"LAUNDERING" THE CO₂ EMISSIONS: THE ROLE OF CDR TECHNOLOGIES IN MEETING STRINGENT NATIONAL CLIMATE TARGETS IN SWITZERLAND

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The “challege” on the road to Paris

Stringent national climate objectives

Energy policy aiming at nuclear phase-out

Additional exploited RES potential mostly solar PV

CO₂ mitigation primarily in demand sectors

GHG emissions reduction target from 1990

CO₂ emissions pathways

Electricity supply + final consumption

CO₂ capture, storage + utilisation

H₂ supply + utilisation

CO₂ emissions pathways (first)

Results from two long term scenarios:

Baseline which assumes existing policies only

Climate, which implements the climate and energy objectives of the Swiss energy strategy

Methodology –Swiss Times Energy Systems Model (STEM)

- Long-term scenario analysis, using a detailed bottom-up cost-optimisation modelling framework
- Representation of the Swiss energy system in high sectoral detail
- Including CCS, DAC and BECCS technologies
- Detailed structure of H₂ supply and delivery, including H₂-synfuels
- CO₂ utilisation pathways

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