

Annual Run Hour Limit and CO₂ Limit requirements for achieving Substantial Completion

A guide for combustion-based
technologies

24th September 2026



Contents

1. Substantial Completion	4
1.1. Annual Run Hour Limits	4
1.1.1. What Generator Units do Annual Run Hour Limits apply to?.....	5
1.1.2. What limits on the operation of a Generator Unit should be reflected in the Annual Run Hour Limit?.....	5
1.1.3. What Annual Run Hour Limit information is required in respect of compliance with NO _x emissions under the environmental licence?.....	6
1.1.4. What Annual Run Hour Limit information is required in respect of compliance with CO ₂ Limits?	6
1.1.5. What ARHL De-Rating Factors apply to Generator Units with Annual Run Hour Limits?	6
2. CO₂ Limits	6
2.1.1. What information is required in respect of compliance with CO ₂ Limits?	6
2.1.2. What further information is required where the primary fuel is bioliquid or biomass?.....	7

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1. Substantial Completion

This document sets out the information required by the System Operators to demonstrate compliance with Substantial Completion requirements for combustion-based technologies.

In order to receive Capacity Payments, Awarded New Capacity must achieve Substantial Completion. In accordance with J.2.1.1 of the Capacity Market Code (CMC):

- (c) Substantial Completion: this milestone is achieved when:
 - (i) all the construction, repowering or refurbishment works associated with providing the Awarded New Capacity are substantially complete (materially in line with (including as to Total Project Spend incurred) the decision of the Regulatory Authorities approving the relevant Exception Application in the case of New Capacity that is repowered or refurbished capacity based on previous Existing Capacity), subject only to snag or punch list items or any other matters which do not prevent substantial completion or taking over the works taking place under the applicable Major Contracts;
 - (ii) a Final Compliance Certificate, Operational Certificate or Final Operational Notification has been issued under the applicable Grid Code or Market Readiness Certificate has been issued in respect of each new or refurbished Generator Unit or Interconnector providing the Awarded New Capacity;
 - (iii) the Proportion of Delivered Capacity in respect of the Awarded New Capacity is not less than 90%;
 - (iv) each new or refurbished Generator Unit or Interconnector providing the Awarded New Capacity has met all Trading and Settlement Code and Grid Code requirements for participating in the Balancing Market;
 - (v) each new or refurbished Generator Unit providing Awarded New Capacity complies with the CO₂ Limits; and
 - (vi) each refurbished Generator Unit has an Annual Run Hour Limit not less than the Annual Run Hour Limit that applied prior to the refurbishment described in the approved Exception Application.

In accordance with section J.4.3 of the CMC, Participants are required to provide verification to the System Operators. In respect of Generator Units that employ combustion in the generation of electricity, in accordance with J.4.3.2(d), the System Operators require information in respect of:

- (a) Annual Run Hour Limits for the purposes of determining the Proportion of Delivered Capacity in accordance with G.3.1.4 and
- (b) compliance with CO₂ Limits.

The distinction between Annual Run Hour Limits and CO₂ Limits (based on the provisions of the Capacity Market Code) are detailed further in the following sections.

1.1. Annual Run Hour Limits

In order to calculate the Proportion of Delivered Capacity in accordance with G.3.1.4, the System Operators must first calculate the De-Rated Grid Code Commissioned Capacity in accordance with G.3.1.3. In order to calculate the De-Rated Grid Code Commissioned Capacity, the System Operators must, among other things, know the Annual Run Hour Limit that applies to the Generator Unit in order to apply the correct ARHL De-Rating Factor.

Annual Run Hour Limits are defined in the CMC as set out below:

Annual Run Hour Limit	in respect of capacity which generates using combustion shall be the maximum number of hours per Capacity Year during which the relevant combustion plant, in whole or in part, may operate in compliance with all applicable legislation, licences, authorisations, consents and permits including compliance with the CO ₂ Limits.
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1.1.1. What Generator Units do Annual Run Hour Limits apply to?

Annual Run Hour Limits apply to capacity which generates using combustion.

This includes steam turbines, gas turbines, gas engines, diesel engines or any other form of generation which employs combustion. It applies both to Generator Units that operate entirely based on combustion and also to units where only a component of the Generator Units generates using combustion (including Generator components of Aggregated Generator Units and Demand Side Units where the one or more of the Demand Sites associated with the Demand Side Unit reduce site demand by running on-site generation using combustion).

While Annual Run Hour Limits apply only to capacity that generates using combustion, ARHL De-Rating Factors apply to all units. Where unit does not generate using combustion, an ARHL De-Rating Factor of one will apply.

As such, when calculating the ARHL De-Rating Factor for the Generator Unit, where the Generator Unit does not generate using combustion, the System Operators may require confirmation of this as detailed in the table below. For technology classes where confirmation is required, Participants should provide this with their Substantial Completion documentation. In accordance with J.4.3.2 (d), the System Operators may seek further evidence of this where required.

Technology Class	Generates using Combustion	Confirmation required
Gas Turbine	Yes	No
Steam Turbine	Yes	No
Demand Side Unit	Yes or No	Yes
Pumped Hydro Storage	No	No
Other Storage (Battery)	No	No
Other Storage (Other)	Yes or No	Yes
Hydro	No	No
Wind	No	No
Solar	No	No

1.1.2. What limits on the operation of a Generator Unit should be reflected in the Annual Run Hour Limit?

Annual Run Hour Limits cover any limit on the maximum number of hours per Capacity Year which the relevant combustion plant, in whole or in part, may operate in compliance with all applicable legislation, licences, authorisations, consents and permits including compliance with the CO₂ Limits.

This includes, but is not limited to:

- Limits arising in respect of emissions to air including NO_x under all applicable legislation, licences, authorisations, consents and permits including the environmental licence of the relevant site(s).
- Limits arising in respect of complying with CO₂ Limits. These include Specific Emissions and where applicable Annual Emissions. These also include any limits that apply in respect of fuel storage and fuel delivery, where operation on that fuel is required to comply with CO₂ Limits.
- Any other limit that would come under the definition of Annual Run Hour Limit.

1.1.3. What Annual Run Hour Limit information is required in respect of compliance with NOx emissions under the environmental licence?

1. Confirmation of the primary fuel to be used by the Generator Unit (or component thereof).
2. Confirmation of any mitigation methods being applied to the generation using combustion to comply with NOx limits.
3. Confirmation of the number of hours that the generator can operate using combustion to remain compliant with its environmental licence. For the avoidance of doubt, where the environmental licence does not include a specific limit, the limits that apply all applicable legislation, licences, authorisations, consents and permits is required.
4. A copy of the environmental licence for the site(s).

1.1.4. What Annual Run Hour Limit information is required in respect of compliance with CO2 Limits?

1. Date of Start of Commercial Operation - means the date on which a Capacity Market Unit or CMU Component has been commissioned and started providing metered electrical output. Where a Capacity Market Unit or CMU Component undergoes refurbishment or repowering associated with Awarded New Capacity that is repowered or refurbished capacity based on previous Existing Capacity, this date is the date of Substantial Completion of the Awarded New Capacity.
2. Confirmation of the primary fuel to be used by the Generator Unit (or component thereof). Where the operation on a particular fuel is necessary to comply with CO2 Limits, confirmation the fuel supply including a letter from a licenced fuel provider confirming that the quantities of fuel required to operate the unit for the proposed number of hours per year can be delivered and stored on site. Such information should confirm the maximum delivery rate of the fuel per hour, per day and per Capacity Year.
3. Where the Date of Start of Commercial Operation is prior to 4 July 2019 and where Specific Emissions of the Generator Unit (or component thereof) exceeds 550 gCO₂/kWh, confirmation of the number of hours that the generator can operate using combustion such that its Annual Emissions are less than or equal to 350 kgCO₂/kWe.

1.1.5. What ARHL De-Rating Factors apply to Generator Units with Annual Run Hour Limits?

The following ARHL De-Rating Factors apply to all New Capacity:

Annual Run Hour Limit	ARHL De-Rating Factor
<=500 hour	0.14
<=1500 hour	0.43
>1500 hour	1

2. CO2 Limits

2.1.1. What information is required in respect of compliance with CO₂ Limits?

1. Date of Start of Commercial Operation - means the date on which a Capacity Market Unit or CMU Component has been commissioned and started providing metered electrical output. Where a

Capacity Market Unit or CMU Component undergoes refurbishment or repowering associated with Awarded New Capacity that is repowered or refurbished capacity based on previous Existing Capacity, this date is the date of Substantial Completion of the Awarded New Capacity.

2. Confirmation of the primary fuel to be used by the Generator Unit (or component thereof).
3. Emissions calculation workbook demonstrating compliance with Specific Emissions Limits.
4. Where applicable, an emissions calculation workbook demonstrating compliance with Annual Emissions Limits.
5. Confirmation of compliance with Specific Emissions.
6. Where applicable, confirmation of compliance with Annual Emissions

2.1.2. What further information is required where the primary fuel is bioliquid or biomass?

In the case of Candidate Units using bioliquids and/or biomass fuels (as defined in Article 2 of Directive 2018/2001/EU), evidence is required that they meet the criteria set out in Article 29 of Directive 2018/2001/EU to be eligible for financial support.

This evidence should take the form of Proof of Sustainability certificates for the delivered fuel to all the relevant sites.