PROJECT PROFILE
BLUE HYDROGEN, AMMONIA, & UREA PRODUCTION FACILITY

audubon

Client: **VENTURE CAPITAL FIRM** | Location: **NORTHEASTERN UNITED STATES**

Audubon supplied a comprehensive conceptual study and front-end engineering and design (FEED) for a large natural gas synthesis plant targeting decarbonization. The blue hydrogen plant design included natural gas treating, air separation, and CO2 compression and sequestration to produce 5 million metric tons per annum (MMTPA) of ammonia and 7.5 MMTPA of urea.

Audubon balanced the plant's process heat integration and power demand using a gas turbine with a selective catalytic reduction (SCR) system. The team's deliverables included recommendations for technology and equipment, facility modeling, engineering drawings, and financial estimation.

Audubon's domain knowledge and engineering expertise enabled the natural gas plant to efficiently process natural gas flare streams and lower carbon emissions with sustainable blue hydrogen plant design.

Project overview

- Natural gas synthesis plant
- Decarbonization objective
- Carbon capture
- 5-MMTPA ammonia production
- 7.5-MMTPA urea production
- Power generation

Scope of work

- Conceptual study & FEED
- Technology selection
- Equipment specification
- Facility layout & modeling
- Key engineering drawings
- Economic modeling
- Total installed cost (TIC) estimation
- Pro forma modeling

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