

OCS-A  
0501



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USA

# VINEYARD WIND

## Draft Construction and Operations Plan

### Volume I

## Vineyard Wind Project

September 30, 2020

**Submitted by**

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New Bedford, Massachusetts 02740

**Submitted to**

**Bureau of Ocean Energy Management**  
45600 Woodland Road  
Sterling, Virginia 20166

**Prepared by**

**Epsilon Associates, Inc.**  
3 Mill & Main Place, Suite 250  
Maynard, Massachusetts 01754

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*Submitted to:*

**BUREAU OF OCEAN ENERGY MANAGEMENT**  
45600 Woodland Rd  
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*In Association with:*

|                                 |                                     |
|---------------------------------|-------------------------------------|
| Baird & Associates              | JASCO Applied Sciences              |
| Biodiversity Research Institute | Morgan, Lewis & Bockius LLP         |
| C2Wind                          | Public Archaeology Laboratory, Inc. |
| Capitol Air Space Group         | RPS                                 |
| Clarendon Hill Consulting       | Saratoga Associates                 |
| Ecology and Environment         | Swanson Environmental Associates    |
| Foley Hoag                      | Wood Thilsted Partners Ltd          |
| Geo SubSea LLC                  | WSP                                 |
| Gray & Pape                     |                                     |

September 30, 2020

**Section 2.0**

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**Project Location – Location Plat**

## 2.0 PROJECT LOCATION – LOCATION PLAT

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### 2.1 Vineyard Wind Lease Area (OCS-A 0501)

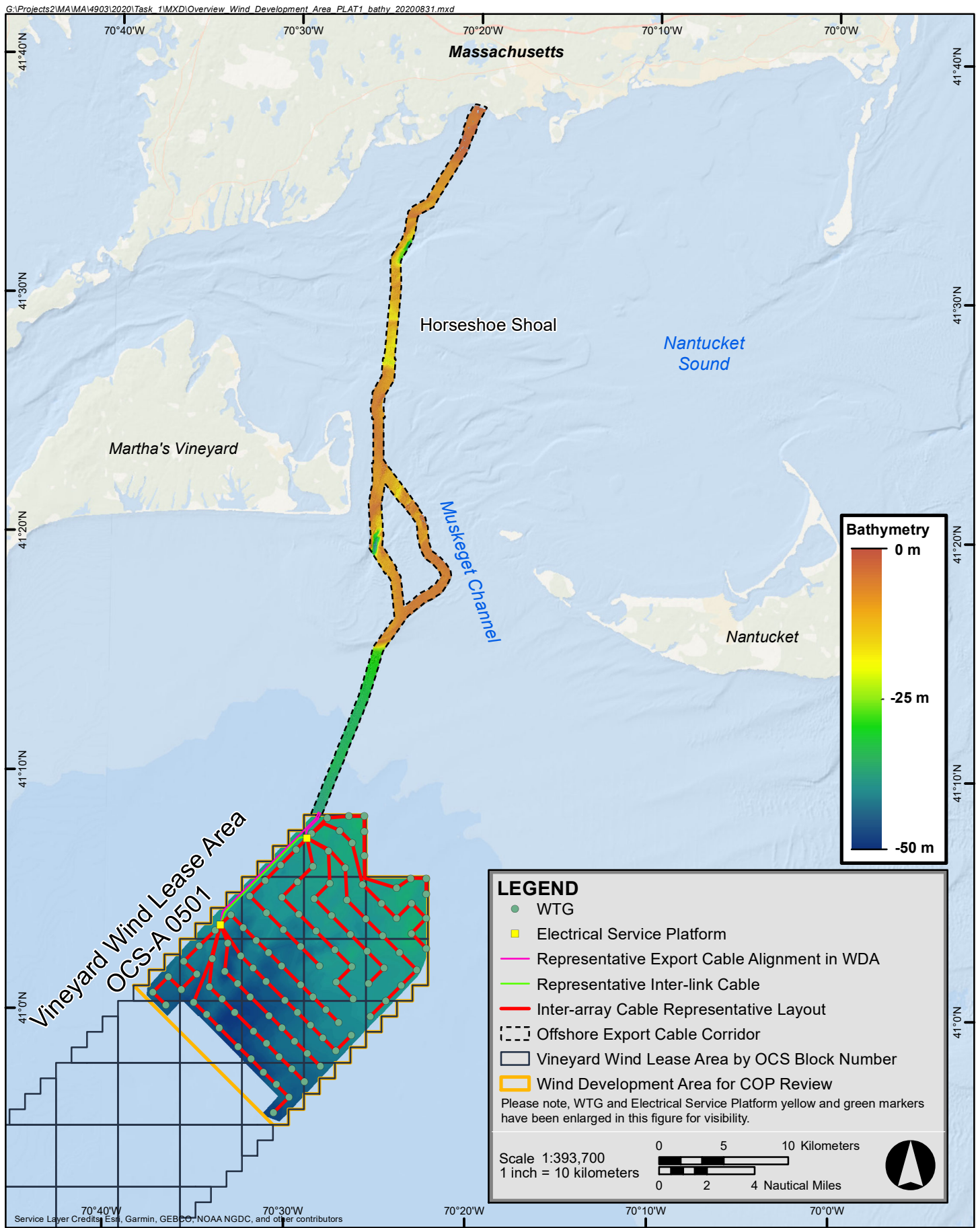
The over 675 square kilometers (“km<sup>2</sup>”) (166,886 acres) Lease Area is approximately 16 kilometers (“km”) (8.7 nautical miles [“nm”]) wide and 50 km (26 nm) long.<sup>6</sup> As shown on Figures 2.1-1 and 2.1-2, the long axis of the Vineyard Wind Lease Area is oriented northeast to southwest. At its nearest point, the Lease Area is just over 23 km (14 miles [“mi”]) from the southeast corner of Martha’s Vineyard and a similar distance to Nantucket.

Water depths in the Lease Area range from about 35-60 meters (“m”) (115-197 feet [“ft”]). As shown on Figure 2.1-1, water depths gradually increase as distance from land increases. Water depths in the northern half of the Lease Area generally range from approximately 37-49.5 m (121-162 ft). As noted above and discussed in subsequent sections, the Project would be located within the northern portion of the Lease Area, referred to as the Wind Development Area (“WDA”). The WDA is 306 km<sup>2</sup> (75,614 acres).

Coordinates for the Wind Turbine Generators (“WTGs”) and Electrical Service Platforms (“ESPs”) are provided in Table 2.1-1, below.

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<sup>6</sup> As shown on Figure 1.1-1, the perimeter of the Lease Area is irregular or “sawtoothed,” hence the overall area is less than that of a true 10 x 30 mi rectangle.

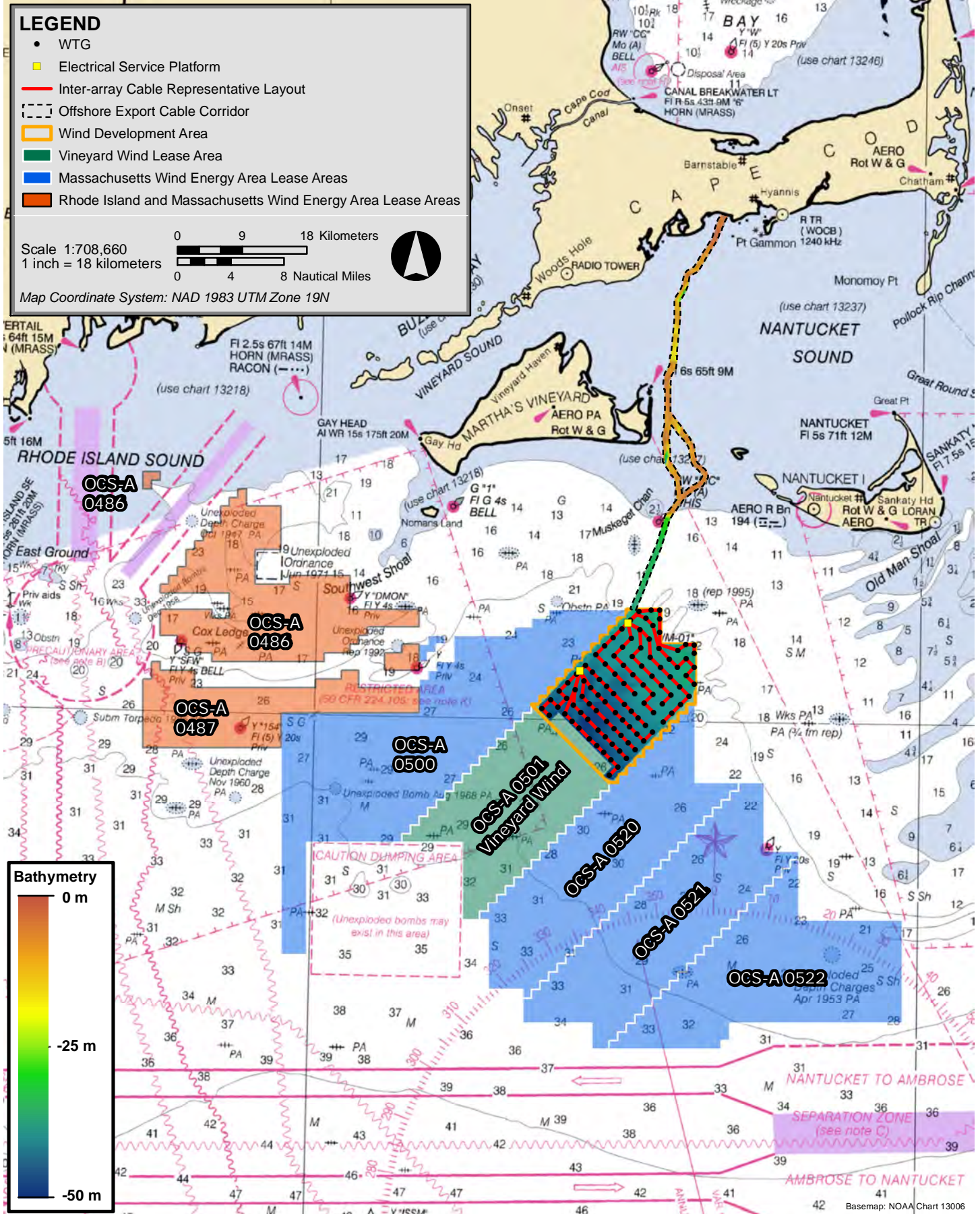


This product is for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Map Projection: NAD83 UTM Zone 19

## Vineyard Wind Project



**Figure 2.1-1**  
Offshore Location Plat



Vineyard Wind Project



Figure 2.1-2  
Offshore Location Plat (Regional View)

**Table 2.1-1 Coordinates for the WTGs and ESPs**

| Name          | Easting (m) | Northing (m) | Latitude           | Longitude          | Water Depth (m) |
|---------------|-------------|--------------|--------------------|--------------------|-----------------|
| <b>WTGs</b>   |             |              |                    |                    |                 |
| VYW01_R00_P01 | 379890      | 4555090      | 41° 08' 17.6589" N | 70° 25' 52.0635" W | 37.1            |
| VYW01_R00_P02 | 384690      | 4550290      | 41° 05' 44.5510" N | 70° 22' 22.9830" W | 39.7            |
| VYW01_R01_P01 | 378690      | 4555090      | 41° 08' 17.0163" N | 70° 26' 43.5213" W | 37.8            |
| VYW01_R01_P02 | 379890      | 4553890      | 41° 07' 38.7564" N | 70° 25' 51.2180" W | 37.5            |
| VYW01_R01_P03 | 383490      | 4550290      | 41° 05' 43.9349" N | 70° 23' 14.4090" W | 38.5            |
| VYW01_R01_P04 | 384690      | 4549090      | 41° 05' 5.6473" N  | 70° 22' 22.1730" W | 40.0            |
| VYW01_R02_P01 | 377004      | 4554937      | 41° 08' 11.1427" N | 70° 27' 55.7084" W | 38.1            |
| VYW01_R02_P02 | 377966      | 4553975      | 41° 07' 40.4790" N | 70° 27' 13.7691" W | 40.0            |
| VYW01_R02_P03 | 378927      | 4553014      | 41° 07' 9.8426" N  | 70° 26' 31.8843" W | 38.8            |
| VYW01_R02_P04 | 379889      | 4552052      | 41° 06' 39.1700" N | 70° 25' 49.9666" W | 39.2            |
| VYW01_R02_P05 | 382383      | 4549518      | 41° 05' 18.3331" N | 70° 24' 1.3175" W  | 38.7            |
| VYW01_R02_P06 | 383536      | 4548353      | 41° 04' 41.1618" N | 70° 23' 11.1173" W | 40.0            |
| VYW01_R02_P07 | 384688      | 4547189      | 41° 04' 4.0160" N  | 70° 22' 20.9764" W | 39.4            |
| VYW01_R03_P01 | 375802      | 4553735      | 41° 07' 31.5172" N | 70° 28' 46.3742" W | 39.1            |
| VYW01_R03_P02 | 377113      | 4552424      | 41° 06' 49.7348" N | 70° 27' 49.2236" W | 39.4            |
| VYW01_R03_P03 | 378424      | 4551113      | 41° 06' 7.9442" N  | 70° 26' 52.0932" W | 39.3            |
| VYW01_R03_P04 | 379735      | 4549802      | 41° 05' 26.1453" N | 70° 25' 54.9828" W | 40.0            |
| VYW01_R03_P05 | 381202      | 4548335      | 41° 04' 39.3628" N | 70° 24' 51.1006" W | 40.1            |
| VYW01_R03_P06 | 382364      | 4547173      | 41° 04' 2.2994" N  | 70° 24' 0.5178" W  | 39.4            |
| VYW01_R03_P07 | 383527      | 4546010      | 41° 03' 25.1976" N | 70° 23' 9.9073" W  | 37.6            |
| VYW01_R03_P08 | 384689      | 4544848      | 41° 02' 48.1213" N | 70° 22' 19.3560" W | 39.7            |
| VYW01_R04_P01 | 374600      | 4552533      | 41° 06' 51.8856" N | 70° 29' 37.0230" W | 40.1            |
| VYW01_R04_P02 | 375911      | 4551222      | 41° 06' 10.1102" N | 70° 28' 39.8735" W | 40.4            |
| VYW01_R04_P03 | 377222      | 4549911      | 41° 05' 28.3265" N | 70° 27' 42.7441" W | 40.0            |
| VYW01_R04_P04 | 378533      | 4548600      | 41° 04' 46.5345" N | 70° 26' 45.6347" W | 40.0            |
| VYW01_R04_P05 | 380000      | 4547133      | 41° 03' 59.7597" N | 70° 25' 41.7536" W | 42.1            |
| VYW01_R04_P06 | 381311      | 4545822      | 41° 03' 17.9502" N | 70° 24' 44.6869" W | 40.7            |
| VYW01_R04_P07 | 382623      | 4544510      | 41° 02' 36.1005" N | 70° 23' 47.5967" W | 39.8            |
| VYW01_R04_P08 | 383934      | 4543199      | 41° 01' 54.2744" N | 70° 22' 50.5700" W | 40.3            |
| VYW01_R05_P01 | 373398      | 4551331      | 41° 06' 12.2481" N | 70° 30' 27.6549" W | 41.0            |
| VYW01_R05_P02 | 374709      | 4550020      | 41° 05' 30.4796" N | 70° 29' 30.5064" W | 40.8            |

**Table 2.1-1 Coordinates for the WTGs and ESPs (Continued)**

| Name          | Easting (m) | Northing (m) | Latitude           | Longitude          | Water Depth (m) |
|---------------|-------------|--------------|--------------------|--------------------|-----------------|
| <b>WTGs</b>   |             |              |                    |                    |                 |
| VYW01_R05_P03 | 376020      | 4548709      | 41° 04' 48.7028" N | 70° 28' 33.3781" W | 40.7            |
| VYW01_R05_P04 | 377331      | 4547398      | 41° 04' 6.9177" N  | 70° 27' 36.2698" W | 41.4            |
| VYW01_R05_P05 | 378798      | 4545931      | 41° 03' 20.1506" N | 70° 26' 32.3898" W | 42.0            |
| VYW01_R05_P06 | 380109      | 4544619      | 41° 02' 38.3155" N | 70° 25' 35.3233" W | 40.2            |
| VYW01_R05_P07 | 381420      | 4543308      | 41° 01' 56.5046" N | 70° 24' 38.2776" W | 40.9            |
| VYW01_R05_P08 | 382732      | 4541997      | 41° 01' 14.6859" N | 70° 23' 41.2092" W | 41.0            |
| VYW01_R06_P01 | 372196      | 4550129      | 41° 05' 32.6047" N | 70° 31' 18.2699" W | 41.4            |
| VYW01_R06_P02 | 373507      | 4548818      | 41° 04' 50.8430" N | 70° 30' 21.1225" W | 42.0            |
| VYW01_R06_P03 | 374818      | 4547507      | 41° 04' 9.0731" N  | 70° 29' 23.9952" W | 42.5            |
| VYW01_R06_P04 | 376129      | 4546196      | 41° 03' 27.2949" N | 70° 28' 26.8879" W | 43.0            |
| VYW01_R06_P05 | 377596      | 4544729      | 41° 02' 40.5355" N | 70° 27' 23.0091" W | 42.3            |
| VYW01_R06_P06 | 378907      | 4543417      | 41° 01' 58.7073" N | 70° 26' 25.9436" W | 41.0            |
| VYW01_R06_P07 | 380218      | 4542106      | 41° 01' 16.9032" N | 70° 25' 28.8989" W | 41.8            |
| VYW01_R06_P08 | 381530      | 4540795      | 41° 00' 35.0915" N | 70° 24' 31.8315" W | 41.7            |
| VYW01_R07_P01 | 370994      | 4548927      | 41° 04' 52.9553" N | 70° 32' 8.8680" W  | 43.0            |
| VYW01_R07_P02 | 372305      | 4547616      | 41° 04' 11.2005" N | 70° 31' 11.7217" W | 42.8            |
| VYW01_R07_P03 | 373615      | 4546305      | 41° 03' 29.4369" N | 70° 30' 14.6382" W | 43.4            |
| VYW01_R07_P04 | 374926      | 4544994      | 41° 02' 47.6655" N | 70° 29' 17.5320" W | 44.2            |
| VYW01_R07_P05 | 376394      | 4543527      | 41° 02' 0.9144" N  | 70° 28' 13.6115" W | 41.8            |
| VYW01_R07_P06 | 377705      | 4542215      | 41° 01' 19.0931" N | 70° 27' 16.5471" W | 42.3            |
| VYW01_R07_P07 | 379016      | 4540904      | 41° 00' 37.2959" N | 70° 26' 19.5034" W | 42.7            |
| VYW01_R07_P08 | 380328      | 4539593      | 40° 59' 55.4910" N | 70° 25' 22.4369" W | 42.2            |
| VYW02_R01_P01 | 369528      | 4547461      | 41° 04' 4.5895" N  | 70° 33' 10.5563" W | 43.0            |
| VYW02_R01_P02 | 370512      | 4546478      | 41° 03' 33.2890" N | 70° 32' 27.6638" W | 45.5            |
| VYW02_R01_P03 | 371495      | 4545495      | 41° 03' 1.9833" N  | 70° 31' 44.8253" W | 43.5            |
| VYW02_R01_P04 | 372478      | 4544512      | 41° 02' 30.6729" N | 70° 31' 1.9981" W  | 45.3            |
| VYW02_R01_P05 | 373461      | 4543529      | 41° 01' 59.3579" N | 70° 30' 19.1822" W | 45.2            |
| VYW02_R01_P06 | 374929      | 4542061      | 41° 01' 12.5837" N | 70° 29' 15.2624" W | 44.3            |
| VYW02_R01_P07 | 375912      | 4541078      | 41° 00' 41.2570" N | 70° 28' 32.4745" W | 43.6            |
| VYW02_R01_P08 | 376896      | 4540094      | 41° 00' 9.8939" N  | 70° 27' 49.6544" W | 43.6            |
| VYW02_R01_P09 | 377879      | 4539111      | 40° 59' 38.5579" N | 70° 27' 6.8891" W  | 43.3            |
| VYW02_R01_P10 | 378863      | 4538127      | 40° 59' 7.1854" N  | 70° 26' 24.0915" W | 43.2            |
| VYW02_R02_P01 | 368326      | 4546259      | 41° 03' 24.9269" N | 70° 34' 1.1170" W  | 43.1            |
| VYW02_R02_P02 | 369310      | 4545276      | 41° 02' 53.6316" N | 70° 33' 18.2252" W | 45.0            |
| VYW02_R02_P03 | 370293      | 4544293      | 41° 02' 22.3310" N | 70° 32' 35.3876" W | 46.6            |
| VYW02_R02_P04 | 371276      | 4543310      | 41° 01' 51.0258" N | 70° 31' 52.5612" W | 45.0            |
| VYW02_R02_P05 | 372259      | 4542326      | 41° 01' 19.6835" N | 70° 31' 9.7453" W  | 46.5            |



**Table 2.1-1 Coordinates for the WTGs and ESPs (Continued)**

| Name          | Easting (m) | Northing (m) | Latitude           | Longitude          | Water Depth (m) |
|---------------|-------------|--------------|--------------------|--------------------|-----------------|
| <b>WTGs</b>   |             |              |                    |                    |                 |
| VYW02_R02_P06 | 373726      | 4540859      | 41° 00' 32.9489" N | 70° 30' 5.8702" W  | 47.0            |
| VYW02_R02_P07 | 374710      | 4539876      | 41° 00' 1.6279" N  | 70° 29' 23.0403" W | 45.3            |
| VYW02_R02_P08 | 375693      | 4538892      | 40° 59' 30.2693" N | 70° 28' 40.2638" W | 44.5            |
| VYW02_R02_P09 | 376677      | 4537909      | 40° 58' 58.9391" N | 70° 27' 57.4565" W | 43.7            |
| VYW02_R02_P10 | 377660      | 4536925      | 40° 58' 27.5712" N | 70° 27' 14.7024" W | 43.8            |
| VYW02_R03_P01 | 367124      | 4545057      | 41° 02' 45.2583" N | 70° 34' 51.6608" W | 43.9            |
| VYW02_R03_P02 | 368108      | 4544074      | 41° 02' 13.9682" N | 70° 34' 8.7698" W  | 44.0            |
| VYW02_R03_P03 | 369091      | 4543091      | 41° 01' 42.6728" N | 70° 33' 25.9330" W | 48.3            |
| VYW02_R03_P04 | 370074      | 4542108      | 41° 01' 11.3727" N | 70° 32' 43.1074" W | 46.0            |
| VYW02_R03_P05 | 371057      | 4541124      | 41° 00' 40.0356" N | 70° 32' 0.2923" W  | 48.7            |
| VYW02_R03_P06 | 372524      | 4539657      | 40° 59' 53.3086" N | 70° 30' 56.4184" W | 48.1            |
| VYW02_R03_P07 | 373508      | 4538674      | 40° 59' 21.9928" N | 70° 30' 13.5894" W | 46.1            |
| VYW02_R03_P08 | 374491      | 4537690      | 40° 58' 50.6394" N | 70° 29' 30.8136" W | 45.2            |
| VYW02_R03_P09 | 375475      | 4536707      | 40° 58' 19.3143" N | 70° 28' 48.0070" W | 44.8            |
| VYW02_R03_P10 | 376458      | 4535723      | 40° 57' 47.9516" N | 70° 28' 5.2538" W  | 45.2            |
| VYW02_R04_P01 | 365922      | 4543855      | 41° 02' 5.5839" N  | 70° 35' 42.1877" W | 44.4            |
| VYW02_R04_P02 | 366905      | 4542872      | 41° 01' 34.2983" N | 70° 34' 59.3404" W | 45.8            |
| VYW02_R04_P03 | 367889      | 4541889      | 41° 01' 3.0086" N  | 70° 34' 16.4616" W | 45.8            |
| VYW02_R04_P04 | 368872      | 4540906      | 41° 00' 31.7137" N | 70° 33' 33.6368" W | 46.3            |
| VYW02_R04_P05 | 369855      | 4539922      | 41° 00' 0.3817" N  | 70° 32' 50.8225" W | 49.4            |
| VYW02_R04_P06 | 371322      | 4538455      | 40° 59' 13.6625" N | 70° 31' 46.9498" W | 48.0            |
| VYW02_R04_P07 | 372306      | 4537472      | 40° 58' 42.3518" N | 70° 31' 4.1216" W  | 46.5            |
| VYW02_R04_P08 | 373289      | 4536488      | 40° 58' 11.0035" N | 70° 30' 21.3466" W | 46.0            |
| VYW02_R04_P09 | 374273      | 4535505      | 40° 57' 39.6836" N | 70° 29' 38.5408" W | 46.0            |
| VYW02_R04_P10 | 375256      | 4534521      | 40° 57' 8.3260" N  | 70° 28' 55.7883" W | 46.6            |
| VYW02_R05_P01 | 364720      | 4542653      | 41° 01' 25.9035" N | 70° 36' 32.6978" W | 45.3            |
| VYW02_R05_P02 | 365703      | 4541670      | 41° 00' 54.6231" N | 70° 35' 49.8513" W | 46.8            |
| VYW02_R05_P03 | 366687      | 4540687      | 41° 00' 23.3386" N | 70° 35' 6.9733" W  | 48.0            |
| VYW02_R05_P04 | 367670      | 4539703      | 40° 59' 52.0164" N | 70° 34' 24.1486" W | 46.6            |
| VYW02_R05_P05 | 368653      | 4538720      | 40° 59' 20.7219" N | 70° 33' 41.3359" W | 48.7            |
| VYW02_R05_P06 | 370120      | 4537253      | 40° 58' 34.0104" N | 70° 32' 37.4645" W | 49.5            |
| VYW02_R05_P07 | 371104      | 4536270      | 40° 58' 2.7049" N  | 70° 31' 54.6370" W | 48.8            |
| VYW02_R05_P08 | 372087      | 4535286      | 40° 57' 31.3617" N | 70° 31' 11.8628" W | 48.4            |
| VYW02_R05_P09 | 373071      | 4534303      | 40° 57' 0.0469" N  | 70° 30' 29.0578" W | 46.5            |
| VYW02_R05_P10 | 374054      | 4533319      | 40° 56' 28.6945" N | 70° 29' 46.3061" W | 46.6            |
| VYW02_R06_P01 | 363518      | 4541451      | 41° 00' 46.2172" N | 70° 37' 23.1910" W | 46.7            |

**Table 2.1-1 Coordinates for the WTGs and ESPs (Continued)**

| Name          | Easting (m) | Northing (m) | Latitude           | Longitude          | Water Depth (m) |
|---------------|-------------|--------------|--------------------|--------------------|-----------------|
| <b>WTGs</b>   |             |              |                    |                    |                 |
| VYW02_R06_P02 | 364501      | 4540468      | 41° 00' 14.9419" N | 70° 36' 40.3454" W | 46.9            |
| VYW02_R06_P10 | 372852      | 4532117      | 40° 55' 49.0570" N | 70° 30' 36.8071" W | 47.5            |
| <b>ESPs</b>   |             |              |                    |                    |                 |
| ESP1_modif    | 375448.1    | 4553381.0    | 41° 07' 19.846" N  | 70° 29' 1.288" W   | 38              |
| ESP2_modif    | 368748.3    | 4546682.5    | 41° 03' 38.901" N  | 70° 33' 43.356" W  | 42              |

NOTES:

1. Grid coordinates referenced to UTM Zone 19 north in meters, NAD83 datum.
2. Water depths may be interpolated where WTG and ESP locations have not been surveyed yet.
3. Water depths are referenced to Mean Lower Low Water.

## 2.2 Onshore Facilities

The Project's onshore facilities will include the Landfall Site, the onshore export cables from the Landfall Site to the onshore substation, the onshore substation itself, and the connections from the onshore substation to the existing bulk power grid. The Project's onshore components are shown on Figure 2.2-1.

