

Searsport Offshore Wind Port Economic Impact Analysis

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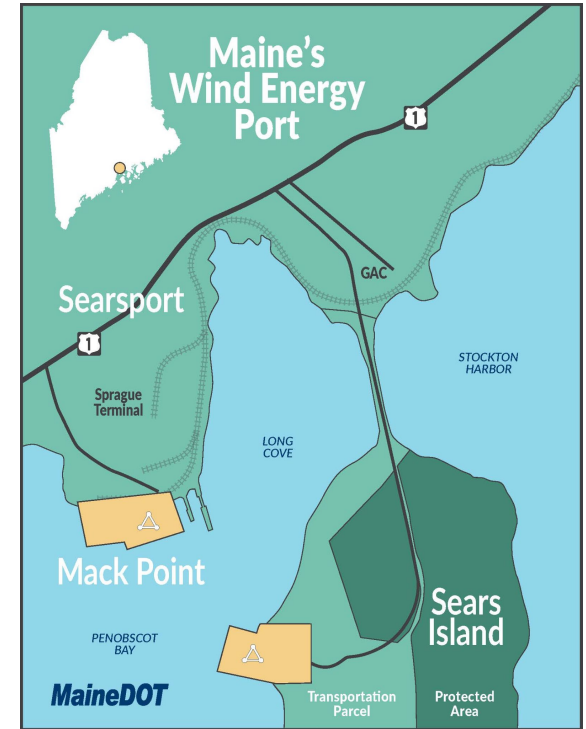


PROJECT OVERVIEW AND BACKGROUND

Context: The State of Maine is pursuing the development of a floating offshore wind (FOSW) port to realize the environmental and economic benefits of the rapidly developing offshore wind market in a way that reflects community values and minimized adverse impacts.

Opportunity: The proposed **Searsport Offshore Wind Port**, which would be built at Sears Island, Maine, will be:

- A 100-acre facility
- Capable of marshalling, foundation fabrication and/or assembly, and integration of the wind turbine generator components onto the floating foundation. In addition, the port may be used for tow-back operations and maintenance of the installed units.
- Supporting the deployment of the Maine Research Array (MeRA) and future floating OSW projects on the East Coast.

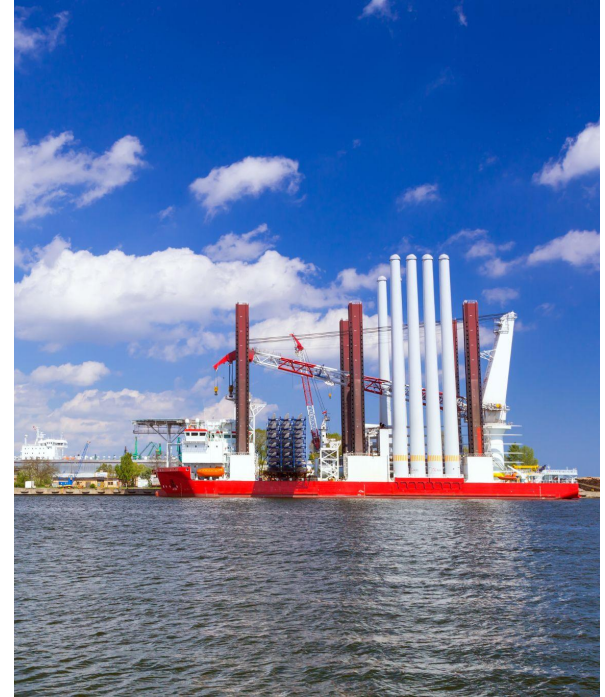


Map of Sears Island (Source: MaineDOT)

PROJECT OVERVIEW AND BACKGROUND

Project scope: The National Resources Council of Maine (NRCM), in partnership with local environmental and labor organizations, hired Karp Strategies as a third-party consultant to conduct an **Economic Impact Analysis** of the proposed Searsport Offshore Wind Port, which would be the first floating wind port in the northeast. This analysis will:

- Quantify and communicate the direct, indirect, and induced economic impacts of the proposed port
- Provide further details on the construction and manufacturing/operations jobs that will be supported by the port
- Calculate other economic benefits such as increased industry spending, increased wages, and taxes



WHAT IS AN EIA?



Inputs

Labor Earnings

The total labor income for a region includes wages, salaries, supplements, and proprietor income

Jobs

Number of jobs that are supported by the event

Direct Effects

Immediate impacts resulting from the event

Industry Spending

An industry's total annual sales (gross receipts), both to other industries and to consumers

Fiscal Impacts

The total tax revenue generated by the event



Wages Paid



Purchases of Goods and Services

Indirect Effects

Impacts to the supply chain produced by business to business purchases



Supply Chain Effects



Business Tax Impacts



Household Purchases



Local and Import Purchases

Induced Effects

Impacts to the broader economy stemming from household spending and new earnings



Wages Paid



Household Tax Impacts

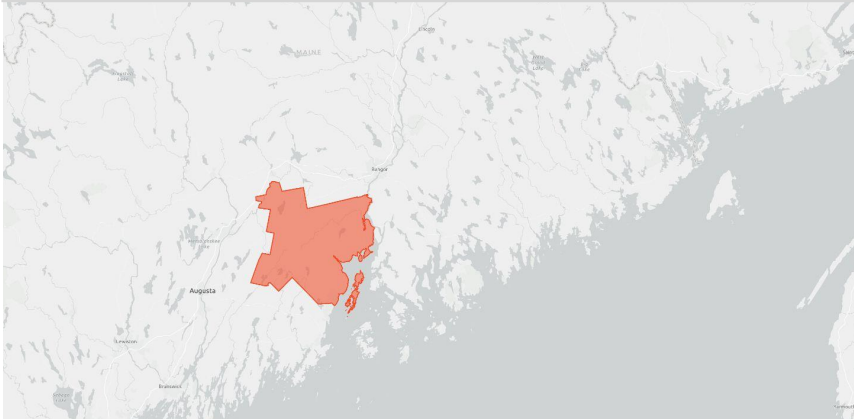
METHODOLOGY

Geographies

This analysis uses a multi-region input-output analysis to capture economic impacts both in Searsport's immediate area (Waldo County, the Primary Geography) and the broader surrounding area (the Secondary Geography). The following impact analyses will consolidate impacts across both the Primary and Secondary geographies, which encompass an approximately 60-minute commute shed from the port's location.

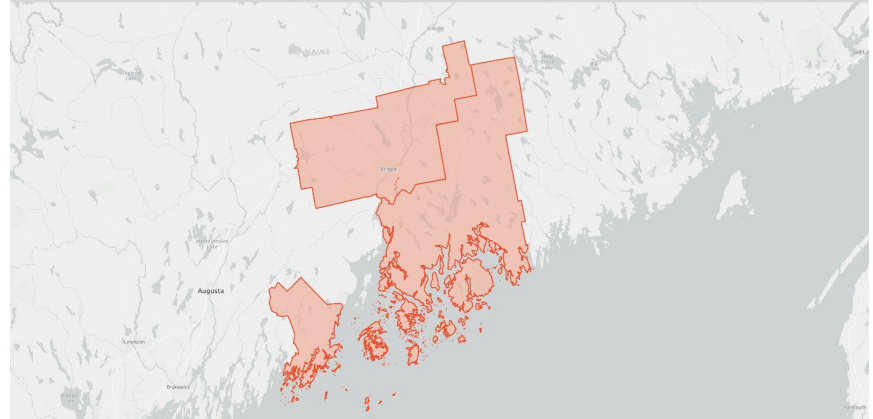
Primary: Waldo County

This is where the economic impacts of the new port will concentrate.



Secondary: Hancock, Knox, & S. Penobscot Counties

This is where ripple effects from the direct economic investment in Waldo County will be observed.



METHODOLOGY

Assumptions

This analysis builds on project details and assumptions, such as construction budget and anticipated jobs from studies led by state agencies and private consultants on the Searsport and Maine Research Array development.

Wind port size	Construction costs	Construction duration	Operations jobs	Operations duration
100 acres	USD \$554.7M¹	2 years	1,060 FTEs²	Varies
of flat uplands area (minimum necessary for a FOSW port) Source: MeDOT, 2024 [2]	Includes Asset Relocation and Env. Mitigation costs Source: MeDOT, 2024 [1]	Analysis uses a conservative estimate of a Q1 2031 start date Source: MeDOT, 2024 [2]	Includes fabrication of foundations and turbine assembly Source: SEA & EBP, 2024	See scenario analysis (Slide 8) Source: Client conversation

¹ All values are in 2025 dollars.

² FTEs stand for full-time equivalents and is a measure of job hours worked annually. 1 FTE = 2,080 hours worked annually.

³ The construction and operations assumptions for this analysis were also compared with those of other U.S. OSW ports to confirm validity. This includes Port of Long Beach, Port of Albany, and Humboldt Floating OSW Port, and Block Island and Vineyard Wind fixed-bottom OSW Port.

METHODOLOGY

Scenarios

This analysis builds on project details and assumptions, such as construction budget and anticipated jobs from a few state agency and privately-led studies on the Searsport and Maine Research Array development.

	Scenario 1: Research Array Only ¹	Scenario 2: Maine’s 3GW Goal
Production Assumptions	Delivering the Maine Research Array (144 MW)	Delivering the state of Maine’s OSW goal of 3GW by 2040
Operations Timeline	Turbine Production: 3 yrs Operations & maintenance: 15 years	Turbine Production: 8 yrs Operations & maintenance: 10 years

All scenarios use the same inputs for a) construction costs b) operations start time of Q1 2033, and c) a turbine manufacturing workforce of 1,060 FTEs ¹ and decreased operations & maintenance workforce of 350 FTEs ².

¹ Production timelines and employment estimates for the Maine Research Array are referenced from [SEA & EBP, 2024](#).

² The decreased M&O capacity is referenced from [MeDOT, 2024 \[2\]](#).

METHODOLOGY

Construction vs. Operations Definitions

Construction: The development of the floating offshore wind port itself, no turbine manufacturing

Includes:

- Contractor mobilization / demobilization
- Wharf construction
- Infill area development
- Uplands development
- Indirect costs:
 - Supervision
 - Bonds & Insurance
 - Overheads
 - Specialty inspection and testing
- Other costs:
 - Contingency
 - Access road relocation
 - Environmental mitigation

Operations: The manufacturing, assembly, and staging of turbines and supporting structures at the port

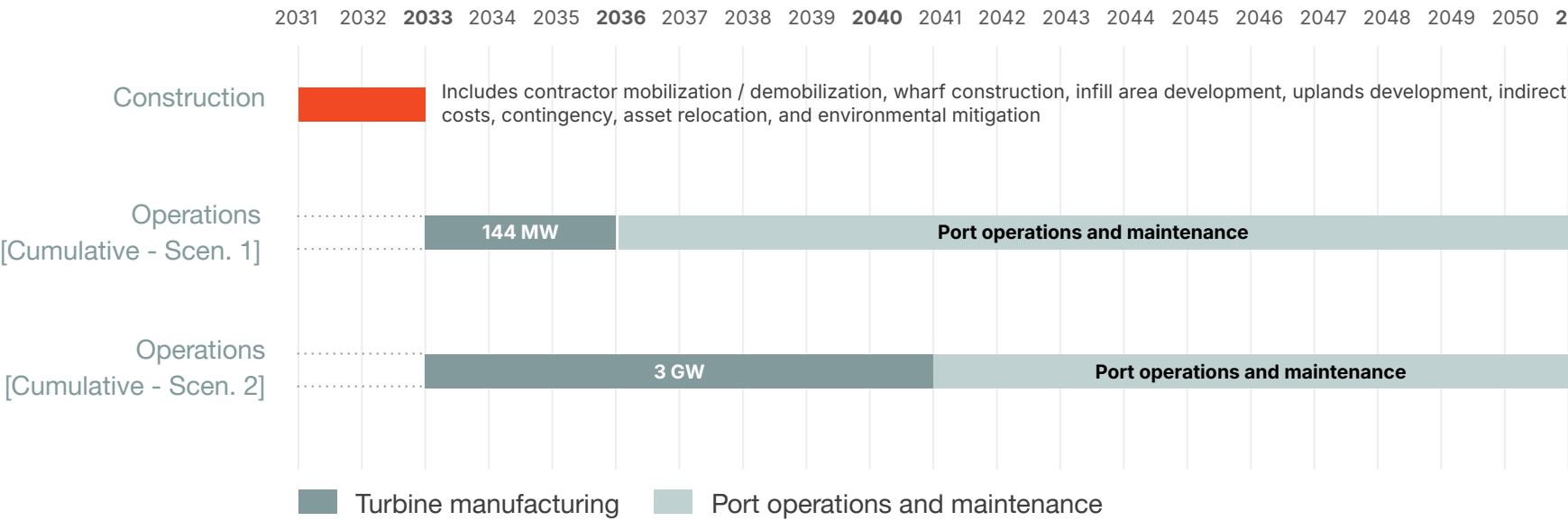
Includes:

- **Turbine manufacturing:** Activities associated with the construction and manufacturing of offshore wind turbines and their components
- **Port operations and maintenance:** Activities associated with regular port operations and maintenance, when there are no offshore wind turbine production activities occurring

Source of construction costs assumptions: [MeDOT, 2024 \[1\]](#)

METHODOLOGY

Construction and Operations Timelines



All values are in 2025 dollars.
Production timelines for the turbine manufacturing phases are referenced from [SEA & EBP, 2024](#).

IMPACTS

Total Impacts Summary: Scenario 1 (Turbine manufacturing for 3 yrs, O&M for 15 yrs)¹

	Jobs Supported ²	Increased Industry Spending	Increased Labor Earnings	Increased Tax Revenue
Construction ³	6,424 FTEs	\$848.5 Million	\$163.7 Million	\$97.1 Million
Operations [annual] ⁴	684 FTEs	\$103.9 Million	\$36.7 Million	\$15.9 Million
Operations [cumulative]	12,310 FTEs	\$3.06 Billion	\$1.02 Billion	\$447.9 Million

¹ The above table summarizes the **direct, indirect, and induced impacts** of the proposed Searsport Offshore Wind Port.

² FTEs stand for full-time equivalents and is a measure of job hours worked annually. 1 FTE = 2,080 hours worked annually.

³ All construction values represent the site's net impacts over the 2 year construction timeline.

⁴ Annual operations values are calculated as a **weighted average** of the annual values generated during turbine manufacturing and those generated during port operations & maintenance.

IMPACTS

Total Impacts Summary: Scenario 2 (Turbine manufacturing for 8 yrs, O&M for 10 yrs)¹

	Jobs Supported ²	Increased Industry Spending	Increased Labor Earnings	Increased Tax Revenue
Construction ³	6,424 FTEs	\$848.5 Million	\$163.7 Million	\$97.1 Million
Operations [annual] ⁴	948 FTEs	\$154.4 Million	\$43.4 Million	\$19.7 Million
Operations [cumulative]	17,069 FTEs	\$4.73 Billion	\$1.31 Billion	\$595.3 Million

¹ The above table summarizes the **direct, indirect, and induced impacts** of the proposed Searsport Offshore Wind Port.

² FTEs stand for full-time equivalents and is a measure of job hours worked annually. 1 FTE = 2,080 hours worked annually.

³ All construction values represent the site's net impacts over the 2 year construction timeline.

⁴ Annual operations values are calculated as a **weighted average** of the annual values generated during turbine manufacturing and those generated during port operations & maintenance.

IMPACTS

Construction Impacts: All scenarios ¹

Impact	Jobs Supported	Increased Industry Spending	Increased Labor Earnings
Direct	4,916 FTEs	\$554.7 Million	\$93.7 Million
Indirect	736 FTEs	\$153.4 Million	\$35.6 Million
Induced	772 FTEs	\$140.3 Million	\$34.4 Million
Total	6,424 FTEs	\$848.4 Million	\$163.7 Million

¹ The above table includes the consolidated impacts that will be delivered over the course of the 2-year construction timeline of the project.

IMPACTS

Construction Fiscal Impacts (Increased Tax Revenues): All scenarios ^{1, 2}

Impact	Local ³	State	Federal
Direct	\$2.6 Million	\$8.2 Million	\$40.2 Million
Indirect	\$6.3 Million	\$7.3 Million	\$10.7 Million
Induced	\$4.9 Million	\$6.2 Million	\$10.6 Million
Total	\$13.8 Million	\$21.7 Million	\$61.5 Million

¹ The above table includes the tax revenue that is expected to be generated during the two-year construction timeline.

² Fiscal impacts include taxes on the production & imports net of subsidies (TOPI), social insurance taxes, corporate taxes, and personal taxes.

³ Local taxes include county and sub-county taxes (general and special districts).

IMPACTS

Construction Fiscal Impacts (Increased Tax Revenues): All scenarios ¹

Impact	Waldo County	Hancock, Knox, S. Penobscot County
Direct	\$51.0 Million	-
Indirect	\$23.2 Million	\$1.1 million
Induced	\$19.6 Million	\$2.1 million
Total	\$93.8 Million	\$3.2 Million

¹ The above table includes the tax revenue that is expected to be generated during the two-year construction timeline. Fiscal impacts include taxes on the production & imports net of subsidies (TOPI), social insurance taxes, corporate taxes, and personal taxes. All values include federal, state, and local taxes generated within the specific geographies.

IMPACTS

Annual Operations Impact: One-year run rate

Turbine Manufacturing

Impact	Jobs Supported	Increased Industry Spending	Increased Labor Earnings
Direct	1,060 FTEs	\$174.8 Million	\$37.1 Million
Indirect	218 FTEs	\$44.3 Million	\$10.7 Million
Induced	199 FTEs	\$36.2 Million	\$8.9 Million

Port Operations & Maintenance

Impact	Jobs Supported	Increased Industry Spending	Increased Labor Earnings
Direct	350 FTEs	\$44.5 Million	\$24.9 million
Indirect	71 FTEs	\$10.1 Million	\$3.1 million
Induced	105 FTEs	\$19.0 Million	\$4.7 million

IMPACTS

Cumulative Operations: Scenario 1 (Turbine manufacturing for 3 yrs, O&M for 15 yrs)¹

Impact	Jobs Supported ²	Increased Industry Spending	Increased Labor Earnings
Direct	8,426 FTEs	\$1.97 Billion	\$741.5 Million
Indirect	1,715 FTEs	\$475.3 Million	\$129.4 Million
Induced	2,169 FTEs	\$613.6 Million	\$151.0 Million
Total	12,310 FTEs	\$3.06 Billion	\$1.02 Billion

¹ The above table includes the consolidated impacts that will be delivered over the course of the operational period of the project. Projections account for a 2.5% inflation rate and a 3% discount rate, based on industry best practices.

² FTEs stand for full-time equivalents and is a measure of job hours worked annually. 1 FTE = 2,080 hours worked annually.

IMPACTS

Cumulative Operations: Scenario 2 (Turbine manufacturing for 8 yrs, O&M for 10 yrs) ¹

Impact	Jobs Supported ²	Increased Industry Spending	Increased Labor Earnings
Direct	11,977 FTEs	\$3.14 Billion	\$913.2 Million
Indirect	2,451 FTEs	\$777.8 Million	\$198.7 Million
Induced	2,641 FTEs	\$807.0 Million	\$198.6 Million
Total	17, 069 FTEs	\$4.73 Billion	\$1.31 Billion

¹ The above table includes the consolidated impacts that will be delivered over the course of the operational period of the project. Projections account for a 2.5% inflation rate and a 3% discount rate, based on industry best practices.

² FTEs stand for full-time equivalents and is a measure of job hours worked annually. 1 FTE = 2,080 hours worked annually.

IMPACTS

Annual Operations Fiscal Impact (Increased Tax Revenue): Turbine Manufacturing ^{1, 2}

Impact	Local ³	State	Federal
Direct	\$1.3 Million	\$2.7 Million	\$11.6 Million
Indirect	\$1.3 Million	\$1.6 Million	\$3.0 Million
Induced	\$1.3 Million	\$1.6 Million	\$2.7 million
Total	\$3.9 Million	\$5.9 Million	\$17.3 Million

¹ The above table includes the tax revenue that is expected to be generated annually during turbine manufacturing.

² Fiscal impacts include taxes on the production & imports net of subsidies (TOPI), social insurance taxes, corporate taxes, and personal taxes.

³ Local taxes include county and sub-county taxes (general and special districts).

IMPACTS

Annual Operations Fiscal Impact (Tax Revenues): Turbine manufacturing ¹

Impact	Waldo County	Hancock, Knox, S. Penobscot County
Direct	\$15.6 Million	-
Indirect	\$5.6 Million	\$404.9k
Induced	\$4.8 Million	\$706.1k

¹ The above table includes the tax revenue that is expected to be generated annually during turbine manufacturing. Fiscal impacts include taxes on the production & imports net of subsidies (TOPI), social insurance taxes, corporate taxes, and personal taxes. All values include federal, state, and local taxes generated within the specific geographies.

IMPACTS

Annual Operations Fiscal Impact (Increased Tax Revenue): Operations & Maintenance ^{1,2}

Impact	Local ³	State	Federal
Direct	\$906.5k	\$1.6 Million	\$6.7 Million
Indirect	\$283.0k	\$377.8k	\$902.7k
Induced	\$671.7k	\$843.1k	\$1.4 million
Total	\$1.9 Million	\$2.8 Million	\$9.0 Million

¹ The above table includes the tax revenue that is expected to be generated annually during operations & maintenance.

² Fiscal impacts include taxes on the production & imports net of subsidies (TOPI), social insurance taxes, corporate taxes, and personal taxes.

³ Local taxes include county and sub-county taxes (general and special districts).

IMPACTS

Annual Operations Fiscal Impact (Tax Revenues): Operations & maintenance ¹

Impact	Waldo County	Hancock, Knox, S. Penobscot County
Direct	\$9.2 Million	-
Indirect	\$1.5 Million	\$54.8k
Induced	\$2.5 Million	\$375.3k

¹ The above table includes the tax revenue that is expected to be generated annually during operations & maintenance. Fiscal impacts include taxes on the production & imports net of subsidies (TOPI), social insurance taxes, corporate taxes, and personal taxes. All values include federal, state, and local taxes generated within the specific geographies.

OTHER BENEFITS

Apart from the economic impacts presented in this EIA, there are **several other benefits that the Searsport OSW Port will bring to the State of Maine** and its offshore wind industry, if realized.¹ These include:



Environmental and health benefits from avoided emissions

The reduction in greenhouse gas emissions and other air pollution due to the generation of clean renewable energy will provide USD \$1.01 billion - \$1.5 billion in benefits.



Cost reductions for future offshore wind development in Maine

As it is expected to be the first dedicated floating wind port on the U.S. east coast, the port and the floating offshore wind projects it supports will de-risk and streamline subsequent projects for Maine, as well as capture economic activity in Maine that might otherwise be deployed elsewhere.

¹ SEA and EBP, 2024

APPENDIX

Appendix A: Sources

1. Pre-Application Alternatives Analysis. [Attachment H: Cost Estimates, Mack Point Alternative \(Option B.2.\) & Preferred Sears Island Alternative.](#) MaineDOT, 2024.
2. FY 25 – 26 Multimodal Project Discretionary Grant Application. [Project Requirements.](#) MaineDOT, 2024.
3. Economic Impacts Analysis of Pine Tree Offshore Wind's Maine Research Array (MeRA) and Assessment of Additional Benefits to Maine of Supporting an Offshore Wind Pilot Project. Sustainable Energy Advantage (SEA), LLC and EBP US, Inc., 2024.

Appendix B: Detailed Construction Impacts

Geography	Increased Industry Spending	Increased Labor Earnings	Tax Revenue	Jobs Supported
Primary: Waldo County	\$822.7 Million	\$157.5 Million	\$26.8 Million	6,305 FTEs
Direct	\$554.7 Million	\$93.7 Million	\$4.8 Million	4,916 FTEs
Indirect	\$141.8 Million	\$33.4 Million	\$12.6 Million	693 FTEs
Induced	\$126.2 Million	\$30.4 Million	\$9.4 Million	696 FTEs
Secondary: Hancock, Knox, and S Penobscot	\$25.8 Million	\$6.2 Million	\$1.4 Million	119 FTEs
Indirect	\$11.6 Million	\$2.3 Million	\$452.8k	43 FTEs
Induced	\$14.2 Million	\$3.9 Million	\$925.8k	76 FTEs

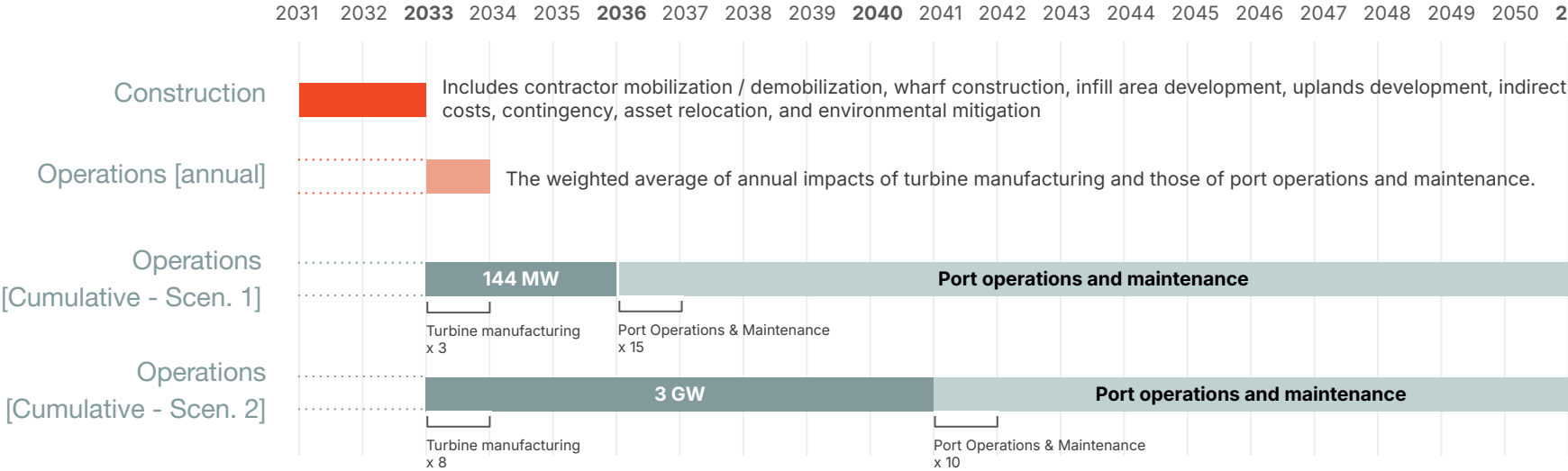
Appendix C: Operations Impacts (Annual: Turbine Manufacturing)

Geography	Increased Industry Spending	Increased Labor Earnings	Tax Revenue	Jobs Supported
Primary: Waldo County	\$246.4 Million	\$54.6 Million	\$7.4 Million	1,436 FTEs
Direct	\$174.8 Million	\$37.1 Million	\$2.5 Million	1,060 FTEs
Indirect	\$40.1 Million	\$9.8 Million	\$2.6 Million	203 FTEs
Induced	\$31.5 Million	\$7.6 Million	\$2.3 Million	173 FTEs
Secondary: Hancock, Knox, and S Penobscot	\$8.9 Million	\$2.1 Million	\$468.7k	41 FTEs
Indirect	\$4.2 Million	\$820k	\$158.6k	15 FTEs
Induced	\$4.7 Million	\$1.3 Million	\$310.0k	26 FTEs

Appendix C: Operations Impacts (Annual: Ports O&M)

Geography	Increased Industry Spending	Increased Labor Earnings	Tax Revenue	Jobs Supported
Primary: Waldo County	\$70.6 Million	\$31.9 Million	\$3.6 Million	509 FTEs
Direct	\$44.5 Million	\$24.9 Million	\$1.8 Million	350 FTEs
Indirect	\$9.6 Million	\$3.0 Million	\$559.5k	68 FTEs
Induced	\$16.5 Million	\$4.0 Million	\$1.2 Million	91 FTEs
Secondary: Hancock, Knox, and S Penobscot	\$3.0 million	\$826.9k	\$183.8k	16 FTEs
Indirect	\$535.3k	\$126.3k	\$19.0k	2 FTEs
Induced	\$2.5 million	\$700.6k	\$164.8k	14 FTEs

Appendix D: Explaining the one-year run rate



¹ All values are in 2025 dollars.
Production timelines for the turbine manufacturing phases are referenced from [SEA & EBP, 2024](#).