

Grey, Grey+CTS, On-purpose blue and Green Ammonia – a high-level, qualitative comparison*

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	Grey	Grey+CTS**	On-purpose blue	Green
Cost per tonne NH ₃	5	5	5	1
CO ₂ emissions	1	3	4	5
CO ₂ capture energy penalty	–	5	3	5
Capex requirement to switch from grey	–	4	2	1
Location must be same bidding zone as renewable power	5	5	5	1
Needs CO ₂ logistics access (ship, rail, pipeline)	5	1	1	5
Can use CO ₂ for urea or F&B applications	5	5	5	1
Proven technology at scale	5	4	3	1
Total (unweighted)	26	32	28	20
Total (Cost / tonne NH₃ and CO₂ emissions weighted)	27	35	32	25

*High level, generic approach, based on sbh4 consulting's qualitative and quantitative experience and expertise. All projects are unique and must be evaluated across safety, environmental, operational, technical, financial, economic and risk aspects according to the project parameters. Concept and model can be adjusted by other experts to refine towards their perceptions and views.

**CTS refers to CO₂ transportation and storage (on grey ammonia facilities, the CO₂ capture aspect of the value chain is done by default within the process).