

CHAR Technologies Ltd (TSXV:YES) Group

HEAD OFFICE: 403-789 Don Mills Road, Toronto, Ontario, Canada M3C 1T5

(416) 467-5555 • 1-800-323-4937 • info@chartechnologies.com • [@CHAR_Technology](https://www.linkedin.com/company/char-technologies)

[CHARTECHNOLOGIES.COM](https://www.chartechnologies.com)

TIMELINE

2009

After a eureka moment in the lab, founders Andrew White and Dr. Don Kirk launch CHAR Technologies.



2011

CHAR is incorporated, demonstration testing begins on biocarbons from digestate.



2016

After listing on TSX.V, CHAR named the CIX Top 20 Most Innovative Public Companies.

Collaboration between CHAR and major Canadian steel producers on CleanFyre and syngas.

London HTP facility in operation.

2018

2018



Lab scale testing of Hitachi Zosen Inova (HZI) digestate.

Demonstration of HZI digestate in operating HTP facility, showing green hydrogen and biochar.

2020

2021

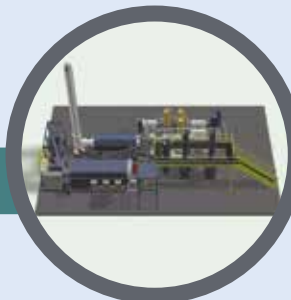


Start Up Facility.

Project announced with HZI.

2022

JULY 2021



CHAR Technologies Ltd. (CHAR) is a cleantech development and services company, specializing in high temperature pyrolysis, converting woody materials and organic waste into renewable gases (renewable natural gas and green hydrogen) and biocarbon (activated charcoal “SulfaCHAR” and solid

biofuel “CleanFyre”). Additional services include custom equipment for industrial water treatment, and providing services in environmental compliance, environmental management, site investigation and remediation, engineering and resource efficiency.

CHAR AND HZI ARE WORKING TOGETHER TO PRODUCE GREEN HYDROGEN

ABOUT THE CHAR/HZI PROJECT

In July 2021, CHAR Technologies Ltd. and Hitachi Zosen Inova (HZI) agreed to develop a high temperature pyrolysis to green hydrogen system at their existing San Luis Obispo (SLO) anaerobic digestion facility in California. When construction is completed, CHAR's system will process 18,000 tonnes per year of solid anaerobic digestate into 1,320 tonnes of green hydrogen per year, and 2,800 tonnes per year of biocarbon.

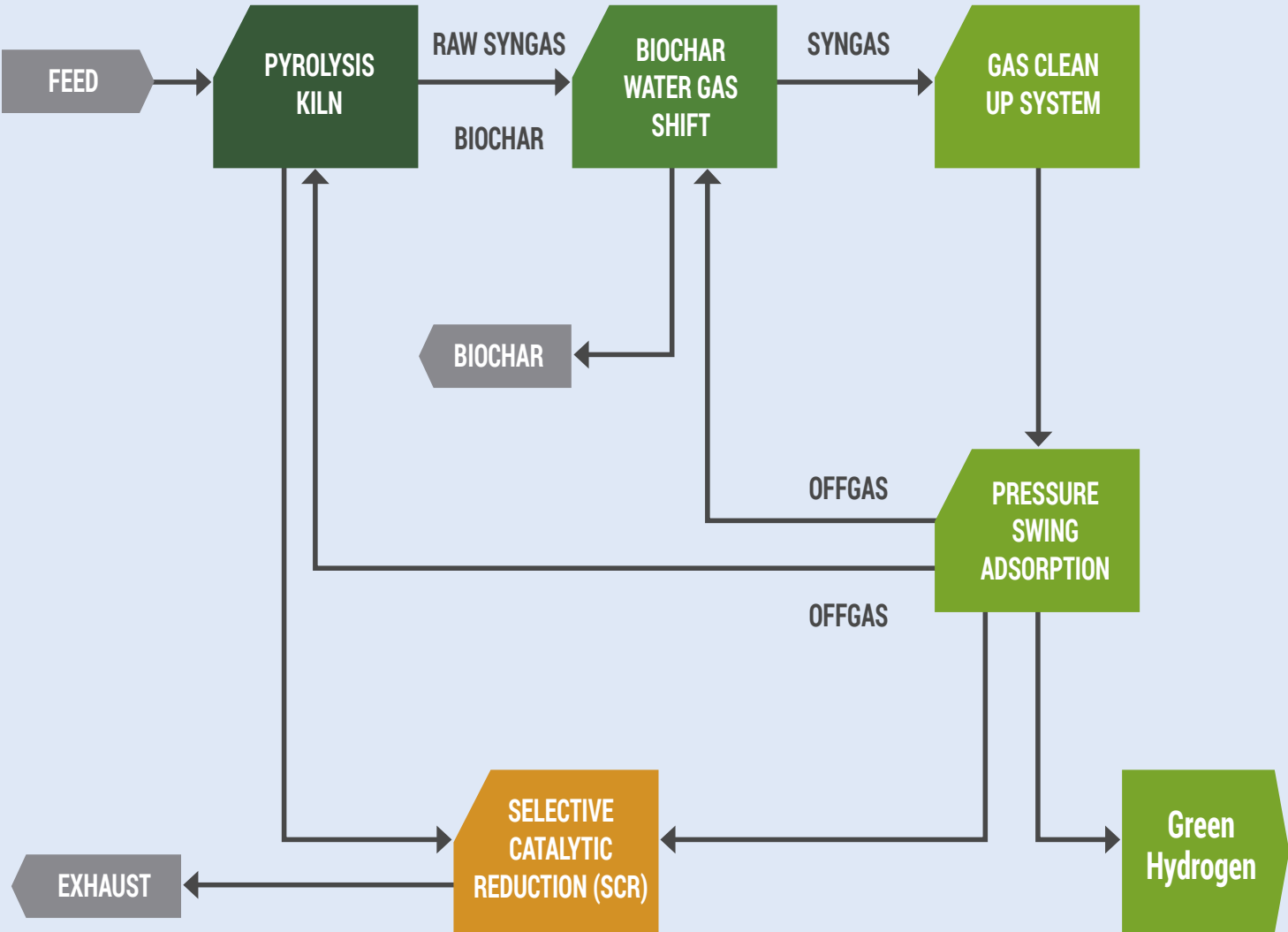
"We're excited to work with HZI, a global anaerobic digestion system developer who just celebrated their 100th Kompogas plant, to further add value to the waste streams they process."

Andrew White, CEO, CHAR Technologies

"HZI is committed to innovating and developing projects that harness the methane released from waste and support a carbon free economy. We are always looking for progressive ways to expand our net negative carbon footprint and draw even more value from the waste processed at our renewable gas facilities."

Heath Jones, Managing Director, Hitachi Zosen Inova (North America)

HOW THE CHAR HIGH TEMPERATURE PYROLYSIS SYSTEM WORKS



VICINITY MAP



PROJECT LOCATION

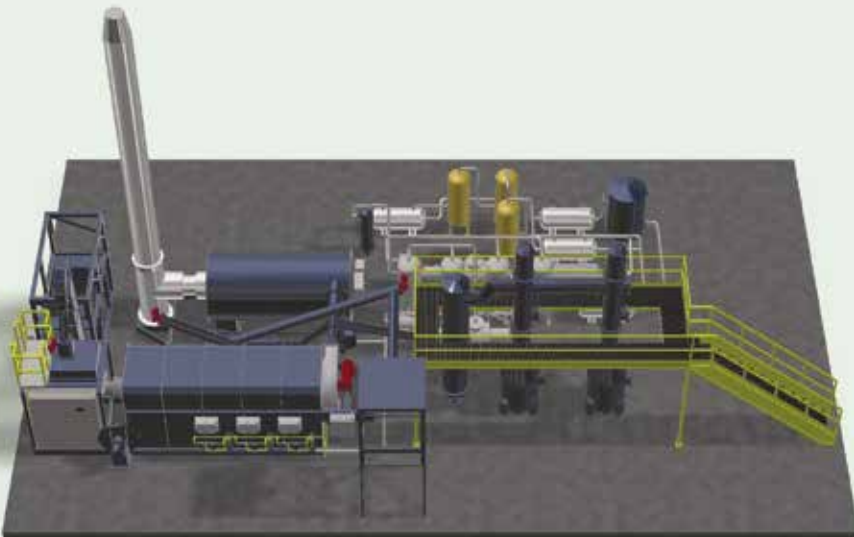
PROJECT SUMMARY

The HZI SLO KompoGas[®] system processes organic waste and urban forestry materials into biogas and digestate (compost). The biogas is used to produce green electricity, which is supplied to the PG&E power grid, producing green electricity for San Luis Obispo. This work supports California SB1383 to support organics recycling, as well as SB 100, California's move to a 100% clean, zero carbon, and renewable electricity system by 2045. CHAR and HZI are both committed to building a carbon free economy. The addition of CHAR's HTP system will allow for the additional production of green hydrogen and biochar from the digestate (compost) output of the HZI system.

Ultimately, the green H₂ produced has several market applications. As a green H₂, it can be used as a hydrogen vehicle fuel – currently by return-to-base fleets, but in the future could be used to support hydrogen vehicle fueling infrastructure in SLO – currently a “hydrogen desert.” In support of vehicle emission reductions, the green H₂ can also be blended to be used in existing CNG heavy trucks, helping reduce carbon emissions from these vehicles. Additionally, the green H₂ may be injected into the existing natural gas pipelines, or directly at existing natural gas fired power plants, helping reduce the carbon emissions from this existing infrastructure as well.

The addition of CHAR's HTP system to the HZI KompoGas[®] system in San Luis Obispo will extract additional renewable energy and continue to build a circular, carbon free, economy.

HIGH TEMPERATURE PYROLYSIS RENDERING



CHAR Technologies Ltd (TSXV:YES) Group

HEAD OFFICE: 403-789 Don Mills Road, Toronto, Ontario, Canada M3C 1T5

(416) 467-5555 • 1-800-323-4937 • info@chartechnologies.com • @CHAR_Technology

CHARTECHNOLOGIES.COM