

CLIENT:

United States Trade & Development Agency (USTDA) and India's leading Integrated Oil Company engaged in Refinery, transportation, and marketing.

PROJECT DESCRIPTION:

Decarbonization roadmap of one of the largest integrated refineries and petrochemical complexes through CO₂ capture and utilization.

IMPACT

- ⊙ India's first carbon capture for EOR project.
- ⊙ CO₂ capture at competitive cost along with improved process efficiency of HGUs.
- ⊙ Roadmap for significant CO₂ emission avoidance (>2000 TPD capture).

CLIENT OBJECTIVES

Identification most suitable CO₂ sources and technology for the production of EOR and Food & Beverage (F&B) grade CO₂

SOLUTION DESCRIPTION

Dastur Energy carried out a techno-economic feasibility study for development of a decarbonization roadmap. The study included:

- ⊙ Review the refinery's overall carbon footprint
- ⊙ Analysis of CO₂ sources and identifying capture points based on gas characteristics.
- ⊙ Evaluation of multiple carbon capture technologies & selecting suitable options based on CO₂ stream properties and site conditions.
- ⊙ Market study - CO₂ use as dry ice and in F&B.
- ⊙ Infrastructure design for CO₂ compression, storage, transportation.
- ⊙ Project financial feasibility, and life cycle cost analysis.
- ⊙ Cost and workforce requirement estimation, Sensitivity analysis for CO₂ pricing.
- ⊙ Developmental impact assessment



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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