



### CLIENT:

NTPC School of Business (NSB), Noda agency for G20-2023, Govt of India

#### **PROJECT DESCRIPTION:**

Strategic advisory on CCUS for G20 Summit (2023).

#### **Deliverables included -**

- Identifying CCUS technology gaps across G20 nations
- Identifying opportunities for international collaboration
   Defining roadmap for accelerated industrial decarbonization.

Carbon Capture, Utilization and Storage (CCUS) Technology Gaps and International Collaboration

February 2023

वेद्युत मंत्रालय MINISTRY OF POWER

#### IMPACT

- The study offers useful insights on Technologies (Readiness Levels, Gaps) across the CCUS value chain – which would be very useful in defining commercial deployment pathways for CCUS across G20 countries.
- The study offers potential solutions and key enablers to accelerate CCUS implementation.
- The study identifies opportunities for international collaboration in CCUS.

# **CLIENT OBJECTIVES**

To identify technology gaps in the CCUS value chain that hinder decarbonization and energy transition across the G20 countries, and to define solutions that enable techno-commercially viable implementation of CCUS projects.

The NTPC School of Business (NSB) – the designated nodal agency leading this study for G20, selected Dastur to prepare a report on CCUS technology gaps and opportunities for international collaboration.

# **SOLUTION DESCRIPTION**

# Dastur conducted a detailed study and published a report which included:

- ◎ Role of CCUS in driving the transition to net zero.
- Sector-wise analysis of CO<sub>2</sub> emissions and suitability of CCUS.
- CO₂ emissions and CCUS initiatives across the G20 countries.
- $\odot~$  Comparative analysis of various CO\_2 capture technologies.
- Analysis across various options for CO<sub>2</sub> storage, mechanisms, screening parameters, risk monitoring framework and key areas of R&D for storage.
- $\odot$  CO<sub>2</sub> storage potential assessment across G20 countries.
- Technology assessment (readiness levels & gaps) across
  CCUS value chain and potential solutions.
- ⊘ Holistic risk assessment (Technical, Financial, Safety).
- ⊘ Specific opportunities for international collaboration.



# **ABOUT DASTUR ENERGY**

Dastur Energy Inc. is an Austin, Texas, based energy technology company specializing in conceptualization, design and development of commercial scale clean energy transition and carbon management solutions for the Power, Industrial and Government sectors. These solutions maximize ROI potential by leveraging existing assets, site level energy landscape, market models and government initiatives. Dastur Energy's offerings include – market analysis, technology options analysis, policy design, concept & feasibility studies, techno-economic analysis, integrated process design & engineering, technology licensing and project management from concept to commissioning.

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