

Upstream



Establishment of the upstream supply chain and infrastructure for hydrogen production and transportation with decreasing costs



Midstream

**Reference technology:**  
Blast furnace route

**Carbon contract with dynamic carbon contract premium:** Start based on existing regulations for free allocations with a dynamic adjustment to future reforms

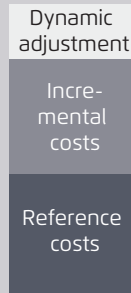
**Low-carbon technology:**  
Direct reduction with natural gas and hydrogen (DRI-EAF)



Replacement of 11 Mt of blast furnace capacity with emissions of 19 Mt CO<sub>2</sub> p.a. before 2030



Blast furnace route



DRI-EAF



Construction of 12 Mt of DRI-EAF capacity. CO<sub>2</sub> emissions decrease by 18 to 1 Mt CO<sub>2</sub> in 2030

1



Construction of 12 Mt DRI-EAF plants (utilisation 90 %)



7 billion to compensate incremental investment costs

2

Initial operation with natural gas or CCS-based hydrogen

Hedging of incremental operating costs via carbon contract as a safeguard for the regulatory implementation of the German and European climate targets

3

Replacement of natural gas with increasing amounts of renewable hydrogen

Reducing and refinancing incremental costs via the EU ETS reform, the development of green lead markets, and falling H<sub>2</sub> costs



Downstream



Transforming downstream supply chain and building green lead markets via driving demand and willingness to pay for the supply of climate-friendly steel products