

Germany launches a tender for Carbon Contracts for Differences (CCfD)



Bundesministerium
für Wirtschaft
und Klimaschutz

Klimaschutzverträge
**'Climate Protection
Contracts'**

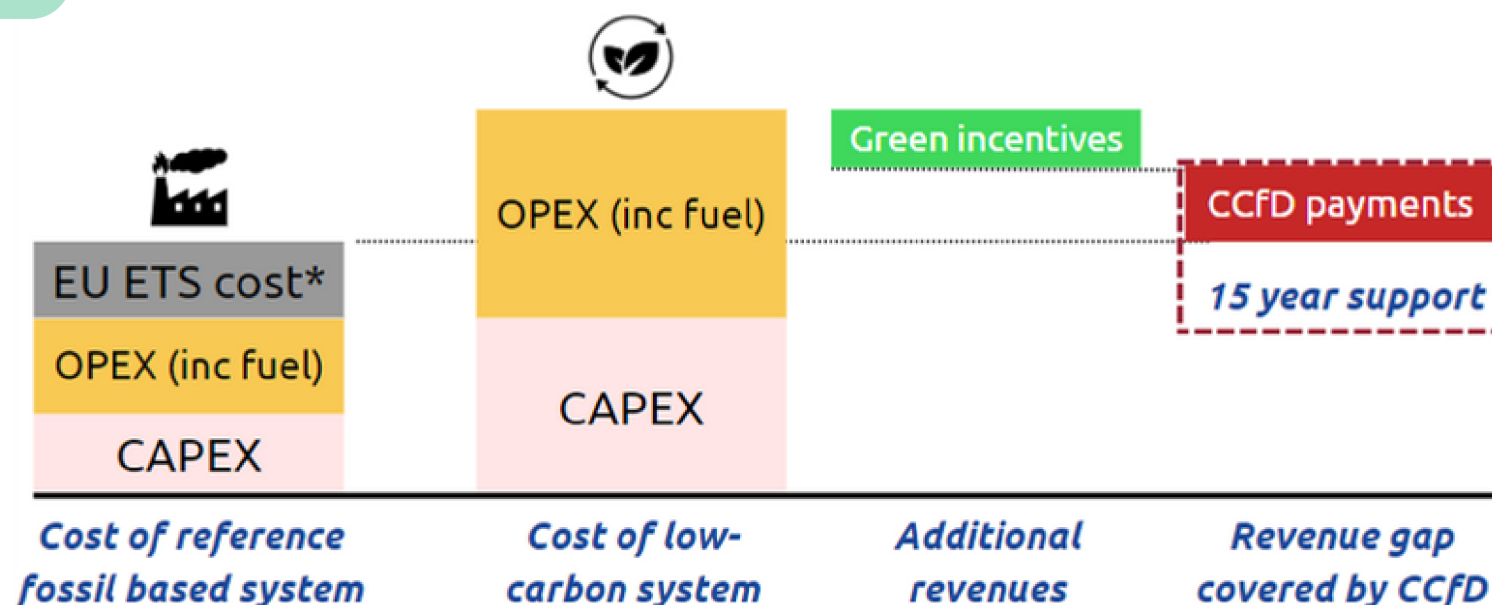
- €4 billion programme
- 15-year subsidy
- Switch to low-carbon industrial processes (e.g. hydrogen or carbon capture)

CCfD allows for demand-side incentives to foster cleaner industrial processes



Eligibility Energy-intensive industrials (e.g. paper, glass, steel, chemicals)

Mechanism



CCfD

Annual payment takes into account the **Base Contract Price** (bid in € / t CO₂eq abated) **adjusted yearly** with

✓ Actual EU ETS price* ✓ Actual emissions abatement ✓ Actual production

Option to terminate the contract within 3 years if CCfD payment starts to be "negative" (low carbon system cheaper than conventional case)

*Carbon price as per the Emission Trading System of the European Union

**€4bn of State budget is up for grabs with
€22bn for additional rounds**



Total Budget

€22bn, of which €4bn for Round 1

Round 1 Parameters



Subsidy period
15 years



Max budget per company
€1 billion

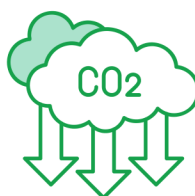


Minimum project size
10 kt CO₂eq / year

Evaluation Criteria

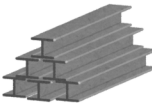


Subsidy efficiency
***(€ / t CO₂eq
abated)***



***Cumulative GHG emission
reductions in the
first 5 years of operation***

Case Study - Steel Plant



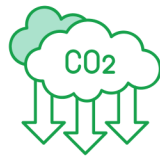
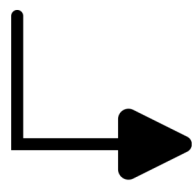
Considering steel, what max plant size can apply for funding?

Assuming a CO₂ abatement cost of 75 €/tCO₂
and steel emission factor of 1.85tCO₂/ton in Germany***



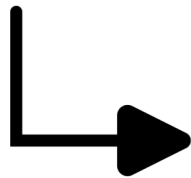
Max

€1bn for 15 years = €67mn/year



Max

893 kt CO₂/yr



Max

482 kt/yr steel production capacity

Total Steel production in Germany: 35 Mt/yr

Large Steel Plants in Germany: > 2 Mt/yr

**Andrej Philip, 2021 CO₂ Abatement in the European Industry Sector - Evaluation of Scenario-Based Transformation Pathways and Technical Abatement Measures*

***McKinsey and Company*

The scheme promotes for an uptake of renewable H2 and its infrastructure



How is the CCfD programme benefitting the **renewable H2 industry**?



The CCfD scheme stimulates the **demand for clean fuels** by promoting the conversion of industries to cleaner processes

e.g.
↳ *In steel - Investment in a Direct Reduced Iron (DRI) plant*
↳ *In glass - Investment in a hydrogen-compatible furnace*



While the **production of hydrogen** is not eligible for subsidies, any existing or new industrial process using hydrogen can be candidate for CCfD support



The CCfD annual payment formula accounts for a **bonus coefficient** for systems using green hydrogen as a fuel (through the *Dynamisierung* mechanism), in a view to further derisk the industry

H2Global Industrials can stack

- **CCfD** - to compensate the equipment switch
- **H2 purchase incentives** (e.g. H2Global)