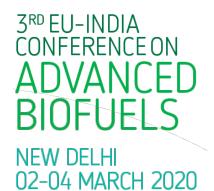
Advanced Liquid Biofuel from Biomass using RCAT-HTL











Ramesh Bhujade R&D, RIL

Temperature (°C)

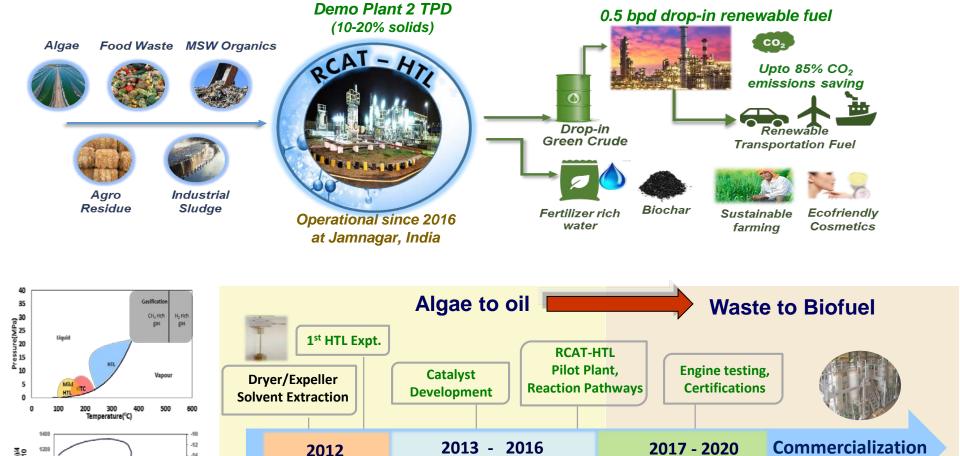
Reliance Industries Limited

35+ Patents

Biocrude

upgradation

RCAT-HTL: Feed flexible & Resource Efficient



Expeller

Solvent Extraction

HTL + CHG

Kinetics & Molecular

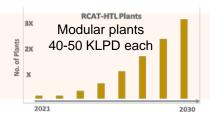
Model to predict

yield

Reliance **Industries Limited**

RCAT-HTL Commercialization Road map

Growth **Potential**



15-20% (nth plant) Advanced liquid Biofuel 1350+ KLPD GHG Savings Potential > 1 MM Ton MSW generation in major Indian cities

Feedstock - STP Sludge, MSW Organics, Food waste, Industrial ETP sludge, Lignin **Products**: Transportation fuel, Bio-char and Fertilizer-rich water

Feasibility Study

First of it's kind

Standardization of commercial size plant equipment/systems

Modular plants at strategic locations

Global expansion multiple feedstock



Tipping fee & Raw material agreements with municipal bodies

> **Product offtake** agreements with Refineries

Policy Intervention For Biocrude Pricing

Partnerships

Waste management, Technology integration, Byproduct treatment

MARKET POTENTIAL

Biocrud BioJet Other **Transportation Fuels**

WORLD 4-5 billion bbl

1.4 - 1.8 billion bbl 60%-80% of World's ATF demand

INDIA 300-400 mllion bbl

100 - 140 million bbl More than India's ATF demand