

June 9, 2022

Ms. Carmen Diaz
Acting Secretary of the Board
New Jersey Board of Public Utilities
44 South Clinton Avenue, 1st Floor
PO Box 350
Trenton, NJ 08625 – 0350

Re: In the Matter of Offshore Wind Transmission, Docket No. QO10100630, Response to Clarifying Questions Set 1

Dear Acting Secretary Diaz,

Rise Light & Power, LLC, on behalf of our wholly-owned subsidiary Outerbridge New Jersey, LLC (collectively, "Rise"), commends the New Jersey Board of Public Utilities ("BPU") and the Murphy Administration for their nation-leading offshore wind energy development program, which will deliver major benefits for New Jersey's economy, environment, and citizens.

Rise greatly appreciates the opportunity to provide its response to Clarifying Questions Set 1 related to our Outerbridge Renewable Connector proposal ("Outerbridge") in the pages that follow. For ease of reference, the questions are numbered under each section.

Rise stands ready to support the BPU in any way that may be helpful during this evaluation period. Please let us know if we can be of further assistance.

Respectfully,

Richmond Young Director of Development

Rise Light & Power



# Outerbridge Renewable Connector Project

New Jersey Board of Public Utilities Offshore Wind Transmission Proposal

Response to Clarifying Questions Set 1 (dated May 27, 2022) from the NJ Board of Public Utilities in the Evaluation of Transmission Projects Proposed Under the 2021 State Agreement Approach



### **ISSUE INFORMATION**

Outerbridge New Jersey, LLC 1 Tower Center Blvd #11 East Brunswick, NJ 08816

Certain information in this filing contains commercially sensitive business information and therefore has been redacted from this Public Version of the Applicant's submission



## **Ratepayer Cost Impacts**

1. Please discuss any options you have considered to make some, or part, of the project eligible for the current federal investment tax credit that is accessible to qualified offshore wind generation projects. Have you considered options for accessing beneficial tax treatment through a sale/lease back or other financial structuring options? If so, please provide specific details on your analysis, how you intend to pursue the tax credits, and any other matters that Board Staff should consider.

Current Federal Tax Law limits the applicability of the offshore wind (OSW) investment tax credit ITC) to generation equipment and "property owned by the taxpayer necessary to condition electricity for use on the grid such as subsea cables and voltage transformers", provided that all the aforementioned equipment is under a common ownership. As the Outerbridge project is entirely onshore, the OSW developer would own all the offshore equipment and that 30% of the eligible costs would qualify for the OSW ITC.

In the event that a change in law makes ITC, other federal funding, or other economic benefits available for transmission infrastructure, Outerbridge New Jersey, LLC (Outerbridge NJ) is expected to qualify no differently than projects responsive to option 2 or 3 proposals. Our team has experience prosecuting tax equity transactions and securing federal funding, and in the event such programs are available, will commit to pursue them, and to the extent they are received, cooperate with the BPU to structure an equitable and transparent mechanism for pass-through sharing of realized net benefits to ratepayers provided that Outerbridge NJ is able to recover costs associated with such transaction, and a reasonable return to incentivize completing the transaction.

Outerbridge NJ has considered a sale and leaseback structure but does not see any benefits to the same under current Federal Tax law as on-shore transmission projects do not qualify for ITC.

2. Do you commit to "pass through" to New Jersey ratepayers the economic benefit you receive from any current and/or future federal tax credits or incentives that may be (or may become) available to your project? If so, please provide specific details on how. If you are electing to keep the economic benefit of any tax attributes, please so specify and address any impact on your bid.

See response above (Ratepayer Cost Impacts, Question #1).



3. Do you intend to review and discuss your proposed rate and FPA Section 205 filings with the NJ BPU prior to submitting those proposals with either PJM or FERC? In connection with the foregoing, are you willing to provide the NJ BPU an opportunity to give feedback prior to your making any FERC filing on this matter?

Yes. If awarded, Outerbridge NJ will provide drafts of its proposed rate and FPA Section 205 filings to the NJ BPU and PJM prior to making its formal/official submission(s) to either the PJM or FERC and will make its relevant team members available to receive feedback from the NJ BPU and PJM.

4. Do you intend to provide the NJ BPU the opportunity to monitor compliance with the selected cost containment and schedule guarantees that would be incorporated in a Designated Entity Agreement ("DEA") with PJM? With respect to the DEA, do you intend to provide the NJ BPU an opportunity to present concerns or ask clarifying questions related to your proposed Schedule E terms before they are presented to PJM?

Yes. Outerbridge NJ will provide the NJ BPU the opportunity to monitor compliance with the selected cost containment and schedule guarantees that would be incorporated in a DEA with PJM (and under the FERCs jurisdictional authority). Outerbridge NJ will provide the NJ BPU an opportunity to present concerns or ask clarifying questions related to our proposed Schedule E terms before finalizing the same with PJM.

5. Please indicate whether you have had, or anticipate having, any discussions with the Department of Energy Loan Programs Office (LPO) regarding obtaining support from the LPO for your proposed project(s). If so, please provide an overview of the discussions you have had with the LPO, whether you have filed an initial application with the DOE, or whether you intend to do so.

No, Outerbridge NJ has not had discussions with the LPO, nor have we filed an application with the LPO. As the Outerbridge project is expected to be governed by a FERC Order No. 1000 jurisdictional rate, Outerbridge NJ does not foresee the need for, nor do we see any benefits to, they loan guarantees available from the LPO, as 3rd party capital is widely available for such projects. Loan guarantees come with a cost, and Outerbridge NJ does not deem it to be necessary to burden NJ ratepayers with unnecessary cost.



6. Please discuss any efforts to access non-tax federal support for your project, including, but not limited to, funding from the Department of Energy's Transmission Facilitation Program, other Infrastructure Investment and Jobs Act funding, or other sources of potential support. Would you anticipate filing such a request or would you expect New Jersey to seek any available support?

No, Outerbridge NJ has not pursued other federal support for the project as there are currently no such programs that could benefit the Outerbridge NJ. If successfully awarded a project by the NJ BPU, Outerbridge NJ will be under a FERC Order No. 1000 rate – which has widely available 3<sup>rd</sup> party capital sources that have been proven to lower costs and risks to ratepayers.

The federal Transmission Facilitation Project, as currently contemplated<sup>1</sup>, would not result in benefits to the project's feasibility or the cost borne by New Jersey's ratepayers. Our team will continue to review eligibility of the Outerbridge project as new programs are released to ensure that NJ ratepayers receive the indirect benefit of any federal programs that would bring down the cost of the project. To the best of our knowledge, SAA projects would not be suitable for the TFP program dollars that are made available for transmission projects that have unsubscribed capacity.

7. Do you commit to "flow through" to New Jersey ratepayers any economic benefits that may be received from DOE or other federal funding sources? If so, please provide specific details on the manner in which this would be accomplished. If you are electing to keep the economic benefit of any federal support, please so specify and address any impact on your bid.

See response above (Ratepayer Cost Impacts, Question #1).

<sup>&</sup>lt;sup>1</sup> Notice of Intent and Request for Information regarding the establishment of a Transmission Facilitation Program that was issued by the Department on Energy on May 6.



8. Please discuss any potential impacts on your project and bid if federal support were made available through DOE's Transmission Facilitation Program in the form of a purchase of transmission capacity, which would then be made available for resale by DOE at a future time. Could the project be structured as a sale of transmission capacity, where such capacity sales would be backed by a ratepayer-backed purchase of all available capacity? What would be the pros and cons of such an approach?

If structured properly, a long-term contract such as that contemplated by the Transmission Facilitation Program (TFP) could provide the required revenue certainty to justify an investment in the Outerbridge project. The Outerbridge NJ team is experienced in negotiating and structuring long-term revenue contracts of this nature, and will work with the NJ BPU to ensure that such a contract is "bankable".

Based on current guidance<sup>2</sup>, the Outerbridge project would qualify for the TFP as currently contemplated. However, Outerbridge does not see how a TFP contract would be more beneficial to NJ ratepayers compared to how transmission projects are typically financed under a FERC Order No. 1000 rate, nor do we see how it would be more beneficial than a generator lead owned by the wind developer. Outerbridge NJ anticipates that the DOE will charge market rates for the capacity "used", plus additional fees to recover the cost of facilitating the TFP. In addition, the TFP would require the DOE to be involved in the development and financing of the project – adding coordination risk and complexity to reaching financial close. Our team will continue to review eligibility of the Outerbridge project as new programs are released to ensure that NJ ratepayers receive the indirect benefit of any federal programs that would reduce the cost of the project.

<sup>&</sup>lt;sup>2</sup> Under the Notice of Intent and Request for Information regarding the establishment of a Transmission Facilitation Program that was issued by the Department on Energy on May 6.



# **Project Design**

1. Has your offshore platform been designed with sufficient space and equipment for future interconnection with other offshore platforms as a part of an offshore transmission network?

Outerbridge NJ proposals are submitted in response to Option 1b, and thus do not include an offshore platform. However, our proposed configuration of landing multiple HVAC lines at the Werner site will yield the same benefits as an offshore meshed network because it reduces the single contingency risk, and ensures that if a single line fails, the entire wind farm is not without transmission capacity.

2. Please confirm that the single submitted BPU Supplemental form covers all RISE proposals?

Yes. We confirm that the Rise proposals are addressed by the single submitted BPU Supplemental form. The proposals by Rise were designed in modules to provide the BPU with flexibility to the select the configuration that best aligns with its overall approach and goals in establishing the necessary transmission capacity to support the State's offshore wind goals.

The Base Offer provides an opportunity for New Jersey to inject either 1,200 MW or 2,400 MW of offshore wind (Base Offer 1 and Base Offer 2, respectively) into the existing East Windsor-Deans 500kV transmission line, through a proposed new switching station in

With the selection of either Base Offer 1 or Base Offer 2, an incremental injection capacity of 400 MW or 800MW can be added onto the existing 230kV system at Werner Substation in South Amboy (Additional Offers A and B). Further, Rise proposed an option to add a 91MW/364MWh Battery Energy Storage System (BESS) to be interconnected onto the Werner 230kV Substation (Additional Offer C).



- 3. Battery Energy Storage System ("BESS") (Project 21)
- How would the BESS participate in PJM? As a storage asset, or a market participant?
- How does RISE propose to maximize benefits from the submitted BESS system?
- Who will determine how the BESS system is utilized and/or dispatched?

Outerbridge NJ is open to discuss other options in consideration of the evolving regulatory landscape; however, it current intends to operate the BESS system as a storage asset under PJM's rules of operation at the time when the project goes into service. Outerbridge NJ anticipates that the BESS system will be dispatched into the wholesale energy markets to optimize profitability and eligibility for the wholesale market products, subject to PJM and NJ BPU regulation and directives – which may include reliability considerations. Any net revenues received in excess of the FERC approved rate would be returned to ratepayers.

- 4. "Reserved for Future Development"
- What is the anticipated future development at the Werner site?
- How much will any cost of the RISE proposal go to development of the rest of the Werner site? (i.e. that which is reserved for future development)
- What is the purpose of the other HDD borepaths reflected on the schematic? (6 yellow, two pink)

Rise acquired the Werner site in 2021, and is in the process of redeveloping the brownfield site into a renewable energy hub that facilitates the State's clean energy transition. Located along the Raritan Bay, the Werner site is a 26 acre land parcel<sup>3</sup> that is industrial zoned, abuts a Conrail line, and is host to the existing Jersey Central Power & Light Werner substation. Rise is pursuing several development projects at Werner, in addition to those offered in connection with the Outerbridge NJ proposal in this SAA solicitation. Current projects include:



<sup>&</sup>lt;sup>3</sup> The Werner site also includes an additional 24 acres of Riparian rights



Costs included in Rise's Outerbridge proposal exclude any funds to redevelop the Werner site for other uses. For the avoidance of doubt, only costs directly related to the Outerbridge project under the SAA are included in the proposal. Ratepayers will not be paying for anything that is not related to the proposed Outerbridge project(s).

The multiple HDD borepaths on Figure 3.3 are meant to illustrate the breadth and diversity of potential landing sites at Werner – which provides Rise with maximum flexibility in arranging equipment to optimize land use. The eastern half of the site is the most optimal location for the HDD borepaths, with a couple of HDD borepaths also possible on the westernmost portion of the site.

5.	Base Offer 1
•	Please describe the level of cost reduction associated with a choice to forego additional
	expansion capability (Supplemental form at 21-22)
Si	ting / Permitting
1.	Identify progress made in securing necessary land, easements, ROW grants, etc. for your
	project(s) since submittal.
	The Outerbridge project is comprised of three sections of real estate: i) Werner Site,
	and iii) Conrail Right of Way (from the Werner Site to the
	submittal, Outerbridge NJ has invested significantly in maturing the development of our project on
	each of these properties.
	each of these properties.



Werner	Site (South Amboy, NJ)
0	Owned by Rise in fee, no additional site control needed.
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	has had the
-	wetland boundaries verified by the NJ DEP through a Letter of Interpretation,
	Regulatory Line Verification. NJDEP determined that two areas characterized by
	standing water did not meet the definition of regulated wetlands under the New Jersey
	Freshwater Wetlands Protection Act.
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	The assessments include (see Appendix for details):
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- Conrail Right of Way
  - o Both the Werner and sites abut an existing, operating Conrail line.
  - Outerbridge NJ is in an active, regular dialogue with Conrail regarding an Application for Pipe or Wire Occupancy on Conrail Property (Application), under which Conrail will provide the right of way required between Werner and
  - In connection with both our preparation of the Application, and our planned permit applications, Outerbridge has commissioned and executed a survey of the Conrail right of way.
    - Rise engaged a New Jersey based land surveying firm, to execute the required survey of the Conrail Right of Way.
    - The results from the survey are being used to identify corridors to lay underground HVDC cables from the Werner to the site. The final portions of this survey is anticipated to be completed in

In addition to these parcels, if the Outerbridge project(s) are selected, OSW developers will require easements or comparable rights for the submerged lands required by the submarine HVAC cables that will land at the Werner site. These easements are expected to be issued by BOEM, NJ DEP and NY OGS. In order to mature and de-risk the Outerbridge project, we have completed marine route surveys to validate the feasibility of:

- Accommodating the landing approach at Werner for the required cables to support the full capacity of the Outerbridge proposals (i.e., 3,200 MW – Base Offer 2 and Additional Offer B)
- Establishing cable corridors in Raritan Bay (within NJ State waters) for a cable route from Sandy Hook to the landing approach at Werner

These surveys have been designed in a manner conforming to BOEM's GGARCH specifications. We believe these surveys will provide substantially all, or a very significant portion of, the data needed by an OSW developer to submit to the NJ DEP and NY OGS applications for the portions of their routes that are in state waters. If selected under the SAA, Rise will make the data from these marine route surveys available to the OSW developer(s) selected by the NJ BPU to connect with the Outerbridge NJ project.



2. Please describe how your proposed solutions will minimize environmental impacts and permitting requirements through the use of common corridors that can accommodate more than one transmission cable, including an estimate of the miles in which facilities/infrastructure will be co-located within a common corridor and miles in which facilities/infrastructure will be located in separate corridors.

As discussed more fully below, Outerbridge NJ has completed surveys of the offshore environment that demonstrate that the anticipated number of cables can reach the Werner site with minimal disturbance. Significantly, the Werner site provides the opportunity for a compelling beneficial reuse and repurposing of a brownfield site that also allows for avoiding any impact to beaches – making Werner an ideal site for the injection of energy from offshore wind. Outerbridge NJ is able to minimize the impact to public roads and properties by utilizing the Conrail RoW. Additionally, the site continues the existing use as the location of electric transmission facilities.

The Outerbridge project was designed to leverage existing infrastructure to minimize environmental impacts and permitting requirements by:

- 1) Utilizing the Werner site a former coal-fired power plant, as a subsea cable landing location and location for an HVDC converter station;
- 2) Co-locating the onshore HVDC transmission cable within existing Conrail rights-of-way; and
- 3) Co-locating a switching station and HVDC converter station(s) on the

To assess the feasibility of constructing subsea cables through Raritan Bay to make landfall at the Werner Site, Outerbridge NJ completed several surveys and studies to de-risk the project.

- Desktop and marine surveys indicate soft-bottom substrate throughout Raritan Bay with two existing infrastructure assets (Transcontinental Gas Pipe Line Corporation's Lower New York Bay Lateral and the Neptune Regional Transmission Cable) traversing the bay. The presence of this existing infrastructure along with the results of Rise's marine surveys indicate it is feasible to install subsea cables through Raritan Bay using installation techniques such as a jet plough. Given the prior disturbance from existing energy infrastructure, landing offshore wind cables at the Werner site would be preferable to installing cables through offshore areas that have otherwise been undisturbed most notably, under recreational beaches.
- The cable landfall study completed by Outerbridge NJ indicates that landing offshore cables at the Werner site using horizontal directional drill (HDD) construction methods is feasible. The use of HDD construction methods reduces impacts to nearshore areas within Raritan Bay, while use



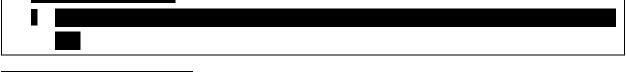
of the Werner site avoids the need to site offshore wind transmission cables under beaches or other sensitive coastal areas.

The Werner site is a 26-acre former industrial site located on the waterfront in South Amboy.

- The industrial history and zoning of the site provides an excellent opportunity for the State to showcase how a brownfield can be repurposed to facilitate the transition to clean energy
- Cables from OSW farms can land at an industrial waterfront avoiding the need to install high voltage cables under beaches.
- Construction of OSW-related facilities on the Werner site would be located in previously disturbed, formerly developed areas avoiding the need to occupy "greenfield" sites.
- The Werner site is bound to the northwest and west by existing road and railroad infrastructure, with existing Conrail rights-of-way extending from Werner to the

The Conrail rights-of-way (RoW) connects both the Werner and

- The presence of the Conrail RoW enables Outerbridge NJ to co-locate the —-mile HVDC transmission cable entirely underground avoiding the use of public rights-of-way, and minimizing disturbance during construction
- Outerbridge NJ proposes to install a duct bank system along the Conrail RoW that would accommodate the full capacity (i.e., 2,400 MW) as part of its Base Offer 1 (1,200 MW) proposal.
   The ducts enable future expansion capability while minimizing the impacts to the environment<sup>4</sup>.
- Co-locating the transmission cable within the existing Conrail RoW will reduce or avoid impacts to wetlands, waterbodies, and other sensitive resources. In addition, it is also expected to reduce the need to clear trees to install the transmission cable.
- Existing off-ROW access roads will be utilized to the maximum extent feasible to minimize environmental impacts associated with the construction of new temporary access roads.
- Outerbridge NJ is also evaluating the feasibility of using HDD or other trenchless crossing methods to install the cable across large wetland and waterbody complexes such as the South River and its adjacent wetlands.



<sup>&</sup>lt;sup>4</sup> As previously discussed (Project Design, #5) NJ BPU can request that the duct bank system exclude future expansion capability – which would translate into a cost reduction of approximately \$15M to Base Offer 1.



3. In the case where facilities/infrastructure are using common corridors, please explain the methods for reducing environmental impacts, including what equipment will be used in common corridors, when each facility will be installed, and how they will be installed, and how the common corridors will mitigate, minimize, or avoid future construction efforts.

See response above (Siting / Permitting, #2) for how Outerbridge NJ is designed to minimize environmental impacts. In addition, construction methods are discussed below (Environmental, #2d).

4. Please identify all discussions that you have had with BOEM regarding the siting and permitting of your proposed project, including but not limited to (a) whether a right-of-way (ROW) grant or right of use authorization (RUA) will be required, (b) whether BOEM will conduct or be required to conduct a competitive solicitation prior to the issuance of a ROW grant or RUA, (c) BOEM's information needs and expected timeline for the issuance of any competitive solicitation, ROW grant, and/or RUA (including information needed and the expected timeline for conducting any required review under NEPA), and (d) the expected timeline for you to submit, and BOEM to review and approve, a general activities plan (GAP) for your proposal.

Because Outerbridge NJ is entirely onshore and therefore does not require BOEM approval, Outerbridge NJ has not had any discussions with BOEM about the Outerbridge project. The Outerbridge project provides OSW developer(s) with full scope and control of all off-shore infrastructure – which significantly reduces project-on-project risk. In addition, this significantly reduces the risk that Outerbridge NJ will not be in-service as required in advance of the connecting OSW project(s).

Outerbridge NJ will require at least one Federal approval and thus will be subject to review under the National Environmental Policy Act ("NEPA"). However, unlike Option 2 and 3 projects that are subject to BOEM's jurisdiction, Outerbridge NJ's required NEPA clearance review is expected to be straightforward and streamlined based on the scope and scale and likely minimal environmental effects of this low impact designed project. Because of its low impact siting and design, industrial



land repurposing and the use of existing upland rights of way for this point-to-point transmission facility, it is anticipated that the Project will be subject to a more succinct Environmental Assessment (EA) review. The EA will provide a brief summary of the Project's purpose and need, any alternatives, and a succinct review of the environmental impacts, and is expected to conclude with the issuance of a Finding of No Significant Impact as conditioned by the federal review agencies.

5. Please identify all discussions you have had with current and recently awarded lease holders with respect to your proposal, any concerns that you have identified as a result of those discussions, and any concerns that have been raised by those lease holders.

Outerbridge NJ has conducted multiple discussions with each of the holders of leases that are expected to participate in the NJ BPU's next OREC solicitations. The feedback we heard from the OSW developers is as follows:

- They need clarity from the NJ BPU regarding when and how the SAA information regarding the solicitation process, and any determination, will be available prior to the start of the next OREC solicitation
- They have experience developing onshore transmission infrastructure for OSW projects in other markets
- Developers have a variety of opinions regarding the risks and benefits associated with the SAA program, which include:
  - Indifference between HVAC and HVDC technology
  - Level of coordination between transmission developer and OSW developer, and how this could add risks to schedule delays and integration
  - Concerns about the costs and technical feasibility associated with ensuring the transmission solution is "future proof"
  - Potential need for revenue support/enhancements (for bankability of OSW farms) in the event an SAA transmission project is not ready in time for the OSW farm to connect to the grid



# **Project Schedule**

Offshore wind developers have identified schedule risk as the primary concern for selecting
offshore transmission facilities via the SAA. Please explain how your proposed schedule will
ensure offshore wind generation facilities will be able to meet their construction schedule
and projected in-service date for each solicitation, and the need for electricity back-feed 12
to 15 months prior to its in-service date.

Option 2 and Option 3 projects, by their very nature, expose OSW projects and their developers to significant schedule and project viability risk that arise from permitting and project execution.

- Higher Permitting Risk
  - Option 2 projects will almost certainly trigger a full Environmental Impact Statement.
  - o Given the Federal legal precedent regarding project segmentation, BOEM may be unable to commence the review of an Option 2 project until the specific OSW farm(s) connecting to it have been identified and their associated impacts accounted for.
  - Additional complexity due to the unprecedented level of coordination required between the transmission developer and OSW developer.
- Higher Project Execution Risk
  - Option 2 projects put the burden of offshore construction on transmission developers, rather than offshore wind developers – who are best positioned to manage the construction of offshore transmission infrastructure for several reasons:
    - OSW developers are best positioned to align the construction schedule of the offshore transmission infrastructure with that of the overall wind farm.
    - OSW developers are best positioned to identify synergies among the construction methods for the offshore wind farm and transmission infrastructure
    - OSW developers are best positioned to manage union labor relations for the entirety of the offshore project scope.
    - OSW developers are in a better position to manage the supply chain for offshore transmission infrastructure – providing economies of scale and aligning technology/equipment selection to mitigate risks from supply chain bottlenecks.

In addition to the implicit risk associated with Option 2 or Option 3 projects by their very nature, many of the specific projects proposed in this SAA solicitation, if selected, would subject the OSW projects to even greater risk due to their plans to route cables under public beaches and through public roads, which can reasonably be expected to spur significant public opposition. This is manifest today in the



public opposition to the plan to run offshore cables from the Ocean Wind 1 project underground through Ocean City to reach the onshore POI near the B.L. England Generating Station.

Conversely, Option 1B projects, which are entirely onshore, carry less schedule risk compared to Option 2 and 3 projects for the following reasons:

- All offshore routing and permitting work will be controlled by OSW developers, who are best positioned to align the same with the overall design of the wind farm.
- The scope of required federal approvals (if any) is expected to be significantly less as majority of the permits are with the State of New Jersey and local municipalities.
- The permitting process for Option 1B projects will be less complex given the minimal coordination required between the transmission developer and OSW project developer.
- Onshore transmission infrastructure benefits from a more robust supply chain with many more competitive options. As such, supply chain partners are substitutable if vendor(s) need to be replaced.
- A number of highly-skilled New Jersey-based contractors are able to execute onshore transmission projects today
- Union labor jurisdictions for onshore transmission infrastructure is already defined in New Jersey
- Onshore construction is not subject to the same risks of delay as offshore construction

Outerbridge NJ stands out as the strongest of the Option 1B projects based on its avoidance of public beaches, cost effectiveness, and ability to be part of a portfolio that supports multiple winners under the SAA. Specifically:

- Outerbridge NJ offers a fixed landing spot at the shore, which will be known to OSW developers early in their permitting process. This simplifies the work of the OSW developer, while allowing them to maintain control over the BOEM and other federal permitting processes.
- Outerbridge NJ intends to pursue low impact siting and design, which is unlikely to trigger review under the National Environment Policy Act ("NEPA"). Even if it does, it is likely to result in a finding of "No Significant Impact" given the limited scope of federal jurisdiction
- Outerbridge NJ intends to proceed with its permitting regardless of whether specific OSW farm(s)
  connecting to it have been identified. This is made possible by the fact that the project is all
  onshore, with minimal dependency on the connecting OSW farm(s) for permitting.
- Rise owns the underlying property on the industrial waterfront in South Amboy. Furthermore, the
  site is industrially zoned, has waterfront positioning onto the Raritan Bay, is sufficiently sized to
  accommodate the Outerbridge NJ Project, abuts a Conrail ROW and is host to the existing
  Jersey Central Power & Light (JCP&L) Werner Substation.



• With the Outerbridge project, the State will less likely be faced with having to confront stakeholders for local control of rights-of-way.

Taken together, the above factors demonstrate that the Outerbridge project is not only likely to be more cost-effective for ratepayers, but also more likely to be available on schedule. The Outerbridge project materially decreases the risk of schedule delays from permitting, public opposition, and project execution – making it more likely that the OSW project will be delivered on schedule.

2. In the absence of a firm schedule commitment, please describe steps taken to ensure schedule coordination with BPU and developer to ensure timely project delivery, OSW generation & energization.

By its nature of being strictly on-shore, Option 1B projects carry less schedule risk to OSW developers compared to Option 2 or 3 projects.

- Option 1B projects keep the management of all offshore routing and permitting in the hands of the OSW developers, who are best positioned to align the same with the overall design of the wind farm.
- By offering fixed landing spot at the shore, Option 1B projects greatly simplify the work of the developer, while allowing them to maintain control over the BOEM and other federal permitting processes.
- The scope of required federal approvals, if any, is expected to be significantly less for Option 1B projects – which keeps control of their permitting more fulsomely with the State of New Jersey.

As such, Option 1B projects have higher likelihood of being in service in advance of the OSW project(s) procured by the Board in their next solicitation – in time to support the commissioning of the OSW projects awarded in that solicitation.

If selected under the PJM/NJ BPU administered SAA solicitation, Outerbridge NJ will become a Designated Entity and will enter into a Designated Entity Agreement ("DEA") with PJM. Schedule C to the DEA is a required set of standard Milestones and Milestone Dates that will be identified at the time of signing the DEA. Outerbridge NJ intends to the take the following steps to ensure schedule coordination and timely project delivery:

 Provide the NJ BPU the opportunity to monitor compliance with the selected cost containment and schedule guarantees that would be incorporated in a DEA with PJM.



- For project activities that are under the control of Outerbridge NJ, liquidated damages and
  other incentives will be included in contracts for equipment, construction, and services to align
  contract schedules with Schedule C.
- Provide the NJ BPU an opportunity to present concerns or ask clarifying questions related to our proposed Schedule E terms before finalizing this with PJM.
- Schedule regular updates to the NJ BPU and developer(s) of connecting OSW farms during construction to report progress, providing an opportunity to identify and resolve any potential issues as early as possible (so as to minimize any impact to schedule)
- Appoint a Program Manager/Owner's Engineer (PMOE) who will responsible for providing
  overall project management and project delivery, as well as ensuring collaboration of a large
  project team with multiple development partners. In early project phases (pre-construction), the
  PMOE will be focused on developing a complete Project Execution Plan and the
  implementation of a full suite of project controls to help ensure that the project is delivered on
  schedule and on budget.
- 3. If the Board were to increase the capacity procured during future offshore wind solicitations, how can your proposal accommodate that change? In your response, please describe the earliest in-service date possible for each phase of your proposed project(s), the limitations to achieving an earlier in-service, and the costs for accelerating the cost schedule.

The Outerbridge project has been designed to allow the NJ BPU to incrementally increase capacity to an optimal injection size over time, based on the outcome of OREC procurements or other parameters, as they may occur. The Outerbridge project's approach to flexibility and phasing in its schedule allows the NJ BPU to minimize schedule related risk and cost exposure to ratepayers for assets constructed that are not used and useful. This is accomplished by a set of simple design elements that are integral to the Outerbridge project:

- Outerbridge NJ owns the land at the Werner site and will commit to the NJ BPU to set-aside sufficient real estate for future expansion
- The real estate at the which is subject to the jurisdiction of the NJ BPU
- Our Base Offer 1 (1,200MW) design includes, as part of its offered scope and budget, sufficient
  conduit and available space within duct banks and vaults to accommodate a separate second
  set of cables, as would be necessary for a parallel system to add an additional 1,200MW of
  capacity, increasing the total system capacity to 2,400MW



 Our ownership of the Werner site provides unique access to the Werner substation, which can be upgraded to accommodate 400MW (Additional Offer 1) or 800MW (Additional Offer 2) of very cost-effective capacity.

This modularity allows for the construction of Base Offer 1 or Base Offer 2 with the construction of the Additional Offers selected to follow, according to the NJ BPU's desired schedule. The proposal also allows the NJ BPU to select Base Offer 1 (1,200MW) now, and then to expand the project in the future to a total of 2,400MW. It also allows the NJ BPU to select Base Offer 1 (1,200MW) or Base Offer 2 (2,400MW) prior to the OREC solicitation, and add Additional Offer 1 (400MW) or Additional Offer 2 (800MW) subsequently, to best align with the OREC proposals selected.

The Outerbridge NJ proposal assumes a 36 month construction schedule, with an Initial Target In-Service date of January 1, 2028 (per section 6.10 of the Outerbridge Supplemental form). The Initial Target In-Service Date assumes receipt of a NJ BPU order by September 30, 2022 and receipt of all major permits referred to in the Proposal by September 30, 2024<sup>5</sup>, irrespective of whether Outerbridge NJ is awarded Base Offer 1 or Base Offer 2. Attaining an earlier In-Service Date may be achievable, subject to the permitting process, as well as global supply chain constraints. Unlike Option 2 projects, the Outerbridge project(s) has/have three substantial advantages in achieving an on-time or early In Service Date:

- (1) It is not expected to be subject to BOEM jurisdiction and therefore is expected be able to be permitted independent of the connecting OSW farm(s);
- (2) Its permitting is expected to be led principally by New Jersey agencies, giving the State more control over its ultimate permitting schedule; and
- (3) Critically, because its infrastructure is all onshore, it avoids the significant supply chain constraints associated with offshore HVDC infrastructure.

The majority of the construction works packages are common to both Base Offer 1 and Base Offer 2, with the difference being the number of HVDC converter stations, and number of HVDC cables running between the Werner and Under Base Offer 1, there will be two fewer HVDC converter stations, and 1 less HVDC cable. Included in our Base Offer 1 is to ability to incorporate future expansion capability in order to facilitate expanding capacity by another 1,200 MW. A large component of the expansion capability involves underground HVDC ductwork and manhole system

<sup>&</sup>lt;sup>5</sup> To the extent there are delays to these intermediate milestone dates the Initial Target In-Service date will be tolled day-of-day (Tolled Target In-Service Date).



that will allow for the future installation of a second HVDC line, and adequate spatial constraints in station designs for the future installation of an additional bus-section, breaker, transformer, and other system requirements at both the Outerbridge Substation and Outerbridge NJ recommends including the expansion capability as the additional cost and time to construct the expansion at a future date will far outweigh the cost savings.

All else being equal, the construction period for the expansion will likely increase as the time between award of the initial and expansion capacity increases. For example, if Outerbridge NJ was awarded Base Offer 1 today, and 6 months later the NJ BPU revises the award to Base Offer 2, the full transmission capacity (reflecting Base Offer 2) would likely still meet the Target Initial In-Service Date as there would be minimal impact to permitting and supply chain mobilization. However, the same would not likely be true if Outerbridge NJ was awarded Base Offer 1 today and 2 years later the NJ BPU revises the award to Base Offer 2. Factors such as permit status, procurement lead time, and contractor availability at that time will determine the In-Service Date of the additional 1,200 MW capacity. Outerbridge NJ can provide specific deadlines, if desired by the NJ BPU.

# **Project Benefits**

- 1. How many of the economic development benefits are guaranteed? Describe the level of guaranteed funding associated with:
- Competitive Edge Workforce Development Program
- Community College Labor Training Program
- Initial development of shovel-ready site for OSW transmission cable manufacturing

Should the Outerbridge project(s) be selected by the NJ BPU under the SAA, Rise is committed to provide total funding of approximately on programs that will directly assist the State of New Jersey in achieving its goals related to OSW supply chain and associated economic development. The commitment is included in Rise's proposal, and will be disbursed following Financial Close.

As funding to the various initiatives will occur well in advance of the anticipated In-Service Date of the Outerbridge project(s), the team at Rise has begun to lay the groundwork so position each program to be ready to accept funding at Financial Close. The advanced preparation is currently being funded by Outerbridge NJ as part of its ongoing development of the project. Specifically:

Middlesex Focused Workforce Development Program



0	
• OSW (	Cable Manufacturing Facility at Repauno
0	Outerbridge NJ executed a Memorandum of Understanding with Delaware River
	Partners ("DRP") to develop a site to attract a submarine cable manufacturer at the
	Repauno Port & Rail Terminal in Gloucester County.
0	
• Comm	unity College Labor Training Program
0	Outerbridge NJ is in discussions with several community colleges in New Jersey to
	establish a program focused on developing specialized skills to provide a workforce that
	can support New Jersey's transition to renewable energy.



### **Cost Containment**

1. Is the proposed definition of "Uncontrollable Force" intended to replace the definition of "Force Majeure" in the DEA.

Yes. That is correct.

2. Please identify when project financing is expected to be achieved, with respect to cost indexing.

The Outerbridge NJ proposal assumes a 36 month construction schedule, an Initial Target In-Service date of January 1, 2028 (per section 6.10 of the Outerbridge Supplemental form). This scenario assumes full notice to proceed is granted by December 31, 2024 – which would occur shortly after the close of project financing (i.e., financial close). All major permits and "key" project agreements will need to be secured before financial close, and thus we would expect costs will be finalized around December 2024 – which would be the likely base period for cost indexing.

The Initial Target In-Service date for the Outerbridge project assumes receipt of a NJ BPU order by September 30, 2022 and receipt of all major permits referred to in the Proposal by September 30, 2024. To the extent there are delays to these intermediate milestone dates the Initial Target In-Service date will be tolled day-of-day (Tolled Target In-Service Date). In addition, if there are no other force majeure events that delay the In-Service date, the Guaranteed In-Service date is the later of, one year from the Initial Target In-Service date, or one year from the Tolled Target In-Service Date.



### **Environmental**

- 1. Proposal 171 Rise
- a. Wetlands: Have you completed a delineation of the regulated wetlands. What have you done or are planning to do to avoid, minimize, or mitigate impacts to wetlands and regulated areas?

Yes. Outerbridge NJ has completed a delineation of regulated wetlands on the Werner site and has had the wetland boundaries verified by the New Jersey Department of Environmental Protection through a Letter of Interpretation, Regulatory Line Verification. As part of the Letter of Interpretation, Regulatory Line Verification, the NJ DEP determined that two areas characterized by standing water did not meet the definition of regulated wetlands under the New Jersey Freshwater Wetlands Protection Act. It is likely that these wetlands would also not be jurisdictional under the Federal Clean Water Act. Outerbridge NJ is preparing to request a Jurisdictional Determination from the U.S. Army Corps of Engineers (Corps) to confirm that the Corps also views the two areas with standing water as non-jurisdictional under the Clean Water Act. With regard to the jurisdictional wetlands located on the Werner site, Outerbridge NJ intends to design the facilities at Werner in a manner that would avoid impacts to wetlands and wetland transition areas to the maximum extent practicable.

b. Flood Hazard Area: Please provide clarification on how you will be limiting impacts to the flood hazard area. Will the project be designed in a way that avoids impacts to the 100 year floodplain? What efforts will be made to mitigate flood hazard impacts?

The Werner Site offers the opportunity to repurpose a previously developed brownfield site into a clean energy hub, thereby eliminating the need to construct new greenfield infrastructure in previously undisturbed flood hazard areas and riparian zones.

The Werner Site is located within the tidal Flood Hazard Area and Riparian Zone of the Raritan River/Raritan Bay. According to NJ DEP Flood Hazard Areas Control Act, any activity located in a tidal flood hazard area is not subject to flood storage volume displacement limits (Zero Net Fill) and as such, it is unlikely that the NJ DEP would require mitigation for activities within the flood hazard area within the Werner Site.

Within the Werner Site, flood elevations range from 16 feet North American Vertical Datum of 1988 (NAV88) (Zone VE) along the Raritan Bay coast to 14 feet NAV88 (Zone AE – 100 year floodplain).



Outerbridge NJ would endeavor to avoid and minimize impacts to the 100-year flood plain. As such, the design is based on locating the HVDC converter station(s) outside the 100-year flood zone; however, it is possible that accompanying facilities (or portions of such facilities) will need to be constructed within the 100-year floodplain. In this case, Outerbridge NJ will endeavor to site these facilities within portions of the Werner Site that are currently characterized by impervious cover or other existing structures to minimize the potential for new impacts within the 100-year floodplain. Additionally, redevelopment of the site may offer opportunities to mitigate for development on other portions of the site through the removal unneeded impervious cover and restoration using a seed mix approved by the NJ DEP and the local soil conservation district.

Outerbridge NJ will coordinate with stakeholders, including the NJ DEP, early in the design process to ensure the proposed facilities are designed in accordance with federal, state and local regulations. Redevelopment of the site will be in compliance with the Flood Hazard Area Control Act Rules (N.J.A.C. 7:13) and applicable Uniform Construction Codes (UCC) (N.J.A.C. 5:23). As required by NJDEP and the UCC, the building shall be constructed above the flood elevation level, and designed to resist hydrostatic and hydrodynamic loads and effects of buoyancy.

The proposed mile onshore transmission cable route will cross several streams and regulated floodplains. To minimize disturbance to these regulated areas, Outerbridge NJ will consider HDD construction methodology or other trenchless crossing methods as appropriate.

### 2. Proposal 490 Rise

a. Green Acres: Have you conducted title work or reviewed the right of way/easement language specific to each parcel impacted, in an effort to verify that the proposed project is permissible under the existing right of way/easements? If yes, please describe. This would apply to new/additional/upgraded service lines, poles and towers or the clearing of trees in an expanded right of way.

No. Outerbridge NJ will construct the transmission cable within the limits of property owned by Conrail. Therefore, Outerbridge NJ does not anticipate impacting any Green Acres parcels.



b. Cultural Resources: Have you done any studies on investigations into nearby historic districts, historic properties, or cultural resources that may be impacted by the project?

Yes. Review of publicly available data indicates that there are no above-ground historic properties within the Project area but there are three historic districts crossed by the transmission cable route.



Given that the Outerbridge project will be burying the transmission cables underground within an existing, previously disturbed corridor (Conrail RoW), permanent impacts to above ground historic resources and/or districts are not expected to occur. As part of the next phase of the transmission cable routing/design, Outerbridge NJ will conduct surveys along the corridor to confirm the location of historic districts relative the transmission cable route and to confirm that the project will not impact above ground or buried cultural resources. Upon completion of appropriate cultural resources surveys, Outerbridge NJ will consult with the State Historic Preservation Office to ensure that adequate strategies are implemented during construction to avoid and/or minimize any temporary impacts to the historic districts within the vicinity of the project.

c. Wetlands: Have you completed a delineation of the regulated wetlands. What have you done or are planning to do to avoid, minimize, or mitigate impacts to wetlands and regulated areas?

Yes. Outerbridge NJ has completed a delineation of regulated wetlands on the Werner site – see above (Environmental, #1a) for details. Outerbridge NJ intends to construct the transmission cable within the limits of property owned by Conrail and anticipates that remaining within the existing, previously disturbed Conrail right-of-way will avoid and minimize impacts to regulated wetlands and waterbodies. For larger wetlands and waterbodies that may be unavoidable, such as the Outerbridge NJ is evaluating the feasibility of crossing these features using trenchless methods such as HDD.

Outerbridge NJ is in the process of conducting civil surveys along the proposed transmission cable route for purposes of refining the route and advancing cable design. Once the next phase of transmission cable routing/design is complete, Outerbridge NJ will initiate efforts to delineate wetlands and other regulated features along the transmission cable route.





Outerbridge NJ expects, subject to final design, engineering, and permitting, to construct the transmission cable using conventional, widely used construction methodology including open trench construction, jack and bores, and HDD – all of which are low-risk, widely used for on-shore construction, and each with proven strategies to mitigate impacts. Because this work is to be performed onshore, with proven methods, it is more likely to be completed in time to accommodate offshore wind interconnections, than Option 2 or Option 3 projects relying on offshore construction.

Outerbridge NJ anticipates that the majority of the cable route along the Conrail RoW will be installed using conventional open trench construction techniques that generally involve the following construction sequence: 1) ROW clearing, grading or other preparation; 2) trenching; 3) laying and/or welding pipe; 4) duct bank and vault installation; 5) backfilling; 6) cable installation; 7) adding fluid or gas; and 8) site restoration. Generally speaking, Outerbridge NJ expects the nominal construction corridor to be within the Conrail RoW, though extra workspace will be required at road crossings and HDD entry and exit locations. Outerbridge NJ will provide additional information on anticipated impacts as the cable design advances.

Outerbridge NJ expects jack and bore construction techniques will be used at all road crossings as well as in areas where the transmission cable may need to cross Conrail's RoW. Jack and bore is a trenchless construction method that is often used to minimize or avoid impacts at road, railroad, and sensitive resource crossings. Conventional bore may also be used for crossing smaller wetlands and waterbodies. The typical sequence of construction for a jack and bore crossing is as follows: 1) entrance and exit pits are excavated to accommodate boring equipment and materials; 2) an auger is used in the entrance pit to excavate a hole and remove soil; 3) a jack pushes a reinforced casing pipe in sections behind the auger head; 4) when the pipe is installed, conduit is surrounded by bore spacers and is pushed into the casing pipe; 5) the casing pipe is filled with a material that optimizes thermal radiation; and 6) the entry and exit pits are backfilled and restored to preconstruction



conditions. The amount of space needed for a jack and bore entry and exit pits varies and is typically proportional to the diameter of the bore, the maximum depth and length of the bore.

The HDD process is a trenchless method that is used when trenchless crossings are needed but exceed the technical capabilities of jack and bore methods. Outerbridge NJ plans to use HDD construction methods to avoid impacts at large waterbody crossings such as the South River. The HDD process generally involves advancing (drilling) a small diameter pilot hole (< 10 inches) along a designed profile and alignment, enlarging the hole through a series of progressively larger reaming passes, conditioning the hole, and pulling the cable or cable duct into the borehole. During drilling and reaming, a bentonite-based drill fluid is pumped down the center of the drill rods into the borehole. The drill fluid travels back up the annulus between the drill rod and the adjacent soil, and is collected at the surface within an entry and exit pit. The drill fluid removes cuttings, cools the drill tools, and maintains borehole stability. All drill fluid and drill fluid components are safe for use with potable water. Various methods are employed by experienced HDD contractors to minimize the risk that drill fluid is released to the ground surface or water body.



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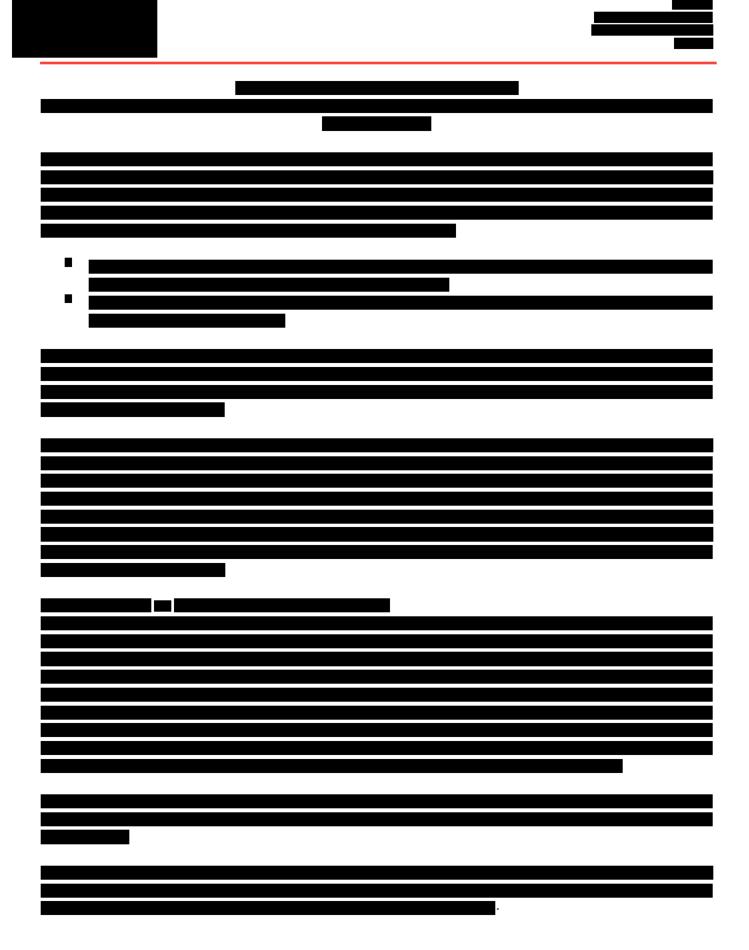


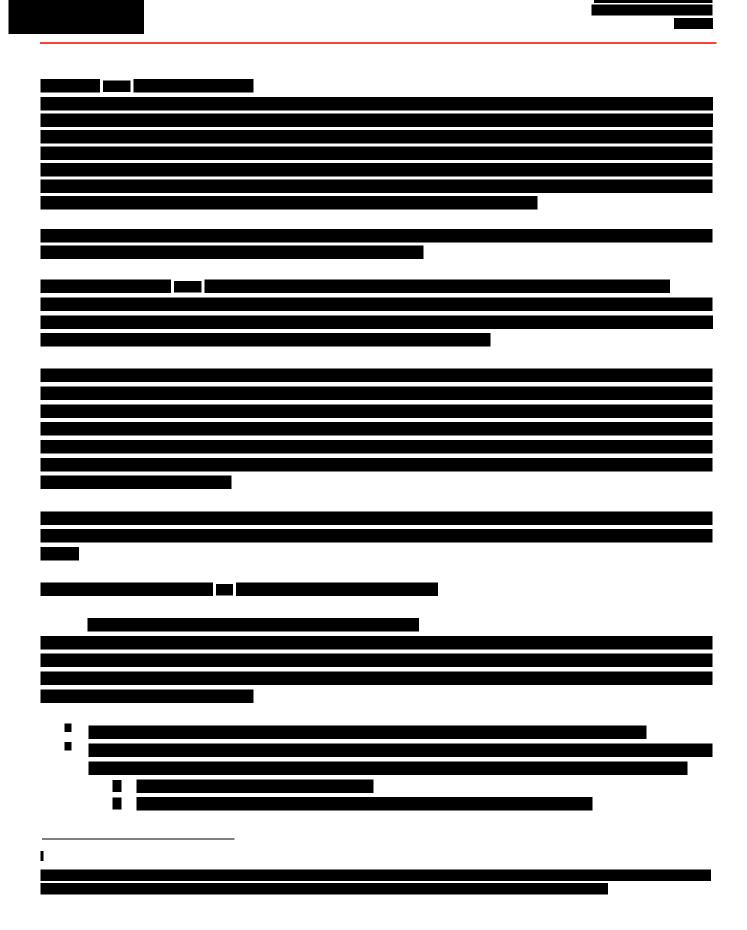


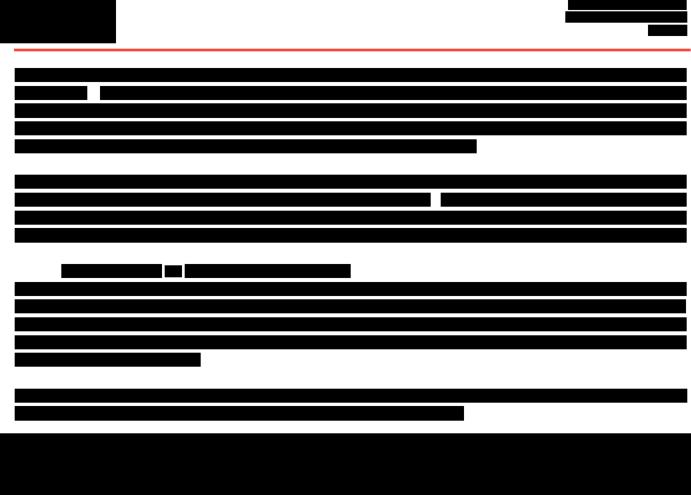






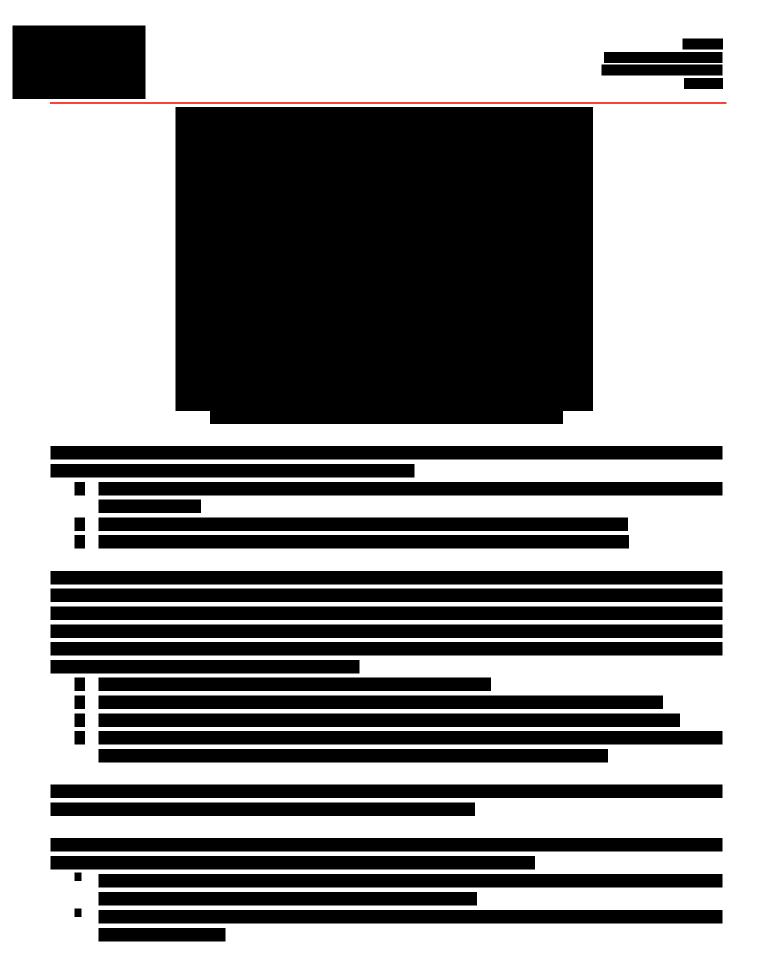


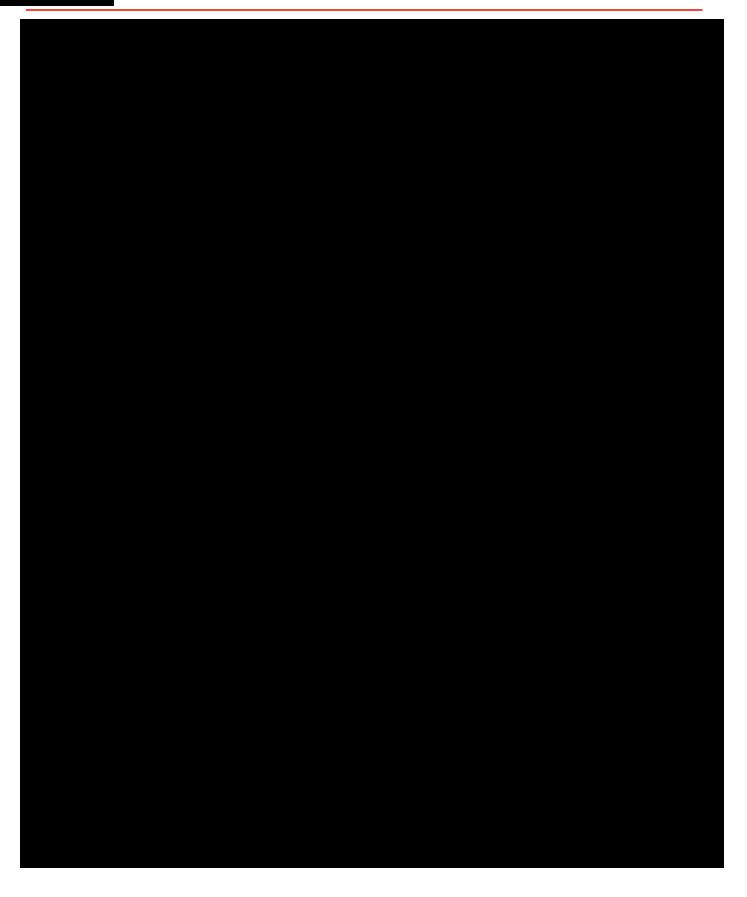


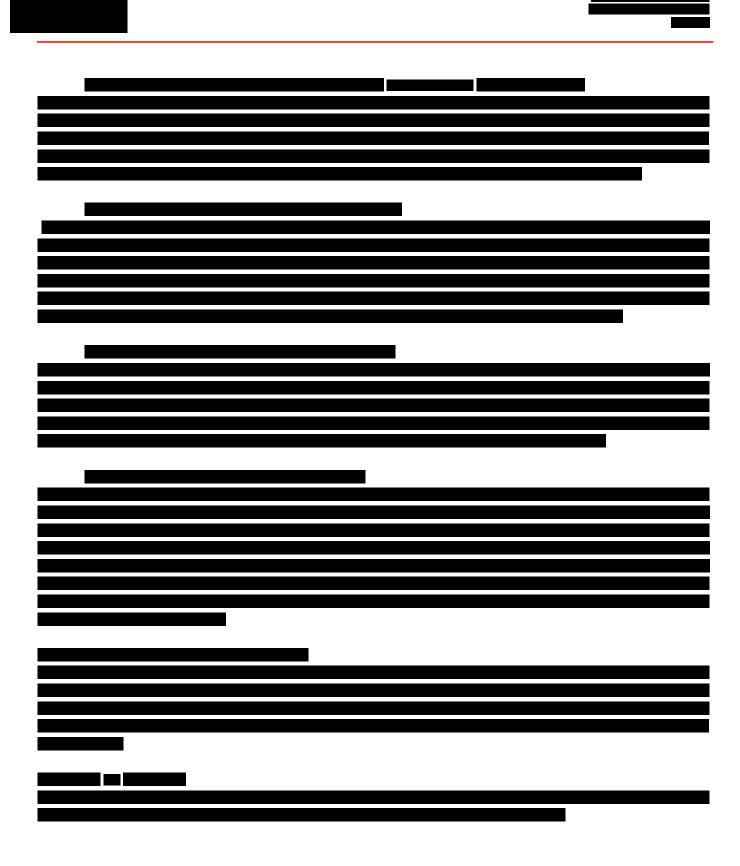






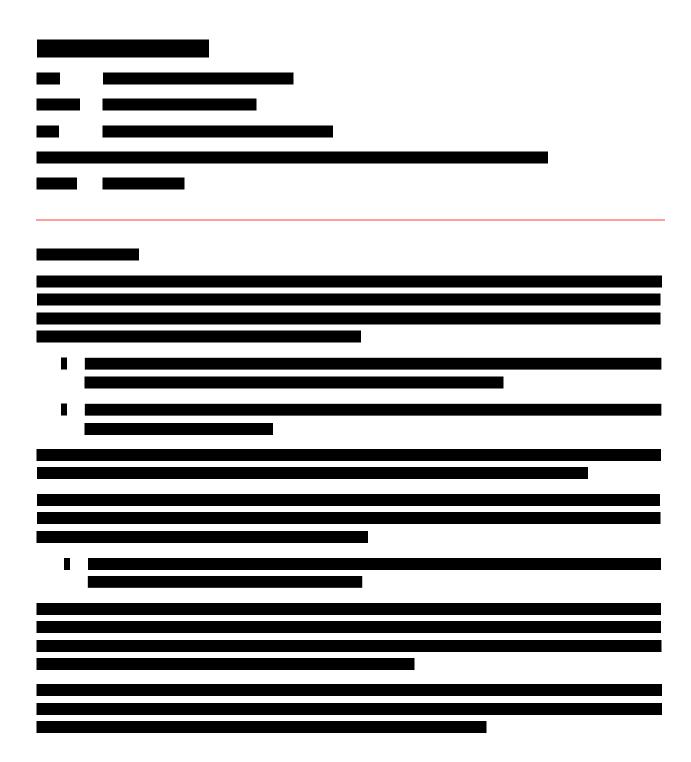




















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