

Look to India!



At the new office in Navi Mumbai.

Greenstat is growing in Asia. Investments in renewable energy hit record levels in India in 2021-22 and Greenstat is well positioned to take part in this accelerating market. Read about our growing project portfolio in India and Sri Lanka below.

India, like many other nations around the world, is currently facing significant challenges in meeting its energy demands, while also working towards reducing greenhouse gas emissions. Investments in renewable energy hit record levels in India in 2021-22, according to the Institute for Energy Economics and Financial Analysis. A total of \$ 14.5 billion was invested in renewable energy, up by 125% compared with the previous year and 72% higher than in the pre-pandemic period. Over the last 3 years, the Indian government has recognized the potential of green hydrogen and has taken several steps to support its development and adoption. This includes the announcement of a National Hydrogen Energy Mission, supported by other policy measures to promote the production and use of green hydrogen. The issuing of big tenders for energy storage and supportive policies for green hydrogen will potentially accelerate the roll-out of clean energy technologies to decarbonize not only the electricity sector but also other hard-to-abate sectors.

Greenstat approached the Indian market in 2020, and in 2021, we established our subsidiary Greenstat Hydrogen India PL. Today, GHIPL has 10 employees working out of our offices in Navi Mumbai and Colombo, SL. The company has gained a strong position as one of the leading actors in the green hydrogen industry and has a growing portfolio of projects. The company works along 3 axes: (1) Build-own-operate (BOO) green hydrogen plants, (2) consulting services on green

hydrogen, and (3) R&D cooperation through the Centre of Excellence. We work with both energy companies and industrial companies looking to invest in green hydrogen production either for distribution or own-consumption. As the market matures, we will see more projects materialize related to demand for hydrogen. In addition, there is a potential for ownership in solar projects, especially in relation to the hydrogen production, as this Power-to-H₂ model will be more widely used in India.

Selected projects:

Project Seventeen Renewable Pvt Ltd

Project Seventeen, in which Greenstat India owns 30% equity is a 600KW (12kg/hr) off-grid green hydrogen plant along with 600KW solar farm. The project is expected to be online in December 2023. The plant is located at Pavagada, near Bengaluru in Karnataka. The plant comprises of green hydrogen generation, purification, compression, and bottling. Off-taking agreements with various bulk consumers are expected to sign by end of May 2023. The hydrogen generation shall be through PEM technology electrolyser for which order is placed.

J K Lakshmi Cement

The feasibility study for green hydrogen mobility solutions for J K Lakshmi is under progress and final report expected in mid-April 23. The cement giant aims to decarbonise their mobility fleet through usage of green hydrogen. The MoU is signed to set up the 1.5MW (27.2 kg/hr) green hydrogen project which will be powered through their existing 14MW solar farm. The hydrogen refuelling station will be also set up along with high pressure compression and storage system. Greenstat India will own 30% equity in the project along with O&M operation of the GH₂ facility. The project is targeted to complete by April 2024.

HYGREEN India Pvt Ltd

HYGREEN, is a JV with Peenya Gases where Greenstat India owns a 49% equity. It aims to set up a 1MW(18kg/hr) green hydrogen plant along with 5MW of solar farm. HYGREEN will be targeting the local retail consumer of green hydrogen gas. The generation of hydrogen shall be through pressurised alkaline electrolyser for which supplier is finalised. Hydrogen generation plant will be accompanied with compression and bottling unit along with high pressure storage. The project is expected to be completed by February 2024.

BHILWARA Group

Greenstat India has completed the feasibility study for Bhilwara group for conversion of solar energy from their existing 5MW solar farm to hydrogen. Jointly agreed to set up the 1MW (18Kg/hr) hydrogen generation plant where Greenstat India will hold 30% ownership along with O&M of plant operation. We are working closely with the market to finalize the contract for deliveries of hydrogen. The plant will be online in Q1 2024

KAJARIA CERAMICS

Greenstat India has signed a MoU with India's largest ceramic company for setting up a 5MW(90kg/hr) capacity green hydrogen pilot plant at MORBI ceramic cluster in Rajasthan. Greenstat will be owning 25% equity along with O&M contract for the said project. The green hydrogen produced will be used for blending in existing fuel which is natural gas. Also, R&D will be carried out for usage of 100% green hydrogen for producing heat in ceramic industry. The feasibility study is underway and targeting to commission the plant 2024 Q1.

ABC Clean Tech

ABC Clean Tech, a Joint venture platform between Axis Energy and Canadian asset management firm Brookfield which has been established to develop, own and operate Green Hydrogen & its derivatives projects in India and Greenstat Hydrogen India have decided to collaborate and have signed an MOU where in Greenstat will be the Knowledge partner to ABC CT in developing Green Hydrogen & its derivatives projects in India and also explore opportunities to export Green Ammonia & Green Methanol.

ABC CT has signed Agreements with various State Governments in India for Establishing Gigawatt Scale Green Hydrogen projects to meet the domestic Green Hydrogen demand and to meet the Global Green Ammonia & Methanol demand. The total ultimate capacity of Electrolysers needed is estimated to be 25 GW over next 10 years. In Phase 1 (2023-25) the Electrolyser requirement capacity will be 100 MW.

Greenstat Hydrogen India is the sole Knowledge partner to ABC Cleantech in carrying out feasibility studies, assist in procuring critical equipment like Electrolysers, Storage systems etc. and also tying up export/sale of Green Hydrogen derivatives. And also target a minor ownership up to 10% in ABC Clean Tech projects.

Rudra Enterprises

The feasibility study for setting up a pilot GH2 generation plant is completed. The MoU has been signed to develop a green hydrogen pilot plant of 18kg/hr capacity. Greenstat India will be having 30% ownership in the project. The hydrogen produced will be used for blending in natural gas city distribution network. We are working closely with various CGD companies for finalising the off-take contract for blending purpose.

100MW Captive Solar power Project, Sri Lanka

100MW Solar project is to address Key energy challenges of Sri Lanka. Greenstat SPV proposed – 100 mw (Phase 1) Solar project to supply power in Captive mode to Mineral processing Company “Midwest Heavy Sands (Pvt) Ltd” engaged in the business of mineral exploration, mining and mineral processing and refining of heavy mineral sands in general and titanium rich ilmenite in particular has been established in Sri Lanka. The Company is in the process of commencing its operations in Mid 2024 near Trincomalee Port and will be getting all the permissions and approvals shortly.

This company needs “Round the Clock Power” for Mineral processing and other operations and has expressed its intent to procure power from Greenstat owned JV Company (SPV- The project Company) a Solar plant with battery storage.

The project Company will be a Special Purpose Vehicle (SPV) established jointly by Midwest and Greenstat. The initial power requirement in Phase 1 will be around 100 MW and the ultimate Solar

capacity required will be 1000 MW

Excess power will be sold to a Green Hydrogen producing Company with an option to also sell to CEB and/ or to Local communities.

Land required for the Solar plant will be given on lease by Midwest Heavy Sands to the SPV

The project is being planned to be funded in Debt:Equity of 70:30 ratio.