ENSYN

Cellulosic Liquid Fuels
Commercial Production Today

DOE Conference
Washington DC, Aug 1, 2013




Our Business

- We produce a renewable liquid fuel from wood and other non-food biomass
- Our key product is Renewable Fuel Oil™ (RFO™)
- RFO is a flexible petroleum-replacement with multiple uses including heating and for production of drop-in transportation fuels

Commercial Status

- Commercial production for over 20 years
- Over 35 million gallons produced to date
- Five commercial facilities in operation in US and Canada
- Equipment provided to projects by industry leader with performance guarantees

Technology

- Technology is RTP™, Rapid Thermal Processing™
- Fast thermal conversion
- Simplified, scaled-down version of fluid catalytic cracker (FCC)
- Does not require catalysts, high pressure or hydrogen
- Technology partner is UOP, a Honeywell company

Business Plan

- Build-own-operate model - with strategic partners
- Capacity expansion underway in North America and internationally
- Initial focus:
  - Canada
  - USA
  - Brazil
  - Finland
  - Malaysia

RTP™ History

1984:
Foundation

1

1989-1998
Commercialization & Scale-up US - $20+M sale for Chemicals

2

1998-2005
Petroleum Business Development & sale for US$100 MM

3

2006-Present
Renewable Liquid Fuels: Key alliances & Project execution

Since 1996, Ensyn has returned to shareholders over 2x the amount it has raised in equity funding

ENSYN

Ensyn's Commercial RFO Plant

Renfrew, Ontario

ENSYN

Powerful Strategic Relationships

Strategic Relationships

UOP A Honeywell Company

Envergent TECHNOLOGIES A Honeywell Company

Chevron Technology Ventures

Fibria

FPI FELDA PALM INDUSTRIES

Ivanhoe Energy

RENOVA CAPITAL

RED ARROW Smoke • Grill • Browning • Cooking Flavors

Shareholders

CREDIT SUISSE

IMPAX

Chevron Technology Ventures

Fibria

FPI FELDA PALM INDUSTRIES

UOP, a Honeywell Company

UOP

- Engineering & Supply of RTP Equipment
- Performance guarantees
- Upgrading to transport fuels
- Global reach

Ensyn:

- RTP technology
- Project development
- Know-how

From Cellulosic Biomass to a Barrel of Oil

Heating Oil
RFS2 Approval in Process

Refinery Feedstock
RFS2 Approved

Diesel Power Generation

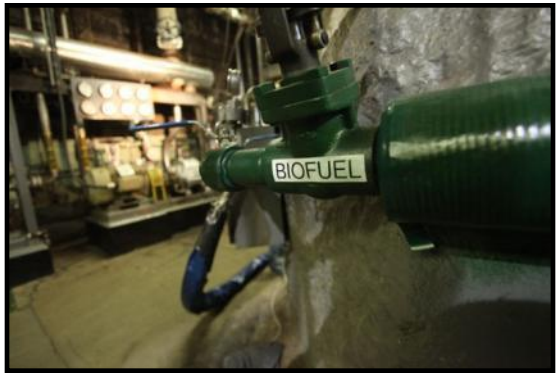
Stand-alone Upgrading - Transportation Fuels
RFS2 Approved

Modular facilities producing 5-20 million gallons year of RFO
Capex of $20-100 MM

ENSYN

RFO Heating Oil

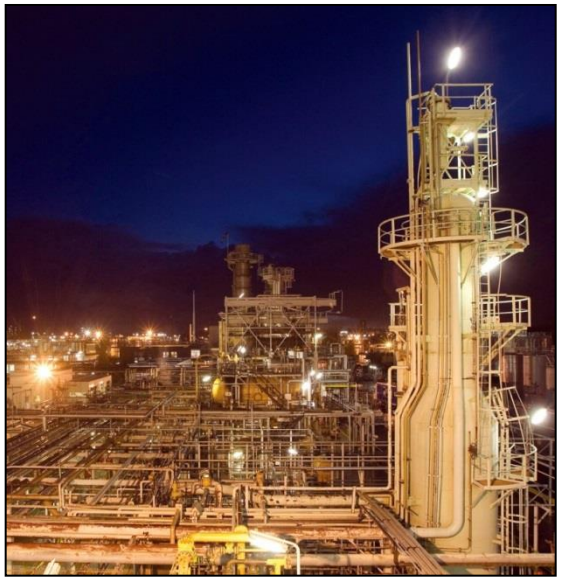
- 20+ years of combustion experience – over 15 million gallons combusted
- Multiple commercial RFO demonstrations in different boilers – Ensyn & partners
- RFO can be co-fired or used alone in conventional commercial and industrial boilers
- RFO combustion emissions compare favorably with fossil fuel



ENSYN

RFO in Refineries: Drop-In Transportation Fuel

Utilizes existing refinery capital equipment and infrastructure



Fully fungible hydrocarbon

RFO Roll-out – Scale & Cost

- RFO production facilities of 5-20 million gallons per year
- Capex of $20 -100 million each
- Biomass consumption of 100 - 400 dry metric tonnes per day

Brazil - Strategic Alliance with Fibria

- Fibria Celulose S.A., (NYSE: FBR) is the world's largest market pulp producer
- Ensyn and Fibria in 50/50 joint venture for the roll-out of RFO capacity in Brazil
- Fibria invested $20 million for 6% of Ensyn in late 2012, sits on Ensyn Board

Fibria

Summary: Ensyn Renewable Liquid Fuels

What we do	**Produce a liquid petroleum replacement from cellulosic non-food biomass**
Economics	**Powerful unit economics – cash cost of ~ $50 BOE & capital-light**
Technology	**Commercially proven RTP technology - over 35M gallons produced - UOP/Honeywell performance guarantee**
Markets	**Global petroleum markets – leverages existing refinery infrastructure**
Strategic Relationships	**Strong Strategic Relationships – UOP Honeywell (Envergent), Chevron, Fibria, Felda, Renova & others**
Roll-out	**Significant capacity expansion in progress**