SUNRISE WIND LLC SUNRISE WIND NEW YORK CABLE PROJECT

REVISED EXHIBIT E-6 EFFECT ON TRANSPORTATION

PREPARED PURSUANT TO 16 NYCRR § 88.6

This page intentionally left blank.

Table of Contents

EXHIBIT E-6: EFFECT ON TRANSPORTATION	E-6-1
E-6.1 INTRODUCTION	E-6-1
E-6.2 ROADWAY TRANSPORTATION	E-6-2
E-6.2.1 Existing Roadway Conditions	E-6-2
E-6.2.2 Potential Roadway Impacts and Proposed Mitigation	E-6-4
E-6.3 BUS ROUTES	E-6-8
E-6.3.1 Existing Bus Routes	E-6-8
E-6.3.2 Potential Bus Route Impacts and Proposed Mitigation	E-6-9
E-6.4 RAILROADS	E-6-10
E-6.4.1 Existing Railroad Conditions	E-6-10
E-6.4.2 Potential Railroad Impacts and Proposed Mitigation	E-6-10
E-6.5 AIRPORTS AND HELIPORTS	E-6-10
E-6.5.1 Existing Air Transportation Conditions	E-6-11
E-6.5.2 Potential Air Transportation Impacts and Proposed Mitigation	E-6-11
E-6.6 MARINE NAVIGATION	E-6-12
E-6.6.1 Existing Conditions	E-6-12
E-6.6.2 Potential Marine Navigation Impacts and Proposed Mitigation	E-6-13
E-6.7 PEDESTRIAN TRAFFIC	E-6-15
E-6.7.1 Existing Conditions	E-6-15
E-6.7.2 Potential Pedestrian Traffic Impacts and Proposed Mitigation	E-6-16
REFERENCES	E-6-17

LIST OF TABLES

Revised Table E-6.2-1. List of Roadways in Proximity to the Onshore Transmission Cable E-6-2
Revised Table E-6.2-2. Onshore Transmission Cable and Onshore Interconnection Cable Crossings
Revised Table E-6.3-1. List of Public Bus Routes in Proximity to the Onshore Transmission Cable E-6-9
Revised Table E-6.5-1. Summary of Airports in the Vicinity of Onshore Facilities E-6-11
Table E-6.6-1. Existing Cable Potential Crossing Locations by the SRWEC-NYS E-6-13

LIST OF FIGURES

Revised Figure E-6.2-1 Effect on Transportation

Acronyms and Abbreviations

AADT	Annual Average Daily Traffic
AC	alternating current
AIS	automatic identification system
Applicant	Sunrise Wind LLC
ATON	Aids to Navigation
CFR	Code of Federal Regulations
DC	direct current
DPW	Department of Public Works
EM&CP	Environmental Management and Construction Plan
FAA	Federal Aviation Administration
ft	feet
G&G	geotechnical and geophysical
HDD	horizontal directional drilling
ICW	intracoastal waterway
ICW HDD	intracoastal waterway horizontal directional drill
km	kilometer(s)
kV	kilovolt(s)
LIE	Long Island Expressway
LIPA	Long Island Power Authority
LIRR	Long Island Rail Road
LNM	Local Notice to Mariners
m	meter(s)
MHWL	mean high water line
mi	mile(s)
MPTP	Maintenance and Protection of Traffic Plan
MTA	Metropolitan Transit Authority
NAD83	North American Datum of 1983

NASCA	North American Submarine Cable Association
NOAA	National Oceanic and Atmospheric Administration
NPS	National Park Service
NYCRR	New York Codes, Rules and Regulations
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOT	New York State Department of Transportation
NYSERDA	New York State Energy Research and Development Authority
OCS	Outer Continental Shelf
OnCS-DC	Onshore Substation–Direct Current
OREC	Offshore Wind Renewable Energy Certificate
PLGR	pre-lay grapnel run
Project	Sunrise Wind New York Cable Project
PSL	New York Public Service Law
ROW	right-of-way
SR	State Route
SRWEC	Sunrise Wind Export Cable
SRWEC-NYS	Sunrise Wind Export Cable-New York State
SRWF	Sunrise Wind Farm
Suffolk DPW	Suffolk County Department of Public Works
TJB	transition joint bay
US	United States
USACE	United States Army Corps of Engineers
USCG	United States Coast Guard
VHF	very high frequency

EXHIBIT E-6: EFFECT ON TRANSPORTATION

In accordance with New York Public Service Law (PSL) § 122 and 16 New York Codes, Rules and Regulations (NYCRR) § 88.6, this exhibit provides a summary of the anticipated effects of the proposed onshore components of the Project and related facilities on roadways, bus routes, railroads, airports, marine navigation and pedestrian traffic.

E-6.1 INTRODUCTION

Sunrise Wind LLC (Sunrise Wind or the Applicant), a 50/50 joint venture between Orsted North America Inc. (Orsted NA) and Eversource Investment LLC (Eversource), proposes to construct, operate, and maintain the Sunrise Wind New York Cable Project (the Project). Sunrise Wind executed a 25-year Offshore Wind Renewable Energy Certificate (OREC) contract related to the Sunrise Wind Farm (SRWF) and the Project with the New York State Energy Research and Development Authority (NYSERDA) in October 2019. The Project will deliver power from the SRWF, located in federal waters on the Outer Continental Shelf (OCS), to the existing electrical grid in New York (NYS). The Project includes offshore and onshore components within NYS that are subject to PSL Article VII review and will interconnect at the existing Holbrook Substation, which is owned and operated by the Long Island Power Authority (LIPA).

Specifically, power from the SRWF will be delivered to the existing mainland electric grid via distinct Project segments: the submarine segment of the export cable (SRWEC), which will be located in both federal and NYS waters (the NYS portion of the cable referred to as the SRWEC–NYS); the terrestrial underground segment of the transmission cable (Onshore Transmission Cable); the new Onshore Converter Station (OnCS–DC); and the underground segment of the interconnection cable (Onshore Interconnection Cable). The Onshore Transmission Cable, the OnCS–DC, and Onshore Interconnection Cable (collectively, the Onshore Facilities) are all located in the Town of Brookhaven, Suffolk County, New York.

The Project's components are generally defined into two categories:

- SRWEC-NYS
 - One direct current (DC) submarine export cable bundle (320 kilovolt [kV]) up to 6.2 miles (mi) (10 kilometers [km]) in length in NYS waters and up to 1,575 feet (ft) (480 meters [m]) located onshore (*i.e.*, above the Mean High Water Line [MHWL], as defined by the United States [US] Army Corps of Engineers [USACE] [33 Code of Federal Regulations (CFR) 329]) and underground, up to the transition joint bays (TJBs).
- Onshore Facilities

- One DC underground transmission circuit (320 kV) (referred to as the Onshore Transmission Cable) up to 17.5 mi (28.2 km) in length within existing roadway right-of-way (ROW), TJBs, and concrete and/or direct buried joint bays and associated components;
- One OnCS–DC that will transform the Project voltage to 138 kV alternating current (AC);
- Two AC underground circuits (138 kV) (referred to as the Onshore Interconnection Cable) approximately up to 1 mi (1.6 km) in length, which will connect the new OnCS–DC to the existing Holbrook Substation; and
- Fiber optic cables co-located with both the Onshore Transmission Cable and Onshore Interconnection Cable.

E-6.2 ROADWAY TRANSPORTATION

This section describes the existing roadways along the Project corridor, the potential impact of the construction and operation of the Project on those roadways, and proposed mitigation measures to minimize those impacts. Information included within this section is based on review of readily-available published data (*e.g.*, New York State Department of Transportation [NYSDOT] Traffic Volume Reports).

The existing conditions for land transportation is defined as the state(s), county(ies), city(ies), and town(s) that have the potential to be directly affected by the construction and operation of the Project. These areas include the Town of Brookhaven, Suffolk County, New York. Since the SRWEC–NYS is located in NYS waters, it does not involve land transportation, and thus only the Onshore Facilities are addressed in this section.

E-6.2.1 Existing Roadway Conditions

The Onshore Transmission Cable will be primarily located within existing public road ROW. The Onshore Transmission Cable crosses several roadways in the Town of Brookhaven. Information about each roadway crossing is presented in Revised Table E-6.2-1 and shown in Revised Figure E-6.2-1.

County	Town	Road Name	Number of Lanes	Orientation to Project	Length of Intersection/Colocation
Suffolk	Brookhaven	Parking Lot	NA	NA	2,142 ft (653 m)
Suffolk	Brookhaven	William Floyd Parkway (State Route [SR]-46)	2	Perpendicular	63 ft (19 m)
Suffolk	Brookhaven	Parking Lot	NA	NA	467 ft (142 m)
Suffolk	Brookhaven	East Concourse	2	Parallel	1,809 ft (551 m)
Suffolk	Brookhaven	William Floyd Parkway (SR-46)	4	Parallel	19,149 ft (5,837 m)

Revised Table E-6.2-1. List of Roadways in Proximity to the Onshore Transmission Cable

County	Town	Road Name Number of Orientatio Lanes Project		Orientation to Project	Length of Intersection/Colocation	
Suffolk	Brookhaven	Surrey Circle	2	Parallel	1,199 ft (365 m)	
Suffolk	Brookhaven	Mastic Boulevard	2	Parallel	833 ft (254 m)	
Suffolk	Brookhaven	Francine Place	2	Parallel	577 ft (176 m)	
Suffolk	Brookhaven	Montauk Highway	2	Perpendicular	75 ft (23 m)	
Suffolk	Brookhaven	Revilo Avenue	2	Parallel	362 ft (110 m)	
Suffolk	Brookhaven	Sunrise Highway (SR-27)	2	Perpendicular	32 ft (10 m)	
Suffolk	Brookhaven	Sunrise Highway (SR-27)	1	Perpendicular	51 ft (16 m)	
Suffolk	Brookhaven	Sunrise Highway (SR-27)	2	Perpendicular	41 ft (12 m)	
Suffolk	Brookhaven	Sunrise Highway (SR-27)	2	Perpendicular	44 ft (13 m)	
Suffolk	Brookhaven	Revilo Avenue	2	Parallel	304 ft (93 m)	
Suffolk	Brookhaven	Victory Avenue	2	Parallel	3,652 ft (1,113 m)	
Suffolk	Brookhaven	Horseblock Road	2	Parallel	7,364 ft (2,245 m)	
Suffolk	Brookhaven	Horseblock Road	4	Parallel	1,229 ft (375 m)	
Suffolk	Brookhaven	Horseblock Road	2	Parallel	3,388 ft (4,081 m)	
Suffolk	Brookhaven	Ramp	1	Parallel	718 ft (219 m)	
Suffolk	Brookhaven	Horseblock Road	2	Parallel	11,770 ft (3,587 m)	
Suffolk	Brookhaven	Manor Rd Road	2	Parallel	523 ft (159 m)	
Suffolk	Brookhaven	Long Island Avenue	2	Parallel	688 ft (210 m)	
Suffolk	Brookhaven	Horseblock Road	2	Parallel	683 ft (208 m)	
Suffolk	Brookhaven	Ramp	1	Parallel	146 ft (45 m)	
Suffolk	Brookhaven	Horseblock Road	4	Perpendicular	95 ft (29 m)	
Suffolk	Brookhaven	Ramp	1	Perpendicular	23 ft (7 m)	
Suffolk	Brookhaven	Long Island Expressway (LIE) South Service Road	2	Parallel	20,078 ft (6,120 m)	
Suffolk	Brookhaven	Waverly Avenue	2	Parallel	2,223 ft (678 m)	
Suffolk	Brookhaven	Long Island Avenue	2	Parallel	4,057 ft (1,237 m)	
Suffolk	Brookhaven	Union Avenue	2	Parallel	1,213 ft (370 m)	

Two public parking lots will be utilized for construction of the Onshore Transmission Cable. The cable will originate at the TJB on the eastern portion of the paved Smith Point County Park parking lot. The cable will

then be routed across the intracoastal waterway (ICW) via an Intracoastal Waterway HDD (ICW HDD) to a paved parking lot within the Smith Point Marina, along East Concourse Drive.

The major highways within the vicinity of the Project include the William Floyd Parkway (County Route 46), Montauk Highway (County Route 80), Sunrise Highway (SR 27), Horseblock Road (County Route 16), and the LIE (I-495) South Service Road. Local and county roads that will be used in support of the Project include Surrey Circle, Mastic Boulevard, Francine Place, Revilo Avenue, Victory Avenue, Manor Road, Waverly Avenue, Long Island Avenue, and Union Avenue.

According to the NYSDOT Traffic Data Report for NYS, vehicle traffic patterns are assessed using a Statewide traffic monitoring system currently consisting of 177 permanent continuous count stations that collect volume, speed, vehicle classification, and weigh-in-motion data daily. These sites are located throughout the state to monitor general traffic trends, and this data is further used to estimate Annual Average Daily Traffic (AADT) for local, NYS, and interstate roadways (NYSDOT 2016). These roads have varying amounts of typical daily traffic. Based on NYSDOT records for 2018, vehicle traffic for William Floyd Parkway, from County Route 75 to the intersection with Montauk Highway, was estimated to have an AADT of 109,605 vehicles. Victory Avenue was estimated to have an AADT of 5,500 vehicles. Horseblock Road, from the South Service Road to Yaphank Avenue (County Route 21), had an AADT of 80,306 vehicles. Finally, AADT on the South Service Road was approximately 238,038 vehicles from the underpass at Nicolls Road to the Route 112 underpass at Horseblock Road (NYSDOT 2018).

E-6.2.2 Potential Roadway Impacts and Proposed Mitigation

The Onshore Transmission Cable and Onshore Interconnection Cable have been designed to utilize existing transportation ROWs and/or utility ROWs to the maximum extent practicable. The work areas for the landfall HDD (the Landfall HDD) and the ICW HDD (the Landfall Work Area and ICW HDD Work Area) have been sited in paved public parking lots and locations containing open land. As such, construction and operation activities associated with the Onshore Facilities have the potential to cause direct impacts to roadway transportation.

To minimize impacts to local traffic, several trenchless crossings are planned along the Onshore Transmission Cable and the Onshore Interconnection Cable, as identified in Revised Table E-6.2-2 below. The Onshore Transmission Cable will require one crossing of a major roadway, Sunrise Highway (SR 27); two railroad crossings (Long Island Rail Road [LIRR]); and two waterway crossings (ICW and Carmans River). Crossings of these features will require areas of additional temporary disturbance to support the setup of drilling rigs and layout of equipment. In general, trenchless crossings under roadways, railways, and waterbodies avoids impacts to these features, as well as the transportation activities associated with them.

Crossing Name	Crossing Method	Description of Location and Potential Impacts
Onshore Transmission Cable		
Intracoastal Waterway (ICW)	HDD	Parking lot at Smith Point Marina located off East Concourse/Duneview Drive on the north side of Narrow Bay Recreational area at Smith Point County Park, west of William
		Floyd Parkway on the south side of Narrow Bay
LIRR Crossing at Church Road	Pipe Jacking	Green space to the north of LIRR along Church Road
		Green space to the south of LIRR along Church Road
Sunrise Highway (SR 27) at Revilo Avenue	Trenchless crossing	Green space within NYSDOT owned retention basin to the south of Sunrise Highway east of along Revilo Avenue
		Green space to the north of Sunrise Highway along Revilo Avenue
		Paved roadway of Revilo Avenue to the north of Sunrise Highway
Carmans River Crossing	HDD	Green space to the north of Victory Avenue within Southaven County Park to the west of Carmans River
		Southern edge of ROW and paved shoulder of Victory Avenue to the east of Carmans River
		Southern edge of ROW and paved shoulder of Victory Avenue to the west of Carmans River
Manor Road Crossing of LIRR	Pipe Jacking	Green space to the north of LIRR on Manor Road
		Paved portions of Manor Road and green space to the south of LIRR
Onshore Interconnection Cable R	oute	
LIE (I-495) Trenchless Crossing - LIPA ROW	Pipe Jacking	Green space on North Service Road, LIPA overhead transmission ROW
		Green Space to the south of South Service Road, LIPA overhead transmission ROW

Revised Table E-6.2-2. Onshore Transmission Cable and Onshore Interconnection Cable Crossings

The location for the OnCS–DC is adjacent to existing roadways and developed areas.

Potential Construction Impacts and Proposed Mitigation

Temporary impacts to roadway transportation in the Town of Brookhaven may occur during construction of the Onshore Facilities due to temporary reduction in access on public roadways and parking lots. The level of impact to land transportation will depend on the location, the construction methods at the specific location, and the season in which the construction is occurring.

Construction of the Landfall HDD and portions of the Onshore Transmission Cable will occur in a public parking lot associated with Smith Point County Park. The HDD methodology will require temporary use of the Landfall Work Area where HDD construction activities will occur. The Onshore Transmission Cable will also be installed within the paved Smith Point County Park parking lot between the TJBs and William Floyd Parkway. Access will be temporarily restricted to portions of the parking lot during construction activities. Installation via HDD or other subsurface installation techniques generally minimize impacts to the ground surface and aboveground activities. The Applicant will coordinate construction activities with the Suffolk

County Department of Parks. Construction of the Landfall HDD is expected to occur outside peak public recreation periods to minimize impacts to local transportation and traffic.

The ICW HDD is planned within locations occupied by recreational areas within Smith Point County Park and the parking lot associated with the Smith Point Marina. Access to the recreational areas and the Smith Point Marina parking lot may be restricted to portions of the parking lot during construction activities. The ICW HDD alignment has also been sited west of the William Floyd Bridge, which will be undergoing replacement in the near future according to Suffolk County Department of Public Works (DPW). The Applicant has coordinated with DPW on available constructability data and construction schedules and has considered feedback from DPW in the design of the ICW HDD. The Applicant will continue ongoing consultations with DPW to ensure ICW HDD alignment does not encroach on the workspace for the William Floyd Bridge replacement. Construction of the ICW HDD is expected to occur outside peak public recreation periods to minimize impacts to local transportation and traffic.

The HDD crossing of the Carmans River will utilize the paved shoulder along Victory Avenue and an area on Southaven County Park land. Installation via HDD generally minimize impacts to the ground surface and aboveground activities. Construction of the HDD is expected to occur outside peak public recreation periods to minimize impacts to local transportation and traffic.

Construction of the Onshore Transmission Cable and Onshore Interconnection Cable will involve site preparation, duct bank installation, cable installation, cable jointing (splicing), final testing and restoration, with additional steps associated with HDD and other trenchless crossing methods. Installation of the Onshore Transmission Cable will generally require excavation of a trench within a temporary disturbance corridor. The Onshore Transmission Cable will be installed within a concrete duct bank buried to a depth consistent with local utility standards. Construction of the Onshore Transmission Cable will construction of the Onshore Transmission Cable will occur along existing transportation corridors, requiring temporary isolated and/or partial road closures that may result in potential traffic delays, congestion, and narrow roadways. These impacts will be localized and temporary. Transportation of construction equipment and materials for the Project will not block or significantly slow traffic on major roadways for long periods of time. Roadways will not be blocked to local vehicular traffic for extended periods of time. No trenches or holes created during construction will be left open or unsecured during inactive construction. Construction of the Onshore Transmission Cable, Onshore Interconnection Cable, and OnCS–DC is expected to occur within an approximately 2-year period.

The Applicant has consulted with local entities including the DPW, Town of Brookhaven Department of Public Works, and the NYSDOT (Region 10) regarding route location, traffic management, construction methodology, and time-of-year considerations. Certain towns, cities, and counties may have standards relative to maintenance and protection of traffic during construction as well as parking restrictions. An overview of local codes as they pertain to the Project is presented in Revised Exhibit 7: Local Ordinances.

Moreover, as required by NYS Law, the Applicant will develop a Maintenance and Protection of Traffic Plan (MPTP) within the Project Environmental Management and Construction Plan (EM&CP) that will describe measures to minimize and mitigate for potential impacts to land transportation to the maximum extent practicable during construction in accordance with the NYSDOT's Work Zone Traffic Control Manual, and describes the commitment to continued consultation with stakeholders regarding traffic and transportation management before and throughout construction.

As will be described in the MPTP, during onshore construction the Applicant will use commerciallyreasonable efforts to maintain at least one travel lane of traffic in the section(s) of the road(s) in which construction crews are working; however, during certain periods of work, temporary road closures may be necessary. To allow for traffic to move safely, traffic control measures, such as signage and traffic flaggers, will be used wherever necessary. Traffic control measures to address traffic flow in and around construction areas will be developed as part of the MPTP. The Applicant will also consult with local entities to minimize interference or disruption to traffic signaling.

Further, the NYSDOT requires that the Applicant submit a Utility Work Permit application to install utilities within or adjacent to designated NYS roadway ROW. Following final design, the Applicant will submit a Utility Work Permit application for all applicable road crossings and will comply with the permit conditions. All work on NYS roadway ROW will be performed according to the traffic and safety standards and other substantive requirements contained in: 17 NYCRR Part 131; applicable design standards of the American Association of State Highway and Transportation Officials; the Manual of Uniform Traffic Control Devices; the Highway Design Manual; the Policy and Standards for Entrances to State Highways; the NYSDOT Requirements for the Design and Construction of Underground Utility Installations with the State Highway Right-of-Way; the Accommodation Plan; and the NYSDOT 2002 Standard Specification.

All construction-related impacts to roadways will be restored to pre-construction conditions in accordance with NYSDOT Standard Specifications for Construction and Materials and in coordination with local entities. For roadway and parking lot installations, this will include the surface repaving, including installment of the road subbase and base layers followed by the surface layer (*i.e.*, concrete or asphalt). Locations used for HDD work areas and temporary laydown yards will be restored to preexisting conditions and/or in accordance with landowner requests and permit requirements.

Transportation of work crews, equipment and maintenance vehicles required by the construction crews for construction will be short-term and limited to activities during construction activities. Construction-related truck traffic will consist of equipment and material deliveries between the work site(s) along the Onshore Transmission Cable and the construction laydown areas and/or contractor parking lots which will be identified in the Project EM&CP. Construction workers typically arrive at and leave the site outside morning and evening peak travel periods.

Construction of the OnCS–DC will involve surveys and protection of sensitive areas, clearing and grading, foundation and equipment installation, site restoration, and commissioning. Temporary laydown yards may be utilized to support the staging of necessary equipment and materials for development of the OnCS–DC. The locations will be approved by the applicable regulatory agencies prior to utilization and generally will be confined to locations containing open land or previously disturbed commercial or industrial sites with existing roadway access, such that no or minimal site improvements are required.

Potential Operational Impacts and Proposed Mitigation

Because the Onshore Transmission Cable and Onshore Interconnection Cable will be installed entirely underground, it is not anticipated that operation will have an impact on local traffic during operation. The Onshore Transmission Cable and Onshore Interconnection Cable will require very little maintenance, if any; these components are designed such that inspection and maintenance during operation will not be required unless a fault or failure occurs. Failures onshore are only anticipated in the event of damage from outside influences such as unexpected digs from other parties. In the unlikely event of such a case, impact on existing traffic volumes will be short-term and localized.

The OnCS–DC will be unmanned during routine operations and will be inspected regularly based on manufacturer-recommended schedules. Personnel will be on site as necessary for any maintenance or repairs.

E-6.3 BUS ROUTES

This section describes the existing bus route services and the potential impact and mitigation to bus transportation resulting from construction and operation of the Project. Information included within this section is based on review of readily available published data.

E-6.3.1 Existing Bus Routes

Bus routes in the vicinity of the Project were identified by accessing the online Suffolk County Transit route map (SCT 2012). As shown in Revised Figure E-6.2-1, there are six Suffolk County Transit public bus routes in the Town of Brookhaven that are crossed at various points by the Onshore Transmission Cable. There are no bus routes in the vicinity of the OnCS–DC, and although anticipated, school bus routes are unknown and therefore not displayed within Revised Figure E-6.2-1.

Information about the Suffolk County Transit bus routes is presented in Revised Table E-6.3-1, below.

Street	Bus Route Number	Bus Route Name	Type of Service	Orientation to Project	
William Floyd Parkway/ Victory Avenue	S66	Patchogue - Riverhead	Public	Parallel	
Montauk Highway Horseblock Road	S68	Patchogue - Center Moriches	Public	Perpendicular/Parallel	
Horseblock Road	7B	Patchogue RR - Medford	Public	Parallel	
Medford Avenue/South Service Road	S61	Patchoque RR - Port Jefferson	Public	Perpendicular	
Ocean Avenue/LIE South Service Road	S110	Suffolk Clipper	Public	Parallel	
Waverly Avenue	S63	Patchogue - Smith Haven Mall	Public	Parallel	

Revised Table E-6.3-1. List of Public Bus Routes in Proximity to the Onshore Transmission Cable

E-6.3.2 Potential Bus Route Impacts and Proposed Mitigation

As discussed in Section E-6.2.2, installation of the Onshore Transmission Cable will generally require excavation of a trench within a temporary disturbance corridor. Construction of the Onshore Transmission Cable will occur along existing transportation corridors, requiring temporary isolated and/or partial road closures that may result in potential traffic delays, congestion, and narrow roadways. These impacts will be localized and temporary. Transportation of construction equipment and materials for the Project will not block or significantly slow traffic on major roadways for long periods of time. Roadways will not be blocked to local vehicular traffic for extended periods of time.

The Applicant intends to maintain at least one travel lane of traffic in the section(s) of roads in which construction crews are working; however, it is possible that construction activities may result in temporary lane or road closures along Suffolk County Transit's bus routes or school bus routes. Proper traffic control measures will be utilized to ensure the movement of traffic and to mitigate impacts on bus route schedules. Access to bus stops will also be maintained or temporarily relocated during construction, thereby minimizing impacts to bus stops and bus stop access. Traffic control measures to address traffic flow in and around construction areas will be developed as part of the MPTP within the Project's EM&CP. In addition to maintaining one travel lane of traffic to the extent practicable, the MPTP will also ensure that access to bus stops are maintained or temporarily relocated during construction, as needed. The Applicant will also coordinate with the appropriate school districts to mitigate impacts to school bus routes. Proper traffic control measures will be utilized to ensure the movement of traffic and to mitigate impacts on bus routes.

The OnCS–DC is not located along a Suffolk County Transit bus route.

E-6.4 RAILROADS

This section describes the existing railroad network and the potential impact and mitigation to railroads resulting from the Project's construction and operation. Information included within this section is based on review of readily-available published data.

E-6.4.1 Existing Railroad Conditions

The Metropolitan Transit Authority (MTA) LIRR is a commuter rail network that serves the length of Long Island, stretching from Manhattan to Montauk (MTA 2020).

The Onshore Transmission Cable will cross the LIRR at two locations, the first along the LIRR Montauk Branch at Church Road and the second along the LIRR Ronkonkoma Branch at Manor Road (see Revised Figure E-6.2-1).

The OnCS–DC will be located north of the LIRR Ronkonkoma Branch.

E-6.4.2 Potential Railroad Impacts and Proposed Mitigation

Installation and operation of the Project is not anticipated to impact normal LIRR operations. The railroad will not be used to transport equipment or construction materials.

As shown in Revised Table E-6.2-2, the Applicant proposes to cross the LIRR at the two crossing locations via trenchless crossing techniques. Construction of the Onshore Transmission Cable at the LIRR ROW crossings will be performed in accordance with crossing agreements made between the Applicant and the LIRR and will be discussed in greater detail within the Project EM&CP. All construction activities will conform to applicable standard safety practices. Entry and exit pits for the trenchless crossings of the LIRR will be secured with barricades, and the active work areas will be fenced off. At the LIRR, flashing lights may be installed. An inter-track barrier system will also be implemented to prevent track fouling, pursuant to the requirements of Title 49 Part 214 of the CFR. The Applicant will also work with the LIRR to avoid interference with railroad signaling and communications, as described further in Revised Exhibit E-5: Effect on Communications.

Because the Onshore Transmission Cable crossings of the LIRR will be entirely underground, it is not anticipated that operation will have an impact on train service. Failures onshore are only anticipated because of damage from outside influences, such as unexpected digs from other parties. In the unlikely event of such a case, impacts on the train service from the associated repairs are anticipated to be temporary and localized.

E-6.5 AIRPORTS AND HELIPORTS

This section describes the existing air transportation services and the potential impact and mitigation to air transportation resulting from the Project's construction and operation. Information included within this

section is based on review of readily-available published data, including current public data sources related to air transportation and navigation such as state and federal agency-published papers and databases and online data portals and mapping databases (*e.g.*, data from the Federal Aviation Administration [FAA] for airport locations, published instrument approach and departure procedures, visual flight rule operations, and enroute operations).

The Applicant must file a notice with the FAA for the construction or alteration of structures that exceed the criteria set forth in 14 CFR Part 77.9, or if otherwise requested by the FAA, including construction cranes.

E-6.5.1 Existing Air Transportation Conditions

Commercial and private air transportation services are offered from several locations in the vicinity of the Project, including the Brookhaven Airport, CMC Atlantic LLC Heliport, Bayport Aerodrome and Long Island MacArthur Airport (see Revised Figure E-6.2-1). The approximate distances from the closest point of the Project to these services are listed below in Revised Table E-6.5-1.

Name	Туре	Direction (Onshore Transmission Cable)	Distance (Onshore Transmission Cable)	Distance (Onshore Transmission Cable) Direction (Union Avenue Site)	
Brookhaven	Airport	north	1.2 mi (1.9 km)	northeast	10.2 mi (16.4 km)
CMC Atlantic LLC	Heliport	south	2.5 mi (4.0 km)	southeast	6.0 mi (9.7 km)
Bayport Aerodome	Airport	south	3.8 mi (6.1 km)	south	3.7 mi (6.0 km)
Long Island MacArthur	Airport	southwest	2.3 mi (3.7 km)	southwest	2.2 mi (3.5 km)

Revised Table E-6.5-1. Summary of Airports in the Vicinity of Onshore Facilities

E-6.5.2 Potential Air Transportation Impacts and Proposed Mitigation

The construction and operation of the Project is not anticipated to affect air transportation or navigation. The Onshore Transmission Cable and Onshore Interconnection Cable will be installed entirely underground, meaning no transmission towers will be constructed.

The maximum height of the lightning masts on the OnCS–DC is 100 ft (30.5 m); therefore, vertical construction associated with the OnCS–DC will not interfere with air traffic or communications, per FAA industry standards regarding electrical interference. The Applicant will apply the Part 77.9 criteria for the OnCS–DC final design and construction and, if required, will submit notice to the FAA to determine if the proposed transmission structures and construction activities will impact air navigation. If the FAA requires, the final design and construction of the new structures will incorporate appropriate mitigation measures (*e.g.*, lighting and/or marking).

E-6.6 MARINE NAVIGATION

This section provides a description of the existing conditions as related to marine transportation and navigation. The description of the existing conditions and assessment of potential impacts described below were developed by reviewing current publicly-available data sources, including state and federal agency-published papers and databases; online data portals and mapping databases (*e.g.*, the Northeast Ocean Data and Mid-Atlantic Ocean Data Portals); published scientific literature relating to the effects of wind turbines on radar and communications; and correspondence with federal and state agencies as well as maritime stakeholders.

E-6.6.1 Existing Conditions

Navigation Channels

The SRWEC–NYS and Onshore Transmission Cable run through nearshore waters along the coast in an area of Long Island that is used for both commercial and recreational marine vessel traffic. The majority of vessels navigating within the vicinity of the cable will be commercial or recreational fishing vessels and private recreation vessels (*e.g.*, sailboats). Commercial shipping or fishing operations in the area may utilize tug boats, tow boats, or cargo vessels (including tankers) in the vicinity of the SRWEC–NYS and Onshore Transmission Cable.

The Onshore Transmission Cable will be installed via HDD below the ICW. This area of the ICW is used primarily for recreational traffic and includes a navigation channel maintained by the USACE, the ICW, and has an existing drawbridge (William Floyd Parkway, Smith Point Bridge). The Onshore Transmission Cable will cross via the ICW HDD to minimize and avoid impacts to the ICW, and all Project construction activities will be closely coordinated with local, NYS, and federal agencies including the USACE, US Coast Guard (USCG) Sector New York, and USCG Sector Long Island, and will comply with the permit and approval conditions issued to the Project by these federal agencies, as applicable.

In NYS waters, there are various Aids to Navigation (ATON), such as channel buoys, rock buoys, and lighted buoys, including the Fire Island Nearshore buoy and the Great South Bay buoy. No ATON are present within the SRWEC–NYS or Onshore Transmission Cable corridors.

During consultations with the USACE, it was noted that the Carmans River is considered a navigable waterway. The Onshore Transmission Cable will cross the Carmans River via trenchless crossing (*e.g.*, HDD) to minimize impacts to the waterway or recreational users of the waterway.

The remainder of the Onshore Transmission Cable will be installed within existing roadways and is not expected to affect marine transportation or navigation.

Submarine Cables/Pipelines

Depending on the landfall location, the SRWEC–NYS may cross a known existing submarine cable within NYS waters (Table E-6.6-1).

Name of Existing Cable a/	Facility Owner	Status	Location	Project Component Crossing	Crossing X Latitude b/	Crossing Y Longitude b/
Analla North	ollo North Apollo	In service	NIVE	SRWEC-NYS c/	40.7357	-72.8579
			NYS	SRWEC-NYS d/	40.7271	-72.8438
NOTES: a/ The existing utilities are indicatively based on a combination of survey data and information provided by utility owners, NOAA, and the North American Submarine Cable Association (NASCA), and potential crossing locations are indicative. Other utilities may be present. b/ The Spatial Reference for the Longitude and Latitude coordinates are: North American Datum of 1983 (NAD 83) (2011) – EPSG 6318. c/ Potential crossing location for Landfall HDD B. d/ Potential crossing location for Landfall HDD C.						

Table E-6.6-1. Existing Cable Potential Crossing Locations by the SRWEC–NYS

As described in Revised Exhibit 2: Location of Facilities, three approaches are being explored for the HDD path for the SRWEC–NYS to reach the Landfall Work Area due to the presence of the existing telecommunications cable in proximity to the landfall location. The Applicant has engaged with the identified telecommunication cable owner during geotechnical and geophysical (G&G) surveys to discuss crossing and proximity agreements. Selection of an approach will be dependent on review of the final G&G survey data and continued coordination with the telecommunication cable owner, Suffolk County Parks Department, and the National Parks Service (NPS).

Anchorage Areas

An anchorage area is a location at sea where ships can lower their anchors and moor vessels. These locations usually have conditions for safe anchorage, providing protection from poor weather conditions and other hazards. They can also be used as a mooring area for ships waiting to enter a port or for the temporary staging area for barges containing construction materials.

There are no anchorage areas within NYS waters near the SRWEC–NYS and Onshore Transmission Cable.

E-6.6.2 Potential Marine Navigation Impacts and Proposed Mitigation

The SRWEC–NYS and Onshore Transmission Cable are anticipated to have short-term, localized impacts to navigable waterways. The Applicant has consulted with the USACE, USCG Sector New York, and USCG Sector Long Island to develop routing that minimizes impacts to navigation and coastal operations. A Local Notice to Mariners (LNM) will be posted as required prior to construction.

Construction of the SRWEC–NYS will require activity within a specified corridor, including seafloor preparation, temporary anchoring and installing the subsea cable. Construction of the SRWEC–NYS will result in a temporary increase in vessel traffic; however, it is not expected to have measurable impacts on existing marine transportation and navigation. For each vessel type, a route plan for the vessel operation area will be developed to meet industry guidelines and best practices in accordance with International Chamber of Shipping guidance. The Applicant will install operational automatic identification system (AIS) on all vessels associated with construction to monitor the number of vessels and traffic patterns for analysis and compliance with vessel speed requirements. All vessels will operate in accordance with applicable rules and regulations for maritime operation within federal and NYS waters. Additionally, the Project will adhere to vessel speed restrictions as appropriate in accordance with National Oceanic and Atmospheric Administration (NOAA) requirements.

Construction activities could affect navigation of smaller vessels if smaller vessels operate close to construction work vessels during construction operations. However, this risk would be mitigated by a safety zone anticipated to be implemented by the USCG during construction operations, as further discussed below in the environmental protection measures section. The Applicant has committed to informing mariners about in-water activities related to the SRWEC–NYS and ICW HDD. The Applicant's Fisheries Liaisons and a team of Fisheries Representatives are based in regional ports, and updates will be provided to mariners online and via twice-daily updates on Very High Frequency (VHF) channels. To reduce the likelihood of an allision or collision during construction, Project safety vessel(s) will be on scene to advise mariners of construction activity. In addition, the Applicant will implement a communication plan during construction to inform mariners of construction activities, vessel movements, and how construction activities may affect the area. Communication will be facilitated through maintaining a Project website, the Fisheries Liaisons, submitting local notices to mariners and vessel float plans, in coordination with the USCG.

Construction of the Onshore Facilities will involve the use of HDD under the ICW, thereby avoiding any potential navigational hazards to small vessel operators. Impacts during operation and maintenance also are not expected to be measurable. Therefore, potential impacts from construction or operation of Onshore Facilities were not evaluated herein.

Impacts during SRWEC-NYS operation are not expected to be measurable. Therefore, potential impacts from operation and maintenance of the SRWEC–NYS were not evaluated herein.

Burial of the SRWEC–NYS and Onshore Transmission Cable is dependent on suitable seabed conditions, the presence of obstructions, and sediments along the corridor. Therefore, in areas where burial cannot occur, sufficient burial depth cannot be achieved, or protection is required due to cables crossing other existing cables, other methods of cable protection may be employed, such as articulated concrete

mattresses, rock placement, rock filter bags, or grout bags. Additional details on these measures are provided in Revised Exhibit E-3: Underground Construction.

It is possible that additional uncharted submarine cables or pipelines exist in the vicinity of the SRWEC-NYS and Onshore Transmission Cable. Submarine cables and pipelines are not always required to be buried, and those facilities that were initially buried may have become exposed over time. Such features may be identified during the G&G surveys, including the preconstruction G&G surveys. Prior to initiation of Project installation, a pre-lay grapnel run (PLGR) will be also conducted. The purpose of the PLGR is to remove possible obstructions and debris, such as abandoned fishing nets, wires, and hawsers, from along the route. Further detail on route clearance is detailed within Revised Exhibit E-3: Underground Construction.

Because the SRWEC–NYS and Onshore Transmission Cable will be installed entirely below the seabed wherever possible, it is not anticipated that operation of the Project will have an impact on normal navigation activities during operation. Additionally, the Project is designed such that inspection and maintenance during operations will not be required unless a failure or fault occurs. Failures are only anticipated because of damage from outside influences, such as boat anchors. In the unlikely event of such a case, impact on navigation activities from vessel traffic associated with repair will be short-term and localized.

Further details on navigable waterway vessel control measures will be included with the Project EM&CP.

E-6.7 PEDESTRIAN TRAFFIC

This section describes locations where pedestrian traffic may be impacted from construction, operation, and maintenance of the Project. Information included within this section is based on review of readily-available published data.

E-6.7.1 Existing Conditions

The SRWEC–NYS and Onshore Transmission Cable will cross areas of the Town of Brookhaven that are used for recreational purposes, including public access to the waterfront, public bike lanes, and/or historic trails.

Two public parking lots used for recreational purposes and public access to the waterfront will be utilized for construction of the SRWEC–NYS and Onshore Transmission Cable. The SRWEC–NYS Landfall HDD TJB will be located at the eastern portion of the paved Smith Point County Park parking lot. The Onshore Transmission Cable will then be routed across the ICW via an HDD to a paved parking lot within the Smith Point Marina along East Concourse Drive.

A number of recreational resources are also present in the vicinity of the Onshore Transmission Cable's crossing of the Carmans River within Southaven County Park, including hiking, camping, fishing, boat rentals, horseback riding, hunting and boating activities on Carmans River.

The Onshore Transmission Cable will cross several biking trails, including the Brookhaven Bike Route 1 (Coram to Yaphank) along William Floyd Parkway and the Suffolk County Central Corridor Bike Route along Union Avenue (see Revised Figure E-6.2-1). The Onshore Interconnection Cable may cross the Suffolk County Central Corridor Bike Route along Union Avenue. If additional paths or multi-purpose trails are identified during the final design of the Project that could be impacted by construction, the additional paths or multi-purpose trails will be included in the Project EM&CP.

E-6.7.2 Potential Pedestrian Traffic Impacts and Proposed Mitigation

The Onshore Transmission Cable will be installed underground in existing ROWs and parking lots to minimize impacts to pedestrian traffic; however, construction activities along parking lots used by the public for recreational and access to the waterfront and roadways with bike paths and sidewalks may impact pedestrian traffic.

Both the work areas for the Landfall HDD and the ICW HDD will require temporary use of public parking lots and open land/recreational areas at Suffolk County Parks. The Applicant will implement appropriate construction safety practices, such as temporary barricades and fencing, to prevent pedestrians from entering construction work zones within the parking lots and avoid conflicts with pedestrian traffic during construction. Proposed signage and other mitigation measure to protect pedestrian traffic conflicts during construction such as winter construction will be detailed in the Project EM&CP.

Impacts to the Southaven County Park will also be temporary and minimized to the extent practicable and construction activities are not anticipated to impact areas used for recreational activities as the HDD workspace locations have been sited along the roadway corridor of Victory Avenue and an inactive, former park entrance road, however some tree clearing will be required.

Construction of the Onshore Transmission Cable will occur along existing transportation corridors, including in areas of identified bike lanes. Construction of the OnCS–DC will require access from Union Avenue in the vicinity of the Suffolk County Central Corridor Bike Route. Proposed signage and other mitigation measure to protect bike traffic flow in and around construction areas will be provided in the Project EM&CP.

Because the Onshore Transmission Cable will be installed entirely underground, it is not anticipated that operation of the Onshore Transmission Cable will have an impact on pedestrian traffic. The OnCS–DC will be unmanned during routine operations and will be inspected by a small crew on a monthly basis, but operation of the OnCS–DC will not have an impact on pedestrian traffic, including the bike lanes along

Union Avenue. In the unlikely event that the Project requires maintenance or repair in the vicinity of the public bike lanes, or along sidewalks, appropriate construction safety practices (signage, barricades, fencing, etc.) will be put in place to control pedestrian traffic for the duration of repair operations associated with the Project. In the unlikely event of such a case, impacts on the pedestrian traffic from the associated repairs are anticipated to be short-term and localized.

REFERENCES

- Metropolitan Transport Authority (MTA). 2020. Long Island Rail Road General Information. Accessed May 14, 2020. Available at: http://web.mta.info/lirr/about/GeneralInformation/.
- New York State Department of Transportation (NYSDOT). 2014. 2014 Traffic Data Report for New York State.
- NYSDOT. 2018. Traffic Volume Report County Roads. Highway Data Services Bureau.
- Suffolk County Transit (SRT) Route Map. 2012. Accessed May 14, 2020. Available at: https://sctbus.org/sctmap.html.



