

Rooney, Lauren

From: Henry, Laura <Laura.Henry@nationalgrid.com>
Sent: 30 January 2019 12:58
To: Drax Re-power; Gregory, Michele
Cc: Abrahams1, James
Subject: National Grid response to Drax DCO ANC 2.3

Follow Up Flag: Follow up
Flag Status: Completed

Dear Michele,

Please find below a response from National Grid in relation to question ANC 2.3 of their DCO.

Please do not hesitate to contact me if you have any questions in relation to the below.

Kind regards

Laura

“National Grid dispatches generation to meet demand in a specific order called the merit order. This is determined by the cost at which each generator bids on to the system. In basic economics it is assumed that in a perfect world all generators would bid on to the system at their short run marginal cost (SRMC), otherwise known as their minimum operating costs plus fuel costs. For most renewable plants this figure is very low (essentially free) as there are no fuel costs. The merit order is therefore made up from all available renewable sources, followed by more expensive plant such as gas and coal. When dispatching generation to meet demand the merit order is followed, therefore if Drax was generating at the time it is likely that the level of available renewables on the system was not sufficient to meet demand and more expensive plant was required. It is therefore a fair assumption to assume that if the level of renewables remained constant and Drax was no longer operating, a plant with similar efficiency and CO2 intensity would replace it. In addition, it is important to note that renewable plants do not contribute to system inertia like conventional plants do. National Grid on occasion may be required to dispatch plant otherwise “out of merit” to maintain an adequate level of system inertia. In this case plants such as Drax may be brought on ahead of, or as a replacement to renewable generation. “

ANC 2.3 **Baseline Scenario National Grid** Paragraph 15.4.2 of the ES [APP-083] states that if the existing coal-fired units 5 and 6 were to close, the lost energy would be replaced elsewhere on the National Grid, and that this would be sourced from thermal power sources with similar scale and nature, and similar emission intensity as the existing coal-fired units 5 and 6. The ES acknowledges that this is an assumption and has not been considered in detail.

The Applicant provided some further explanation of this at the ISH on Environmental Matters held on Wednesday 5 December 2018 [EV-010 – EV-013], and confirmed in writing in Paragraph 3.63 of its D4 response [REP4-012]. This states that National Grid would replace lost capacity by dispatching power plant capacity based on a stack list, with the more efficient and thus cheaper energy producers being dispatched first. While this might refer to renewable plants if there was an abundance of wind or sun, it is likely to result in thermal plants being called on as they offer grid stability and transfer requirements.

- i. Comment on the Applicant’s assumptions.
- ii. Explain why renewable resources would not more frequently fill the gap given the quantum of renewable energy source generating stations within the vicinity of Drax Power Station.

Kind regards

Laura

Laura Henry

Electricity Connections Contracts Manager
Networks

nationalgridESO

M [REDACTED]

E laura.henry@nationalgrid.com

Floorplate L2, Faraday House, Warwick Technology Park, Gallows Hill, Warwick, CV34 6DA

[REDACTED]

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