

ATTACHMENT 1-4

Redacted

Part I Guidelines and Instructions

Certification, Project and Pricing Data (CPPD)

This CPPD form comprises Part I through Part VIII and is included as Section 1 of Appendix A to the RFP. Parts II through VIII of this Attachment must be completed in this Excel spreadsheet and submitted according to the instructions in Part 1 and the remainder of the CPPD form. Additionally, bidders must complete and submit the Bid Fee Submittal Form. Please read these instructions in their entirety.

For the required 400 MW proposals under Bid Category 2.2.1.3.1 and 2.2.1.3.2, separate CPPD forms are required. If additional pricing proposals are offered, or your proposals will include a different net generating capacity between 200 MW and 800 MW, commercial operation date, point of on-shore interconnection, and/or production data then please submit separate CPPD forms for each unique proposal including proposals under Bid Category 2.2.1.3.1 and 2.2.1.3.2 and indicate the name of each CPPD form on the Bid Fee Submittal Form.

Part II - Proposal Certification and Authorization and Bid Contact Information

Proposal Certification, name of the bidder, project name and contact info.

Part III - Proposal Compliance and Bid Overview

Part III (a) identifies the Bid Category per Section 2.2.1.3 of the RFP. Please note that additional pricing proposals, or proposals with energy storage, different net generating capacity between 200 MW and 800 MW, commercial operation date, point of on-shore interconnection, and/or production data represents a unique bid proposal.

Part III (b) requires the bidder to provide a summary of how this proposal meets the Definitions included in the RFP.

Part IV - Eligible Facility Summary Information

Part IV provides technical information about a facility and facility parameters, including storage if applicable, to be considered in the evaluation. If the bid proposal is for a one phase project, please complete Part IV(a). If the bid proposal includes phases of development, Part IV (a) must be completed for the first phase, and Part IV (b) must be completed for the second phase.

Part I (continued)
Guidelines and Instructions

Part V - Operational Information (Expected Monthly and Annual Production Data)

The forms are used to convey the information about the quantity of energy and/or RECs and/or environmental attributes to be delivered. The data entry can be provided in '12 months by 24 hours' forecast, but 'hourly profile' data is suggested, if available. Hourly Profile data is entered in Part V(a)(i), and provides for greater modeling accuracy during the evaluation process. It is requested that the bidder provide hourly production data representative of a specific year (8760 or 8784 data points) or to provide the latitude and longitude of the Eligible Facility. If providing hourly profile data, bidders are required to provide an hourly profile specific to 2012 weather patterns. 2012 is chosen as a "typical meteorological year" and assures consistency in evaluation of bidders.

If the bid proposal is for a one phase project, please provide data in tab Part V (phase 1). If a proposal includes phases of development you must provide separate data for Phase 1 and Phase 2, in tabs 'Part V (phase1)' and 'Part V (phase2),' respectively.

Part V (c) provides monthly adjustment factors for up to 20 years to adjust for varying maintenance intervals or declining output. The factors are for specific months and years, so the factors should coincide with the expected commercial operation date or the guaranteed delivery start date of the bid. Because of this calendar convention, there are 21 years of factors to accommodate partial years at the beginning and end of a 20 year offer. The values should be expressed in decimal format, where 1 means no change to the output. Any reductions should be reflect as 1 less the outage rate (i.e. a 1% decrease in output should be input as 0.99).

There is also a Part V (Informational) which provides conversion of the hourly generation profile into monthly on- and off-peak quantities prior to the monthly adjustment factors according to standard NERC definitions. This takes the profile for Part V (b), and makes adjustments for the average number of days over a 20 year period.

For proposals with Paired Energy Storage you must provide data in tabs 'Part V (phase1 with Storage)' and 'Part V (phase2 with Storage)', if necessary. Note that for Projects with Paired Energy Storage, the expected hourly generation tables in Part V (a)(i) should show the output of the generation resource. Enter the Energy Storage charge and discharge schedule in Part V(a)(ii). The net delivered energy from the combined resources, after the timing and loss effects of storage, will be calculated in Parts V(b-1). When providing hourly profile data, bidders are required to provide an hourly profile specific to 2012 weather patterns. The Energy Storage schedule will be analyzed to verify compliance with the maximum charging rate, maximum discharging rate, potential for exceeding storage capacity, and combined hourly scheduled negative net deliveries.

Part VI - Pricing

Part VI (a) to VI(b) - Conforming Pricing. These parts are used to capture the energy and REC prices for each contract year in the term. Pricing must conform to Section 2.2.1.4 of the RFP. The contract terms and products offered must agree with the selections provided on Part III. If the bid proposal is for a one phase project, please complete Part VI (a). If the bid proposal includes phases of development, Part VI (a) must be completed for the first phase, and Part VI (b) must be completed for the second phase.

Part VI (a) (i) and Part VI (b) (i) are auto-populated templates from Part VI to ensure proposals conform with RFP Section 2.2.1.4.i(e). No input information is required.

Part VI (c) is for alternative pricing for consideration by National Grid pursuant to Section 2.2.1.4.h of the RFP. A bidder submitting such a proposal must submit a conforming price proposal.

Part VI-2.2.1.4.i.(d) check is an auto-populated templates from Part IV and Part VI to ensure two phase proposals conform with RFP Section 2.2.1.4.i(d). No input information is required.

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Part I (continued)
Guidelines and Instructions

Part VII - ISO-NE Forward Capacity Auction Qualification

Part VIII provides spaces to describe the amount of capacity and the capacity commitment period, for which the bidder expects the generation unit in their proposal to qualify under the Forward Capacity Auction Qualification requirements set forth in Section III.13.1 of Market Rule 1 of ISO-NE's Transmission Markets and Services Tariff and how the bidder expects to meet those requirements.

Part VIII - Contract Information

Part VIII provides space to enter various items which will be required to complete the PPA. Many items shown are copied from other parts of the CPPD.

Part II (a)
Proposal Certification and Authorization (Appendix C)

A proposal will be considered incomplete unless all required signatures are provided.

The undersigned certifies that he or she is an authorized officer or other authorized representative of the Bidder, and further certifies that:

(1) the Bidder has reviewed this RFP and all attachments and has investigated and informed itself with respect to all matters pertinent to this RFP and its proposal; (2) the Bidder's proposal is submitted in compliance with all applicable federal, state and local laws and regulations, including antitrust and anti-corruption laws; (3) the Bidder is bidding independently and that it has no knowledge of the substance of any proposal being submitted by another party in response to this RFP other than a response submitted by the bidder's affiliate for a project where the Bidder is also a project proponent or participant, and notice of each such affiliated bid or project must be disclosed in writing with each of the Bidder's and affiliated bidder's proposal; (4) the Bidder has no knowledge of any confidential information associated with development of the RFP; (5) the Bidder's proposal has not been developed utilizing knowledge of any non-public information associated with the development of the RFP; (6) the Bidder has not obtained any confidential bidding-related information directly or indirectly from any of the Distribution Companies, in preparation of its bid; (7) except as disclosed by the Bidder in the relevant portions of its response, the Bidder is not an Affiliated Company of any Massachusetts investor-owned electric Distribution Company and no Distribution Company which is seeking proposals pursuant to the RFP has a financial or voting interest, controlling or otherwise in the bidder or the bidder's proposed project; (8) the bidder accepts that confidential information about their proposal might be shared, on a confidential basis subject to Appendix E, with any members of the Evaluation Team, the Evaluation Team Consultant, and Independent Evaluator, ISO-NE or Other Authorities personnel; and (9) the bidder will continue to observe these requirements throughout the RFP process.

Violation of any of the above requirements may be reported to the appropriate government authorities and shall disqualify the Bidder from the RFP process.

The undersigned further certifies that the prices, terms and conditions of the Bidder's proposal are valid and shall remain open until December 31, 2019 unless otherwise extended by mutual agreement.

The undersigned further certifies that he or she has personally examined and is familiar with the information submitted in this proposal and all appendices thereto, and based on reasonable investigation, including inquiry of the individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of the undersigned's knowledge and belief.

The undersigned understands that a false statement or failure to disclose material information in the submitted proposal may be punishable as a criminal offense under applicable law. The undersigned further certifies that that this proposal is on complete and accurate forms as provided without alteration of the text. The undersigned further understands and agrees to the provisions of this RFP related to confidential information subject to Appendix E, and consents to the limited exchange and sharing of confidential information related to the Bidder's proposal as described in this RFP, including with members of the Evaluation Team, the Independent Evaluator, ISO-NE, or and adjacent Control Area personnel.

Project Title(s) Bay State Wind
(as Submitted to the Soliciting Parties)

Bidder Name Bay State Wind LLC

Bidder or Authorized
Representative Patrick Smith

<u>Authorized Representative</u>	<u>8/21/2019</u>
Bidder Representative's Title	Date

See signed Certification form provided separately
Signature of Bidder or Authorized Representative

Part II (b)
Bidder and Contact Information

Contact Information For Project	
Name	<div></div>
Mailing Address	<div></div>
Courier Address (If Different)	<div></div>
Telephone Number	<div></div>
E-mail Address	<div></div>

Alternate Contact (Optional)	
Name	<div></div>
Mailing Address	<div></div>
Courier Address (If Different)	<div></div>
Telephone Number	<div></div>
E-mail Address	<div></div>

**Part III (a)
Proposal Compliance**

Bidder Name _____

Project Title _____

Eligible Bid Category _____

Separate CPPD forms for Bid Category 2.2.1.3.1 and 2.2.1.3.2 are required.

**Part III (b)
Definitions**

Provide a summary description of the following:

How this proposal meets the definition of "Offshore Wind Energy Generation"

How the developer of this proposal meets the definition of "Offshore Wind Developer"

How this proposal meets the definition of "Energy storage system", if applicable

How this proposal meets the definition of "Delivery", "Deliveries", "Deliver", or "Delivered"

How this proposal contributes to reducing Winter Electricity Price Spikes

Part IV (a)
Eligible Facility Summary Information

Project Title _____

Storage Included _____
(if proposal includes phases of development, select if storage will be included with the first phase)

Guaranteed Commercial Operation Date _____
(if proposal includes phases of development, enter the Commercial Operation Date of the first phase)

Does this proposal include phases of development? _____
(complete part IV (a) and part IV(b) below as applicable for Phase 1 and Phase 2, respectively)

For evaluation purposes, the term is assumed to start on the first day of the first full calendar month beginning on or after the Proposed Delivery Term Start Date or the Guaranteed Commercial Operation Date as applicable, as shown to the right:

Capacity of the Facility (MW, as proposed) _____ Gross _____ Net

Contract Maximum Amount (as defined in Form PPA) _____ MWh/hr
(note: the aggregate entitlement percentage of all buyers)

Estimated Net Capacity Factor (%) _____ %

Expected Annual Availability (%) _____ %

Buyers' Percentage Entitlement of facility output _____ %
Enter Percent relative to entire Facility, not Seller's entitlement if part owner

Is the Buyer's Percentage Entitlement scalable downward in the event that acceptance of the full amount offered would result in exceedance of the target procurement amount?

What is the minimum Buyer's Percentage Entitlement acceptable ? _____ %
(for proposal with multiple facilities, scale down is same % across all facilities)

Renewable Energy Lease Number

Documentation demonstrating that you possess a federal lease for a designated wind generation area for the Eligible Facility site that was issued on a competitive basis after January 1, 2012 must be attached

Proposed On-Shore Interconnection Point _____

Proposed On-Shore Point of Delivery _____

ISO New England Load Zone for Proposed Delivery Point _____

Please note: The Delivery Point must be the specific Node on the ISO-NE Pool Transmission Facilities, as determined by ISO-NE, where Seller shall transmit its Energy to Buyer, as set forth in Exhibit A to the contract. Seller shall be responsible for all applicable charges associated with transmission interconnection, service and delivery charges, including all related ISO-NE administrative fees and other FERC-approved charges in connection with the Delivery of Energy to the Delivery Point.

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Part IV (b)
Eligible Facility Summary Information, Phase 2 (if applicable)

Facility Name _____

Storage Included _____
(if storage will be included with the second phase)

Guaranteed Commercial Operation Date of Phase 2 _____

<i>For evaluation purposes, the term is assumed to start on the first day of the first full calendar month beginning on or after the Proposed Delivery Term Start Date or the Guaranteed Commercial Operation Date as applicable, as shown to the right:</i>	<div style="background-color: black; width: 100px; height: 20px; margin: 0 auto;"></div>
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Capacity of the Facility (MW, as proposed), Phase 2 _____ Gross _____ Net

Contract Maximum Amount (as defined in Form PPA), Phase 2 _____ MWh/hr
(note: the aggregate entitlement percentage of all buyers)

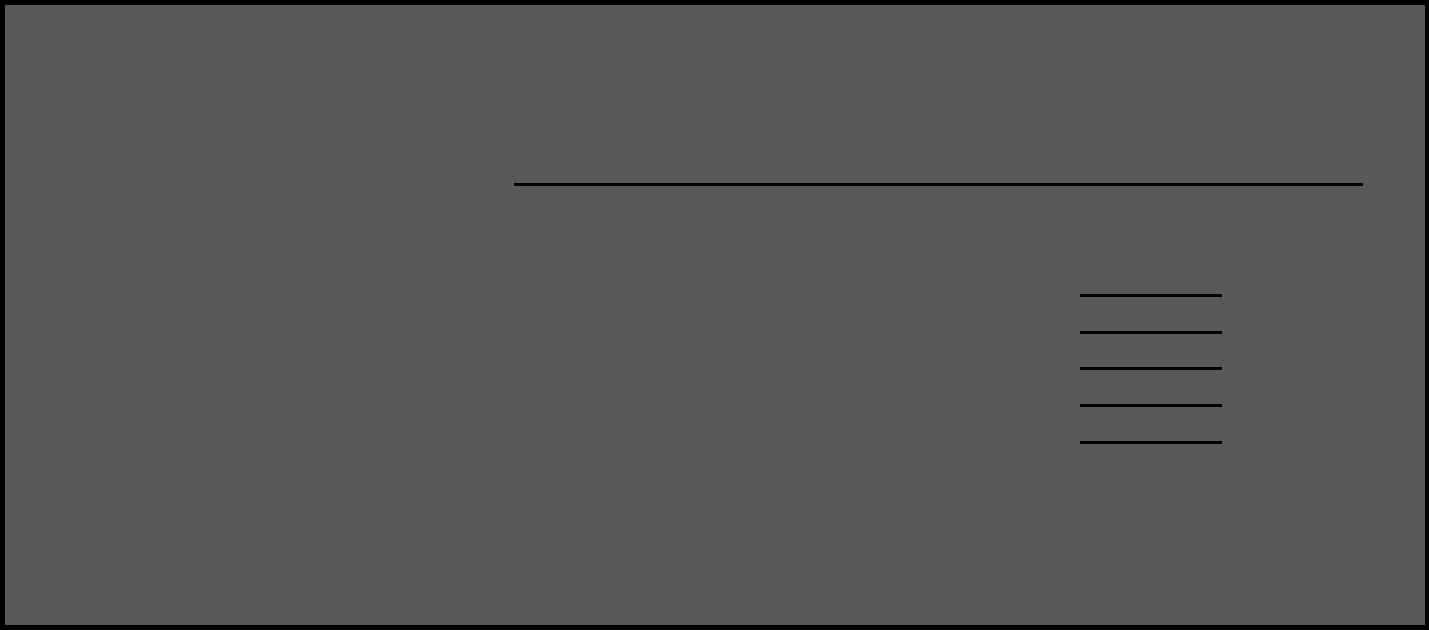
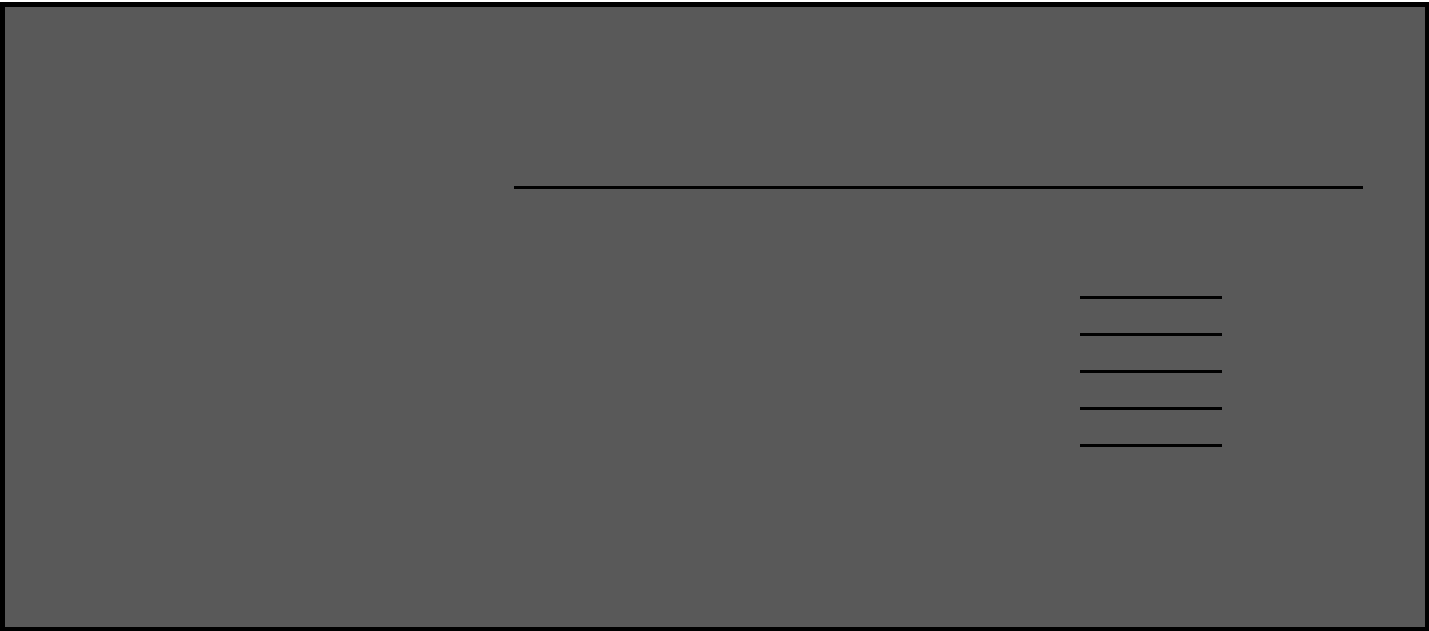
Estimated Net Capacity Factor, Phase 2 (%) _____ %

Expected Annual Availability, Phase 2 (%) _____ %

Buyers' Percentage Entitlement of facility output, Phase 2 _____ %
Enter Percent relative to entire Facility, not Seller's entitlement if part owner

Is the Buyer's Percentage Entitlement scalable downward in the event that acceptance of the full amount offered would result in exceedance of the target procurement amount? _____

What is the minimum Buyer's Percentage Entitlement acceptable ? _____ %
(for proposal with multiple facilities, scale down is same % across all facilities)



Part V (a)

Operational Information - Production Data of Off Shore Wind Project

Project Title _____

Data Entry: _____

If you will be inserting an Hourly Profile, do so to the right. If you are not providing an Hourly Profile, then use this table by inserting expected generation for 12 Months by 24 Hours. Table Part V (b) below will be populated automatically.

EXPECTED HOURLY GENERATION in MW - 12 Months by 24 Hours For Representative Day For Each Month

Note: Intermittent Resources must use the P50 Level (Probability Distribution of Output).

Part V (b)

Operational Information - Production Data of Off Shore Wind Project

Project Title

Data Entry:

This table is calculated from either Part V(a) or Part V(a)(i).

HOURLY DELIVERY in MW (*Averaged*) - 12 Months by 24 Hours For Representative Day For Each Month

Notes:

The hourly output profile(s) above will be summed into monthly peak and off-peak quantities via a uniform conversion. The conversion factors and resulting amounts, prior to applying the adjustment factors, are shown below in Part V (Informational).

Offshore Wind Resources

Enter the P50 level of output from the resource.

Resources with Paired Energy Storage

Must use tab **Part V (with Storage)**.

Part V (c)

Operational Information - Maintenance Profile for Off Shore Wind Project

Project Title

MONTHLY ADJUSTMENT FACTORS AS PERCENTAGE OF EXPECTED PRODUCTION

Enter factors in decimal format, where 1 equals no adjustment (i.e. a decrease of 2% should be entered as 0.98)

Figure 1. The effect of the number of trials on the number of correct responses. The number of correct responses (Y-axis) is plotted against the number of trials (X-axis). The data shows a positive correlation, indicating that the number of correct responses increases as the number of trials increases.

IMPORTANT: These factors are for specific months and calendar years. The first entry must coincide with the project start date.

The adjustment factors in each contract month above will be applied to capture changes in monthly output production for variations associated with maintenance, degradation, or other changes in output.

If Part V(a) or V(a)(i) already reflect a forced outage rate or scheduled outage information, then Part V(c) should be left blank or contain a factor of 1.000 for each month.

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Part V (informational)

Validation and Conversion Assumptions and Calculations

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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Average Days used to convert hourly profiles into monthly and annual amounts

Average Number of Weekdays

Order #	Reference #	Product	Quantity	Unit Price	Total Price	Tax	Shipping	Handling	Insurance	Notes
1	2	3	4	5	6	7	8	9	10	11

Average Number of Weekend Days

Average Days

Average NERC Holiday

Generation Conversion Prior to Monthly Adjustment Factors (Daily MWh/day)

Sum of Generation HE 1-7, 24

CONFIDENTIAL

Sum of Generation HE 8-23

CONFIDENTIAL

Sum of Generation HE 1-24



Monthly Generation Summary (MWh)

Average Monthly On-Peak Generation (prior to monthly adjustment factors)



Average Monthly Off-Peak Generation (prior to monthly adjustment factors)



Total Generation (prior to monthly adjustment factors)



Monthly Balance Check

$$0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0$$

Total Annual Energy and Capacity Factor (prior to monthly adjustment factors)

	On-Peak Hours				Off-Peak Hours			All Hours			AnnCapFac			Annual Delivery		
Generation (MWh)																

Part V (a)

Operational Information - Production Data of Off Shore Wind Project

Project Title _____

Data Entry: _____

If you will be inserting an Hourly Profile, do so to the right. If you are not providing an Hourly Profile, then use this table by inserting expected generation for 12 Months by 24 Hours. Table Part V (b) below will be populated automatically.

EXPECTED HOURLY GENERATION in MW - 12 Months by 24 Hours For Representative Day For Each Month

the 1990s, the number of people in the United States who are 65 years of age and older has increased by 50 percent, and the number of people 75 years of age and older has increased by 100 percent. The number of people 85 years of age and older has increased by 200 percent. The number of people 95 years of age and older has increased by 400 percent. The number of people 100 years of age and older has increased by 1,000 percent. The number of people 105 years of age and older has increased by 2,000 percent. The number of people 110 years of age and older has increased by 4,000 percent. The number of people 115 years of age and older has increased by 8,000 percent. The number of people 120 years of age and older has increased by 16,000 percent. The number of people 125 years of age and older has increased by 32,000 percent. The number of people 130 years of age and older has increased by 64,000 percent. The number of people 135 years of age and older has increased by 128,000 percent. The number of people 140 years of age and older has increased by 256,000 percent. The number of people 145 years of age and older has increased by 512,000 percent. The number of people 150 years of age and older has increased by 1,024,000 percent. The number of people 155 years of age and older has increased by 2,048,000 percent. The number of people 160 years of age and older has increased by 4,096,000 percent. The number of people 165 years of age and older has increased by 8,192,000 percent. The number of people 170 years of age and older has increased by 16,384,000 percent. The number of people 175 years of age and older has increased by 32,768,000 percent. The number of people 180 years of age and older has increased by 65,536,000 percent. The number of people 185 years of age and older has increased by 131,072,000 percent. The number of people 190 years of age and older has increased by 262,144,000 percent. The number of people 195 years of age and older has increased by 524,288,000 percent. The number of people 200 years of age and older has increased by 1,048,576,000 percent. The number of people 205 years of age and older has increased by 2,097,152,000 percent. The number of people 210 years of age and older has increased by 4,194,304,000 percent. The number of people 215 years of age and older has increased by 8,388,608,000 percent. The number of people 220 years of age and older has increased by 16,777,216,000 percent. The number of people 225 years of age and older has increased by 33,554,432,000 percent. The number of people 230 years of age and older has increased by 67,108,864,000 percent. The number of people 235 years of age and older has increased by 134,217,728,000 percent. The number of people 240 years of age and older has increased by 268,435,456,000 percent. The number of people 245 years of age and older has increased by 536,870,912,000 percent. The number of people 250 years of age and older has increased by 1,073,741,824,000 percent. The number of people 255 years of age and older has increased by 2,147,483,648,000 percent. The number of people 260 years of age and older has increased by 4,294,967,296,000 percent. The number of people 265 years of age and older has increased by 8,589,934,592,000 percent. The number of people 270 years of age and older has increased by 17,179,869,184,000 percent. The number of people 275 years of age and older has increased by 34,359,738,368,000 percent. The number of people 280 years of age and older has increased by 68,719,476,736,000 percent. The number of people 285 years of age and older has increased by 137,438,953,472,000 percent. The number of people 290 years of age and older has increased by 274,877,906,944,000 percent. The number of people 295 years of age and older has increased by 549,755,813,888,000 percent. The number of people 300 years of age and older has increased by 1,099,511,627,776,000 percent. The number of people 305 years of age and older has increased by 2,199,023,255,552,000 percent. The number of people 310 years of age and older has increased by 4,398,046,511,104,000 percent. The number of people 315 years of age and older has increased by 8,796,093,022,208,000 percent. The number of people 320 years of age and older has increased by 17,592,186,044,416,000 percent. The number of people 325 years of age and older has increased by 35,184,372,088,832,000 percent. The number of people 330 years of age and older has increased by 70,368,744,177,664,000 percent. The number of people 335 years of age and older has increased by 140,737,488,355,328,000 percent. The number of people 340 years of age and older has increased by 281,474,976,710,656,000 percent. The number of people 345 years of age and older has increased by 562,949,953,421,312,000 percent. The number of people 350 years of age and older has increased by 1,125,899,906,842,624,000 percent. The number of people 355 years of age and older has increased by 2,251,799,813,685,248,000 percent. The number of people 360 years of age and older has increased by 4,503,599,627,370,496,000 percent. The number of people 365 years of age and older has increased by 9,007,199,254,740,992,000 percent. The number of people 370 years of age and older has increased by 18,014,398,509,481,984,000 percent. The number of people 375 years of age and older has increased by 36,028,797,018,963,968,000 percent. The number of people 380 years of age and older has increased by 72,057,594,037,927,936,000 percent. The number of people 385 years of age and older has increased by 144,115,188,075,855,872,000 percent. The number of people 390 years of age and older has increased by 288,230,376,151,711,744,000 percent. The number of people 395 years of age and older has increased by 576,460,752,303,423,488,000 percent. The number of people 400 years of age and older has increased by 1,152,921,504,606,846,976,000 percent. The number of people 405 years of age and older has increased by 2,305,843,009,213,693,952,000 percent. The number of people 410 years of age and older has increased by 4,611,686,018,427,387,904,000 percent. The number of people 415 years of age and older has increased by 9,223,372,036,854,775,808,000 percent. The number of people 420 years of age and older has increased by 18,446,744,073,709,551,616,000 percent. The number of people 425 years of age and older has increased by 36,893,488,147,419,103,232,000 percent. The number of people 430 years of age and older has increased by 73,786,976,294,838,206,464,000 percent. The number of people 435 years of age and older has increased by 147,573,952,589,676,412,928,000 percent. The number of people 440 years of age and older has increased by 295,147,905,179,352,825,856,000 percent. The number of people 445 years of age and older has increased by 590,295,810,358,705,651,712,000 percent. The number of people 450 years of age and older has increased by 1,180,591,620,717,411,303,424,000 percent. The number of people 455 years of age and older has increased by 2,361,183,241,434,822,606,848,000 percent. The number of people 460 years of age and older has increased by 4,722,366,482,869,645,213,696,000 percent. The number of people 465 years of age and older has increased by 9,444,732,965,739,290,427,392,000 percent. The number of people 470 years of age and older has increased by 18,889,465,931,478,580,854,784,000 percent. The number of people 475 years of age and older has increased by 37,778,931,862,957,161,709,568,000 percent. The number of people 480 years of age and older has increased by 75,557,863,725,914,323,419,136,000 percent. The number of people 485 years of age and older has increased by 151,115,727,451,828,646,838,272,000 percent. The number of people 490 years of age and older has increased by 302,231,454,903,657,293,676,544,000 percent. The number of people 495 years of age and older has increased by 604,462,909,807,314,587,353,088,000 percent. The number of people 500 years of age and older has increased by 1,208,925,819,614,629,174,706,176,000 percent. The number of people 505 years of age and older has increased by 2,417,851,639,229,258,349,412,352,000 percent. The number of people 510 years of age and older has increased by 4,835,703,278,458,516,698,824,704,000 percent. The number of people 515 years of age and older has increased by 9,671,406,556,917,033,397,649,408,000 percent. The number of people 520 years of age and older has increased by 19,342,813,113,834,066,795,298,816,000 percent. The number of people 525 years of age and older has increased by 38,685,626,227,668,133,590,597,632,000 percent. The number of people 530 years of age and older has increased by 77,371,252,455,336,267,181,195,264,000 percent. The number of people 535 years of age and older has increased by 154,742,504,910,672,534,362,390,528,000 percent. The number of people 540 years of age and older has increased by 309,485,009,821,345,068,724,781,056,000 percent. The number of people 545 years of age and older has increased by 618,970,019,642,690,137,449,562,112,000 percent. The number of people 550 years of age and older has increased by 1,237,940,039,285,380,274,899,124,224,000 percent. The number of people 555 years of age and older has increased by 2,475,880,078,570,760,549,798,248,448,000 percent. The number of people 560 years of age and older has increased by 4,951,760,157,141,521,099,596,496,896,000 percent. The number of people 565 years of age and older has increased by 9,903,520,314,283,042,199,193,993,792,000 percent. The number of people 570 years of age and older has increased by 19,807,040,628,566,084,398,387,9

Part V (b)

Operational Information - Production Data of Off Shore Wind Project

Project Title

Data Entry:

This table is calculated from either Part V(a) or Part V(a)(i).

HOURLY DELIVERY in MW (*Averaged*) - 12 Months by 24 Hours For Representative Day For Each Month

Notes:

The hourly output profile(s) above will be summed into monthly peak and off-peak quantities via a uniform conversion. The conversion factors and resulting amounts, prior to applying the adjustment factors, are shown below in Part V (Informational).

Offshore Wind Resources

Enter the P50 level of output from the resource.

Resources with Paired Energy Storage

Must use tab **Part V (with Storage)**.

Part V (c)

Operational Information - Maintenance Profile for Off Shore Wind Project

Project Title _____

MONTHLY ADJUSTMENT FACTORS AS PERCENTAGE OF EXPECTED PRODUCTION

Enter factors in decimal format, where 1 equals no adjustment (i.e. a decrease of 2% should be entered as 0.98)

[Redacted area]

IMPORTANT: *These factors are for specific months and calendar years. The first entry must coincide with the project start date.*

The adjustment factors in each contract month above will be applied to capture changes in monthly output production for variations associated with maintenance, degradation, or other changes in output.

If Part V(a) or V(a)(i) already reflect a forced outage rate or scheduled outage information, then Part V(c) should be left blank or contain a factor of 1.000 for each month.

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Part V (informational)

Validation and Conversion Assumptions and Calculations

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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Average Days used to convert hourly profiles into monthly and annual amounts

Average Number of Weekdays

[illegible]

Average Number of Weekend Days

Average Days

Average NERC Holiday

Generation Conversion Prior to Monthly Adjustment Factors (Daily MWh/day)

Sum of Generation HE 1-7, 24

CONFIDENTIAL

Sum of Generation HE 8-23

CONFIDENTIAL

Sum of Generation HE 1-24



Monthly Generation Summary (MWh)

Average Monthly On-Peak Generation (prior to monthly adjustment factors)



Average Monthly Off-Peak Generation (prior to monthly adjustment factors)



Total Generation (prior to monthly adjustment factors)



Monthly Balance Check

$$0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0$$

Total Annual Energy and Capacity Factor (prior to monthly adjustment factors)

	On-Peak Hours				Off-Peak Hours			All Hours			AnnCapFac			Annual Delivery		
Generation (MWh)																

Part V (a -1) - (with Energy Storage)
Operational Information - Production Data for Off Shore Wind

Project Title

Data Entry: _____

You must insert an Hourly Profile, to the right in Part V(a)(i). This table will be populated automatically.

EXPECTED HOURLY GENERATION in MW (*averaged*) - 12 Months by 24 Hours For Representative Day For Each Month

Note: Intermittent Resources must use the P50 Level (Probability Distribution of Output).

Part V (a-2)

Operational Information - Energy Storage Charging/Discharging Schedule

Project Title

Data Entry: _____

This table is calculated from data entry in Part V(a)(ii). You must insert an Hourly Profile, two sections to the right.

HOURLY STORAGE ENERGY FLOW in MW (*averaged*) - 12 Months by 24 Hours For Representative Day For Each Month

Part V (b-1)

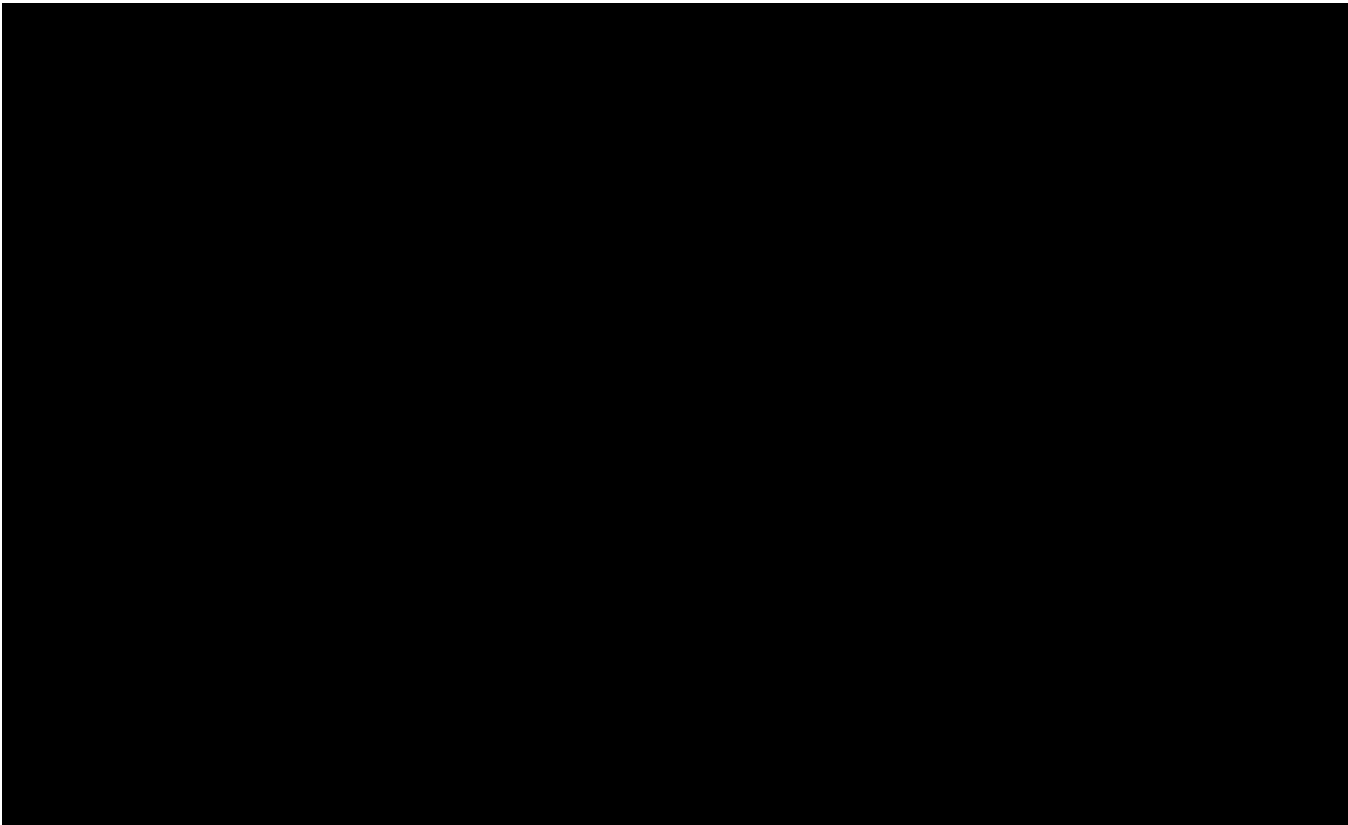
Operational Information - Delivery Schedule of Off Shore Wind with Energy Storage

Project Title

Data Entry:

This table is calculated from Part V(a-1) and Part V(a-2).

HOURLY DELIVERY in MW - 12 Months by 24 Hours For Representative Day For Each Month



Notes:

The hourly output profile(s) above will be summed into monthly peak and off-peak quantities via a uniform conversion. The conversion factors and resulting amounts, prior to applying the adjustment factors, are shown below in Part V (Informational).

Offshore Wind Resources with Paired Energy Storage

Enter the expected generation from the resource without the Energy Storage in Part V(a)(i). Enter the Energy Storage charge and discharge schedule in Part V(a)(ii). The net delivered energy from the resource, after the timing and loss effects of storage, will be calculated in Parts V(b-1).

Part V (c)

Operational Information - Maintenance Profile

Project Title

MONTHLY ADJUSTMENT FACTORS AS PERCENTAGE OF EXPECTED PRODUCTION

Enter factors in decimal format, where 1 equals no adjustment (i.e. a decrease of 2% should be entered as 0.98)

IMPORTANT: These factors are for specific months and calendar years. The first entry must coincide with the project start date.

Notes:

The adjustment factors in each contract month above will be applied to capture changes in monthly output production for variations associated with maintenance, degradation, or other changes in output.

If Part V(a) already reflect a forced outage rate or scheduled outage information, then Part V(c) should be left blank or contain a factor of 1.000 for each month.

Part V (informational)

Validation and Conversion Assumptions and Calculations

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Average Days used to convert hourly profiles into monthly and annual amounts

Average Number of Weekdays

Average Number of Weekend Days

Average Days

Average NERC Holiday

Generation and Delivery Conversion Prior to Monthly Adjustment Factors (Daily MWh/day)

Sum of HE 1-7, 24

Gen

Del

Sum of HE 8-23

Gen

Del

Sum of HE 1-24

Gen

Del

Monthly Generation and Delivery Summary (MWh)

Average Monthly On-Peak Period (prior to monthly adjustment factors)

Gen

Del

Average Monthly Off-Peak Period (prior to monthly adjustment factors)

Gen

Del

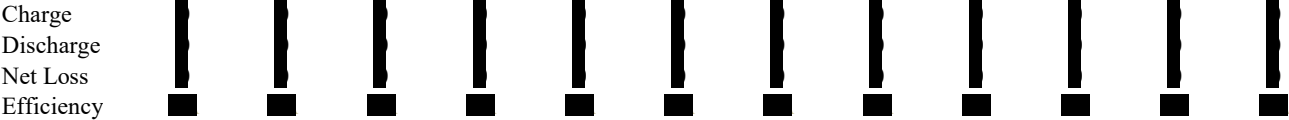
Total Monthly Energy (prior to monthly adjustment factors)

Gen

Del

Monthly Balance Check

Monthly Storage Flows (MWh)



Total Annual Energy and Capacity Factor (prior to monthly adjustment factors)

	On-Peak Hours	Off-Peak Hours	All Hours	AnnCapFac	Annual Delivery
Generation (MWh)	1000	1000	2000	1000	1000
Delivery (MWh)	1000	1000	2000	1000	1000
Storage (Net -MWh)	1000	1000	2000	N/A	1000

Version: v3 08/07/19

Part V (a -1) - (with Energy Storage)

Operational Information - Production Data for Off Shore Wind

Project Title

Data Entry:

You must insert an Hourly Profile, to the right in Part V(a)(i). This table will be populated automatically.

EXPECTED HOURLY GENERATION in MW (*averaged*) - 12 Months by 24 Hours For Representative Day For Each Month

Note: Intermittent Resources must use the P50 Level (Probability Distribution of Output).

Version: v3 08/07/19

Part V (a -1) - (with Energy Storage)

Operational Information - Production Data for Off Shore Wind

Project Title

Data Entry:

You must insert an Hourly Profile, to the right in Part V(a)(i). This table will be populated automatically.

EXPECTED HOURLY GENERATION in MW (*averaged*) - 12 Months by 24 Hours For Representative Day For Each Month

Note: Intermittent Resources must use the P50 Level (Probability Distribution of Output).

Version: v3 08/07/19

Part V (a -1) - (with Energy Storage)

Operational Information - Production Data for Off Shore Wind

Project Title

Data Entry:

You must insert an Hourly Profile, to the right in Part V(a)(i). This table will be populated automatically.

EXPECTED HOURLY GENERATION in MW (*averaged*) - 12 Months by 24 Hours For Representative Day For Each Month

Note: Intermittent Resources must use the P50 Level (Probability Distribution of Output).

Version: v3 08/07/19

Part V (a -1) - (with Energy Storage)

Operational Information - Production Data for Off Shore Wind

Project Title

Data Entry:

You must insert an Hourly Profile, to the right in Part V(a)(i). This table will be populated automatically.

EXPECTED HOURLY GENERATION in MW (*averaged*) - 12 Months by 24 Hours For Representative Day For Each Month

Note: Intermittent Resources must use the P50 Level (Probability Distribution of Output).

Version: v3 08/07/19

Part V (a -1) - (with Energy Storage)

Operational Information - Production Data for Off Shore Wind

Project Title

Data Entry:

You must insert an Hourly Profile, to the right in Part V(a)(i). This table will be populated automatically.

EXPECTED HOURLY GENERATION in MW (*averaged*) - 12 Months by 24 Hours For Representative Day For Each Month

Note: Intermittent Resources must use the P50 Level (Probability Distribution of Output).

Version: v3 08/07/19

Part V (a -1) - (with Energy Storage)

Operational Information - Production Data for Off Shore Wind

Project Title

Data Entry:

You must insert an Hourly Profile, to the right in Part V(a)(i). This table will be populated automatically.

EXPECTED HOURLY GENERATION in MW (*averaged*) - 12 Months by 24 Hours For Representative Day For Each Month

Note: Intermittent Resources must use the P50 Level (Probability Distribution of Output).

Part V (a-2)

Operational Information - Energy Storage Charging/Discharging Schedule

Project Title: _____ **Data Entry:** _____

This table is calculated from data entry in Part V(a)(ii). You must insert an Hourly Profile, two sections to the right.

HOURLY STORAGE ENERGY FLOW in MW (*averaged*) - 12 Months by 24 Hours For Representative Day For Each Month

The image is entirely black and contains no visible content.

Part V (b-1)

Operational Information - Delivery Schedule of Off Shore Wind with Energy Storage

Project Title

Data Entry:

This table is calculated from Part V(a-1) and Part V(a-2).

HOURLY DELIVERY in MW - 12 Months by 24 Hours For Representative Day For Each Month

Notes:

The hourly output profile(s) above will be summed into monthly peak and off-peak quantities via a uniform conversion. The conversion factors and resulting amounts, prior to applying the adjustment factors, are shown below in Part V (Informational).

Offshore Wind Resources with Paired Energy Storage

Enter the expected generation from the resource without the Energy Storage in Part V(a)(i). Enter the Energy Storage charge and discharge schedule in Part V(a)(ii). The net delivered energy from the resource, after the timing and loss effects of storage, will be calculated in Parts V(b-1).

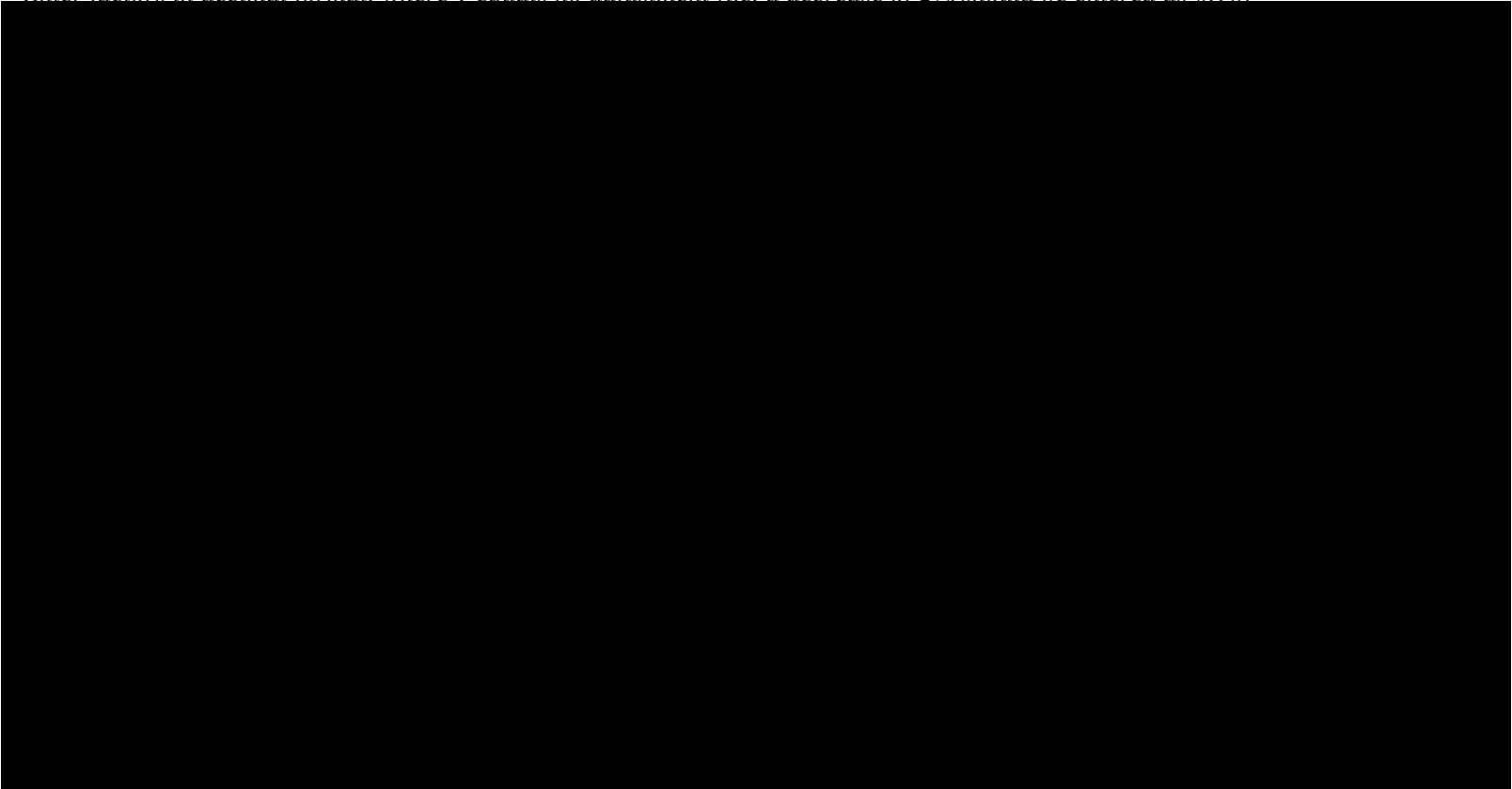
Part V (c)

Operational Information - Maintenance Profile

Project Title _____

MONTHLY ADJUSTMENT FACTORS AS PERCENTAGE OF EXPECTED PRODUCTION

Enter factors in decimal format, where 1 equals no adjustment (i.e., a decrease of 2% should be entered as 0.98)



IMPORTANT: *These factors are for specific months and calendar years. The first entry must coincide with the project start date.*

The adjustment factors in each contract month above will be applied to capture changes in monthly output production for variations associated with maintenance, degradation, or other changes in output.

If Part V(a) already reflect a forced outage rate or scheduled outage information, then Part V(c) should be left blank or contain a factor of 1.000 for each month.

Version: v3 08/07/19

Part V (informational)

Validation and Conversion Assumptions and Calculations

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Average Days used to convert hourly profiles into monthly and annual amounts

Average Number of Weekdays

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Number of cases	10	15	20	25	30	35	40	45	50	55	60

Average Number of Weekend Days

Average Days

Average NERC Holiday

Generation and Delivery Conversion Prior to Monthly Adjustment Factors (Daily MWh/day)

Sum of HE 1-7, 24

[illegible]

Sum of HE 8-23

[illegible]

Sum of HE 1-24

[illegible]

Monthly Generation and Delivery Summary (MWh)

Average Monthly On-Peak Period (prior to monthly adjustment factors)



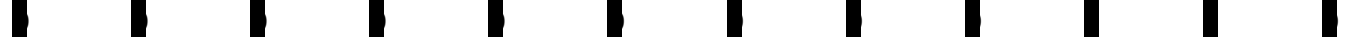
Average Monthly Off-Peak Period (prior to monthly adjustment factors)



Total Monthly Energy (prior to monthly adjustment factors)



Monthly Balance Check



Monthly Storage Flows (MWh)



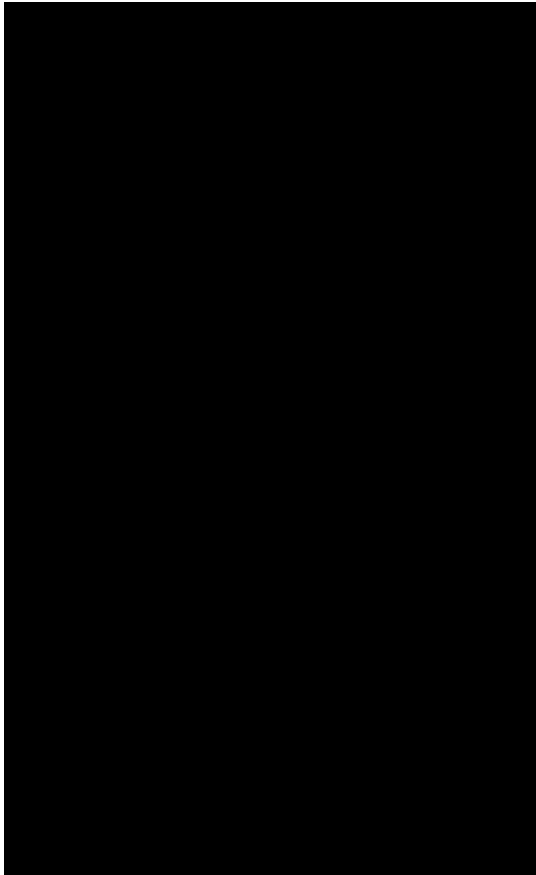
Total Annual Energy and Capacity Factor (prior to monthly adjustment factors)

	On-Peak Hours	Off-Peak Hours	All Hours	AnnCapFac
Generation (MWh)				
Delivery (MWh)				%
Storage (Net -MWh)				

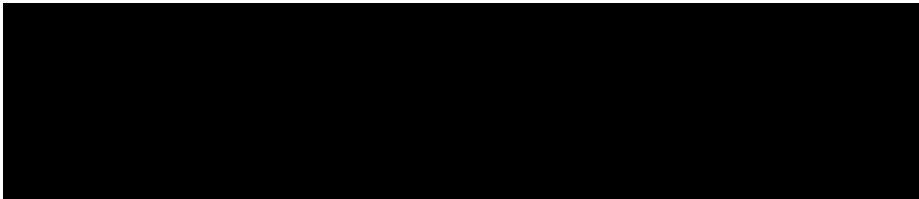
Annual Delivery

Part VI (a)
Pricing Information

Project Title



Describe the delivery facilities and their various components (e.g. high side bus, high voltage cables from the high side bus to the onshore substation)

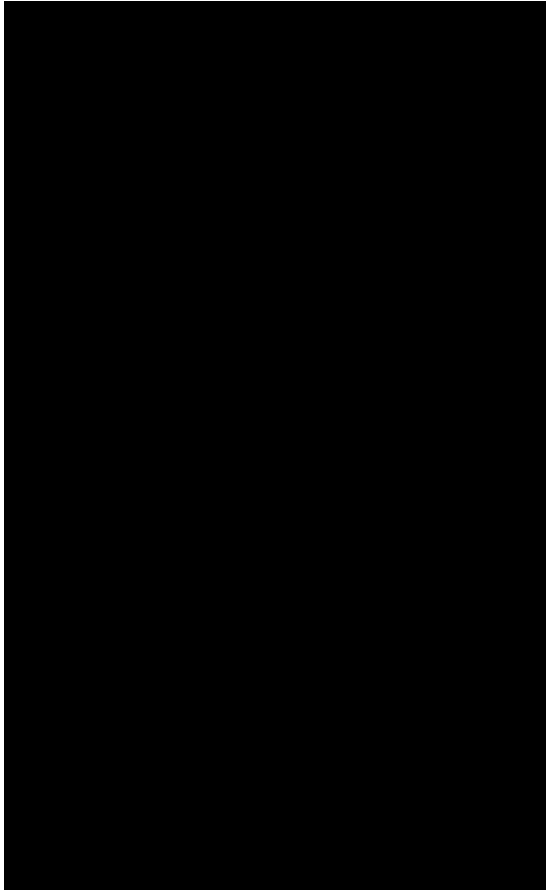


Notes:

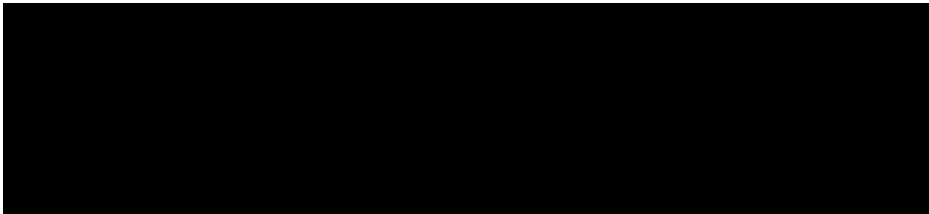
- 1) Prices for energy and/or RECs may not decrease from one Contract Year to the next.

Part VI (b)
Pricing Information, Phase 2 (if applicable)

Project Title



Describe the delivery facilities and their various components (e.g. high side bus, high voltage cables from the high side bus to the onshore substation)




Notes:

- 1) Prices for energy and/or RECs may not decrease from one Contract Year to the next.

Part VI (c)
Alternative Pricing Information
for Consideration by National Grid Pursuant to Section 2.2.1.4.h of the RFP

Project Title _____

Specify the term that National Grid will be entitled to their respective share of RECs from the proposed project (e.g., project life, along with an estimate of the project life, or a specified term beyond the proposed term of the Long-Term Contract) and a forecast of RECs to be delivered each year beyond the primary term along with a summary of terms and conditions regarding the transfer of RECs beyond the primary term.



Specify the total pricing applicable to National Grid for this alternative proposal, including additional costs, if any, for National Grid's entitlement to RECs beyond the term of the Long-Term contract. Any such additional costs must be recovered only under the term of that Long-Term Contract.



Notes:

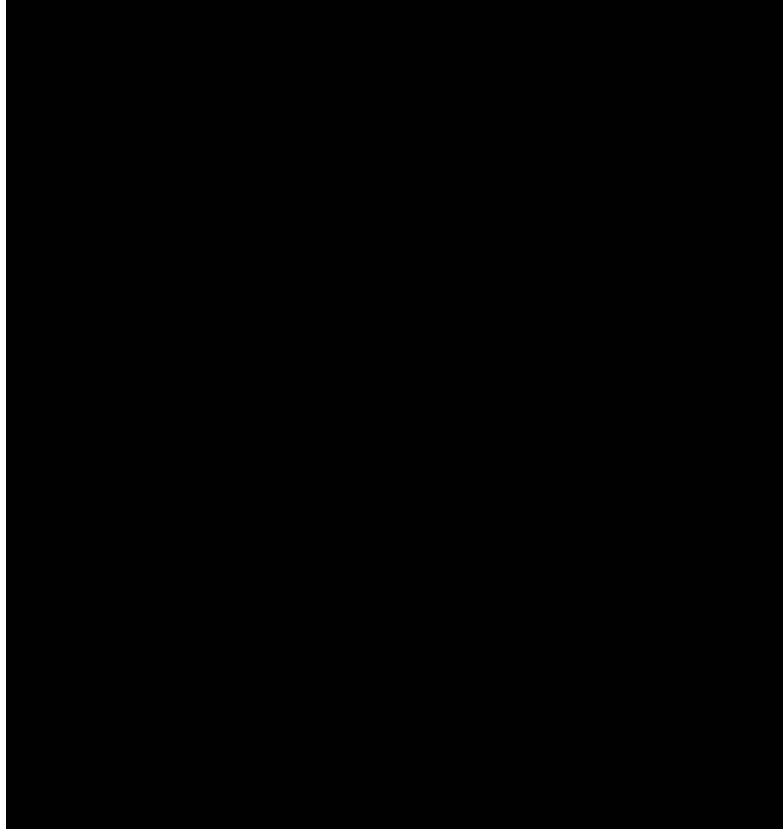
- 1) For such an alternative proposal for a project to be considered by National Grid, the bidder must also have submitted a conforming bid for the same project which limits the transfer of the entitlements to the RECS for all EDCs to the primary term of the Long-Term Contract.
- 2) Prices for RECs may not decrease from one Contract Year to the next.
- 3) Bidders are not required to pay an additional bid fee for this alternative

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Part VI (a) (i)

Project Title

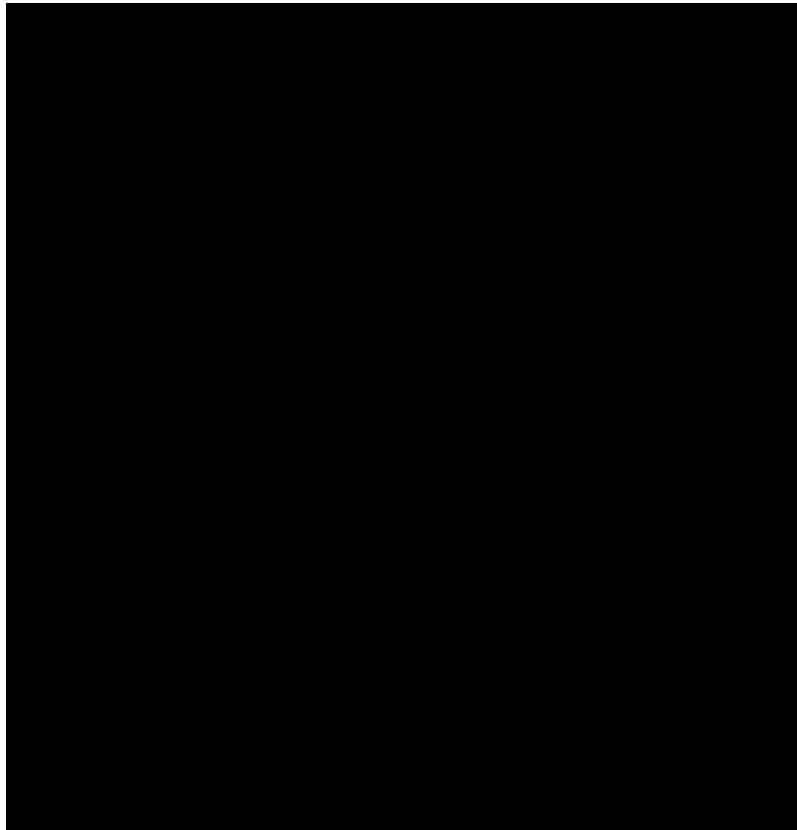
Section 2.2.1.4.i.(e) check



Part VI (b) (i)

Project Title

Section 2.2.1.4.i.(e) check





Part VII
ISO-NE Forward Capacity Auction Qualification

Project Title _____

Provide MW of expected qualified capacity for the Facility determined in accordance with the Forward Capacity Auction Qualification (“FCAQ”) process. The Bidder must utilize the ISO-NE FCA Wind Qualification Template spreadsheet to approximate the qualified capacity associated with its proposed Offshore Wind Energy Generation project.

First Capacity Commitment Period Summer _____ Winter _____
June 2026 through May 2027 MW _____ MW _____
(Change xx and yy to reflect first Capacity Commitment Period)

Please confirm if you have completed the studies referenced in RFP Section 2.2.1.7(b) and included any completed studies with your bid submission. Please indicate the status of any studies not completed.

Please explain:

Part VIII
Contract Information

Project Title _____

The following Detailed Information Request for Projects is provided in order to facilitate the completion of a Power Purchase Agreement ("PPA") with the EDCs, should your project be selected as a winning bidder.

1) Project description including location:

a) Legal Name of Entity to be the Seller (Preamble):

b) Type of Organization (e.g., Corporation, LLC, Partnership) (Preamble)

c) Jurisdiction of Organization (Preamble and Section 7.2(a)):

d) Technology: (Exhibit A of PPA):

e) Name of Facility: (Exhibit A of PPA)

f) Renewable Energy Lease Number:

g) Guaranteed Commercial Operation Date: (Second Whereas clause and §3.1(a)(iv) of Class I PPA):

h) Guaranteed Delivery Term Start Date: (Definitions - Article 1 of Firm PPA):

i) Buyer's Percentage Entitlement: (Definitions- Article 1 of Class I PPA)

_____ % of Products from the Facility to be delivered to Utility

- A fixed percentage of Energy and/or RECs to be sold to the contracting EDC. The Class I PPA is unit contingent and does NOT permit a fixed quantity of Products (e.g., the first "X" MWh of energy in any given hour) to be sold to the contracting EDC.

j) Contract Maximum Amount: (Definitions- Article 1)

_____ MWh per hour of Energy and/or associated RECs.

Part VIII (Continued)
Contract Information

2) Critical Milestones (Section 3.1 of Class I PPA) – Please provide the date by which each of the following milestones will be achieved:

(i) Receipt of all Permits necessary to construct the Facility, as set forth in Exhibit B, in final form by

Date:

(ii) Acquisition of all required real property rights in addition to the federal lease referenced in Section 7.2(m) necessary for construction and operation of the Facility, the interconnection of the Facility to the Interconnecting Utility and the construction of Network Upgrades in full and final form with all options and/or contingencies having been exercised demonstrating complete site control as set forth in Exhibit B, by

Date:

(iii) The achievement of the Financial Closing Date or other demonstration to Buyer's satisfaction of the financial capability of the Seller to construct the Facility, including, as applicable, Seller's financial obligations with respect to interconnection of the Facility to the Interconnecting Utility and construction of the Network Upgrades by

Date:

(iv) Issuance of a full notice to proceed by Seller to its general contractor and commencement of construction of the Facility by

Date:

(v) Receipt of all Permits necessary to operate the Facility, as set forth in Exhibit B, in final form, by

Date:

(vi) Achievement of the Commercial Operation Date by

Date:

3) Notices (Section 17)

To Seller: (optional) With a copy to:

4) Description of Facility (Exhibit A)

Please other descriptive details [such as Operational Limitations and criteria for substantial completion of

Part VIII (Continued)
Contract Information

5) Seller’s Critical Milestones for New Facilities or Proposed Upgrades (Class I PPA)

Part 1a) Construction Permits	Part 1b) Operating Permits

Part 2) Real Estate Rights

Part VIII (Continued)
Contract Information

6) Seller’s Information for Existing Facility

Part 1) Operating Permits	Part 2) Real Estate Rights
[Redacted Content]	