Project Information Sheet
St. Charles Clean Fuels - St. Rose, Louisiana

Project Summary

St. Charles Cleans Fuels (SCCF) proposes to build an 8,000 metric tonne per day per (MTPD) anhydrous ammonia production facility in St. Charles Parish, Louisiana. The facility will use natural gas to produce hydrogen using a process technology that enables the capture of over 99% of the CO_2 produced. The hydrogen is then combined with nitrogen to produce a carbon-free ammonia product that can be used as a clean fuel as well as feedstock to the fertilizer industry. The captured CO_2 will be permanently sequestered by an experienced third party.

Investment

The project will be built in two phases, each at 4,000 MTPD. Each 4,000 MTPD phase will cost approximately $2.5 billion, with a total expected investment of $4.5 to $5.0 billion.

Efficient Technology

The project will utilize commercially proven technologies configured to maximize energy efficiency and minimize emissions. The facility will be further configured to utilize the hydrogen produced as an internal fuel where possible, minimizing the usage of fossil fuels throughout the plant. Basically, the plant will strip the carbon out of natural gas to leave hydrogen for the carbon-free ammonia product.

Product Summary

The facility's final product will be ammonia. Hydrogen and ammonia are carbon free. Ammonia is created through a bond of naturally occurring elements which consist of nitrogen and hydrogen. Ammonia has zero global warming potential and zero ozone depletion potential. Production of ammonia is a well-established process with a decades-long history of safe production and distribution in Louisiana and globally.

Historically, most of the ammonia produced globally has been used in the fertilizer industry due to its high available nitrogen content. Nitrogen is essential for plants to grow abundantly, and ammonia can be directly injected into the ground as a liquid, or used to produce granular fertilizers such as urea. Twenty percent of the world's current food production (food for over 1.5 billion people) is a direct result of ammonia fertilizer usage.

With the growing concern over greenhouse gases, carbon emissions, and climate change, ammonia is now emerging as an important carbon free fuel, particularly for power plants and shipping, and as a carrier of hydrogen. Ammonia contains substantial amounts of hydrogen in a form that is easily stored and can be transported globally.

Environmental

The St. Charles Clean Fuels project will be virtually emissions free during normal operations. This represents a significant reduction in greenhouse gas and other emissions compared to traditional ammonia production plants utilizing steam methane reforming, where a similar 8,000 MTPD facility would release over four million tons of CO_2 to the atmosphere each year. When operating, the SCCF facility will have limited-to-no measurable sources of emissions such as SO_2. NOx, VOC's, PM_{10}, $PM_{2.5}$.

All ammonia projects are considered very clean, as there are no heavy hydrocarbons present that could spill and potentially contaminate soil, or groundwater. The water-based emissions that the plant does generate (steam boiler blowdown, cooling tower blowdown, rainwater runoff) will be fully treated as required prior to release. The plant will also utilize the latest available technology in LED directional lighting to minimize light pollution, and will apply best-practices low noise design.

Health, Safety, Environment (HSE) Commitment

The SCCF project will establish an HSE program placing the highest priority on the health and safety of its personnel, the local community, and the environment. SCCF's HSE goal is simply stated: no incidents, no one gets hurt, and no damage to the environment. SCCF is adopting a Zero Harm policy under the knowledge that all injuries are preventable as a fundamental principle.

Jobs/ Average Salary and Benefits

Once operational, the facility will create over 200 permanent, full-time jobs with average annual salaries in the $80,000 - $90,000 range plus benefits. This number excludes indirect and induced jobs (direct facility services providers, and general regional jobs such as in restaurants, shops, and other local businesses).

Local Hiring

New industrial facilities almost always promise to hire locally. SCCF has already taken this commitment to another level. Working with IMTT (our land lessor and terminal services operator), the St. Charles Parish President, Council, the School Board, the River Parishes Community College, the Associated Builders and Contractors St. Rose Training Center, the United Way of St. Charles, and the Ed Reed Foundation, SCCF is creating a program to ensure job readiness first for individuals in the St. Rose community, and more broadly in St. Charles Parish. SCCF's intention is to produce real and life changing, long-term results for St. Rose and St. Charles Parish individuals and families. No empty promises!

Local Vendor and Supplier Utilization

There will be a multitude of local service providers required to support the facility, and SCCF will, where feasible, prioritize the use of the local supply chain. During construction, SCCF will work with its selected Contractor and their subcontractors to seek out local supply chain opportunities, including potentially splitting purchase orders to stay within the local supplier capacity. Longer term, the SCCF plant operations and maintenance philosophy will be to maximize the use of qualified local suppliers and services providers in support of its continued facility needs.

DEI (Diversity, Equity, and Inclusion)

DEI is a core belief. SCCF is a minority formed organization, with a diverse team of professionals. The company intends to grow its business in such a manner, remaining reflective of the community in which it operates.

Construction

The construction schedule is estimated to be 36 months for Phase 1 (4,000 MTPD ammonia production). Although the construction timing of Phase 2 is dependent on the customer market, it is anticipated that there will be considerable overlap in construction of the two phases, with Phase 2 entering commercial operations roughly 6 to 12 months following Phase 1. The timing for the start of construction is dependent on a number of factors including completion of engineering, receipt of major permits, and finalizing ammonia offtake agreements. The current project planning forecasts the start of construction in the first half of 2024. The project is expected to peak at approximately 2,500 construction workers.

Community Support/ Engagement/ Commitment

SCCF shall establish a local project interface office, and its senior leadership team will frequently be in the community to engage with civic leaders, residents, businesses, and other stakeholders including Parish officials, schools, fire department, sheriff, elected officials, and all other interested parties. SCCF seeks wide community support and recognizes it needs to earn that support through open and transparent communications, accountability, and personal availability. SCCF believes its enterprise to be a significant benefit to the community and a shift into the future of clean fuels and clean fertilizer production can benefit the regional community as well help meet global clean energy and food production needs.

Incentives

SCCF will pursue the Louisiana Industrial Tax Exemption Program (ITEP) and any other statutory or negotiated benefits available. SCCF operates in a highly competitive global marketplace and its cost basis is one of the elements that plays a role in attracting product buyers. However, SCCF anticipates making significant investment in the community, both from taxes to be paid and through its commitments to various organizations.