

## Sprint Challenge Brief: CO2 Separation Technologies Sprint

Removing CO2 from heavy industrial processes before it enters the atmosphere is critical for mitigating the effects of climate change. The general process of carbon capture and storage (CCS) involves three parts:

- capturing the CO2 at large industrial point sources, such as coal-fired power plants
- transporting CO2, and
- storing CO2, typically in underground geological formations.

CO2 capture accounts for more than half of the total cost of CCS, so any efficiency or optimization in this process would significantly contribute to its more widespread use.

Our client, a leader in the energy industry, seeks to identify novel materials and technologies for CO2 separation. Pathways of interest include, but are not limited to:

- Amine-based absorption technologies,
- Calcium carbonate looping,
- Membranes such as metal-organic frameworks (MOF),
- Fuel cells, and/or
- Chemical looping combustion.

The goal of this sprint is to facilitate contact and interactions between the Sprint sponsor and active researchers or technology developers in this space. Submissions and novel concepts from individuals and organizations at all levels are invited, including the academia, research, commercial and government sectors, but all viable technology providers are invited to respond for potential commercial opportunities with the client.

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### SUBMISSION REQUIREMENTS:

Solvers submitting an entry should highlight key innovation areas in their submission that meet criteria including:

- Description of proposed novel material
- Description of proposed novel manufacturing method
- Anticipated performance
- Anticipated sustainability enhancement(s) versus alternatives
- Technical maturity

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### BUSINESS OPPORTUNITY FOR SOLVERS

TechConnect will include all complete and eligible entries in an exclusive Innovation Opportunity Report for our client. Either TechConnect or the client may contact solvers with well-matched capabilities to discuss potential partnership opportunities, including – but not limited to – demonstrations, consulting, contract research, licensing, and more. TechConnect will invite top rated entries to pitch at [TechConnect World](#) in Washington, D.C. in June 2022. Audience members will include corporate, investment, and federal prospectors with purchasing authority.

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### PARTICIPATION RULES & GUIDELINES

Solvers are encouraged to review the [Rules](#) and [Guidelines](#) provided on the Sprint page for details about participation, including submission criteria, eligibility information, and more.

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QUESTIONS? Contact [challenge@techconnectventures.com](mailto:challenge@techconnectventures.com)