Comments of Avangrid

Massachusetts 83C Round 4: RFI for Indexing Adjustment Mechanism

Submitted on behalf of Avangrid by

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Questions for Public Comment

Avangrid appreciates the opportunity to share its feedback on the pricing mechanism to be incorporated in the Request for Proposals (RFP) for the fourth-round solicitation for offshore wind energy projects under Section 83C (83C Round 4). Avangrid's responses to the request for information document (RFI) dated August 25, 2023 are contained herein.

Avangrid recommends that an indexation formula with a strong link to the fundamental cost and value drivers of offshore wind will allow developers to reduce the risk priced into their offers while also creating a mechanism to return value to ratepayers where market conditions allow. Avangrid suggests that a single indexation formula should be applied uniformly to all developer proposals to better enable the Evaluation Team to compare offers on an apples-to-apples basis.

In response to the RFP Drafting Parties' request for feedback on the below questions and the provided example indexation formula, Avangrid recommends the following formula for consideration and requests the opportunity to participate in a working group with DOER, developers, and other stakeholders after DOER reviews the RFI responses. This formula is intended to be representative of the key value drivers and areas of economic exposure of an offshore wind business case; however, the final weightings of the formula should be adjusted based on feedback of the working group and the developer proposal. This formula aligns with the form of the Indexation Adjustment Mechanism in the RFI Question #1.

$$PPA_{adj} = PPA_{bid} \times \Big(0.85 \times \Big[\Big[0.25 + 0.08 \times \frac{Index_{T,steel}}{Index_{B,steel}} + 0.02 \times \frac{Index_{T,copper}}{Index_{B,copper}} + 0.02 \times \frac{Index_{T,fuel}}{Index_{B,fuel}} + 0.06 \times \frac{Index_{T,labor}}{Index_{B,labor}} + 0.17 \times \frac{Index_{T,fabrication}}{Index_{B,fabrication}} + 0.40 \times \frac{Index_{T,CPI}}{Index_{B,CPI}}\Big] + \Big(0.6 + 0.4 \times \frac{Index_{T,EUR/USD}}{Index_{B,EUR/USD}}\Big)\Big] + 0.15 \times \frac{Index_{T,CPI}}{Index_{B,CPI}}\Big) + \text{TBD} \times (Index_{T,SOFR\ swap} - Index_{B,SOFR\ swap})$$

$Index_B$ is the value of the index at the time of bid submission, and $Index_T$ is the value of the index at the time of financial close. For each index, Avangrid would support using publicly available sources as described in the subsequent question responses.

In the above formula, 85% of the index is related to project CapEx and 15% is related to OpEx. Within the CapEx portion, the weighting of each commodity or labor and inflation related index is proportional to what developers would generally see from their supply chain. Similarly, the weighting of fixed USD costs compared to costs indexed to the EURO-USD exchange rate are included in the CapEx indexation weighting.

Additionally, there is a separate component to accommodate the financing costs using a reference of forward SOFR amortizing swap rates. The purpose of this component is to ensure that bids are competitively priced without developers needing to price borrowing cost risk given the uncertain Federal Reserve policy over the next several years. The weighting of this component is labeled as "to be determined" or "TBD" because it will be very developer-specific and should likely be agreed ahead of the RFP through a working group.

Avangrid recommends the above formula as the best risk mitigant for project economic viability due to volatile commodities and inflation. However, Avangrid generally applauds DOER's forward-thinking approach on incorporating the Indexation Adjustment Mechanism and is open to other formula suggestions from DOER or other RFI respondents that address the underlying cost drivers for indexation including commodities, FX, labor, and inflation.

1. **Assume that the Indexation Adjustment Mechanism takes the following form:**

$$PPA_{adj} = PPA_{base} \times \left[F_o + \sum \frac{Index_{M,i}}{Index_{I,i}} \times F_i\right]$$

Where:

PPAadj is the adjusted PPA price

PPAbase is the as-bid PPA price

$Index_I$ is the initial value of the index at the time of bid

$Index_M$ is the value of the index one year after issuance of the DPU Order approving the contract

F_o is the fraction of the price that is fixed

F_i is the weighting factor for each component index, expressed as a unitless fraction or coefficient for each component index, i, such that

$F_o + \sum F_i = 1$

   a. **Please provide any suggestions for the Composite Set of Indices represented by the Index terms in the above equation.**

Avangrid recommends the formula proposed on page 2. This formula is designed to capture the key value drivers of an offshore wind project. This formula covers risk associated with steel index, copper index, fuel index, labor index, fabrication index, CPI, exchange rate, and treasury swap rate index.

b. For each suggested Index, please provide a transparent, publicly available source for the Index. Please define the Index as specifically as possible. For example, if a U.S. Bureau of Labor Statistics index is suggested, provide the specific data set identifier. Provide a link to a website where the data are published, if applicable.

Avangrid recommends the following indices for consideration for the Composite Set of Indices:

INDEXED ITEM	PROPOSED INDEX
Steel	U.S. BLS, PPI, Data Series PCU331110331110, Iron and steel mills and ferroalloy mfg, not seasonally adjusted
Copper	U.S. BLS, PPI, Data Series WPU102403, Metals and metal products – Secondary copper, alloyed and unalloyed, not seasonally adjusted
Fuel	U.S. Energy Information Administration, Petroleum & other liquids, New York Harbor Ultra-Low Sulfur No 2 Diesel, daily price for last trading day of the month
Labor	U.S. BLS, Data Series CIU2020000000001, Wages and salaries for Private Industry workers in All industries and occupations, not seasonally adjusted
Fabrication	U.S. BLS, Data Series PCU811310811310, Commercial machinery repair and maintenance, not seasonally adjusted
CPI	U.S. BLS, Data Series CUUR0000SA0, CPI for All Urban Consumers, not seasonally adjusted
EUR/USD FX	Wall Street Journal, Market Data EURUSD historical prices, daily close rate for last day of the month
Forward SOFR Amortizing Swap Rate	Bloomberg: Forward SOFR Amortizing Swap Rate

c. For each suggested Index, please provide a value for Fi. Please also provide a suggested value for Fo.

Avangrid recommends using the proposed formula on page 2 of this RFI response.

The formula is generally divided into sections meant to represent CapEx with an 85% weighting and OpEx with a 15% weighting. The 85% CapEx weighting is further divided into commodities exposure including 25% fixed costs and exchange rate exposure including 60% fixed costs. This is outlined in the table below representative of the proposed formula. The absolute weightings in the first column are multiplied across the remaining two columns to yield the total PPA adjustment weighting.

FORMULA PORTION	F0	FI
CapEx (0.85)	0.25	• Steel: 0.08 • Copper: 0.02 • Fuel: 0.02 • Labor: 0.06 • Fabrication: 0.17 • CPI: 0.40
	0.6	FX (EUR-USD): 0.4
OpEx (0.15)	n/a	CPI: 1.0
Financing (TBD)	n/a	Forward SOFR amortizing swap rate: 1.0

2. **What is an appropriate way to set IndexI and IndexM, the values of the Indices at the time of bid and at the milestone date, respectively? For example, should the values be a single value or calculated as an average over several months? Please explain the reason for your suggestion.**

Avangrid recommends that IndexI is based on an average of 2 months of recent publicly available index data prior to the bid date. The proposed U.S. Bureau of Labor Statistics indices are published monthly, except for labor which is published quarterly. Given timelines for bid preparation due January 31 and the publication timelines of the indices, setting IndexI based on the average of September and October spot rates will provide prospective bidders with enough time to evaluate commodities pricing and incorporate into their project pricing proposals. Setting a uniform IndexI date in September-October for all bidders will incentivize bidders to make similar macro assumptions for commodities and FX, which will facilitate easier price comparison across bidders by DOER.

Avangrid recommends that in order to best mitigate commodities risk, IndexM should be based not on the spot rates at the milestone date, but rather at the forecasted rates for the project's NTP. This would reduce the project's exposure to commodities and FX fluctuations by adjusting the PPA to the forecasted values when the project supply chain locks prices. Because each supplier will have its own NTP aligned with the project schedule, a suitable proxy could be the NTP of the largest contract exposed to commodities and FX fluctuation, defined as the wind turbine generator supply contract NTP. By setting the PPA Adjustment Mechanism to the NTP date forecast, the adjustment mechanism will most closely reflect the expected costs of project construction for each individual project. Take for example two hypothetical projects, Project A with COD in 2028 and Project B with COD in 2031. These two projects will have very different contractor NTPs when their underlying CapEx locks. With a milestone date 1 year after the DPU approval, locking the IndexM value at the spot rate would leave the PPA value misaligned with the true cost of commodities, FX, and inflation when the CapEx locks years later at NTP. This reduces the effectiveness of the Adjustment Mechanism as a risk mitigant to reduce exposure to macro volatility to ensure project viability. Instead, IndexM should be set to the forecast rate at wind turbine supply NTP for both Project A and B respectively, which likely will be two distinct dates. Further, setting the IndexM to the forecast rate rather than spot will also increase the likelihood that the projects are effectively able to take out hedges once $Index_M$ locks to reduce the commodities and FX exposure entirely. These measures will help to reduce commodities, FX, and inflation risk in the project's supply costs, thereby allowing less risk to be priced into the baseline PPA price and allowing for overall savings to ratepayers.

Avangrid suggests that while basing IndexM on the forecast value for wind turbine supply NTP date at the milestone date should help to reduce commodities, FX, and inflation risks, the preferred alternative would be to adjust the milestone date to financial close, rather than the current 1 year after DPU approval. This would reduce the likelihood that the forecast rates for NTP are different from the real spot rates that occur at NTP, simply because forecasts are typically more accurate the closer they are to the forecasted date.

3. **Are there any components of the project cost that can reasonably be hedged through instruments such as options or futures contracts and do not need to be included in an Indexing Adjustment?**

It is common practice for projects to take out hedges, either at the project level or with individual contractors, at the project's financial close to manage commodities risks during construction after financial close. However, these hedges typically are not cost-effective or feasible to secure until the project's financial close, when it is clear what the forecast NTP rate is to be hedged against. Projects are unlikely to take out a hedge during the bid submission stage, because most projects will not have

supply contracts in place at this time. Likewise, banks that offer hedge products are not likely to offer speculative hedges early on in the project's lifecycle, and project developers will be reluctant to carry the cost of hedging on their balance sheet until financial close is reached.

Thus, the PPA Adjustment Mechanism is an effective tool to manage commodities, FX and inflation risks between the bid submission and the milestone date, and hedging can be an effective method to hedge commodities or FX risks between financial close and the individual contractor's NTP.

4. **Will a PPA with an Indexing Adjustment be sufficient to support executing binding agreements with primary OEMs, and ultimately project financing? Are there similar indexing adjustments in contracts with suppliers, and if so, what are the primary components or commodities?**

   The proposed formula by Avangrid is designed to reflect some of the core commodity and inflation indexation that suppliers have in their contracts with offshore wind developers. Supplier contracts are often exposed to a variety of individual indices and individual weightings based on the core costs of the offshore wind supplier, such as steel, copper fuel, labor, fabrication, CPI, and rare earth metals, among others. This leaves project CapEx open until each individual contractor's NTP when their supply costs lock based on the spot rate of those indices. Thus, the most effective form of PPA Indexing Adjustment would mirror each individual supplier index 1:1, proportioned to the overall impacts to the project's PPA price, and would lock at each individual supplier's NTP. Avangrid recognizes that each project's NTP dates and exact supplier indexation exposure will vary, and instead proposed a more generic formula that reflects weighted proportions for several indices commonly seen throughout the offshore wind supply chain. Additionally, given that each project has several NTPs for various suppliers, Avangrid recommends using the NTP with the highest cost impact as the forecast date referenced at IndexM, which is typically the wind turbine generator supply contract NTP.

5. **Please comment on your expectations for near-term and long-term costs for primary offshore wind components and supplies, for general inflation, and for interest rates. Describe the impact on your proposal pricing.**

   Avangrid applauds DOER's efforts in identifying an appropriate Indexing Adjustment to both cover developer financial risks of commodities, FX and inflation exposure that could harm project viability and raise the base PPA price for risk mitigation, and provide an opportunity for cost savings passed to ratepayers should the underlying indices decrease. Avangrid recommends the proposed Indexing Adjustment formula would adequately cover project risks and the underlying cost exposure to commodities, labor, CPI, and other indices and ensure projects are economically viable when they reach financial close.

   With regard to US offshore wind cost trends, it is imperative that the supply chain continues to build out in the US in order to open further supply options that will lead to more competitive markets and drive down supply costs in the long run. This is true of manufacturing and installation vessel capacities globally to alleviate supply chain shortages in the market today, but especially true of the domestic content requirements bonus ITC in the Inflation Reduction Act, which at present day are not achievable but can offer substantial ratepayer savings should the supply chain continue to develop in the US to enable projects to take advantage of this tax credit. Without projects awarded, contracted, and moving forward to construction, the supply chain will struggle to establish itself in the US with firm pipelines and timelines of volume commitments necessary for suppliers to establish new US factories, exacerbating the supply chain shortage challenges. The proposed Indexing Adjustment provides an opportunity for near-term projects to manage commodities risks effectively and move towards project

construction, which will allow a more robust supply chain to develop in the US and drive down costs in the long-term.

6. **Please comment on whether the Indexing Adjustment should include interest rates or other indicators of changes in the cost of capital and if so, what are appropriate interest rate or cost of borrowing indices (e.g., Secured Overnight Financing Rate or 10 or 20-year Treasury Bills). For any potential interest index, please specify what are appropriate spreads to reflect financing costs for offshore wind projects. To the extent the Indexing Adjustment should include interest rates, please describe what type of mechanism (e.g. formula, adder, multiplier, etc.) you would recommend for incorporating a change in interest rates into the Indexing Adjustment. Please be as specific as possible.**

   Avangrid recommends a separate component to accommodate financing costs using a reference of 10-year treasury swap rates. The purpose of this component is to ensure that bids are competitively priced without developers needing to price borrowing cost risk given the uncertain Federal Reserve policy over the next several years. The weighting of this component is labeled as "to be determined" or "TBD" in Avangrid's proposed formula because it will be very developer-specific and should likely be agreed ahead of the RFP through a working group. The use of 10-year treasury swap rates should capture the relative changes in interest rates for developers who may have very different costs of capital, and provides a publicly available index that can be utilized in the formula.

7. **Please comment on any recommendations for additional features or alternatives to the Indexing Adjustment Mechanism. If you recommend a formula that is different from Question 1, please explain in detail the reason for a different formula**

   Please refer to Avangrid's opening statements for a description of the alternative proposed formula and rationale.

Indexation Limitations

An indexation formula is a mechanism to allow developers to price their projects at a level that is neutral to changes in the global macroeconomic environment; adding asymmetry would be counterproductive with respect to that purpose and add risk that would need to be priced.

The 15% cap on the Indexing Adjustment could limit the price adjustment to cover only a portion of the cost changes, in the event of global macroeconomic conditions changing drastically. These limitations place a higher amount of risk on the developer, as the PPA Indexing Adjustment would be locked at a cap of 15% even if underlying costs have increased beyond that amount due to events outside of the developer's control. (For example, based on recent OREC re-pricing proposals filed to the New York State Department of Public Service that requested increases for inflation and commodities between 26% - 48%, a 15% adjustment would not have been sufficient to bridge the macroeconomic gap experienced by offshore wind developers over the past several years.[1]) Enforcing this limit may induce bidders to raise the price of their bids to provide an extra margin of error. Likewise, the cap on decreasing the price by 15% could harm ratepayers by limiting the savings passed on to them, should there be significant price decreases prior to the Indexation Adjustment application. **As such, Avangrid respectfully recommends that the 15% cap be removed from the RFP.**

[1] Case No. 15 E-0302 and 18-E-0071 –NYSERDA –NYSERDA Comments Petitions 08.28.2023-Public-Redacted. https://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterSeq=55709

Indexation Timing

Avangrid firmly believes that the right time to apply an adjustment for an indexing mechanism is no earlier than Financial Close of the project, at which point a project is able to lock in prices with suppliers and establish certainty around construction costs. Currently, the RFP provides that, under the indexed pricing option, a one-time indexing adjustment would be applied to pricing "one year following the date on which a final decision from the DPU approving the long-term contracts resulting from this solicitation is issued."[2] As noted in response to the draft solicitation for offshore wind facilities issued by Massachusetts earlier this year, many developers argued for different timing that would provide better clarity for bidders and promote the purpose of indexing—to reduce risk and thereby allow for more efficient pricing. Financial Close is the closest milestone to the supply contracts' Notice to Proceed ("NTP"). Linking the Indexation Adjustment to Financial Close limits the exposure of cost overruns due to commodities or inflation adjustments in the project supply contracts, reducing the exposure only to a brief period between Financial Close and each contract's NTP, at which point commodities are locked and hedges are placed. Linking the adjustment to one year after DPU approval, on the other hand, is not indicative of any project milestone which bears on price certainty. For example, a developer may have their PPA approved by DPU and still have many years of additional permitting or grid infrastructure work left that will preclude locking in the supply chain. As such, if Financial Close occurs more than one year after DPU approval—as is often the case due to the long-lead permitting and procurement timelines—then applying the Indexation Adjustment one year after DPU approval will leave the project substantially exposed to supply contract cost adjustments that may not occur until years later. Developers will likely respond to this gap by raising the base price to accommodate extra margin for risk. Thus, the most appropriate time to lock the Indexation Adjustment to ensure project viability is at Financial Close, shortly before NTP, and based on the forecast rates for the project's main NTP of the wind turbine generator package.

Likewise, Avangrid recommends that the best IndexM value to use in the indexing mechanism is the milestone date's forecast rate at the wind turbine supply NTP date, not the milestone date's spot rate. This will most accurately reflect the expected commodities, FX, and inflation rates at the time the project's supply costs lock, and will enable developers to take out hedges at financial close against those forecast rates to reduce supply chain cost volatility after the milestone date and the indexing mechanism locks the PPA price.

Avangrid appreciates the opportunity to submit these comments and hopes that they are useful to DOER as it finalizes the indexation formula.

[2] Final RFP § 2.2.1.4.