

## CLIENT:

United States Trade and Development Agency (USTDA) & One of India's largest oil refining & distribution conglomerates

## PROJECT DESCRIPTION:

Feasibility study on Petcoke utilization to produce clean, value-added, and profitable products for one of the client's largest refineries.

## IMPACT

- ⊙ Utilization of Petcoke for:
  - Power generation
  - Producing value-added products like hydrogen, MEG, acetic acid and other chemicals
- ⊙ ~ 95% reduction of NOx and SOx
- ⊙ Potential CO<sub>2</sub> capture enabling clean products
- ⊙ Potential to capitalize on future domestic and international carbon adjusted markets
- ⊙ Return on Investment over 18%



## CLIENT OBJECTIVES

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Given the growing restrictions on high-sulfur petcoke use in conventional industries and the opportunity for bottom-of-barrel upgradation, Dastur evaluated techno-economic viability of waste (Petcoke) to value-added clean products (Hydrogen, power, MEG, etc.)

## SOLUTION DESCRIPTION

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### The proposed solution incorporated:

- ⊙ Market potential of various products derived from Petcoke gasification.
- ⊙ Design optimal product portfolio based on long-term forecast of supply, demand, price, competitiveness, etc.
- ⊙ Evaluation & recommendation of best suitable process technologies based on feedstock and downstream chemicals.
- ⊙ Plant layout and logistics infrastructure.
- ⊙ Financial feasibility study with cost estimations, revenue projections, profitability and sensitivity analysis.
- ⊙ An effective business and operating model and its implementation plan.
- ⊙ Preliminary environmental impact assessment and control measures.
- ⊙ Identification of potential USA based technology providers, equipment and services for the project.



## ABOUT DASTUR ENERGY

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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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