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# FPN Consultation

## December 2024 Feedback.

### Document purpose

To ensure transparency for the industry regarding the FPN Consultation in December 2024, NESO sought permission from all 12 stakeholders who provided feedback to publish their responses. Out of 10 responses received, 5 have been included in this document as they requested to remain anonymous in the publication.

### Responses

**Question 1a:** Do you agree that NESO should outline examples of practices for preparing PNs that it may consider in its view of whether Good Industry Practice is being followed by wind units in the BM?

#### **Anonymous feedback 1:**

Yes, we agree that outlining examples of good industry practice for preparing PNs would be beneficial. This will provide clarity and a common understanding for all wind generators.

We agree with the principle of updating forecasts every hour and using the best available forecast. This aligns with the industry's best practices for accurate energy trading. We would welcome further guidance on demonstrating and evidencing compliance with these principles. The proposed biennial review of the PN model is a good example. Clarification on how this review will be conducted and documented, whether internally or externally, would be helpful. In cases where data or services are provided by external third parties, potentially as part of a PPA or agreement, it's essential to define the responsibilities and verification processes.

#### **Anonymous feedback 2:**

We agree that outlining examples of best practices for preparing PNs can be beneficial as a reference for wind units in the BM. However, we would like to highlight the potential risk of setting rigid requirements that may inadvertently not lead to improved forecast performances.

#### **Anonymous feedback 3:**

No, we do not agree. We feel NESO would need to take into account that an operation of a fully integrated utility scale operator is not the same as a small operator. There is significant variation between the wind assets (age, location, size, terrain complexity, communication, turbine technology, accuracy of the wind forecast) and there isn't a universal model that works best

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everywhere. Therefore, Good Practice from one asset might not be the same approach to another asset.

### **Anonymous feedback 4:**

It is useful to outline the principle or guidance what Good Industry Practice means to NESO in the subject of PN forecasting. However, it would be more reasonable the wordings of the example of practices to be less definitive, i.e. use of "should" instead of "is".

### **Question 1b:** Do you consider it feasible to apply these principles?

#### **Anonymous feedback 1:**

We believe the principles outlined are feasible to apply and represent reasonable expectations for wind generators participating in the BM.

#### **Anonymous feedback 2:**

We do believe it's feasible to apply the proposed principles. However, we believe these principles should serve as suggestions rather than a strict rulebook. The ultimate goal should be to improve forecast performances and achieve optimal outcomes, rather than simply checking off a list of practices. Reviewing the first bullet point, we think the quality of energy traders can vary greatly, making this a vague benchmark. Instead of trying to align with an undefined standard, we suggest focusing on the outcome of the forecasts. This approach would provide a more defined and measurable standard, ultimately leading to more accurate and reliable forecasts.

Additionally, we think it's important to consider the trade-off between cost and forecast performance. The implementation of some practices might lead to incremental improvements in forecast accuracy but could also result in significant increases in operational costs. Therefore, it's essential to strike a balance that ensures cost-effectiveness while still striving for improved performance. Furthermore, we must acknowledge the complexity of forecasting models. There are numerous stages in data processing where interruptions can occur, and these potential disruptions should be taken into account when evaluating the feasibility of applying these principles.

#### **Anonymous feedback 3:**

No. We consider the provided data requirements can be cost prohibitive and would require additional definitions for the described characteristic. A standardisation between energy trading entities would also be required.

Furthermore, directional bias might be required to deliver the most accurate PN. For example, the weather forecast might have a bias for a given location which would need to be corrected.

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### **Anonymous feedback 4:**

Some generators might have service providers instead of energy trading parties involved in PN forecasting. The principle of the 1st point is understood but might not be directly relevant to all BM units.

The update frequency of the model is subjected to service provider system development, but the principle is agreeable.

Regarding the forecast model, it is not necessarily a bad practice to apply directional bias, if the bias has been derived from data that could help improve the forecast. It has been discussed about the feasibility to choose the best wind data source for individual site, which could be not economical for owners of large portfolio. Correction is required if it is known that the wind data source could be biased for some sites.

The model review frequency should not be defined. The principle is that the model should be reviewed regularly.

**Question 1c:** If you think there are alternative practices that NESO could usefully consider in its view of whether Good Industry Practice is being followed, please provide suggestions.

### **Anonymous feedback 1:**

We do not have any specific suggestions for alternative practices at this time. We believe the examples provided by NESO cover the key aspects of good industry practice.

### **Anonymous feedback 2:**

In terms of alternative practices that NESO could consider, we think these practices can serve as valuable examples, but the primary focus should be on achieving optimal outcomes.

### **Anonymous feedback 3:**

We believe the thresholds are a reasonable measurement. Where some assets might not be able to meet them every month, generally thresholds are considered a reasonable approach.

### **Anonymous feedback 4:**

NESO should also clarify if the PN submitted should be considered at the point of meter measurement or at the turbine generation. Most forecasting system considers wind speed and turbine power curve to generate power forecast, which is at turbine level, but the error threshold is measured against meter generation, which is after line losses. There are inherent errors between the two data points.

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NESO should also consider if the generating units have demonstrable evidence that improvement measures are being considered or put in place. This should be added into the example of practices.

NESO should consider providing overview of the industry performance, sharing best practices and common challenges over the monitoring period, which could help generators to focus the area of development and try to bring continual improvement.

**Question 2a:** Should NESO implement this change in description for extenuating circumstances?

**Anonymous feedback 1:**

Yes, we support the proposed change in description for extenuating circumstances. This revised wording provides greater clarity on the process for considering site-specific factors that may impact a unit's ability to meet the accuracy thresholds.

**Anonymous feedback 2:**

We support the proposal to expand on the description of extenuating circumstances in the FPN guidance note. This acknowledges the complexity and variability of factors affecting individual units or groups of units, which we believe is a crucial element of fair and effective regulation.

**Anonymous feedback 3:**

Yes, we feel this description is reasonable.

**Anonymous feedback 4:**

It is sensible to include a non-exhaustive list of extenuating circumstances which are known commonly to have caused unpredictable variability in wind generation. NESO could also identify common causes of underperformance for assets in similar area, e.g. unplanned grid trips, extreme snowfalls, gusts, high wind cut outs, comms lost disrupting live data feed, site stops during out-of-business hours etc.

**Question 2b:** If not, are there alternative changes that could be made which better recognise site specific considerations?

**Anonymous feedback 1:**

Not applicable, as we agree with the proposed change.

**Anonymous feedback 2:**

We believe the proposed changes adequately recognise site-specific considerations.

**Anonymous feedback 3:**

N/A.

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### **Anonymous feedback 4:**

Some remote onshore sites could be limited by available wind data source to improve the forecast accuracy. Perhaps historical performance trends (by seasonality) should be taken into account when assessing against the thresholds.

**Question 3:** Do you agree that the thresholds used should be set to the standards achieved by Onshore units or should the previously published aggregate values be used?

### **Anonymous feedback 1:**

We agree that using the standards achieved by onshore units for both onshore and offshore wind units is the most appropriate approach. This ensures a consistent and transparent benchmark for all participants in the BM.

### **Anonymous feedback 2:**

We agree that the thresholds used should be set to the standards achieved by Onshore units. This approach ensures consistency across the industry and provides a clear benchmark for all units to strive towards.

### **Anonymous feedback 3:**

We believe that onshore units should be separated from offshore. Typical offshore locations having a higher weather forecast accuracy and lower terrain complexity. Offshore assets are also typically larger operations which have significantly more capital to invest in forecasting capabilities.

### **Anonymous feedback 4:**

We welcome the application of onshore units standard for the thresholds, as our understanding is that there are more onshore BM units than offshore, also there are more variability in site characteristics of onshore windfarms than offshore windfarms.

### **Anonymous feedback 5:**

Dear NESO Team,

We are writing to you regarding the new proposals for the guidance on the level of accuracy for Physical Notification (PN) submissions to be considered as good industry practice. We appreciate the effort to standardize practices and would like to contribute our perspective on the proposed measures.

We commend the decision to implement distinct threshold sets for onshore and offshore wind parks, recognizing the technological differences and forecasting challenges associated with

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each. However, it is generally acknowledged that offshore wind forecasting typically exhibits higher error rates compared to onshore wind, primarily due to the complexities of predicting meteorological phenomena offshore. Contrary to this understanding, your findings suggest a higher error threshold for onshore wind, which appears counterintuitive to the experiences of forecast providers.

This discrepancy may be attributed to the inclusion of periods when wind parks receive bid-down instructions from the NESO control room as part of the balancing mechanism. Offshore wind parks generally receive more bid-down instructions than onshore wind parks. During these periods, the net error calculation is zero, irrespective of the forecast accuracy. We have previously highlighted this issue and propose that NESO recalculates error thresholds by excluding periods when wind parks are instructed to bid down. This approach would provide a more accurate reflection of actual error thresholds and ensure fairness across the market. Not all wind farms are equally affected by Bid/Offer acceptance, which can distort accuracy ratings. For example, an offshore wind park on the west coast of Scotland may receive bid-down acceptance more frequently than an onshore park in southern England due to grid constraints, potentially leading to a misleading perception of accuracy.