

Guidance on the hybrid CfD and award criterion

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Background

On 22 June 2020, the Danish government, the Liberal Party of Denmark, the Danish People's Party, the Social Liberal Party, the Socialist People's Party, the Red-Green Alliance, the Conservative People's Party, Liberal Alliance and the Alternative agreed to continue the technology neutral tender in 2020 and 2021 using a CfD-model with a bid cap of 25 øre per kWh or approx. 34 EUR per MWh and payouts limited to 600M kr. or approx. 81M EUR. A corresponding amount of funding has been set aside for the technology neutral tenders in 2020-2024.

Guidance structure

In contrast to the previous technology neutral tenders in 2018 and 2019, which used a fixed price premium, the technology neutral tender in 2020 will use a CfD-model. The guidance describes the hybrid CfD model, and the accompanying award criterion.

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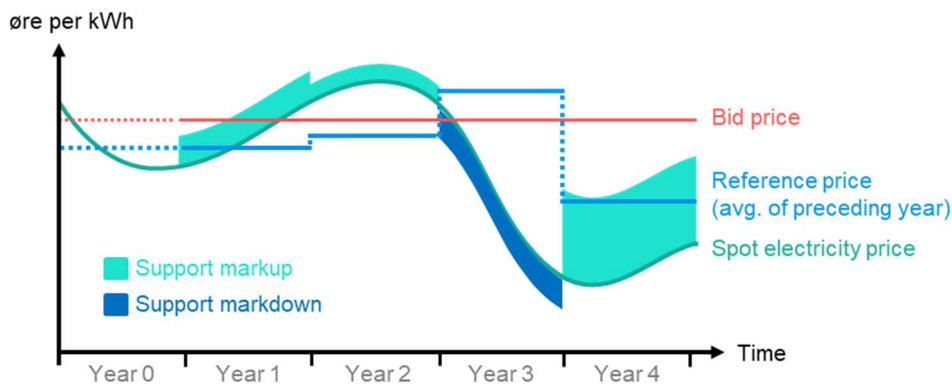
1. Payments in hybrid CfD

The price premium will be calculated using a hybrid contract for difference model (hybrid CfD). In the hybrid CfD, the price premium is calculated as the difference between the tenderer's offered bid price and the annual reference price. In effect, the price premium can vary from year to year, but remains fixed within each year, see example in Figure 1. The reference price is the average of the average spot electricity price of the bidding areas DK1 and DK2 in the preceding year weighted by volume. The price premium is in øre per kWh.

The hybrid CfD uses a two-way payment structure. For each winning tenderer, the Danish Energy Agency pays the winning tenderer when the offered bid price exceeds the reference price, while the winning tenderer pays the Danish Energy Agency when the reference price exceeds the winning tender's offered bid price.

The hybrid CfD contract applies to the entire production of electricity generated by the installations for 20 years from the time of grid connection with no option to opt out.

Figure 1. Stylized example of hybrid CfD. Price premium is difference between bid price and reference price. Price premium can vary from year to year, but remains fixed within each year.



The offered bid price is a fixed øre amount (constant in current prices) and will not be indexed. The offered bid price is stated as an amount in øre per kWh with a maximum of two decimal places. Bids above 25.00 øre per kWh will not be accepted.

There is no cap on payments from the winning tenderer(s) to the Danish Energy Agency.

There is a total cap of DKK 600 million (2020-prices) on the aid paid out by the Danish Energy Agency to all the winning tenderer(s). The payout cap is net of any previous payments from the winning tenderer(s) to the Danish Energy Agency.



Example: In year 2034, if winning tenderer(s) have paid the Danish Energy Agency a total of DKK 110 million (in 2020-prices) in all preceding years, while the Danish Energy Agency has paid the winning tenders(s) a total of DKK 390 million (in 2020-prices) in all preceding years, then primo 2034 the net payout cap is $\text{DKK } 600 - 390 + 110 = 320$ million (in 2020-prices).

The net payout cap is allocated among all the winning tenderer(s) based on a "first come, first served"-principle, where the winning tenderer(s) receive aid in every payment period where the payout cap does not bind. If the total awarded aid exceeds the net payout cap in a given payment period, then the residual sum (up to the payout cap) is paid to the winning tenderer(s) in proportion to the amount of aid that each winning tenderer would have received had the payout cap not been in effect. A binding payout cap may cease binding following a period where the winning tenderer(s) pay the Danish Energy Agency. Any aid forewent due to a binding net payout cap, cannot later be claimed by winning tenderer(s).

Example: If in a given payment period, two winning tenderer(s) stand to receive respectively DKK 1.2 million and DKK 0.8 million (in 2020-prices), but the net payout cap is DKK 1 million (in 2020-prices), then the winning tenderer(s) will only be paid respectively DKK 0.6 million and DKK 0.4 million (in 2020-prices) in that period by the Danish Energy Agency. If no payments are made by any of the winning tenderer(s) to the Danish Energy Agency in subsequent periods, then the payout cap binds and no further aid is available to any of the winning tenderer(s).

Regardless of the above, for each winning tenderer and each year where the reference price exceeds the tenderer's offered bid price, the price premium will not have to be paid by the tenderer to the Danish Energy Agency in hours where the price premium (in absolute terms) is greater than the spot price for electricity in the bidding area that corresponds to the location of the winning tenderer's installation. The spot price for electricity is the hourly price per kWh for the relevant bidding area (DK1 or DK2) stated by the Nordic Electricity Exchange, NordPool.

Regardless of the above, for each winning tenderer, the price premium will not be granted in hours where the spot price for electricity is not positive in the bidding area (DK1 or DK2) that corresponds to the location of the winning tenderer's installation.

2. Expected production

Each bid must contain the offered bid price (in øre per kWh) and the capacity of the project (in MW or MWp). For solar PV installations, the capacity must be stated in MWp, which is the DC effect that the photovoltaic solar panels use. If the project consists of multiple technologies, then the bid must contain the capacity for each of these technologies.



During evaluation, the calculations will be based on the following production assumptions for each technology:

Onshore wind turbines:	3,400 ¹ full-load hours per year.
Wave power plants:	2,500 ² full-load hours per year.
Hydroelectric power plants:	2,500 ³ full-load hours per year.
Solar PV:	1,075 ⁴ full-load hours per year.
Offshore wind turbines:	4,500 ⁵ full-load hours per year.

Using the stated capacity and the assumption concerning full-load hours, the Danish Energy Agency calculates the annual expected production for each bid as $\sum_k(\text{capacity}_k * FLH_k)$, where the sum is taken over each technology k that is stated in the bid.

Examples: For a project consisting of onshore wind turbines with a capacity of 50 MW, the expected production is $50 * 3400 = 170.000$ MWh.

For a combined project consisting of onshore wind turbines with a capacity of 50 MW and solar PV with a capacity of 20 MWp, the expected production is $50 * 3400 + 20 * 1075 = 191.500$ MWh.

The calculation of the expected production is solely of an evaluation-technical nature and the assumptions used in the calculations will therefore not affect the actual aid payment, the date of grid connection or similar.

3. Award criterion

The Danish Energy Agency will award contract(s) to the tenderer(s) that submit compliant bids with the lowest bid price, and that can be kept within 90 % of the total expected production offered by participants.

If several bids contain the same bid price, then the bids in question will be ranked according to the size of the expected production, from the largest to the smallest.

If several bids contain the same bid price and have the same expected production, then the bids in question will be ranked through drawing lots.

The Danish Energy Agency will award contract(s), according to the above-described ranking, until the total expected production awarded reaches 90 % of the total expected production offered. If the expected production offered in the marginal bid

¹ Corresponding to full-load hours in the Danish Energy Agency's most recent technology catalogue.

² Corresponding to full-load hours in the Danish Energy Agency's most recent technology catalogue.

³ Corresponding to full-load hours in the Danish Energy Agency's most recent technology catalogue.

⁴ Corresponding to full-load hours in the Danish Energy Agency's most recent technology catalogue.

⁵ Corresponding to full-load hours in the Danish Energy Agency's most recent technology catalogue.



(i.e. the last accepted bid), is such that the total expected production awarded exceeds the 90 % threshold, then then the Danish Energy Agency will offer the tenderer with the marginal bid the opportunity to downscale the project to a size that allows the total expected production awarded to be contained within the 90 % threshold, but at the bid price originally offered. The Danish Energy Agency will send a conditional award letter to the tenderer with the marginal bid via the tender portal with information about the size consistent with the 90% threshold.