



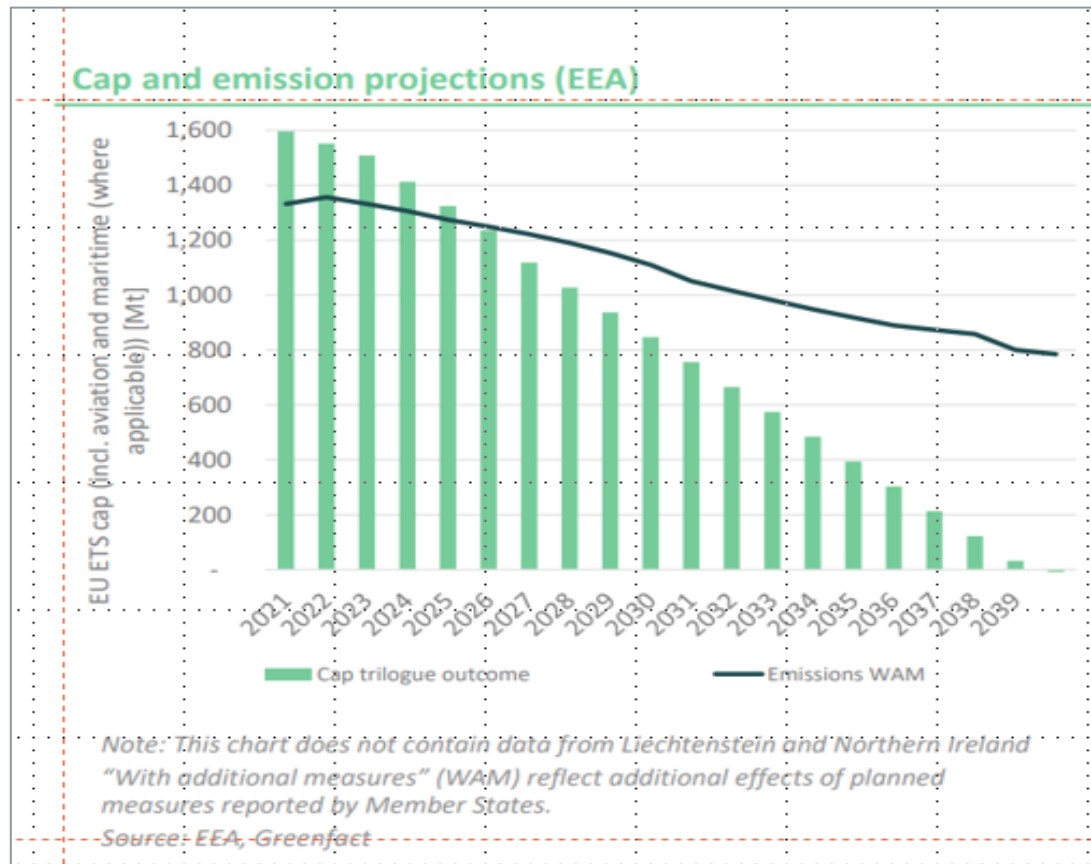
Carbon Removals - Hydro's position

Brussel 2023-10-30. Presented by Liv Rathe, Climate Director, Hydro

The EU ETS cap might go to zero by 2040, but will emissions?



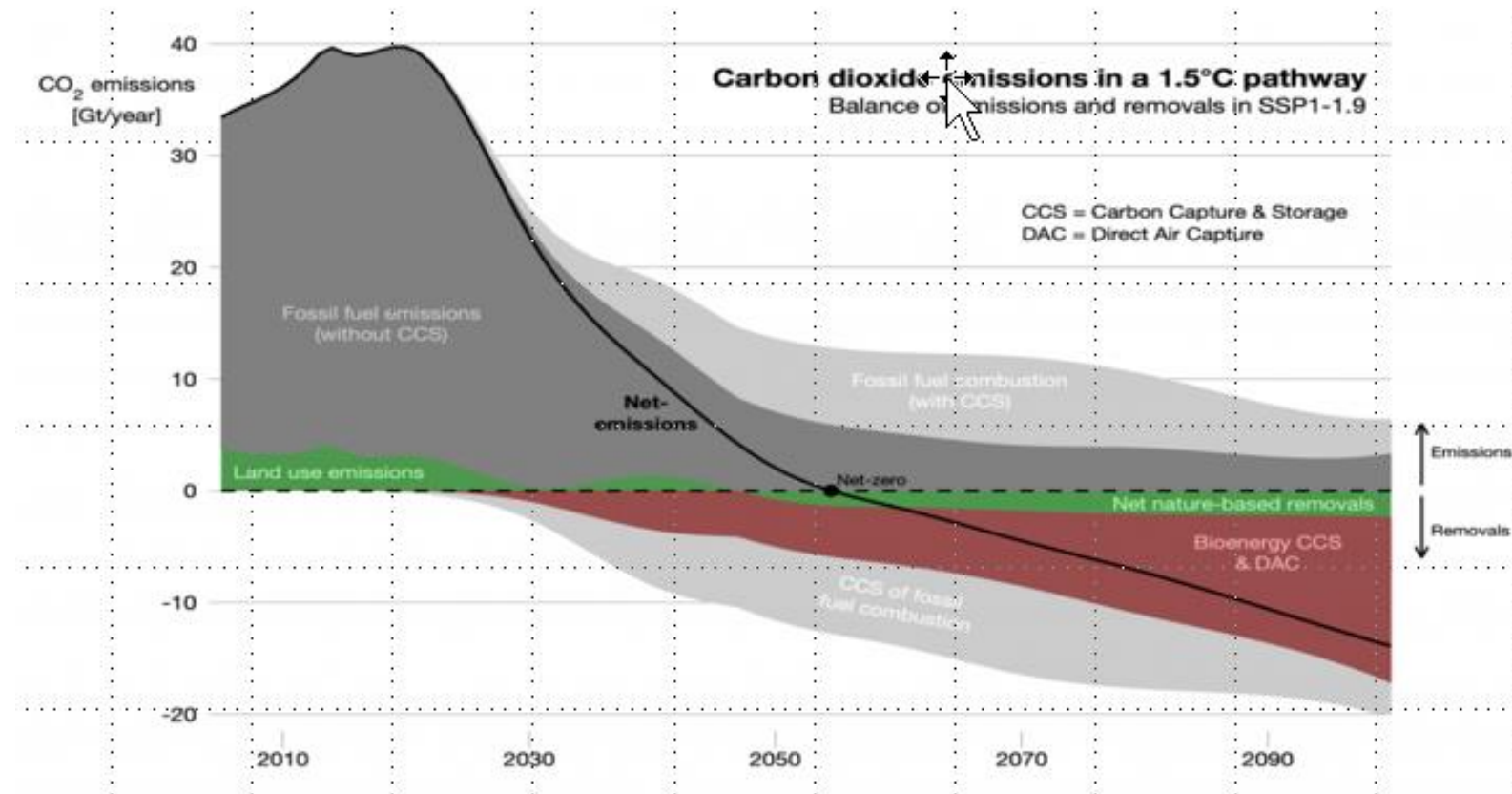
Only European industry faces a high cost on carbon.



- EU ETS has the highest emission reduction target and CO₂ price
 - Impossible for European industry to cut emissions within the cap.
- Net zero in the EU ETS by 2040 is impossible without compliance flexibility, like CDR
- Otherwise industrial development and decarbonization will be hampered
- Permanent removals, like BECCS and DACCS, should become ETS eligible, after certification and methodologies are in place.
 - A concrete implementation timeline is missing.
- Important for:
 - Hard-to-abate sectors
 - Small installations
 - Emissions residuals
 - Technology providers

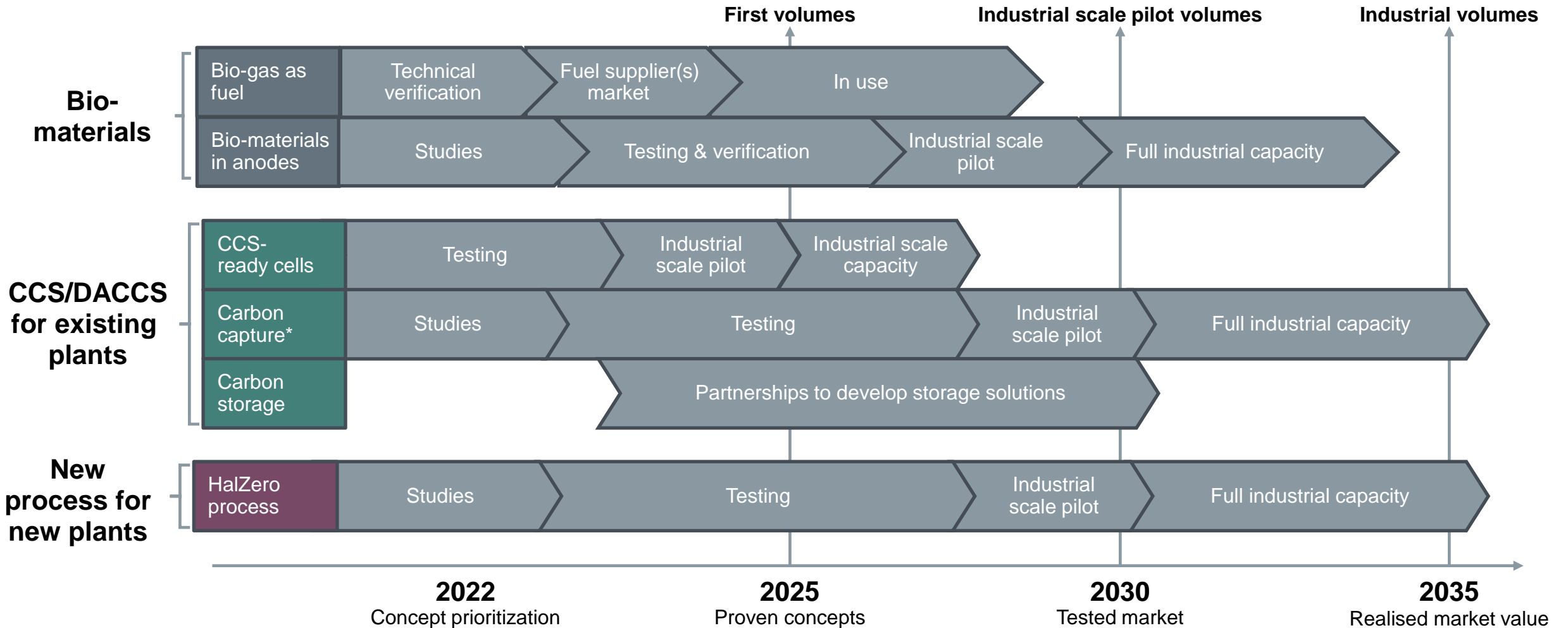
Reduce or Remove – that is not the question

Both are needed to reach the Paris Agreement



Multiple scenarios within IPCC found that the world will be dependent on a total of 553-659 BT of CDR between now and 2100, with at least 1 BT of CDR needed per year by 2030 and a significant ramp up thereafter

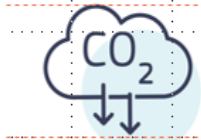
Timeline - Process emissions abatement technology program



*Including Off-gases capture and Direct air capture and storage

Hydro's positions on carbon removals

Allow Removal Technology Flexibility



- Pivotal that EU provides clarity on the end-use of carbon removal credits and an implementation timeline, improving condition to better reach 2030, 2040 targets and net zero by 2050.
- Emission reductions always come first. Secondly comes CCS and permanent CDR.
- Both solutions require sufficient funding to move forward.
- BECCS and DACCS, to be included in the CCS Directive and technical certification methodologies to be developed to make them eligible ETS compliance instruments by 2028.

Allow removal Credits in EU Emission Trading Scheme (ETS)



- Installations using permanent CDR should not be obliged to surrender allowances in EU ETS.
- From 2028, without any limitation, permanent CDRs should be tradable, bankable and used in ETS compliance
- All permanent removal credits should be exchangeable with an EU quota.
- Over time, CDR generation should not only be limited to within EU and EEA territory.