Cryogenic CO_2 Separation

Carbon Capture Invented for a Changing World

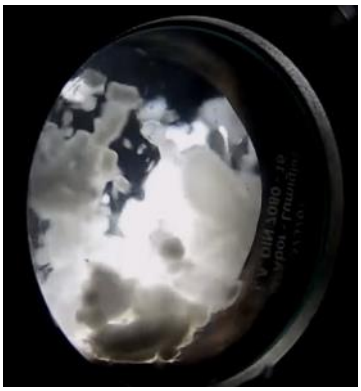
Sustainable Energy Solutions' (SES) Cryogenic Carbon Capture (CCC) technology can significantly reduce the cost of producing a high-purity stream of liquid CO_2 from power plants and other industrial sources while enabling grid-scale energy storage.

Technology Highlights

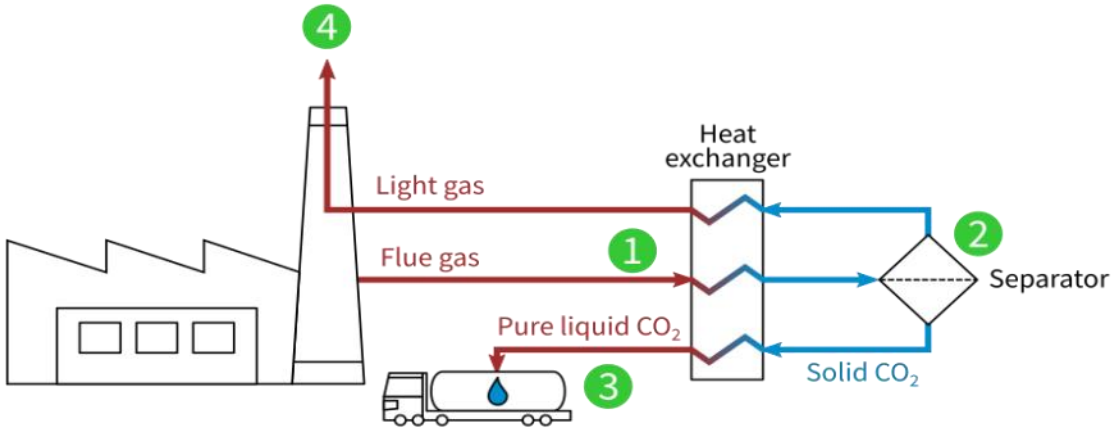
- Half the cost of current alternatives
- CO_2 produced as high-purity liquid ready for sale
- Easily retrofits to existing plants
- Integrated carbon capture and energy storage

Current Efforts

Continuing demonstration of small-pilot system. Building team for first commercial-scale demonstration. Potential host-sites and technical partners are desired to build a 30-300 TPD CO_2 production.



The CCC process produces a high-purity, liquid stream of CO_2 that is ready for existing CO_2 markets, CO_2 utilization or conversion, or geologic sequestration. The process can be bolted on to nearly any stationary, industrial process (power plant, cement plant, chemical plant, etc.). The CCC process costs significantly less than leading alternatives without any disruption to the upstream process. At large scale the CCC process can also shift a significant power load from peak to off peak times adding significant value to the process and allowing for better integration with renewables on the grid.



Legend

1. Flue gas is cooled
2. CO_2 is separated as a solid from the light gases
3. CO_2 is melted and prepared for transport
4. Light gases are reheated and released to atmosphere

Chart/SES Highlights

- 70+ Cryogenic Carbon Capture Patents
- Decades of Cryogenic Process Experience
- Field tested at 1 TPD liquid CO_2
- Customer validation and collaboration

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