Department for Energy Security & Net Zero

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Bill Esterson MP
Chair of the Energy Security and Net Zero Committee
House of Commons
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26th February 2024

Dear Bill,

Drax Analysis

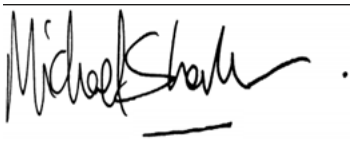
I am writing to inform you that I have committed to depositing an analysis note to the Commons Library regarding the announced support arrangements for Drax.

The note does not set out the Department's full, and comprehensive analysis of the costs of supporting Drax, which includes commercially sensitive information.

However, it does provide further details on the cost of supporting Drax compared to the alternative of procuring the required capacity via the Capacity Market.

I will place a copy of this letter and the analysis note in the Libraries of the House. I hope this will be useful to your members as to well as to MPs more generally.

Best wishes,



MICHAEL SHANKS MP
Minister for Energy

Analysis Note: Cost of alternative to Drax support 2027-2031

"Furthermore, our analysis shows this will save consumers £170m in subsidy in each year of the agreement compared with the alternative of procuring gas in the capacity market." – Written Ministerial Statement, 10 February 2025 (HCWS424)

This analysis note sets out the cost of procuring alternative capacity, equivalent to Drax (c.2.2GW derated capacity) through the capacity market auction.

We estimate the subsidy cost of such alternative to be around £170 million (2023/24 prices) per year more expensive than the dispatchable Contracts for Difference (CfD) agreement with Drax.

The difference of £170m in overall subsidy payments in each year is calculated from the difference between **(A)** the estimated savings made in the Capacity Market auctions by not having to procure additional capacity to cover the capacity gap and **(B**) the estimated CfD subsidy payments to Drax.

A: The estimated savings made in the Capacity Market auctions are calculated by estimating how a reduction in the procurement target by an amount equal to Drax's derated capacity would affect the T-4 auction outcomes for delivery years 2028/29 to 2030/31, as well as the T-1 auction outcomes for delivery year 2027/28.

In securing biomass capacity through the dispatchable CfD, HMG can reduce the capacity market auction capacity target for auctions delivering in years 2027/28 to 2030/31 by 2.2 GW. This new target will be set administratively based on NESO advice and internal considerations.

To construct the likely supply stack for the T-4 2028/29 auction we combine prequalification data for the auction with adjustments to simulate historic levels of post-prequalification drop-off, to produce an estimate of the units likely to enter the auction.

This is then combined with bid data from previous years of T-4 auctions, to estimate the likely supply curve of the T-4 2028/29 auction.

The intersection between supply and demand curve defines the clearing price, total procured capacity, and overall cost of the Capacity Market auction.

A downward revision in the procurement target would result in a downward shift in the auction's demand curve, resulting in the auction clearing lower down the supply curve.

This has the effect of reducing both the amount of capacity procured and the clearing price of the auction, resulting in a lower overall auction cost.

We have assumed the same impact in the T-4 2029/30 and 2030/31 Capacity Market auctions, but no impact on T-4 2027/28 since this auction has already taken place. We have also estimated that a modest saving in the T-1 2027/28 is realised. We estimate the Capacity Market savings of a lower procurement target, resulting from the CfD agreement with Drax, to be around £2.55bn (£640million per annum) (2023/24 prices) over the period between April 2027 and March 2031.

Because these figures are based on estimated auction outcomes, they are sensitive to the exact bidding behaviour and commercial decisions of Capacity Market participants. Outturn savings may be higher or lower than the figures given above, depending on this behaviour.

B: Drax receive top-up CfD subsidy payments for each MWh of electricity produced up to the CfD generation cap.

To estimate the total CfD subsidy payments to Drax, we calculate the difference between the strike price (£113/MWh in 2012 prices) and the seasonal reference price, then multiply by Drax's seasonal generation cap (which equates to around 6TWh's per annum).

BOX 1 – Subsidy cost calculation formula

(strike price - projected outturn market reference price) x generation cap

We use average prices in each season between April 2027 and March 2031 from central market forecasts as an estimate of the outturn seasonal baseload market reference price.

We estimate the total central subsidy cost to be around £1.88bn (approx. £470million per annum) (2023/24 prices) over the period between April 2027 and March 2031.

The exact cost of the subsidy is dependent on outturn power prices, specifically the baseload market reference price. Drax receives top-up payments equal to the difference between the agreed strike price and the baseload market reference. In a situation where the baseload market reference price is greater than the strike price Drax are required to pay back the difference.