



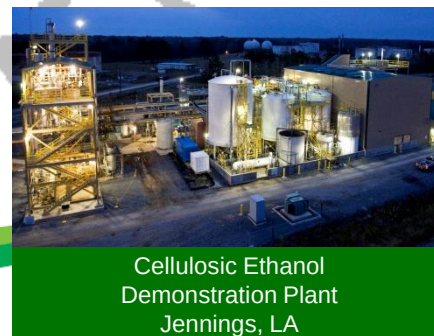
Cellulosic Ethanol Investment Opportunity

January 2015



Transaction Overview

BP Biofuels North America LLC (the “Company”, “BP Biofuels” or “BP”) is soliciting potential interest in the acquisition of the Company’s assets within the lignocellulosic ethanol portfolio located in California, Texas, Louisiana and Florida (collectively, “the Assets”).



Key Asset Overview



- **Since 2008, BP has invested over \$750m and created a distinctive capability set with roughly 300 staff to develop and license a leading cellulosic ethanol technology**
- **Key assets include:**
 - Biotechnology: World-class biofuels technology center in San Diego, CA
 - Feedstocks: 3,500 acres of energy grass farms, trial sites and capability in Florida, Louisiana and Texas
 - Process validation: 1.4 mgy demonstration plant in Jennings, LA
 - Cellulosic licensing business in Houston, TX
- **BP Biofuels has developed competitive proprietary technology material and data including:**
 - Cellulosic ethanol engineering and process design packages for bagasse, energy cane / napier grass, and fully integrated sugarcane ethanol and lignocellulosic ethanol conversion processes
 - Proprietary lignocellulosic enzymes tailored for use with acidic pre-treatment
 - Proprietary industrial C5/C6 yeast strains with world-class conversion rates and fermentation yields
 - Extensive biodiversity collection and gene and protein libraries
 - On-purpose energy cane feedstock production know-how and research / demonstration package
- **BP Biofuels has developed deep capabilities and know-how, including operational learnings**
- **Underpinned by strength in its intellectual property portfolio**
 - Over 500 patents and patent applications owned or licensed world-wide covering lignocellulosic process technology, enzymes, yeast, metagenomic libraries and directed evolution technology
 - Comprehensive patent landscape analysis
- **BP Biofuels has developed commercial relationships globally, including MoUs, for cellulosic licensing**



BP Biofuels Global Technology Center



World-class 76,000 sq ft biotechnology R&D facility located in San Diego, California

~150 staff focused on development of proprietary enzymes, yeasts, and process technology

Core to BP's large portfolio of intellectual property rights in cellulosic ethanol

- **Biodiversity Library**

- Thousands of unique libraries from samples harvested around the world, in total containing potentially billions of unique genes

- **High Throughput Screening**

- Ability to rapidly screen billions of samples per day to find the ideal enzyme or microorganism

- **Systems Biology and Metabolic Engineering**

- Characterization and manipulation of microbial cell function (full suite of systems “omics” biology capability)

- **DirectEvolution® Technology**

- Patented genetic manipulation for optimization of enzymes and proteins

- **Bioprocess Optimization** - Up to 500 L scale

- Includes small scale pretreatment and feedstock characterization

- **Process Development / Engineering Scale-Up**

- **Process Simulation and Modeling**

- Integrated flowsheet modeling (Dynamic and Steady State), CFD, thermal chemical and biological kinetics modeling

- **Cost Estimation / Economic Evaluation**



Areas

- Biology
- Biochemistry/Enzymology
- Protein Evolution
- Microbiology
- Synthetic Biology
- Physiology
- Chemistry
- Chemical Engineering
- Leadership

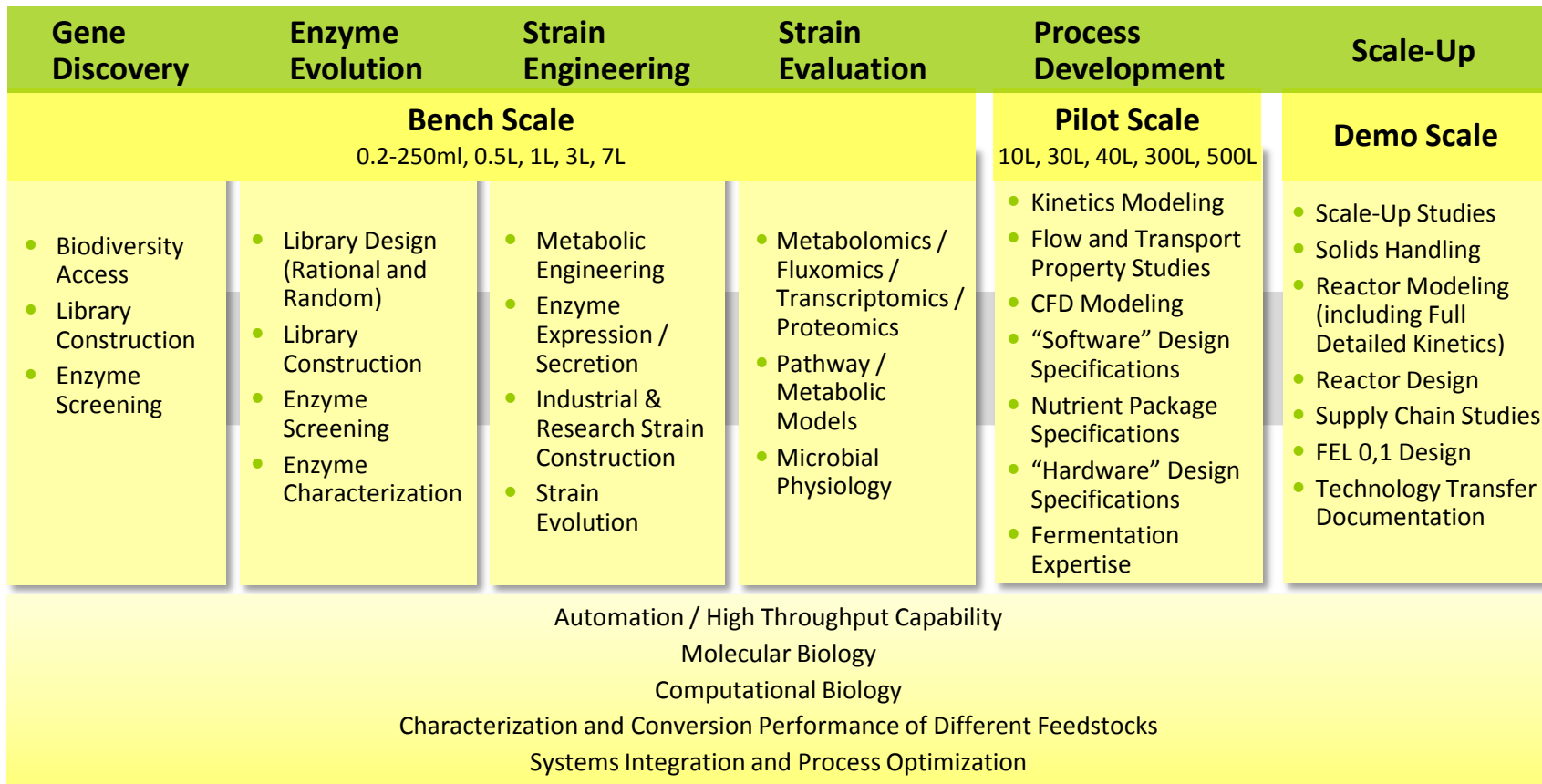
Infrastructure

- Analytical Lab
- Small-scale Fermentation Labs and Bioprocess Optimization Area
- Pilot Lab (up to 500L)
- Robotics Automation Lab (HTP)
- Biodiversity Library
- Bioinformatics
- LIMS

BP Biofuels Global Technology Center



BP offers a complete vision of the process with integrated capabilities across scale



For a virtual tour of the Global Technology Center in San Diego, please visit:

<https://www.youtube.com/watch?v=rLdCpOkJBVU&feature=youtu.be>

BP Biofuels Product Package Portfolio

Biodiversity Library Package



BP has thousands of gene libraries constructed from microbial DNA samples harvested from all around the world

Screening of these gene libraries enables discovery of new enzymes with unique properties



	Isolates	DNAs	Gene Libraries
Tubes	7,742	5,550	12,501
Unique	2,588	5,049	1,876

BP Biofuels Product Package Portfolio

Proprietary Enzyme Package



BP has developed cost-competitive, proprietary, genetically modified (and non-GMO) fungal strains producing enzymes that convert biomass to fermentable sugars

- High saccharification **conversion yields**, high **productivity** and high enzyme **efficiency** optimized respectively for Simultaneous Saccharification and Fermentation (SSF), Hybrid Hydrolysis and Fermentation (HHF) and Separate Hydrolysis and Fermentation (SHF) process schemes
- Proprietary cost-competitive nutrient package and enzyme production process
- High production titers and yields
- High oligomer conversion
- Extensive cellulase, hemicellulase and accessory protein libraries
- Genes integrated into fungal strains mined using BP's in-house biodiversity collection



BP Biofuels Product Package Portfolio

Proprietary C5/C6 Yeast Package



BP has developed proprietary genetically modified industrial yeast strains that co-ferment both C6 and C5 sugars

- Genes stably integrated into an industrial yeast strain, mined using BP's in-house biodiversity collection
- Robust under industrial conditions
- **Best in class** conversion **yield and rates** on C6 and C5 sugars
- High ethanol yield
- Ethanol tolerant
- Tolerant to toxins generated in the pretreatment step
- Low-pH fermentation
- Temperature tolerant



Best in class yeast unlocks advantaged process economics

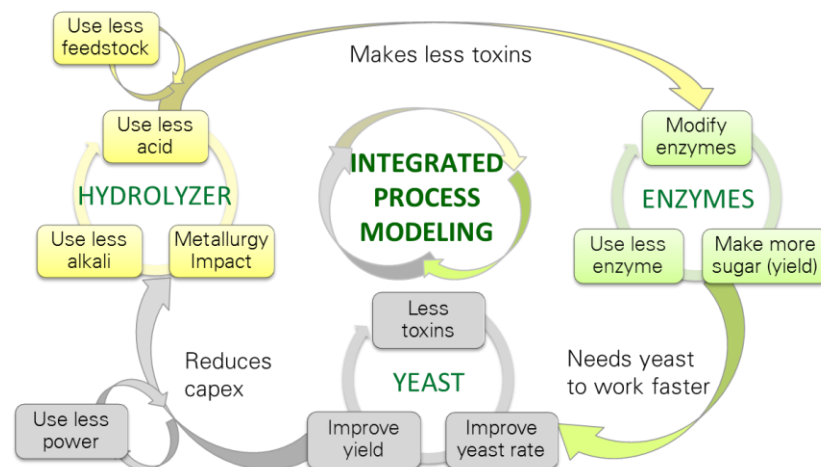
BP Biofuels Product Package Portfolio

Cellulosic Ethanol Engineering and Process Package



BP has improved biology through process and bio-system design optimization, which allows effective balance of capex, opex and yield and offers lowest cost and most optimized design for selected feedstock

- Front End Engineering Design (FEED) for a commercial 18 mgy bagasse bolt-on process, and a 36 mgy greenfield energy cane/napier grass process
- Technology Design Packages (TDP) for a fully integrated sugarcane and lignocellulosic ethanol facility
- TDP includes Basis of Design, Heat and Mass Balance, Process Flow Diagrams, Equipment List and Data Sheets, Technology Readiness Level and Risk Analysis
- In-house integrated process development team



- ❖ *Incorporate technology from research, development and scale-up*
- ❖ *Core technology definition and design guidelines*
- ❖ *Technology know-how and risk mitigation*
- ❖ *Horizontal and vertical integration from agronomy to fuel market, from fundamental research, to plant and process design and cost of goods analysis*

- ❖ *Evaluate decisions on full economic impact*
- ❖ *Support permitting and life cycle analysis*
- ❖ *Leverage and capture learnings from the demonstration plant*

Cellulosic Ethanol Demonstration Plant

Jennings, Louisiana



1.4 million gallon per year (40 ton/day) demonstration facility with feedstock flexibility
Jennings proves and advances BP cellulosic technology and operating know-how at scale

Feedstock Handling



Feedstock Transfer



Feedstock Prep



Hydrolysis



Liquefaction



Yeast and Enzyme Propagation



C5, C6 Co-Fermentation



Ethanol Recovery



Energy Grass Farms, Trial Sites and Capability in Florida, Louisiana & Texas



Development and demonstration of on-purpose energy grass feedstocks

- Selection of energy grass species/varieties adapted for optimal performance and yields
- Field evaluation of improved agricultural practices to reduce production costs and risks



Feedstock Supply

- Feedstock supply chain optimization
- Feedstock access and aggregation best management practices
- Farm operations capability



Characterization of Feedstock Types

- Analysis of composition and physical properties that impact conversion performance
- Assessment of performance of feedstock types in developed conversion process

BP Biofuels Product Package Portfolio

On-purpose energy cane feedstock production know-how and research/demonstration package



Energy cane is an advantaged feedstock approved by EPA as a cellulosic RIN pathway. Economies of scale for conversion facilities are enabled by the high yield and year-round supply potential for energy cane compared to agricultural residues.

BP has developed extensive know-how on the production of energy cane from research trials and commercial plantings across the US Gulf Coast region

- Results and interpretation from variety and agronomy replicated trials in FL, LA & TX
- Roughly 20 feedstock research staff focused on commercialization of energy crops at scale
- Experience in planting, growing and harvesting commercial scale crops
- Compiled production best practices and costs
- A collection of more than 50 varieties of energy cane in field trials
- Stocks of seedcane for more rapid commercial scale expansion
- Energy cane breeding program collaboration agreements with the 3 main mainland sugarcane breeding organizations
- Detailed composition analysis including assessment of variation by variety, location, time of year, etc.



Anticipated Transaction Process & Evaluation Materials



The Virtual Data Room (“VDR”) will be made available January 26, 2015. The effective date of the sale is June 30, 2015.

The indicative non-binding bid deadline is **5pm CST on February 27, 2015**. Parties interested to be considered for Round 2 will be required to submit an indicative non-binding bid. At the end of Round 1, BP may, in its sole discretion, select parties to participate in Round 2 of the bidding process.

Detailed information surrounding the individual assets, management presentations and site visits will be made available in Round 2. Interested parties are strongly encouraged to submit their final binding bids as soon as they are ready to do so.

January 2015						
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February 2015						
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March 2015						
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April 2015						
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May 2015						
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June 2015						
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21	22	23	24	25	26	27
28	29	30				

- VDR open – Round 1
- Indicative non-binding bids due
- Round 1 selection phase
- VDR open – Round 2
- Final binding bids due
- Closing date

Upon execution and return of the Confidentiality Agreement, interested parties will receive access to the following evaluation materials via the VDR (“Due Diligence Materials”):

- Executive Summary Overview of Assets
- Financials
- List of Material Contracts
- Health and Safety Documentation
- Operations and Assurance Documentation
- Organizational Charts and Description of Capabilities
- Published Intellectual Property Assets

Contacts



Parties interested in pursuing a transaction will execute a Confidentiality Agreement and will be provided access to the Round 1 Due Diligence Materials.

In Round 2 of the bidding process, the VDR will be updated with additional Due Diligence Materials, including a draft version of the Purchase and Sale Agreement (“PSA”). Interested parties will be asked to submit a binding final bid for BP’s interest in the Assets, including a marked-up redline of the PSA reflecting any issues that such party may have regarding the agreement. Following the receipt of binding final bids, BP, in its sole discretion, may select potential buyer(s) with which to engage and work toward a binding PSA. Specific instructions for the submission of bids will be provided in a subsequent letter.

All communications, inquiries and requests for information relating to these materials should be addressed to the representatives at BP listed below. Under no circumstances should any other BP employees or contractors be contacted directly.

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Disclaimer



BP Biofuels North America LLC, its affiliates and their respective representatives (collectively, the “BP Group”) expressly disclaim any and all liability and responsibility for and associated with the quality, accuracy, completeness or materiality of the information, data and materials contained herein. The BP Group disclaims any and all representations and warranties with respect to the Assets, express, statutory, implied or otherwise, including, without limitation, as to (i) status of facilities, (ii) plant and field capacities, (iii) existence of any and all sales and licensing opportunities, (iv) agricultural, geographic, geologic, biological, chemical or physical characteristics, (v) existence, quality, quantity or recoverability of substances, (vi) costs, expenses, revenues, receipts, prices, accounts receivable or accounts payable, (vii) contractual, intellectual property, economic or financial information and data, (viii) financial viability, including present or future value or anticipated income or profits, (ix) title, rights or licenses to the Assets, and (x) environmental, non-infringement or physical condition of the Assets. You and your company acknowledge and agree that (a) certain statements, estimates and projections by the BP Group with respect to anticipated future performance of the Assets reflect various assumptions and analyses which may or may not prove to be correct and the actual performance may vary from the historical performance of such Assets and from the forecasted information and such variations may be material; (b) differing interpretations of contractual and other information and data may exist and your company shall not rely on the BP Group’s interpretations provided herein; (c) your company will conduct its own independent evaluation and analysis of the information, data and materials and satisfy itself as to the quality, accuracy, completeness and materiality of the same; and (d) your company will rely solely on its own independent investigation, evaluation and analysis of the Assets when deciding whether or not to submit a bid, enter into a definitive agreement or consummate a transaction covering the Assets. Only the express representations and warranties contained in a definitive written agreement (when and if the same is executed by BP and your company) shall be binding on BP and your company.

Unless and until a definitive written agreement covering a transaction is executed by an authorized representative of BP and your company having the express authority to bind such party to a transaction of the size and nature of the transaction, neither BP nor your company is or will be under any obligation whatsoever (legal or otherwise) to conclude the transaction or any other transaction. Unless included in a definitive agreement, no communications (written or oral) may be relied upon by either BP or your company as the basis for taking any action, foregoing any opportunity or incurring any costs, and no such communications creates or will create any obligations whatsoever on the part of either BP or your company.

The BP Group reserves the right to negotiate with one or more prospective purchasers at any time and to enter into a definitive agreement for the sale of the Assets described herein without prior notice to other prospective purchasers. The BP Group also reserves the right, without advance notice, to change the procedures.