



Designing competitive bidding mechanisms under the Innovation Fund

ERCST, 28 November 2022

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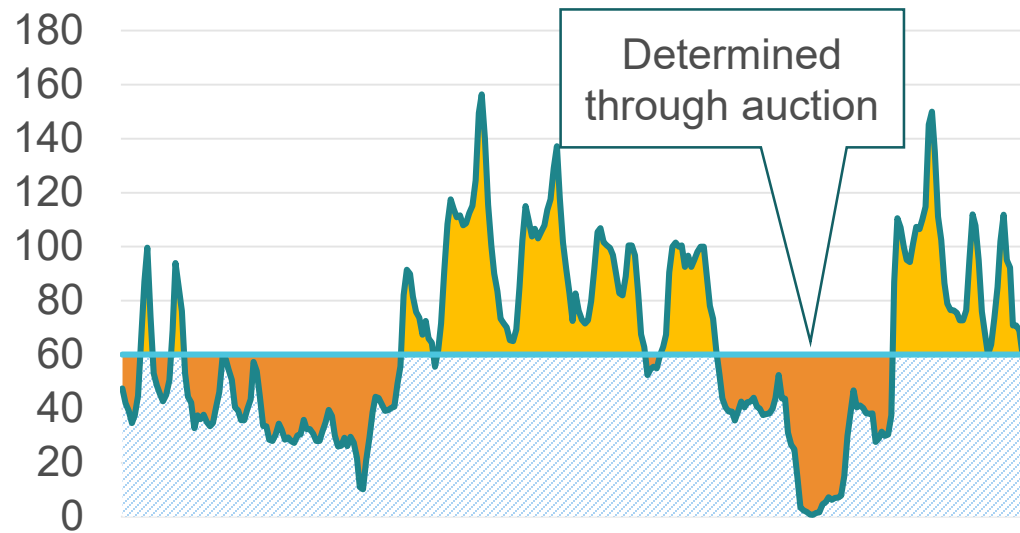
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1. Introduction: CfD vs. CCfD

Exemplary Contract for Difference

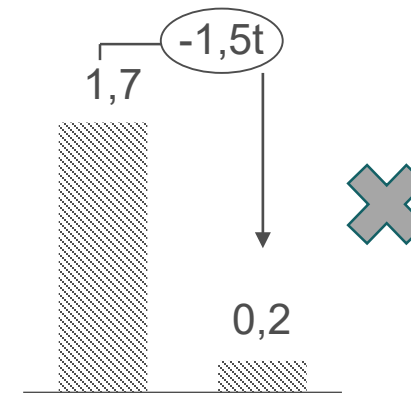
Price (EUR)



- Regular revenue
- Revenue paid back
- Subsidy received
- Capture Price
- Strike price

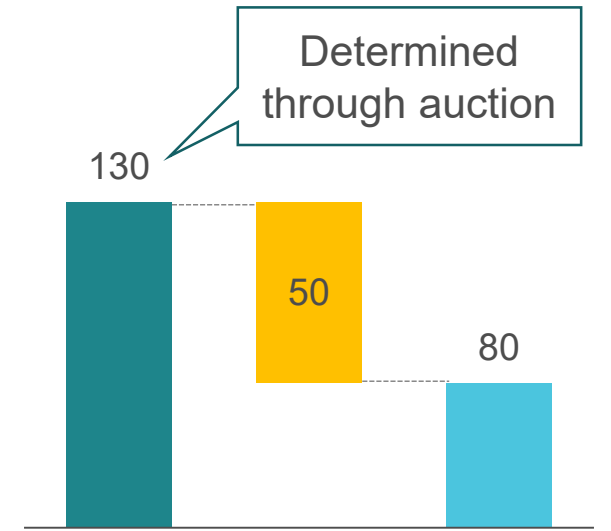
Exemplary Carbon Contract for Difference

Volume (t_CO2e)



- Fossil compa-rator
- Green technology

Price (EUR/t_CO2e)

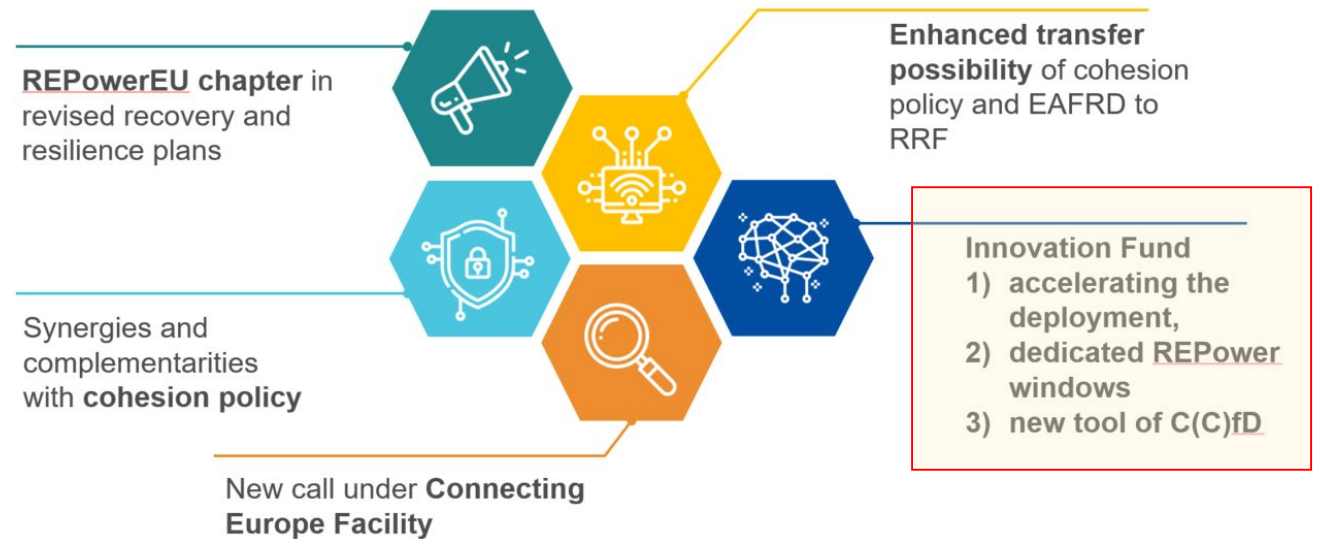


- Abate-ment cost
- CCfD Payment
- Carbon Price (or Floor)

2. RePowerEU and choice of first pilot auctions

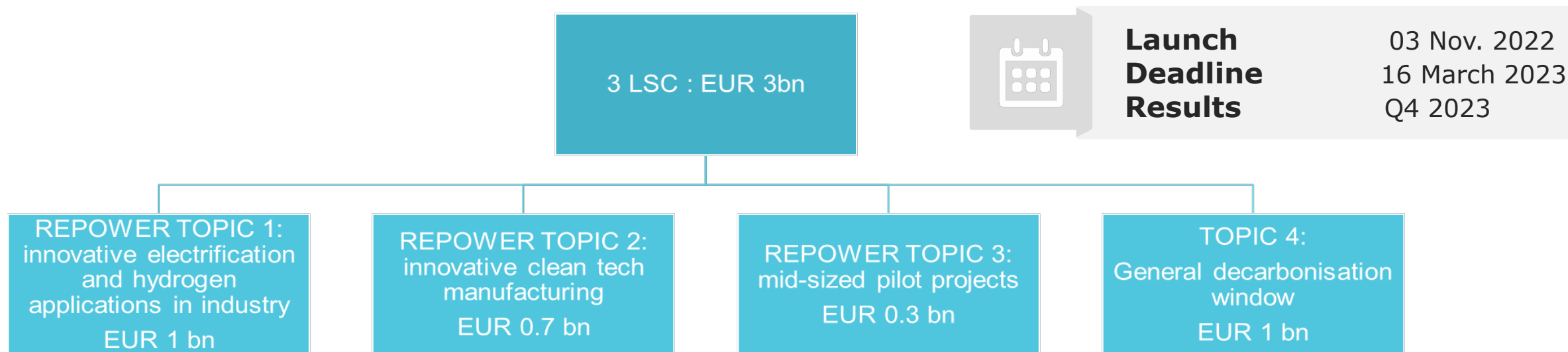
REPowerEU Plan:

*“To support hydrogen uptake and electrification in industrial sectors, the Commission will roll out carbon contracts for difference and dedicated REPowerEU windows under the Innovation Fund to support a full switch of the existing hydrogen production in industrial processes from **natural gas to renewables** and the transition to **hydrogen-based production** processes in new industrial sectors, such as steel production”*

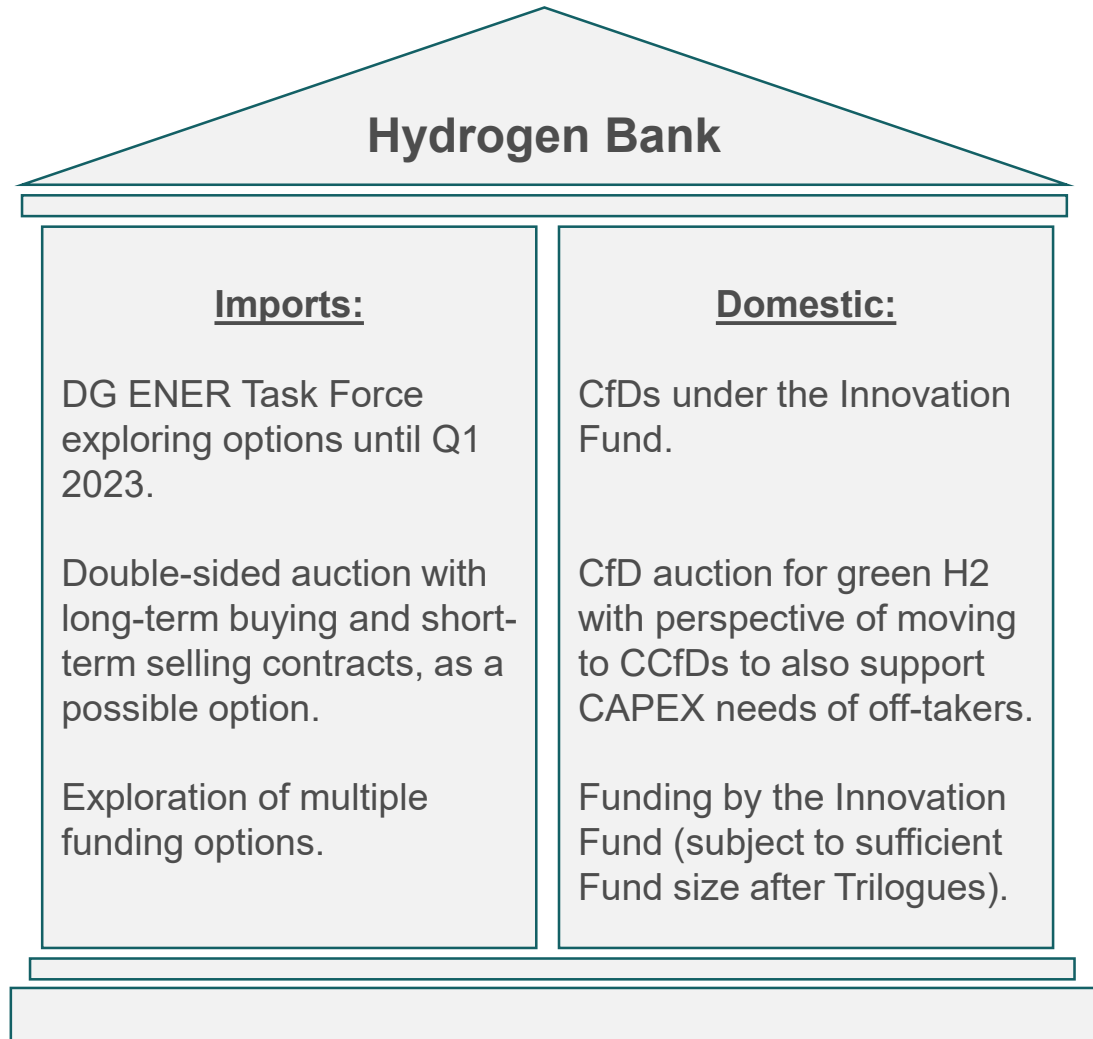


3. Links with the Innovation Fund 3rd LSC

- The 2022 3rd Large Scale Call (“LSC”) under the IF *is not* the Hydrogen Bank
- Budget made available for **3LSC: 3bn** + 20% flexibility reserve
- Info days will be held on 30 November [link to Info Days registration](#)

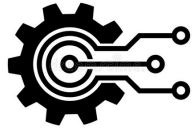


4. Links with the European Hydrogen Bank



- CfDs for Hydrogen production under the Innovation Fund at this point the most likely implementation option for the domestic leg of the H2 Bank.
- Creating a domestic market and price discovery has other requirements than securing diversified imports of H2 (derivatives) from abroad.

5. Support contract and study by DG CLIMA



Technologies

- Which technologies could be sensibly called through an auction?
- Technology-neutral or -specific?
- Which technology baskets?



Auction Design

- Evaluation of different auction *types* and *features*
- From long-list of options to 2 fully fleshed out auction designs
- Auction procedure, clearing mechanism, winner remuneration etc.



Contract Design

- Getting from an economic auction design to legally fixing those features in the IF Delegated Acts and contracts between the auction winners and the EC



Governance & Implementation

- From auction and contract design to implementation
- Governance, procuring auction clearing software, staff planning...
- Budget and risk forecasting tools

6. Which options have been analyzed in-depth?

H₂ Dedicated hydrogen auctions

1. Hydrogen **supply** side auction (fixed premium or CfD)
2. Hydrogen **demand** side auction (fixed premium or CfD)
3. Joint hydrogen demand and supply auction for **industry clusters** (fixed premium or CfD)
4. Double-sided auction for hydrogen **supply and demand**

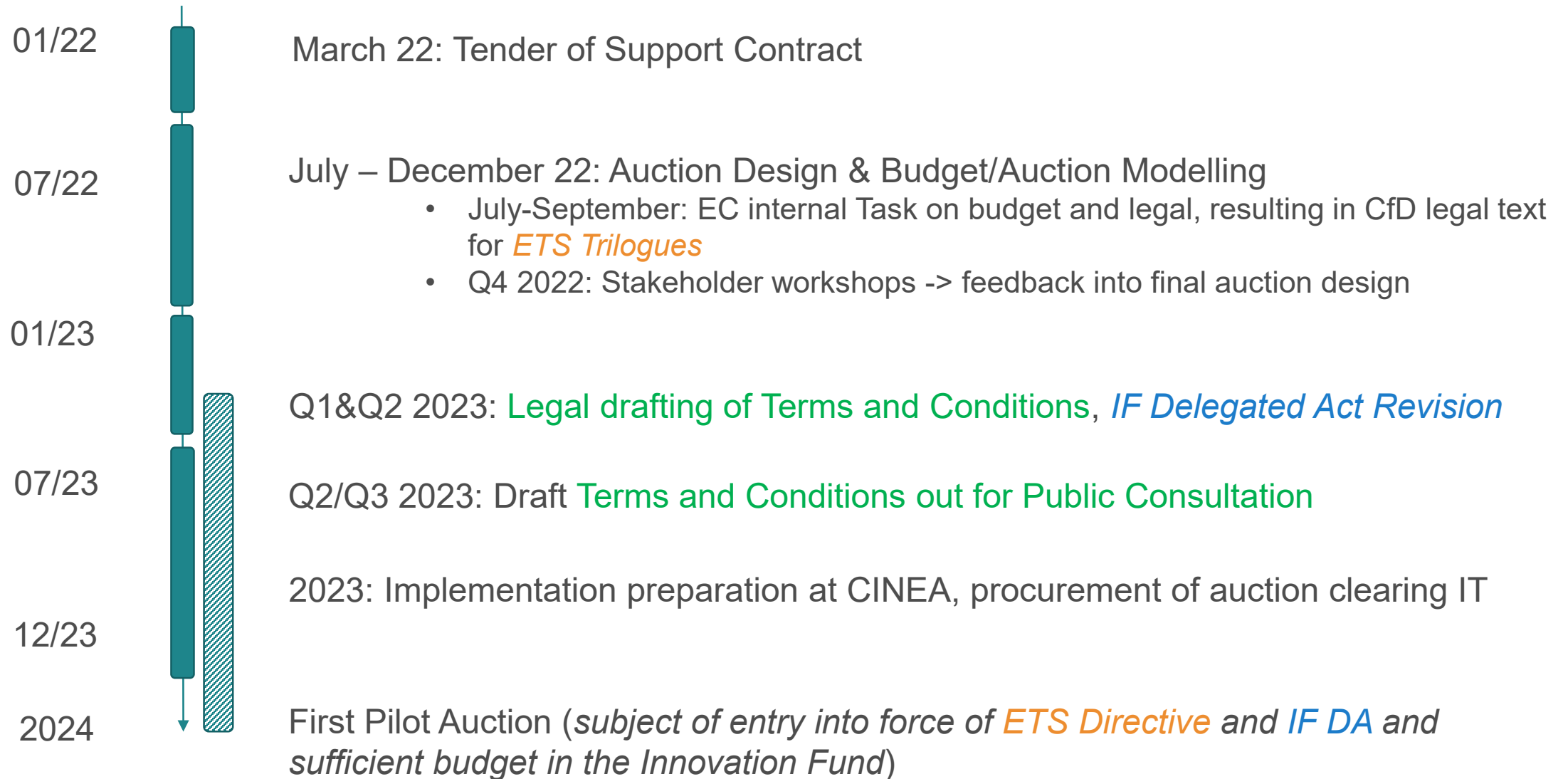
CO₂ Emission reduction auctions

5. **Demand-side** auction using Carbon Contracts for Difference
6. **Supply-side** auction using Carbon Contracts for Difference

⚡ Electricity input auctions

7. Supply-side auction for **electricity using a CfD**

7. What's a possible timeline?



The IRA is more usefully compared to the ETS + free allowances than the Innovation Fund

- SMR ETS Benchmark: