

NOVA SCOTIA OFFSHORE WIND ENERGY: SALE AND EXPORT TO THE NORTHEASTERN UNITED STATES

November 19, 2021

David A. Reid
Partner | Cox & Palmer
Halifax, NS

Mohammad Ali Raza
Partner | Cox & Palmer
Halifax, NS

Alexander C. Rimmington
Associate | Cox & Palmer
Halifax, NS

www.coxandpalmer.com

EXECUTIVE SUMMARY

At the request of Nova Scotia Department of Natural Resources and Renewables (“**DNRR**”) and Net Zero Atlantic (“**NZA**”), this report has been prepared by Cox & Palmer (“**C&P**”, “**we**” or “**us**”) to assist DNRR and NZA in investigating the viability of the sale and export of Nova Scotia Offshore wind energy (“**OSW**”) to certain states in the Northeastern United States, namely, Massachusetts, Connecticut, New York, New Jersey, and Pennsylvania.

At the outset, we would like to highlight that the electricity market of the United States is comprised of various complex systems of federal and state level policies and regulators. Our research, which is based on publicly available information on the subject matter, is a high-level overview of these complex systems. The contents of this report are not intended to be, nor should they be considered, definitive legal and/or policy advice and we caution against making any potential representation or commitments to any third-parties based on the findings of this report. Our findings can be summarized as follows:

- A. The New England states of Massachusetts and Connecticut appear to be the most viable export markets in the Northeastern United States for Nova Scotia OSW. The renewable portfolio standard policies and regulations in these states explicitly permit the import of renewable energy produced in the Maritime Provinces.
- B. Since Massachusetts and Connecticut appear to be the most viable and open marketplaces for Nova Scotia OSW import, other New England states (Maine, New Hampshire, Vermont, and Rhode Island) may also present as potential export markets due to their proximity and inclusion in what appears to be an integrated electricity market of the New England States (also known as ISO-NE).
- C. New York and New Jersey, while not explicitly prohibiting the import of Nova Scotia renewable energy, appear to prioritize domestic renewable energy development.
- D. While Pennsylvania does not explicitly prohibit the import of Nova Scotia Renewable energy, Pennsylvania's OSW incentives policy framework restricts eligibility to sources located within the PJM Interconnection, an electricity marketplace stretching from New Jersey to Illinois, essentially disincentivizing import of Nova Scotia Offshore Wind.
- E. The United States Mexico Canada Agreement (the “**USMCA**”) does not appear to have any provisions providing any direct protection or incentives to Nova Scotia OSW for open access to US markets. While the USMCA does have provisions which require the contracting parties to provide equal treatment and access for goods and services of the other contracting party, it is not clear whether “electricity” can qualify as “goods” or “services” for the purposes of the USMCA. A Side Letter on Energy, between Canada and the United States to accompany the USMCA, commits both countries to enhance integration and cooperation of energy markets and seems to provide some form of ancillary support to a proponent of Nova Scotia OSW by offering non-discriminatory and non-preferential access to the transmission infrastructure.

For convenience, we've included a table of acronyms on page 16 of this Report.

Contents

1	INTRODUCTION.....	- 1 -
2	BACKGROUND	- 2 -
	2.1 Authorities and Organizations	- 2 -
	2.2 US Electricity Markets: Wholesale, ISOs, and RTOs	- 2 -
	2.3 Renewable Portfolio Standards.....	- 3 -
	2.4 Renewable Electricity Credit.....	- 3 -
	2.5 Alternative Compliance Payment	- 3 -
	PART A. REVIEW OF TARGET STATES OSW LEGISLATION AND POLICY	- 5 -
3	OVERVIEW	- 5 -
	3.1 Massachusetts	- 5 -
	3.2 Connecticut.....	- 6 -
	3.3 New York.....	- 7 -
	3.4 New Jersey.....	- 9 -
	3.5 Pennsylvania.....	- 11 -
	PART B. REVIEW OF USMCA ENERGY TRADE PROVISIONS	- 12 -
4	ANALYSIS.....	- 12 -
	PART C: CONCLUDING REMARKS	- 14 -
5	CONCLUSION AND RECOMMENDATIONS	- 14 -
	TABLE OF ACRONYMS	- 16 -

1 INTRODUCTION

[1.01] As with most products, the Northeastern United States is an attractive market for Nova Scotia OSW. The stretch of states between Massachusetts and Pennsylvania provides a corridor of dense population centres which, when combined with their relative proximity to Atlantic Canada, make for a potentially significant market for the sale of excess OSW.

[1.02] OSW has attracted significant attention within the eastern United States, where OSW could help achieve carbon reduction targets and create tens of thousands of local jobs, both directly and indirectly. While there are clear incentives at the state level to solicit new OSW developments locally, it is less clear whether there is a viable market for OSW imports from Nova Scotia. At the request of DNRR and NZA, this report has been prepared by C&P to assist DNRR and NZA in investigating the viability of Nova Scotia OSW sale and export to the Northeastern United States. Our mandate is to:

- A. Review and identify any direct or indirect legislative or regulatory restrictions, prohibitions, restraints, or disincentives related to the export and sale of OSW from Nova Scotia under the applicable laws of the target states in the Northeastern United States, namely, Massachusetts, Connecticut, New York, New Jersey, and Pennsylvania (the “**Target States**”).
- B. Review and identify provisions of the USMCA that may be relevant to the export and sale of OSW to the United States.

[1.03] Please note that that our findings in this report are based on publicly available information on the export and sale of OSW to the Target States and is not legal advice on any of the matters detailed herein.

[1.04] The report concludes by recommending areas for further study and investigation.

2 BACKGROUND

[2.0.1] Prior to delving into the analyses of importation of energy to the Target States, it is helpful to understand the organizations, market structures, and terminology relevant to renewable electricity generation, importation, distribution, and consumption in the Target States.

2.1 Authorities and Organizations

[2.1.1] At the national level, authority over interstate and wholesale electricity trade is vested in the Federal Energy Regulatory Commission ("**FERC**"). FERC issues regulatory decisions governing interstate electricity commerce.¹

[2.1.2] The Northeast Power Coordinating Council (the "**NPCC**") is a not-for-profit corporation responsible for the promotion and reliability of the international, interconnected bulk power system in Northeastern North America, namely New York, Connecticut, Rhode Island, Massachusetts, Vermont, New Hampshire, and Maine, as well as the provinces of Ontario, Quebec, New Brunswick, and Nova Scotia. The NPCC is one of six such organizations which, along with the North American Electric Reliability Corporation ("**NERC**"), make up the Electric Reliability Organization.²

[2.1.3] The US government identifies suitable locations for the potential development of OSW through the Bureau of Ocean Energy Management ("**BOEM**"), a sub-part of the Department of the Interior. These locations are designated by BOEM as wind energy areas. Within designated wind energy areas, BOEM further designates smaller lease areas to be developed specifically for OSW, which are then auctioned off by BOEM.³

2.2 US Electricity Markets: Wholesale, ISOs, and RTOs

[2.2.1] US electricity markets are classified as one of three primary types of markets: wholesale markets, Independent System Operators ("**ISOs**"), and Regional Transmission Organizations ("**RTOs**"). Traditionally, electricity was provided to American retail consumers in wholesale electricity markets. In these marketplaces, the utility is often vertically integrated, meaning it owns and controls every step of the process from generation to distribution.⁴ Pricing is subjected to independent determination by regulators.

[2.2.2] ISOs operate and facilitate transmission independently of wholesale market participants in order to create open-access and competition for electricity generation. Similarly, RTOs are regional organizations of utilities that operate the transmission systems and innovate procedures for the equitable transmission of energy. In both ISOs and RTOs, bid-based markets are used to find supply and demand equilibrium.⁵

[2.2.3] Three markets are relevant for the purposes of this report: ISO New England ("**ISO-NE**"), the New York ISO ("**NYISO**"), and the Pennsylvania-New Jersey-Maryland Interconnection RTO (the "**PJM**")

¹ Ilya Chernyakhovskiy et al, "U.S. Laws and Regulations for Renewable Energy Grid Interconnections" (2016) at 2, online (pdf): *National Renewable Energy Laboratory* <www.nrel.gov/docs/fy16osti/66724.pdf>.

² "Welcome to NPCC" (last visited 11 October 2021), online: *NPCC* <www.npcc.org/>.

³ "Bureau of Ocean Energy Management (BOEM)" (last visited 11 October 2021), online: *New Jersey's Clean Energy Program* <www.njcleanenergy.com/renewable-energy/programs/nj-offshore-wind/boem>.

⁴ "Electric Power Markets" (last updated 20 July 2021), online: *FERC* <www.ferc.gov/electric-power-markets>.

⁵ *Ibid.*

Interconnection").⁶ The ISO-NE serves the six New England States: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut. The NYISO covers the State of New York, managing transmission within the state. The PJM Interconnection is an RTO managing the grid in all or part of 13 states: Pennsylvania, New Jersey, Maryland, Delaware, Virginia, West Virginia, North Carolina, Tennessee, Ohio, Michigan, Kentucky, Illinois and Indiana.⁷

[2.2.4] Regional systems are often referred to as control areas. According to the NPCC, a control area is "[a]n electric system or systems, bounded by interconnection metering and telemetry, capable of controlling generation to maintain its net interchange schedule with other Control Areas and contributing to frequency regulation of the Interconnection" ("**Control Area**").⁸ The Maritimes Control Area includes New Brunswick, Nova Scotia, and Prince Edward Island, in addition to Northern Maine.⁹

2.3 Renewable Portfolio Standards

[2.3.1] A Renewable Portfolio Standard ("**RPS**") is a state level policy that requires electricity utilities to source a specified percentage of their energy from renewable resources.

[2.3.2] The RPS works by setting annual renewable, and increasing, energy targets – in the form of minimum percentages of grid electricity that must come from renewable sources. Utilities, electricity suppliers, or other Load Serving Entities ("**LSEs**") carry the compliance obligations. Compliance is typically met by procuring and submitting credits (see Renewable Electricity Credit, below), representing MWhs of renewable electricity supplied to customers each year. Where a utility, supplier or LSE cannot meet its annual obligations, it may make alternative payments as described below in "Alternative Compliance Payment".

2.4 Renewable Electricity Credit

[2.4.1] A Renewable Electricity Credit ("**REC**") is a common RPS component. One REC equals a prescribed amount of renewable electricity generated and supplied to the grid. One REC is often equal to one megawatt-hour (MWh) of renewable energy generated. RECs are also tradable, meaning a supplier of electricity may purchase RECs from producers or suppliers to meet the minimum RPS requirement.¹⁰

[2.4.2] Generally speaking, RECs are treated as separate from the energy commodity with which they were created. Generators can choose to sell the REC bundled with the MWh of electricity to suppliers or unbundle the REC from the unit of energy and sell them separately.¹¹

2.5 Alternative Compliance Payment

⁶ "Who We Are" (last visited 11 October 2021), online: *PJM* <www.pjm.com/about-pjm/who-we-are.aspx>.

⁷ "Electric Power Markets", *supra* note 4.

⁸ "Northeast Power Coordinating Council, Inc.: Glossary of Terms" (last updated 2 October 2019), online (pdf): *npcc* <www.npcc.org/content/docs/public/program-areas/standards-and-criteria/regional-criteria/directories/npcc-glossary-of-terms-20191002.pdf>.

⁹ Frederick Woodruff, Arthur W Adelberg & Waine P Whittier, "A Maine/Canadian Regional Transmission Organization: Advantages and Disadvantages" (3 December 2002), n 55 online: *Maine.gov* <www.maine.gov/mpuc/archive/orders/2002/2002-299inquiry.htm>.

¹⁰ *Ibid*; "Renewable Energy Certificates (RECS) Factsheet" (last visited 29 June 2021), online: Mass Climate Action Network <www.massclimateaction.org/recs>.

¹¹ "Connecticut Renewable Portfolio Standard" (last updated October 2021), online: *Connecticut's Official State Website* <portal.ct.gov/PURA/RPS/Renewable-Portfolio-Standards-Overview>.

[2.5.1] An Alternative Compliance Payment ("**ACP**") is another common element found in RPS policies. In the event that a utility, supplier or LSE has not procured a sufficient number of RECs to meet its annual minimum obligations, compliance may be met by making ACPs. ACPs have a fixed price each year, set above the price for RECs, thereby incentivizing the purchase of RECs and the creation of renewable energy.¹²

¹² See "Program Summaries" (last visited 11 October 2021), online: *Mass.gov* <www.mass.gov/service-details/program-summaries>; Mary Fitzpatrick, "Background: Connecticut's Renewable Portfolio Standard" (9 May 2021), online: *Connecticut General Assembly* <www.cga.ct.gov/2017/rpt/2017-R-0103.htm>; "LSE Obligations" (last visited 11 October 2021), online: *NYSERDA* <www.nyserda.ny.gov/All-Programs/Programs/Clean-Energy-Standard/LSE-Obligations>; NJAC 14:3-2.10(a).

PART A. REVIEW OF TARGET STATES OSW LEGISLATION AND POLICY

3 OVERVIEW

[3.0.1] OSW is attracting significant US investment interest. In March of 2021, the Biden Administration outlined a program that includes a target of 30 Gigawatts (GWs), or 30,000 MWs, of capacity of OSW in the United States by 2030. The program, says the government, will lead to tens of thousands of American jobs and trigger more than \$12 billion per year in capital investment on both the Atlantic and Pacific coastlines.¹³ While it is not clear yet how those investments will be split between each coast, the vast majority of OSW interest and development has taken place on the Atlantic coast of the United States. As of the writing of this report, all seventeen active BOEM OSW site leases are located on the Atlantic coast.¹⁴

[3.0.2] While the focus of this report is on regulatory and policy analysis of the Target States, we note that there are a number of indirect fiscal incentives being offered by US Federal and State Administrations with the primary aim of attracting investment in domestic OSW production. For example, in March 2021, the White House announced significant investment in American infrastructure related to domestic OSW specifically for port and intermodal infrastructure-related projects, subject to Congressional support. Port authorities may apply for \$230 million in funding, supporting port infrastructure modernization projects, including those that can support OSW. Further, up to \$3 billion in debt capital access was announced by the US Department of Energy in order to support OSW development.¹⁵

[3.0.3] Many states in the Northeastern United States are pursuing their own domestic OSW projects. The New England and Mid-Atlantic states of Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland and Virginia have collectively set goals of 24 GW of domestic OSW by 2035.¹⁶

[3.0.4] The following sections will provide a high-level policy and regulatory analysis of each of the Target States.

3.1 Massachusetts

[3.1.1] **RPS Summary:** Massachusetts is part of the ISO-NE. The Massachusetts' RPS, known as the Massachusetts Renewable Energy Portfolio Standard (the "**Massachusetts RPS**"), was created under the *Massachusetts Electric Utility Restructuring Act* of 1997. Since that time, a class system has been created to distinguish between electricity generated from different types of renewable sources.¹⁷ Class I generation units are those which first generated or supplied electricity on or after January 1, 1998, while generation units that pre-existed that date fall into Class II.¹⁸ The Massachusetts RPS mandates an annual minimum

¹³ The White House, New Release, "FACT SHEET: Biden Administration Jumpstarts Offshore Wind Energy Projects to Create Jobs" (29 March 2021), online: *The White House* <www.whitehouse.gov/briefing-room/statements-releases/2021/03/29/fact-sheet-biden-administration-jumpstarts-offshore-wind-energy-projects-to-create-jobs/>.

¹⁴ "State Activities" (last visited 10 November 2021), online: *Bureau of Ocean Energy Management* <www.boem.gov/renewable-energy/state-activities>.

¹⁵ The White House, *supra*, note 13.

¹⁶ "2019 New Jersey Energy Master Plan Pathway to 2050" (2019) at 113-14, online (pdf): *New Jersey* <nj.gov/emp/docs/pdf/2020_NJBPU_EMP.pdf>.

¹⁷ "Statutes, Regulations, and Guidelines" (last visited 11 October 2021), online: *Mass.gov* <www.mass.gov/service-details/statutes-regulations-and-guidelines>.

¹⁸ "Renewable Energy Portfolio Standard – Class I" (23 July 2021) s 14.05, online (pdf): *Department of Energy Resources* <www.mass.gov/doc/225-cmr-14-renewable-energy-portfolio-standard-rps-class-i/download>; "Renewable Energy Portfolio Standard

percentage of electricity sold to consumers by suppliers in Massachusetts that must come from Class I generation units. In 2021 that minimum percentage is 18.0%. By 2030 that number will increase to 35%.¹⁹

[3.1.2] **RPS Administration:** The Massachusetts RPS provides for RECs that are managed at the New England Power Pool Generation Information System ("**NEPOOL GIS**"). Each time a qualified facility generates one MWh of electricity, one REC is created. Retail electricity suppliers within Massachusetts must meet their annual compliance obligations under the RPS by purchasing enough RECs to meet the minimum percentage of all electricity they provide to customers in Massachusetts. Where suppliers are short of their minimum annual compliance obligations, they must make ACPs.²⁰

[3.1.3] **Qualifications and Eligibility:** As per the Massachusetts RPS locational requirement, for electricity to qualify for RECs, the unit generating Class I electricity must be located either within the ISO-NE Control Area, or an adjacent Control Area, including Quebec and the Maritime Control Area, which includes Nova Scotia.²¹

[3.1.4] Consequently, Massachusetts represents is a viable marketplace for the sale of Nova Scotia OSW electricity. In fact, there are currently several generation facilities in Canada providing RPS Class I renewable onshore wind energy to Massachusetts. In Quebec, Mount Copper Wind Energy, Mount Miller Wind Energy, Le Nordais Wind Farm, and Park Eolien Du Renard; in Prince Edward Island, West Cape Wind Farm; in New Brunswick, Mann Siding Power, Kent Hills, and Riverside-Albert; and in Nova Scotia, South Canoe Wind Farm #1. In addition, Lidya Energy, located in Quebec, provides RPS Class I renewable energy sourced from landfill to Massachusetts.²²

3.2 Connecticut

[3.2.1] **RPS Summary:** Connecticut, like Massachusetts, is within the ISO-NE. Unlike the Massachusetts RPS, the Connecticut framework categorizes classes by source type, not by facility age.²³ Class I renewable energy sources include electricity derived from solar, wind, and tidal power, among others.²⁴ Class II renewable energy sources are those which derive electricity from trash-to-energy facilities.²⁵ Class III sources include those which produce electricity from combined heat and power systems, waste heat recovery systems, electricity savings from conservation and load management programs, and certain demand-side

– Class II" (9 July 2021) s 15.05, online (pdf): *Department of Energy Resources* <www.mass.gov/doc/225-cmr-15-renewable-energy-portfolio-standard-rps-class-ii/download>; "Lists of Qualified Generation Units" (last visited 11 October 2021), online: *Mass.gov* <www.mass.gov/service-details/lists-of-qualified-generation-units>.

¹⁹ "State Renewable Portfolio Standards and Goals" (13 August 2021), online: *National Conference of State Legislatures* <www.ncsl.org/research/energy/renewable-portfolio-standards.aspx#table>; "Renewable Energy Portfolio Standard – Class I" (23 July 2021) s 14.07, online (pdf): *Department of Energy Resources* <www.mass.gov/doc/225-cmr-14-renewable-energy-portfolio-standard-rps-class-i/download>.

²⁰ "Program Summaries" (last visited 11 October 2021), online: *Mass.gov* <www.mass.gov/service-details/program-summaries>.

²¹ "Lists of Qualified Generation Units", *supra* note 18.

²² *Ibid.*

²³ "Connecticut Renewable Portfolio Standard", *supra* note 11.

²⁴ Conn. Gen. Stat. 16-1(a)(20) reads "Class I renewable energy source" means (A) electricity derived from... (ii) wind power... or (B) any electrical generation, including distributed generation, generated from a Class I renewable energy source, provided, on and after January 1, 2014, any megawatt hours of electricity from a renewable energy source described under this subparagraph that are claimed or counted by a load-serving entity, province or state toward compliance with renewable portfolio standards or renewable energy policy goals in another province or state, other than the state of Connecticut, shall not be eligible for compliance with the renewable portfolio standards established pursuant to section 16-245a".

²⁵ Conn. Gen. Stat. 16-1(a)(21).

management projects.²⁶ OSW qualifies as a Class I renewable energy source under the Connecticut RPS. For 2021, at least 22.5% of all electricity supplied by each supplier must be generated from Class I renewable energy sources. By 2030, this percentage is scheduled to increase to 40%.²⁷

[3.2.2] **RPS Administration:** Under the RPS policy, a producer of electricity that qualifies as a Class I, Class II, or Class III source receives one REC for every one MWh of electricity produced. Like in Massachusetts, RECs are tradable and are issued by NEPOOL GIS. Suppliers of electricity within Connecticut meet their annual RPS obligations by procuring RECs or by making ACPs.²⁸

[3.2.3] **Qualifications and Eligibility:** For electricity to qualify for RECs under the Connecticut RPS, the generating unit must be located either within the ISO-NE or an adjacent Control Area. The ISO-NE Control Area covers the six New England states while the Maritimes Control Area, which contains Nova Scotia, qualifies as an adjacent Control Area.²⁹

[3.2.4] **Observations:** In 2019, Connecticut's Department of Energy and Environmental Protection ("DEEP") issued a request for proposals for up to 2000 MWs of OSW.³⁰ A proposal selection was made on December 5, 2019 for an 804 MW project. The request for proposals required that eligible bidders have a lease from the BOEM for the eligible project.³¹ Barring a policy change, future requests for proposals will be limited to BOEM sites, effectively excluding Nova Scotian OSW from DEEP's solicitations.

3.3 New York

[3.3.1] **CES Summary:** In 2016, New York moved from an RPS policy to the Clean Energy Standard ("CES")³². The CES created a timeline for suppliers to procure a minimum of 50% of the electricity consumed within the state of New York from renewable sources by 2030. In 2019, those goals were increased to 70% from renewable sources by 2030 under the *Climate Leadership and Community Protection Act* (the "CLCPA").³³

[3.3.2] The CES categorizes energy sources into multiple tiers. All renewable energy derived from eligible facilities that came into operation after January 1, 2015 are categorized as Tier 1, meaning only Tier 1 is

²⁶ Conn. Gen. Stat. 16-1(a)(38).

²⁷ Conn. Gen. Stat. 16-245a(a).

²⁸ Fitzpatrick, *supra* note 12.

²⁹ Conn. Gen. Stat. 16-245a(b); "Renewable Portfolio Standard" (last updated 12 July 2018) online: *DSIRE* <programs.dsireusa.org/system/program/detail/195>.

³⁰ "Notice of Request for Proposals" (16 August 2019), online (pdf): *Connecticut Department of Energy and Environmental Protection* <www.dpuc.state.ct.us/DEEPEnergy.nsf/c6c6d525f7cdd1168525797d0047c5bf/ccf12ec6cdf19ca7852584580072434d/\$FILE/2019.08.16_Final.OSW.RFP.pdf>; "Integrated Resources Plan: Pathways to achieve a 100% zero carbon electric sector by 2040" (December 2020) at 150-51, online (pdf): *Connecticut's Official State Website* <portal.ct.gov/-/media/DEEP/energy/IRP/2020-IRP/2020-CT-DEEP-Draft-Integrated-Resources-Plan-in-Accordance-with-CGS-16a-3a.pdf>; "2019 Offshore Wind Procurement: up to 2,000 megawatts" (last updated January 2020), online: *Connecticut's Official State Website* <portal.ct.gov/DEEP/Energy/2019-Procurement-of-Offshore-Wind-Resources>.

³¹ "Notice of Request for Proposals", *supra* note 30, s 2.2.4.

³² US, State of New York Public Service Commission, *Order A Clean Energy Standard* (1 August 2016) (CASE 15-E-0302), online (pdf): *NYSDERDA* <documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7b44C5D5B8-14C3-4F32-8399-F5487D6D8FE8%7d>.

³³ "Clean Energy Standard" (last updated 29 June 2021), online: *DSIRE* <programs.dsireusa.org/system/program/detail/5883>.

relevant for the purposes of this report. Tier 1, along with Tier 2, makes up the Renewable Energy Standard ("RES").³⁴ Both land-based wind and OSW are eligible as Tier 1 renewables.³⁵

[3.3.3] **CES Administration:** For each MWh of energy produced by Tier 1 sources, a Tier 1 Renewable Energy Credit ("**Tier 1 REC**") is created. LSEs are tasked with compliance obligations. LSEs may meet their obligations in any of the following ways: procuring Tier 1 RECs from the New York State Energy Research and Development Authority ("**NYSERDA**"), procuring Tier 1 RECs from third parties, self-supplying Tier 1 RECs, or making ACPs.³⁶

[3.3.4] **Qualifications and Eligibility:** For electricity to be eligible for Tier 1 RECs, it must be demonstrated that it either originated in New York State or was delivered, under contract, into New York State, and sold to retail consumers within New York State.³⁷ To be eligible, it must be demonstrated that the electricity was:

- i. scheduled into a market administered by the NYISO for end-use in New York State;
- ii. delivered through a wholesale meter under the control of a utility, public authority, or municipal electric company such that it can be measured, and such that consumption within New York State can be tracked and verified; or
- iii. delivered through a facility dedicated generation meter approved by the New York Department of Public Service or its designee, to a customer in New York State whose electricity was obtained through the NYISO system.³⁸

[3.3.5] The New York policy states various requirements for eligibility based on facility location, but the geographical scope of which facilities qualify is not clear. For example, the policy provides that renewable generators that are located in a Control Area that is adjacent to the NYISO must ensure the electricity is scheduled, transmitted, delivered, and settled in the NYISO in each hour, and accompanied by documentation evidencing the unit-specific contract path. Further, energy scheduled and delivered from an external Control Area is required to be accompanied by the NERC tag information from an outside organization identifying the importing project as the source. Bilateral sales are also permissible where the vendor of electricity from an eligible facility demonstrates that the purchaser is a New York LSE or a New York end-user.³⁹ However, note that the scope of the meaning of the terms/phrases "Control Area adjacent to the NYISO" and "external Control Area" is not clear in any of the documentation that we have reviewed on the matter. Further research and inquiry is required to determine whether renewable generators located within the Maritime Provinces may meet the requirements for eligibility for Tier 1 RECs creation.

³⁴ *Ibid.*

³⁵ "New York State Clean Energy Standard RES Tier 1 Certification: Submission Instructions and Eligibility Guidelines" (May 2021), online (pdf): *NYSERDA* <www.nyserda.ny.gov/-/media/Files/Programs/Clean-Energy-Standard/Eligibility-Certification-Guidelines.pdf>.

³⁶ "LSE Obligations" (last visited 11 October 2021), online: *NYSERDA* <www.nyserda.ny.gov/All-Programs/Programs/Clean-Energy-Standard/LSE-Obligations>.

³⁷ US, State of New York Public Service Commission, *Order Adopting Modifications to the Clean Energy Standard* (15 October 2020) (CASE 15-E-0302) Appendix B, s 1, online (pdf): *NYSERDA* <www.nyserda.ny.gov/-/media/Files/Programs/Clean-Energy-Standard/2020/October-15-Order-Adopting-Modifications-to-the-Clean-Energy-Standard.pdf>.

³⁸ *Ibid* s 2.

³⁹ *Ibid* s 2-3.

[3.3.6] **NY OSW Standard:** New York also has a separate Offshore Wind Standard (the "NY-OSW Standard"). The CLCPA created a mandate for New York to deploy at least 9,000 MW of OSW capacity by 2035. Competitive solicitations are conducted by NYSERDA to secure Offshore Wind Renewable Energy Certificates ("ORECs").⁴⁰ Eligibility for OSW projects under the OSW Standard is limited to facilities located in ocean waters of the United States that have obtained a lease from BOEM.⁴¹ Nova Scotia OSW does not appear to be eligible to participate in the NY-OSW Standard.

[3.3.7] **Observations:** According to Appendix A to the *Order Adopting Modifications to the Clean Energy Standard*, both land-based wind and OSW qualify as eligible Tier 1 resources.⁴² This suggests that OSW may be able to qualify under either the OSW Standard or the CES. While it is apparent that Nova Scotia OSW will not qualify for ORECs under the NY-OSW Standard, it is not clear whether Nova Scotia OSW will qualify for Tier 1 REC under the CES. We, therefore, suggest undertaking further inquiry to explore if Nova Scotia OSW may qualify for RECs under the CES.

3.4 New Jersey

[3.4.1] **RPS Summary:** New Jersey's RPS was first adopted in 1999 but has undergone a number of updates since first introduced. The *Clean Energy Act* of 2018 increased the total RPS requirement to 35% by 2025 and 50% by 2030.⁴³ In 2010, the *Offshore Wind Economic Development Act* was signed into law establishing an OSW REC program to incentivize OSW development. In 2018 the State set the goal of procuring 3,500 MW from OSW by 2030. In 2018, the *Clean Energy Act* codified this goal.⁴⁴

[3.4.2] **RPS Administration:** Under New Jersey's RPS, renewable energy is categorized into two classes. Class I renewable energy includes, among other things, energy derived from solar, wind, tidal, and geothermal sources. Energy derived from sources such as hydroelectric and resource recovery facilities qualify as Class II renewable energy.⁴⁵ Class I RECs, representing one MWh of Class I renewable energy generation each, are issued by the PJM Environmental Information Services Generation Attribute Tracking System to eligible facilities.⁴⁶ Like under other state RPS policies, each supplier of electricity to retail consumers in New Jersey must meet annual obligations. For the annual period from June 1, 2021 – May 31, 2022, 21% of all electricity sold to retail consumers must be Class I renewable energy. For the June 1, 2030 – May 31, 2031 period, that number is set to increase to 50%.⁴⁷ Suppliers meet these minimum requirements by either retiring Class I RECs or making ACPs.⁴⁸

⁴⁰ *Order Adopting Modifications to the Clean Energy Standard*, *supra* note 37, at 40-41.

⁴¹ US, State of New York Public Service Commission, *Order Establishing Offshore Wind Standard and Framework for Phase 1 Procurement* (12 July 2018) (CASE 18-E-0071) at 46, online (pdf): *New York State Department of Public Service* <documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7B37EE76DF-81B1-47D4-B10A-73E21ABA1549%7D>.

⁴² *Order Adopting Modifications to the Clean Energy Standard*, *supra* note 37, at Appendix A.

⁴³ "New Jersey's Clean Energy Picture" (last visited 11 October 2021), online: *State of New Jersey* <www.nj.gov/dep/aqes/oepa-clean-energy.html>.

⁴⁴ *Ibid.*

⁴⁵ New Jersey Administrative Code ("NJAC") 14:8-2.5(b), 2.6(b).

⁴⁶ NJAC 14:8-2.9.

⁴⁷ NJAC 14:8-2.3(a).

⁴⁸ NJAC 14:3-2.10(a).

[3.4.3] **Qualifications and Eligibility:** For energy to qualify as Class I, it must be generated within or delivered into the PJM Interconnection region.⁴⁹ While Nova Scotia OSW will not qualify as energy being generated within the PJM Interconnection region, Nova Scotia OSW might qualify under the latter qualification i.e. “delivered into the PJM Interconnection region”. It is not apparent from the publicly available information what will satisfy this locational delivery requirement. Consequently, we recommend further inquiry into New Jersey’s policies to confirm the terms of qualification under this category.

[3.4.4] **NJ OSW Standard:** OSW energy holds a special place within New Jersey’s RPS framework, and even has its own set of standards, the Offshore Wind Renewable Portfolio Standards (the “**NJ OSW RPS**”)⁵⁰. The NJ OSW RPS requires suppliers to ensure that the electricity it sells is made up of at least the minimum percentage of OSW energy required for the year. The minimum annual percentage is based on the number and scale of approved and qualified OSW projects. Qualified OSW energy generation creates ORECs, which are a component of, and satisfy, Class I REC obligations. OREC obligations can alternatively be met by submitting OSW alternative compliance payments.⁵¹

[3.4.5] Only qualified OSW projects generate ORECs. Qualified OSW projects are wind turbines located in the Atlantic Ocean and connected to the New Jersey electrical transmission system. That includes associated transmission-related interconnection facilities and equipment.⁵² However, entities must submit applications to be approved as qualified OSW projects. Applications are required to include a map of the location of OSW project site(s) marked by BOEM block numbering.⁵³ Since BOEM manages OSW development sites in American waters only, this suggests only projects located in American waters are “qualified OSW projects”. However, we noted that, unlike NY, there is no express requirement that projects be located in US waters. Accordingly, further review of the NJ OWS RPS will be required to determine whether a Nova Scotia project that is connected to the New Jersey electrical transmission system is able to qualify for ORECs.

[3.4.6] **Observations:** New Jersey is heavily focused on developing its own domestic OSW industry. The State has set a goal of installing 7,500 MW of OSW by 2035.⁵⁴ Some of these projects are already under way. In June of 2019, the New Jersey Board of Public utilities awarded solicitation for the 1,100 MW of domestic offshore wind.⁵⁵ New Jersey has also created an Offshore Wind Tax Credit in 2019 for local capital investments in qualified facilities.

[3.4.7] Nevertheless, New Jersey appears to be open to the importation of out-of-state renewable energy without being dependent on transmission from out-of-state. According to the State’s Energy Master Plan,

⁴⁹ NJAC 14:8-2.7(b), Amended and Restated Operating Agreement of PJM Interconnection, LLC, Schedule 1, 1.12(b), reads:
(b) An entity that owns or controls a generating resource outside of the PJM Region may request that the Transmission Provider electrically add all or part of the generating resource’s output to the PJM Region through a Dynamic Transfer of the output to load inside the PJM Region. A Market Participant otherwise eligible pursuant to section 3.2.3 to submit start-up and no-load values of a generating unit for consideration in calculation of the Operating Reserve Credit shall be so eligible only if all of the output of the generating unit is transferred into the PJM Region by a Dynamic Transfer.

⁵⁰ NJAC 14:8-6.

⁵¹ NJAC 14:8-6.2.

⁵² NJAC 14:8-6.1.

⁵³ NJAC 14:8-6.3, 6.5(a)2i.

⁵⁴ “2019 New Jersey Energy Master Plan Pathway to 2050” (2019) at 55, online (pdf): *State of New Jersey* <nj.gov/emp/docs/pdf/2020_NJBPU_EMP.pdf>.

⁵⁵ *Ibid.*

approximately 80% of New Jersey's electricity will be generated within the state by 2050, while investment in new transmission is planned in order to increase out-of-state transmission to 9 GW, up from 7 GW today.⁵⁶

3.5 Pennsylvania

[3.5.1] **RPS Summary:** Pennsylvania's RPS is called the Alternative Energy Portfolio Standard (the "AEPS").⁵⁷ The AEPS distinguishes between sources of alternative energy, categorizing them as either Tier I or Tier II. Tier I sources are: solar, wind, low-impact hydropower, geothermal, biologically derived methane gas, fuel cells, biomass, and coal mine methane. Tier II sources are: waste coal, distributed generation systems, demand-side management, large-scale hydropower, municipal solid waste, and by-products of the pulping process and wood manufacturing process.⁵⁸

[3.5.2] **RPS Administration:** As with other RPS policies, compliance is met with the procurement of tradable credits, Alternative Energy Credits ("AECs"). A generator/producer of qualified energy receives an AEC for each MWh of qualified energy generated. Energy suppliers must show compliance with the AEPS by procuring a sufficient number of AECs or by making ACPs for shortfalls in Tier I and Tier II minimum targets.

[3.5.3] **Qualifications and Eligibility:** Under the AEPS, energy derived from "sources located outside the service territory of a regional transmission organization that manages the transmission system in any part of this Commonwealth shall not be eligible to meet the compliance requirements of this act." Since the PJM Interconnection is the RTO managing transmission within the Commonwealth of Pennsylvania, only sources located within the PJM Interconnection service territory will be eligible for compliance with Pennsylvania's AEPS, and thereby earn AECs. Nova Scotia does not fall within this service territory, so energy generated from NS OSW will not be eligible for AECs.

[3.5.4] **Observations:** While there appears to be no prohibition to the import of Nova Scotia OSW to Pennsylvania, renewable energy sources located in Nova Scotia are not eligible to meet the compliance requirements of the AEPs. Consequently, Pennsylvania does not appear to be a viable market for Nova Scotia OSW.

⁵⁶ *Ibid.*

⁵⁷ *Alternative Energy Portfolio Standards Act - Enactment*, PL 1672 No 213 (2004) [AEPS Act].

⁵⁸ *Ibid* s 2.

PART B. REVIEW OF USMCA ENERGY TRADE PROVISIONS

4 ANALYSIS

[4.0.1] **USMCA:** On July 1, 2020, the United States Mexico Canada Agreement (the "**USMCA**") came into force, replacing the North American Free Trade Agreement (the "**NAFTA**").

[4.0.2] Chapter 2 to the USMCA sets out regulations governing national treatment and market access for goods while Chapter 15 governs cross-border trade in services. Article 2.11 generally prohibits any restriction or prohibition on the importation of any good of another Party. Article 2.3 prohibits a regional level of government from according less favourable treatment to the goods of another Party than the most favourable treatment that regional level of government accords to any like goods of that Party. Article 15.3 provides that each Party must accord to service suppliers of another Party treatment that is no less favourable than it accords to its own service suppliers.

[4.0.3] These provisions could provide strong protections for equal access and treatment of Nova Scotia OSW provided "electricity" falls under the definition of a "good" or "service" pursuant to the provisions of the USMCA. ~~The USMCA defines "goods" as "merchandise, product, article, or material". This definition suggests that goods have some level of tangible quality or nature. Given the lack of tangibility of electricity, a plain reading of this definition suggests that "electricity" is not "goods" for the purposes of USMCA. "Service" on the other hand is not defined in the USMCA.~~ It appears open to interpretation whether the provision and sale of electricity may qualify for protection under either of these chapters. Further in-depth review and analysis of the definitions of "goods" and "services" will be required to determine if the USMCA protections on open access may be available to Nova Scotia OSW projects.

[4.0.4] **Side Letter on Energy:** On November 30, 2018, on the same date the protocol to replace the NAFTA was originally signed, Canada and the United States signed a side letter setting out an agreement on energy matters contained in an annex to that letter titled "Energy Regulatory Measures and Regulatory Transparency" (the "**Side Letter**").

[4.0.5] Pursuant to Article 3 to the Side Letter, Canada and the United States formally recognized the importance of enhancing the integration of energy markets through open trade and investment. The parties agreed to promote energy cooperation, including with respect to efficiency.

[4.0.6] Article 4 to the Side Letter sets out specifics related to regulatory measures and creates administrative rules concerning the engagement in energy-related activities within a Party's territory. A Party may mandate a requirement for authorization for participation in energy-related activities within its territory, but any such authorization process must be detailed, transparent, and prescribed at law. The Side Letter provides for a right of appeal relating to any decision concerning an application for such an authorization.

[4.0.7] Access to transmission facilities that is neither unduly discriminatory nor unduly preferential, is guaranteed in Article 5. The Parties must ensure that any measure governing access to or use of electric transmission facilities (a) accords access to those facilities for the purposes of importation from another Party, that is neither unduly discriminatory nor unduly preferential, and (b) any tolls, rates or charges for access are just, reasonable, and neither unduly discriminatory nor unduly preferential.

[4.0.8] It is important to consider the scope of application of the Side Letter. Pursuant to Article 2, the Side Letter applies only to energy regulatory measures proposed, maintained, or adopted by either Canada or the

United States' central level of government. Regulations at the state, provincial or other non-federal levels are not governed by the Side Letter.

[4.0.9] Disputes under the USMCA are to be settled under the framework contained in Chapter 31. Parties may initially request consultations with another Party in respect of the dispute. Alternatively, it is open to parties to undertake alternative dispute resolution methods such as mediation or conciliation. In the event that consultation fails to resolve the matter, the consulting Party may request the establishment of a panel to consider the matter, a dispute resolution process involving hearings and written submissions.

[4.0.10] Private parties, such as individuals or corporations, are not permitted rights of action locally against a Party for any action that is inconsistent with the USMCA. However, alternative dispute resolution options, such as arbitration and mediation, are encouraged for the resolution of cross-border commercial disputes between private parties⁵⁹

[4.0.11] The impact that guaranteed access to electric transmission facilities would have on prospective OSW developments in Atlantic Canada for sale and export to the United States is not clear. The guarantee refers only to importation and is silent on export, opening it up to the possible interpretation that this creates buy-side rights but not sell-side rights. At best, the rights and protections provided by the Side Letter are only available to the contracting parties to the Side Letter i.e. the US and Canadian central governments. Furthermore, it appears that the protections afforded by the Side Letter are restricted to non-discriminatory access to the transmission systems only and do not extend to the electricity markets.

[4.0.12] While the provisions of the Side Letter may be relied upon to seek access to the transmission system of a particular state or region in the United States, it is unlikely that one can rely on the Side Letter to require any particular state to allow NS OSW to qualify for any RECs under any of the applicable RPS programs in such states.

[4.0.13] Nevertheless, we recommend undertaking further detailed review of the provisions of the Side Letter to determine the scope of the protection afforded by Article 5 of the Side Letter to a Nova Scotia OSW project proponent vis-à-vis access to the US transmission system. Such a confirmation, while not guaranteeing open access to the consumer market, may provide some additional comfort to a potential investor in Nova Scotia OSW contemplating a potential export project.

⁵⁹ Reference Article 31.22 USMCA

PART C: CONCLUDING REMARKS

5 CONCLUSION AND RECOMMENDATIONS

[5.0.1] All the Target States discussed in this report border the Atlantic Ocean, with the exception of Pennsylvania. For these states with significant coastal access, domestic OSW development is an appealing option to meet their power grid decarbonization goals. For this reason, these states, and the American federal government, have recently announced significant investment in, and development of, domestic OSW.

[5.0.2] Massachusetts and Connecticut are both a part of the ISO-NE, being the only New England states researched in this report. These states appear to be the most viable markets for the import of Nova Scotia OSW. Our high-level review of the publicly available information on the states of New York and New Jersey appears inconclusive as to the availability of market access by OSW energy generated in Atlantic Canada. Both states are prioritizing domestic supply of OSW to meet their grid decarbonization goals. Pennsylvania does not appear to be a viable export market for Nova Scotia OSW given exclusion from the AEPS qualification.

[5.0.3] Nothing in the body of the USMCA directly speaks to the export of renewable energy between Canada and the United States. While Chapters 2 and 15 provide important access and treatment protections for “goods” and “services”, it is not clear whether these terms can be interpreted to include “electricity”. However, the Side Letter does speak to the regulation of, and access to, energy markets between Canada and the United States. The parties have recognized the importance of enhancing energy market integration through trade and cooperation. More importantly, the Side Letter guarantees access to the transmission facilities of the other Party with such access being not unduly discriminatory nor unduly preferential. The protections afforded by the provisions of the Side Letter appear to offer some ancillary support to Nova Scotia OSW export project from the perspective of providing non-discriminatory and open access to the US transmission system.

[5.0.4] Keeping the above in mind, we recommend undertaking further confirmatory analysis of the policy and regulatory overview outlined in this report with support from appropriate US counsel. Furthermore, we recommend that the next phase of the review also cover the following research points:

- a. Review of the Massachusetts and Connecticut regulatory regimes to confirm the requirements applicable on OSW imports from the Maritime Control Area.
- b. Considering the general openness of Massachusetts and Connecticut regimes towards imported OSW from Atlantic Canada, DNNR and NZA may consider exploring the entire New England region beyond Massachusetts and Connecticut i.e. Maine, New Hampshire, Vermont, and Rhode Island, as a possible regional export market.
- c. With respect to New York and New Jersey, a detailed review is undertaken to determine whether:
 - i. OSW is eligible for RECs under New York's CES and, in particular, whether the CES permits the import of renewable energy from Control Areas that are not adjacent to the NYISO;

- ii. renewable energy sources located in the Maritime Control Area may qualify for Class I REC creation under the New Jersey's RPS;
 - iii. OSW projects are required to be located on BOEM selected sites in American waters for the purposes of the NJ OSW RPS.
- d. In-depth review of the USMCA and Side Letter is undertaken to consider:
 - i. the application of Chapters 2 and 15 on electricity trade;
 - ii. the breadth and scope of the transmission system access guarantee provided under Article 5 of the Side Letter.

TABLE OF ACRONYMS

ACP	Alternative Compliance Payment
AEC	Alternative Energy Credit
AEPS	Alternative Energy Portfolio Standard
BOEM	Bureau of Ocean Management
CES	Clean Energy Standard
CLPCA	Climate Leadership and Community Protection Act
C&P	Cox & Palmer
DEEP	Connecticut Department of Energy and Environmental Protection
DNRR	Nova Scotia Department of Natural Resources and Renewables
ERO	Electric Reliability Organization
FERC	Federal Energy Regulatory Commission
ISO	Independent System Operator
ISO-NE	ISO New England
LSE	Load Serving Entity
MW	Megawatt
MWh	Megawatt-Hour
NAFTA	The North America Free Trade Agreement
NEPOOL GIS	New England Power Pool Generation Information System
NERC	North American Electric Reliability Corporation
NPCC	Northeast Power Coordinating Council, Inc
NYISO	New York ISO
NYSERDA	New York State Energy Research and Development Authority
NZA	Net Zero Atlantic
OREC	Offshore Wind Renewable Energy Credit
OSW	Offshore Wind (energy)
PJM Interconnection	The Pennsylvania-New Jersey-Maryland Interconnection
REC	Renewable Energy Credit
RES	Renewable Energy Standard
RPS	Renewable Portfolio Standard
RTO	Regional Transmission Organizations
USMCA	The United States Mexico Canada Agreement

This report has been edited to change any reference of Offshore Energy Research Association (OERA) to Net Zero Atlantic (NZA) as OERA transitioned to NZA in 2022 after this report was completed.