000 in state sales taxes paid on those workers' taxable household spending;
- \$28,000 in state business taxes.

Workers employed by Revolution Wind and its in-state contractors and suppliers would be drawn primarily from communities in southern Rhode Island, and from the broader Providence-Warwick RI-MA New England City and Town Area (NECTA).

Conclusion

As discussed above, the development of the Revolution Wind offshore wind farm would provide substantial economic benefits to Rhode Island during the construction period (2021-2023), including 2,767 person-years of employments – an average of 922 FTE jobs per year for three years – and a one-time addition of \$282.2 million to the state's GDP. When fully operational, the project would produce more modest benefits, including 86 FTE jobs and an annual contribution of \$8.12 million to Rhode Island's GDP.

In addition to the economic and tax revenue impacts cited above, Revolution Wind would benefit Rhode Island in several other ways:

- Reducing greenhouse gas emissions, and reducing the state's reliance on fossil fuels
- Continued development of Quonset Point and the Port of Providence as a hub for the development and operation of offshore wind projects
- Creating opportunities for collaboration with the University of Rhode Island's oceanography and ocean engineering programs and other educational institutions in the state.
- Expanding opportunities for graduates of those programs
- Contributing to the continued growth of Rhode Island's ocean economy

Appendix: How Appleseed's analysis differs from Navigant's

As noted above, Appleseed's analysis of Revolution Wind's impact on Rhode Island's economy is based on the same data on construction and operating expenditures that Navigant used in its October 2018 report. However, the two analyses differ somewhat in their results. As shown below in Table 5, Appleseed analysis projects a somewhat greater impact from construction spending, while Navigant's projects a greater impact from ongoing operations.

Table 5: Appleseed’s analysis vs. Navigant’s: construction and operating impacts (construction employment in person-years, operating employment in FTE; construction value added in millions of 2022 dollars; operating value added in millions of 2024 dollars)

	Appleseed analysis		Navigant analysis	
	Employment	Value added	Employment	Value added
Impact of construction				
Direct construction	1,592	\$165.5	812	\$70.4
Indirect/induced construction	1,175	116.7	1,771	180.8
Total	2,767	\$282.2	2,583	\$251.3
Impact of operations				
Direct operations	50	\$4.2	32	\$2.4
Indirect/induced operations	36	4.0	96	11.9
Total	86	\$8.2	128	\$14.3

These differences are primarily a result of the use of two different modeling systems. As stated previously, Appleseed used the IMPLAN modeling system, while Navigant used JEDI, a model developed for the National Renewable Energy Laboratory (NREL) specifically designed for analysis of the economic impact of renewable energy projects.

B. Business Climate

As indicated by the Appleseed analysis (section 3.A, above), project parameters indicate that Revolution Wind will spur significant economic development benefits during construction and will continue contributing positively (though more modestly) to the economy during operation. Moreover, investments made as part of this project will improve Rhode Island’s position in attracting future economic benefits and employment opportunities from America’s emerging offshore wind industry.

Importantly, Ørsted has made specific commitments to growing and supporting Rhode Island’s wind energy industry. As part of the procurement, Ørsted has committed to a \$40 million investment in Rhode Island ports (see Section 3.D on Infrastructure), and an additional \$4.5 million to fund research, workforce, and supply chain development initiatives to further enhance the growth of the offshore wind industry in the state.

The Commerce Corporation expects that Ørsted will generate the maximum number of opportunities for local businesses to participate in the project’s development. Further, Commerce is working with Ørsted to ensure that there is support to develop the wind energy supply chain in Rhode Island (see Section 3.C on Supply Chain). The project developer has committed to serve as an anchor in SupplyRI. SupplyRI is Rhode Island’s business to business connection service, which focuses on creating opportunities for Rhode Island companies to grow and expand. In furtherance of these efforts, the

Commerce Corporation expects Ørsted to financially commit to growing Rhode Island's offshore wind industry and support industry growth in Rhode Island.

Ørsted and its lead vendors or contractors will participate as anchors in SupplyRI, so as to provide local businesses with opportunities to engage and bid within the development process. Ørsted will also work with the Commerce Corporation, and when appropriate with the Rhode Island Manufacturer's Association (RIMA), to ensure local qualified companies have opportunities to bid on supply chain projects. These efforts will be discussed during monthly meetings.

In order to fulfill these commitments, it is expected that Ørsted will maintain and grow their Rhode Island presence. Ørsted has committed to maintaining and growing Rhode Island as a co-headquarters for the United States and will ensure two or more members of the executive management team are based in Rhode Island. The company will establish an operations and maintenance facility for the Revolution Wind Project in Rhode Island. In the next two years, Ørsted will convene and host a meeting of its' offshore wind global leadership in Rhode Island.

Commerce Corporation staff and Ørsted have been in regular contact and are working collaboratively to take measurable steps to ensure this project is beneficial to Rhode Island's economy. Commerce Corporation and Ørsted anticipate signing a memorandum of understanding by April 5, 2019 to establish a co-working relationship and further supply chain development in the state.

Finally, it is Commerce's understanding that the Office of Energy Resources is requesting that, as a condition of approval, the Public Utilities Commission require periodic reporting by the project developer. This reporting would detail investment and job creation impacts associated with Revolution Wind and provide updates on commitments made pursuant to educational, workforce development, and supply chain development. Commerce supports this recommendation.

C. Supply Chain

Significant potential exists to develop offshore wind related manufacturing and grow the offshore wind industry within the state. As domestic demand for offshore wind manufacturing and related infrastructure increases, Rhode Island is positioned to support cluster development around the build out of Revolution Wind and other wind-farms in the region.

The majority of manufactured components and capital investments related to the Revolution Wind project will initially be exported from developed European markets as there is limited existing offshore wind-related manufacturing in the United States. As the offshore wind industry grows, Rhode Island's

manufacturing will be positioned to develop local supply chain opportunities to grow a manufacturing base in the state.

Rhode Island's manufacturing sector is positioned to capture construction and support services as wind-related manufacturing activity develops. Ørsted has committed to working in collaboration with the Commerce Corporation on a broad range of supply chain development initiatives including introductions to vendors involved in the construction of the Revolution Wind Farm and coordinating networking with targeted offshore wind companies to ensure Rhode Island has access to offshore wind supply chain and development opportunities.

In support of these efforts, Ørsted and the Commerce Corporation will hold monthly meetings during the planning and construction period to further transparent and regular communications to discuss the status of the offshore wind farm, strategize on supply chain growth and development, and assess progress on shared supply chain growth development goals and communications with local supply chain companies. Ørsted will identify a primary point of contact at Ørsted for the Commerce Corporation and will bring in other Ørsted resources as appropriate to support these initiatives.

D. Infrastructure

A key component to developing offshore wind related manufacturing businesses is adequate infrastructure to support manufacturing and the related transportation and staging of wind turbine components. Rhode Island has extensive shoreline, offshore water access, and a large buildable continental shelf with a maximum shelf depth of 60 meters. Additionally, Rhode Island hosts two deep water ports, an international airport, and the entire state is designated as a Foreign Trade Zone (FTZ 105).

Rhode Island in coordination with public- and private- sector partners has planned investments in infrastructure to support new offshore wind farm supply chain including investing in port infrastructure for water access, port-adjacent land for staging and transferring components, and manufacturing land for industry development. With adequate infrastructure and infrastructure improvements, Rhode Island is positioned serve as a locus for the growing offshore wind economy and locally manufacture wind turbine components as offshore wind farms are developed in the region.

As part of the commitment to improving Rhode Island's infrastructure, Ørsted has committed an investment of \$40 million in port improvements and will establish an offshore wind farm maintenance facility in Rhode Island.

Ørsted has also committed to working collaboratively on port utilization planning with the Port of Providence and Port of Davisville by engaging in regular meetings and providing technical assistance on

the utilization of ports and expansion of port facilities. Ørsted has also agreed to introduce Port of Providence and Davisville to potential end users of ports as part of this project.

E. Workforce

Rhode Island has existing clean energy and wind energy labor and talent. According to the 2018 Rhode Island Clean Energy Report, clean energy employment in the state has grown by 72% since 2014, creating 6,650 jobs in five years⁶. Clean energy related employment accounts for 3.3% of Rhode Island's total workforce, nearly 16,000 workers across the state with more than 500 workers already engaged in the wind energy industry⁷. As Rhode Island is home to the only offshore wind farm in the United States, Rhode Island has the advantage of existing talent.

Rhode Island is centrally located in the Northeast corridor, an area with both growing and existing tech talent. Colleges and universities are building a pipeline of talent that can benefit the offshore wind industry. Colleges and universities within Rhode Island are offering wind-energy and clean energy focused coursework and opportunities. These programs are being brought online to meet future clean energy workforce needs.

Rhode Island is actively developing the pipeline of offshore wind talent and expanding the available workforce. Through a Real Jobs RI program named "WindWinRI," Rhode Island has formed a partnership with high schools in North Kingstown, the North Kingstown Chamber of Commerce, and other partners to build training programs that fit the specific needs of the offshore wind industry⁸. High Schools students will be able to access programming including special offshore wind focused training and access to internships with local marine businesses. Students in the WindWinRI program can earn an offshore wind energy certificate with their high school diplomas. Students completing the WindWinRI program will be prepared to move onto the workforce or further education.

In addition to the WindWinRI offshore wind focused initiative, Rhode Island has a series of initiatives including Computer Science for Rhode Island, Pathways in Technology Early College High School (P-TECH), TECH/HIRE RI and other Real Jobs RI partnerships focused on preparing talent for high-tech jobs.

⁶ Rhode Island, Clean Energy Industry Report 2018.
<http://www.energy.ri.gov/cleanjobs/2018/2018%20RI%20Clean%20Energy%20Industry%20Report.pdf>

⁷ Ibid.

⁸ Press Release: Governor Meets with WindWinRI Team, <https://www.ri.gov/press/view/33991>

F. Ocean SAMP and Water-Dependent Industries

Commercial and recreational fishing is integral to the State of Rhode Island's culture and economy. By virtue of location, offshore wind projects affect marine resources and will result in impact to Rhode Island's commercial and recreational fishing industries. A study produced by the Commercial Fisheries Research Foundation estimates that the Rhode Island Fisheries and Seafood Sector is comprised of 428 firms that generated 3,147 jobs (+/- 9.4%) and \$538.33 (+/- 11.6%) million of gross sales in 2016 alone; 225 firms and 1,893 jobs are attributed directly to commercial and charter fishing⁹. The same year, the recreational fishing industry was estimated to maintain 5,19 jobs and create \$332 million in sales plus \$168 million in value added¹⁰.

The Rhode Island Special Area Management Plan (Ocean SAMP), a federally recognized coastal management and regulatory tool, has been developed by the Rhode Island Coastal Resources Management Council (CRMC) to accommodate the development and protection of Rhode Island's ocean-based resources including its fisheries. This tool is aimed at enabling Rhode Island to engage in offshore wind farm development responsibly.

The CRMC's Ocean SAMP established a Fishermen's Advisory Board (FAB) to provide fishing industry input and negotiate with developers on issues concerning mitigation of fisheries impacts. Ørsted will navigate this CRMC process, working with the FAB to identify and mitigate fishing conflicts through wind farm layout design and biological research and monitoring. The project developer should also look for ways to involve other segments of the industry that are not as engaged in the CRMC process, such as by having discussions with the state's RI Marine Fisheries Council or some of the commercial and recreational fishing associations in RI as a way to get a comprehensive suite of comments from this important ocean user group.

⁹ The Economic Impact of Rhode Island's Fisheries and Seafood Sector, The University of Rhode Island. 2018. <https://static1.squarespace.com/static/5669f27fa128e6a7fba76540/t/5c1be77d575d1f5bdd0d8ad4/1545332611260/Fisheries+Report+FINAL+Web.pdf>

¹⁰ Fisheries Economics of the U.S. 2016, NOAA <https://www.fisheries.noaa.gov/resource/document/fisheries-economics-united-states-report-2016> [fisheries.noaa.gov]

4. Conclusion

The Revolution Wind Project, a 400-megawatt offshore wind farm located in federal waters off the coast of Rhode Island consisting of up to 50 wind turbines and developed by Ørsted will have a positive economic impact on the state's business climate, Rhode Island's growing offshore wind supply chain, and the state's skilled workforce.

Appleseed's analysis of the Project's expected statewide economic impacts for the Commerce Corporation estimates that the Revolution Wind Project will have a positive economic impact on Rhode Island's economy, generating 2,767 jobs, a one-time increase of approximately \$11.33 million in taxes paid to the state during construction and a one-time increase of \$282.2 million in the state's gross domestic product (GDP) during a three-year construction period¹¹. Once the Project becomes operational in late 2023, Appleseed estimates the Project will yield 86 full-time-equivalent jobs, \$338,000 annually in state taxes, and an \$8.12 million increase in the state's annual GDP.

Further, Ørsted committed to a \$40 million investment in Rhode Island ports and an additional \$4.5 million to fund research, workforce, and supply chain development initiatives to further enhance the growth of the offshore wind industry in the state. These commitments include the location of the company's US co-headquarters in Rhode Island, the project's operations and maintenance facility in Rhode Island, and significant support for the developing wind industry in Rhode Island including supply-chain development and participation in SupplyRI. These commitments indicate a long-term commitment to supporting the growth of the wind industry in Rhode Island.

Based on the review of the economic impact analysis prepared by Appleseed and the additional commitments to support economic development in Rhode Island, the Commerce Corporation finds the Revolution Wind Project will have a positive economic impact on Rhode Island.

¹¹ Jobs measured as person-years of employment