Guidance for intermittent generators on the application of clause 13.82(2)(d) and clause 13.9B(2)(a) in the Code

Purpose of this guidance

This document provides guidance on how to apply clauses 13.82(2)(d) and 13.9B(2)(a) of the Electricity Industry Participation Code (Code), which takes effect on 31 July 2025.

Context

In February 2025, the Electricity Authority Te Mana Hiko (Authority) published its decision on the final amendments to the Code to give effect to the hybrid forecasting arrangement.

Overview

This guidance clarifies that:

a) **Under clause 13.9B(2)(a)**, an intermittent generator is required to adjust its forecast of generation potential (FOGP) for bona fide physical reasons. A difference between the approved (or alternative) forecast and actual conditions may qualify as a bona fide physical reason under the *'reasonably unforeseeable change in generating capability'* provision. The Authority considers a difference of more than 10MW should be treated as an unforeseeable change (aligning with forecasting expectations in the Authority's contract with the approved forecaster, DNV).

b) **Under clause 13.82(2)(d)**, an intermittent generator is not exempted from complying with a non-flagged dispatch if it is generating (or expects to generate) more than 30MW below its last FOGP. Where this is due to a difference between the approved forecast and the actual conditions, this would meet the unforeseeable change provision (as noted above) and the intermittent generator is required to adjust its FOGP.

Guidance

Clause 13.9B(2)(a) – Requirement to revise FOGP

The Authority introduced clause 13.9B(2)(a) to require intermittent generators to adjust their FOGP if a bona fide physical reason exists. For all generators (including intermittent generators), the definition of bona fide physical reason includes an *'a reasonably unforeseeable change in generating capability'*.

The Authority considers that a change between the approved (or alternative) forecast and the actual conditions is a reasonably unforeseeable change in generating capacity if that difference is greater than 10MW. 10MW aligns with the contractual expectations of the approved forecaster for variation between forecast and actual conditions. Specifically:

a) mandated use of an approved (or alternative) forecast is intended to ensure more accurate offers by intermittent generators

b) the approved forecaster is expected to ensure the root mean square error of its forecasts (aggregated across all sites) half an hour before real time is at or below 10MW (under its contractual terms).[1] [2]

c) given these expectations, the Authority considers a difference of more than 10MW is a reasonably unforeseeable change and, therefore, a bona fide physical reason for adjusting the FOGP.

Accordingly, if the actual output (based on conditions) is, or is expected to be, more than 10MW above or below the last submitted FOGP value, the intermittent generator should adjust its FOGP under clause 13.9B(2)(a).

The Authority understands it may be difficult to precisely assess the difference between forecast and actual (on a trading period average basis). The expectation is that the intermittent generator exercises judgement and takes reasonable steps to monitor output. For example, adjustments to the FOGP should be made when conditions are trending away from the forecast and indicating a likelihood the average actual output will differ from the FOGP by at least 10MW.

Clause 13.82(2)(d) – Compliance with dispatch instructions

The Authority amended clause 13.82(2)(d) to require intermittent generators to comply with dispatch instructions from the system operator unless:

a) the dispatch instruction is not flagged under clause 13.73(1A) **and**

b) the intermittent generator generates at a rate that is not more than 30MW below the FOGP in its final offer for that trading period.

This change addresses the removal of clause 13.86A. Previously, intermittent generators had to respond to dispatch instructions if they were flagged under clause 13.73(1A), which is used to constrain down output.[3] Separately, they had to notify the Authority if actual output was more than 30MW below the latest FOGP.

Under the new clause, if a non-flagged dispatch instruction is issued, the intermittent generator is required to comply with the dispatch instruction if it is generating (or expects to generate) more than 30MW below its last FOGP.

However, if actual output falls by more than 30MW due to actual conditions, an intermittent generator should adjust its FOGP under clause 13.9B(2)(a) (as it is more than 10MW below its last FOGP, as explained above). Once this adjustment is made, the intermittent generator will not be required to follow the non-flagged dispatch instruction.

[1] Refer to page 3 of our guidance for intermittent generators wanting to use their own forecast.

[2] Intermittent generators using an alternative forecaster must also meet this forecast performance standard (as well as other standards) to be permitted to continue using an alternative forecaster.

[3] Clause 13.86A specified that an intermittent generator must not generate electricity during a trading period at a rate that is more than 30MW below the FOGP specified in the intermittent generator's final offer for the trading period unless:

a) the intermittent generator reduces the output of the relevant intermittent generating station in order to comply with a flagged dispatch instruction, or any other instruction issued by the system operator; or

b) the intermittent generator has a bona fide physical reason.

Clarification questions:

Q1) Should an intermittent generator adjust its FOGP in real-time/within a trading period?

Yes. New clause 13.18A(2) of the Code specifies that *'Notwithstanding subclause (1), each intermittent generator must, as soon as practicable, revise any offer to account for any change to one or more of the factors in clause 13.9B(2)'.* The factors in clause 13.9B(2) are (a) '*any bona fide physical reason*' or (b) '*any planned outage affecting the intermittent generating station and trading period'.*

Q2) Should an intermittent generator adjust its FOGP when actual output differs from the latest FOGP?

The bona fide physical reason of an *'unforeseeable change in generating capability'* would apply, and adjustment to the FOGP would be required, if the difference between actual output (based on conditions) and the FOGP is greater than 10MW.

Q3) What is the difference between a flagged and non-flagged dispatch instruction?

As specified in clause 13.73(1A), the system operator must include an indication **(flag)** in each dispatch instruction it issues to an intermittent generator if the intermittent generator is dispatched for a trading period at a quantity less than its latest FOGP.

If an intermittent generator is dispatched for a trading period at a quantity that is not less than its latest FOGP, this is a **non-flagged** dispatch instruction.

Q4) Does the 30MW threshold refer to a particular point within the trading period or the average amount generated across the trading period?

The 30MW threshold is a reference to the average rate of electricity generation for the trading period. Accordingly, an intermittent generator would only be required to comply with a dispatch instruction if its average generation for a trading period was more than 30MW below its latest FOGP. The Authority understands it is difficult to make a precise assessment of the average output during the trading period. As set out in this guidance, the intermittent generator is expected to make a reasonable estimation based on trending conditions.

The wording in clause 13.82(2)(d)(i) refers to 'during a trading period' and is intended to align with the FOGP, which is always averaged. This means an intermittent generator should not be impacted when wind or solar generation is ramping up or down, as they are expected to reasonably estimate their average output over the period based on prevailing conditions.

Q5) Does this clause apply if an intermittent generator receives a flagged dispatch instruction to constrain down its output?

If the system operator flags a dispatch instruction constraining down an intermittent generator, the intermittent generator must comply with the dispatch instruction regardless of whether the constrained output is more than 30MW below the intermittent generator's latest FOGP.

Note – intermittent generators should not revise their FOGP when they have been constrained down by the system operator (ie, when constrained down, a wind/solar farm's FOGP should reflect the expected resource capability and ignore the constrained output).

Q6) Should intermittent generators monitor their compliance with clause 13.9B(2) and clause 13.18A(2) and self-report breaches?

Yes. As specified in the Electricity Industry Participation Code 2010 and the Electricity Industry (Enforcement) Regulations 2010, participants are required to self-report breaches of Part 13 of the Code.

Scenarios:

Scenario 1

An intermittent generator submits a FOGP of 100MW for trading period 20. The system operator issues a non-flagged dispatch instruction for this period.

During trading period 20, the generator's output drops from 100MW to 50MW, averaging 75MW. The generator considers this variation to be a *'reasonably unforeseeable change in generating capability'* (a bona fide physical reason).

Since the average output of 75MW is not more than 30MW below the submitted FOGP, the generator is not required to comply with the non-flagged dispatch instruction.

However, in accordance with clause 13.18A(2), and because the change exceeds 10MW, the generator must revise its FOGP as soon as practicable to reflect the change in capability.

Scenario 2

An intermittent generator submits a FOGP of 100MW for trading period 20. The system operator issues a non-flagged dispatch instruction for this period.

During trading period 20, the intermittent generator's output drops from 100MW to 30MW, averaging 65MW across the period. This variation is greater than 10MW and should be treated as a *'reasonably unforeseeable change in generating capability'* (a bona fide physical reason).

In accordance with clause 13.18A(2), the generator must revise its FOGP to reflect actual output as soon as practicable to reflect the change in capability. Once the FOGP is adjusted, the intermittent generator would be exempt from complying with any non-flagged dispatch instruction under 13.82(2)(d).

Scenario 3

An intermittent generator submits a FOGP of 100MW for trading period 20. The system operator issues a flagged dispatch instruction that constrains the generator's output during this period down to 65MW, The FOGP matches actual generation capacity.

Because the dispatch instruction has been flagged, the generator is required to comply with it – even if the constrained output is less than 30MW below its latest FOGP.

In this scenario, the generator should not revise its FOGP to match the flagged generation level, as this is not a bona fide physical reason.

Scenario 4

An intermittent generator initially submits a FOGP of 100MW for trading period 20. The system operator issues a flagged dispatch instruction that limits the generator's output to 70MW during that period. The difference between the forecast and actual output is

In trading period 19, the generator assesses that its average unconstrained generating capability for trading period 20 will fall to 60MW (so actual output is 40MW below the FOGP).

In this scenario, the intermittent generator must both:

a) comply with the flagged dispatch instruction, and

b) revise its FOGP to reflect the updated unconstrained capability of 60MW. This is in accordance with clause 13.18A(2), as the change exceeds the 10MW threshold and, therefore, is a reasonably unforeseeable change in generating capability.