

Bundesministerium für Wirtschaft und Klimaschutz

The German Carbon Contracts for Difference (CCfD) scheme

June 6, 2023



The rationale behind the German CCfD scheme



Carbon neutrality by 2045 is only achievable with significant contributions by the industrial sector

Industry is responsible for **more than 20% of CO₂-emissions** in Germany



Carbon-neutral technologies are not competitive

- Switching to climate-friendly production technology is associated with **higher costs** and **increased price risk**
- Many current subsidy programs either have highly complex approval procedures or only support investments into smaller plants



CCfDs bridge current funding gap and create favorable conditions for investment

- CCfDs compensate 15 years of additional CAPEX &
 OPEX costs, hedging companies against price risks
- Funding is provided **via auction procedures** as a result, there will be no need for costly monitoring

Construction and operation of the first plants create **positive learning-by-doing externalities**, **new infrastructure and markets for climatefriendly technologies**



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Who is eligible for the scheme

(++)

Companies who aim to set up a climate friendly industrial plant and...



...can set up a facility with 90 % less emissions than a comparable traditional plant (ETS-reference plant) at the end of the funding period

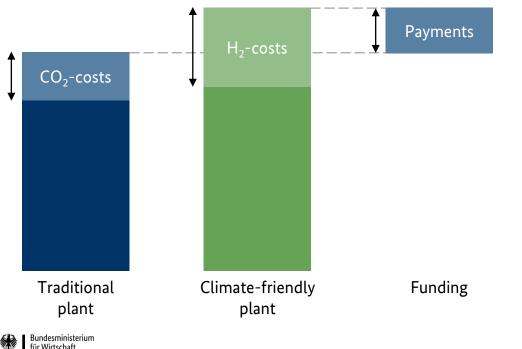
... would emit more than 10 kt CO2-eq. p. a. using conventional technologies



How to determine the funding amount

Example:

und Klimaschutz



- Bidders assess their funding gap by comparing a traditional plant with the climate friendly project
- **They submit a bid** within the given parameters (e.g. EU-ETS, energy prices, maximum possible bid)
- Annual payments for the cost of operation are linked to energy and CO₂ prices. Price risks are hedged and public funding is only paid out if needed
- Funding is paid back in years during which costs for the traditional plant would exceed those of a climate friendly facility (e.g., due to high CO₂-prices)

Functioning of CCfD over time

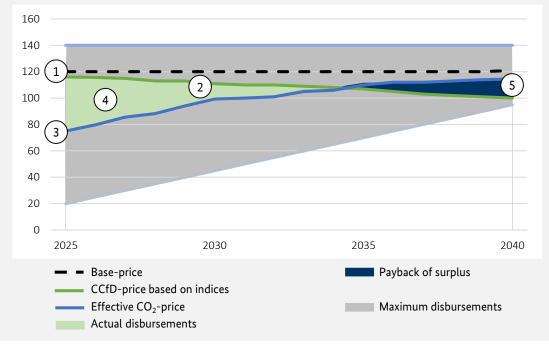
Companies calculate their "**base price**" for the bidding procedure (CO₂-price per tonne that would allow them switching to a climate-friendly plant)

² This base price is **annually adjusted based on market prices** of energy sources

3 The effective CO₂-price is subtracted

4 This leads to disbursements or (over time) 5 payback of surplus

Funding per unit over time, in EUR





Our Timeline





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