BLACKLIGHT POWER

BLACKLIGHT POWER

Presented by:

Dr. Randell Mills
Chairman & CEO

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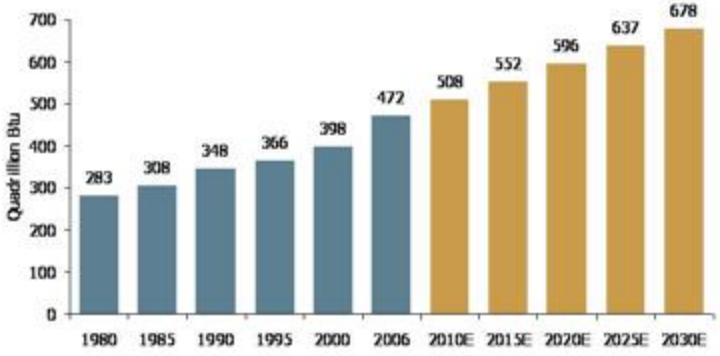
Introduction

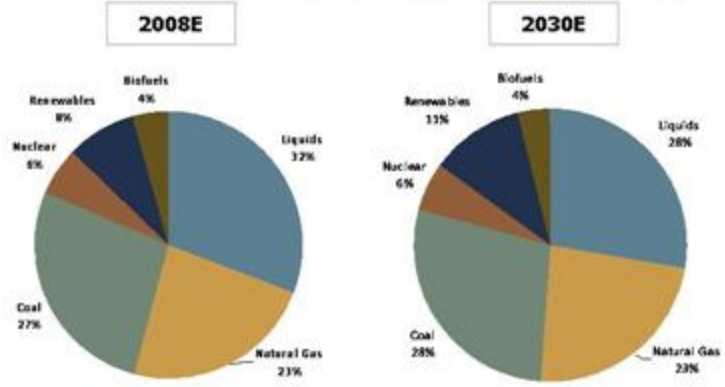
The Problem

- Established energy sources are expensive, polluting and unsustainable
  - ~$4 trillion currently spent globally on fossil fuels; ~$1 trillion in the U.S.
  - Each year, tens of billions are spent on energy R&D in search of alternative solutions
- Over $1 trillion annually expected to be spent on global energy infrastructure through 2030
- Global energy demand has nearly doubled over the past 20 years, and is projected to increase 33% between 2010 and 2030
- Existing sources of renewable energy are expected to satisfy only a small portion (~11%) of 2030 demand
  - Wind and solar are relatively poor sources of baseload power
  - The remainder will be supported primarily by fossil fuel consumption, which is expected to increase nearly 24% over the same time period

Global Energy Consumption



Global Energy Use by Fuel Type



Sources: EIA, International Energy Agency and management estimates

The Solution - BlackLight Power

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- BlackLight Power has developed a new, nonpolluting form of energy
- BLP's findings have been validated by independent third parties
- Licenses in place with six firms to offer up to 8,000 MW of power
- Engaged top-tier engineering firms for prototype development

The BlackLight Process could be the most important energy technology of our generation

The BlackLight Process

Review of Theory

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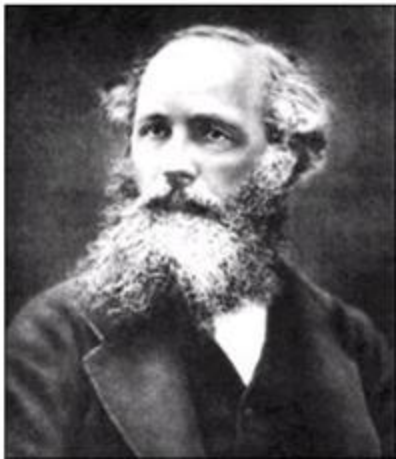
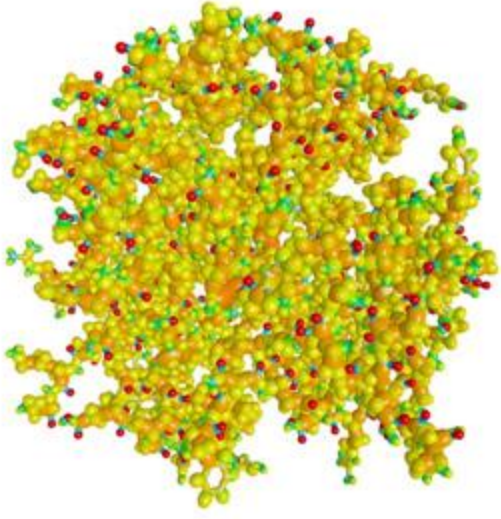
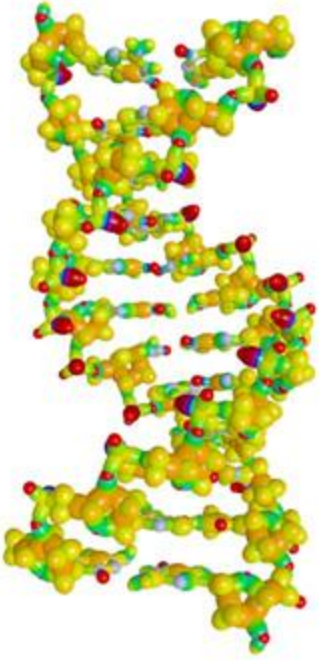
- Assume physical laws apply on all scales including the atomic scale
- Start with first principles
  - Conservation of mass-energy
  - Conservation of linear and angular momentum
  - Maxwell's Equations
  - Newton's Laws
  - Special Relativity
- **Highly predictive**– application of Maxwell's equations precisely predicts hundreds of fundamental spectral observations in exact equations with no adjustable parameters (fundamental constants only). Correctly predicts the fundamental observations of chemistry and physics in exact equations over a scale (largest to smallest) of 1 followed by 85 zeros.



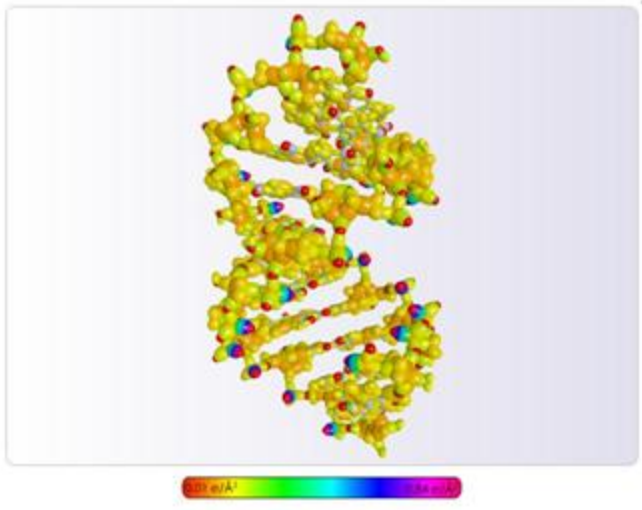
Millsian 2.0: Large Biomolecules



Insulin

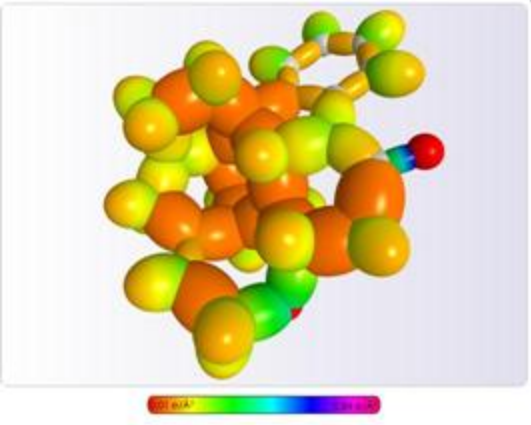


DNA

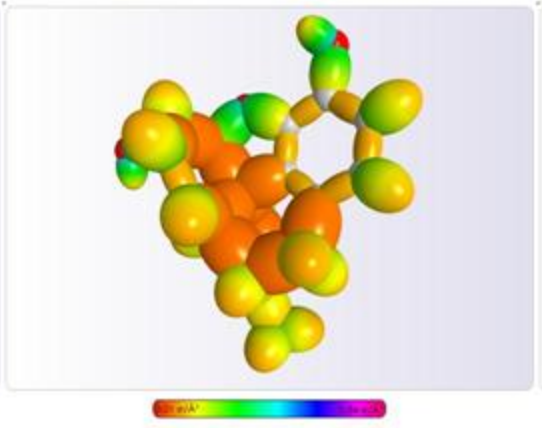


RNA

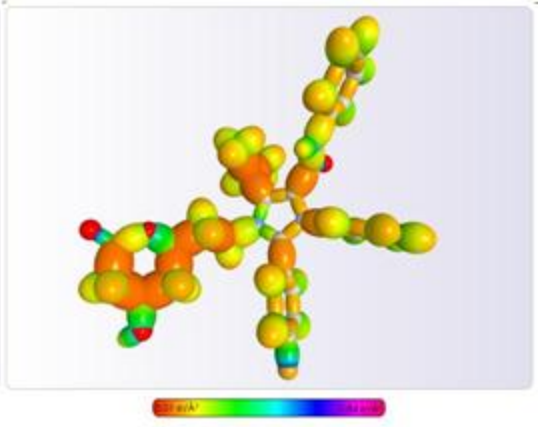
Millsian 2.0: Drug Molecules



Strychnine

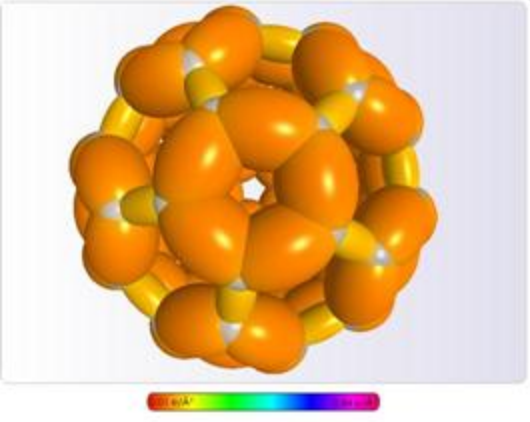


Morphine

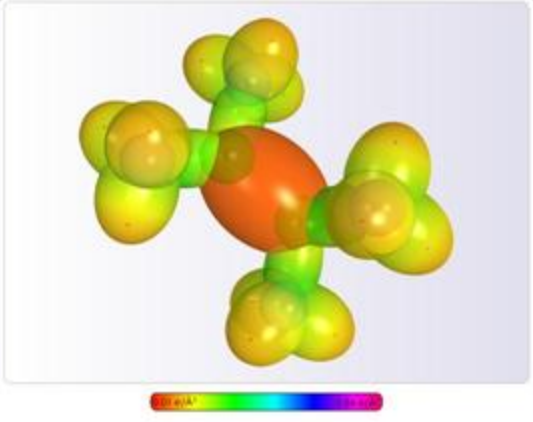


Lipitor

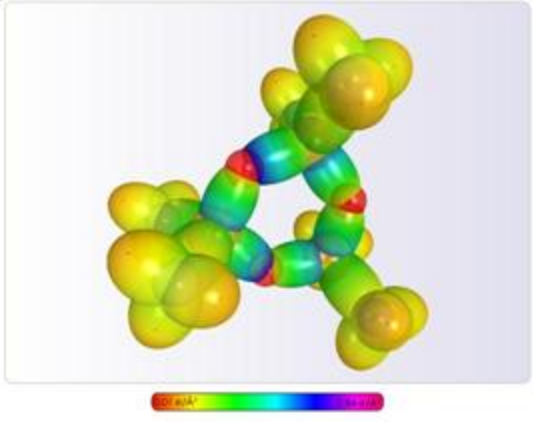
Millsian 2.0: Other Molecule Classes



Allotropes of Carbon
C_{60} Fullerene



Boron Molecules
Tetramethyldiboron



Silicon Molecules
$((CH_3)_2SiO)_3$

Hydrino Reaction ("BlackLight Process")

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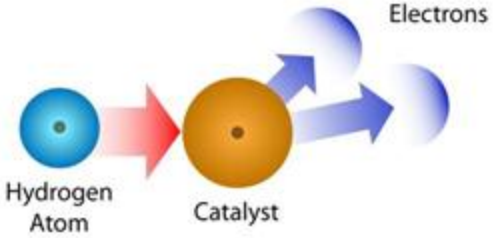
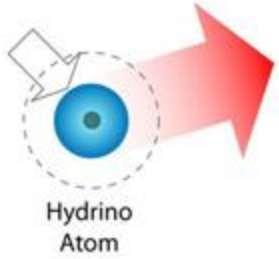
1. Atomic hydrogen reacts with an energy acceptor called a catalyst wherein energy is transferred from atomic hydrogen to the catalyst which forms an ion due to accepting the energy
2. Then, the negative electron drops to a lower shell closer to the positive proton to form a smaller hydrogen atom called a "hydrino" releasing energy that ultimately is in the form of heat
3. The catalyst ion regains its lost electrons to reform the catalyst for another cycle with the release of the initial energy accepted from hydrogen
4. The reaction is accelerated by using a solid fuel that propagates the hydrino reaction by accepting the electrons from the first step





Independent Validation

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Rowan University

- Rowan University conducted multiple experiments in its own labs to reproduce BLP's primary solid fuel chemistry reaction
  - Using the BlackLight Process, Rowan produced a net energy gain of up to 6.5x the maximum energy potential from known chemical reactions
- Rowan reproduced BLP tests that identify a novel form of hydrogen as the likely explanation of the excess heat
  - In a related experiment, Rowan was also able to synthesize in its own labs hydrogen atoms existing in lower energy states

Rowan University is headquartered in Glassboro, NJ and has over 10,000 students and a highly regarded chemical engineering department

- *Validation work at Rowan was performed by Dr. Jansson (Ph.D. in from University of Cambridge), Dr. Mugweru (Ph.D. in from University of Connecticut) and Dr. Ramanujachary (Ph.D. from the Indian Institute of Technology)*

GEN3 Partners

- GEN3 validated energy generation by BLP solid fuels
  - Results were in agreement with those independently reported by Rowan University
  - Reported on two selected fuels achieving energy gain of 2.3x and 6.8x the maximum energy potential from known chemical reactions

GEN3 is a leading innovation consulting company with a network of 7,000 scientists and engineers experienced at testing and developing breakthrough technologies for Fortune 100 companies

University of Wisconsin

- Dr. John Scharer, an expert on plasma and professor, verified certain experiments related to the BlackLight Process
  - Dr. Scharer has published a paper in a prestigious journal and made two conference presentations on various experiments that support the BlackLight Process

Dr. Scharer holds a Ph.D. from University of California-Berkeley

University of North Carolina-Asheville

- Dr. Randy Booker, chair of the university's physics department, has confirmed the mathematical calculations in Dr. Mills' book (based on work conducted to date)

Dr. Booker holds a Ph.D. in Physics from Duke University

Millsian, Inc.

- Millsian, Inc., BLP's wholly-owned subsidiary, offers molecular modeling solutions based on Dr. Mills' application of the classical laws of physics

Other

- Over 80 peer-reviewed publications identifying and supporting hydrinos, including 14 theory publications

Application of BlackLight Process

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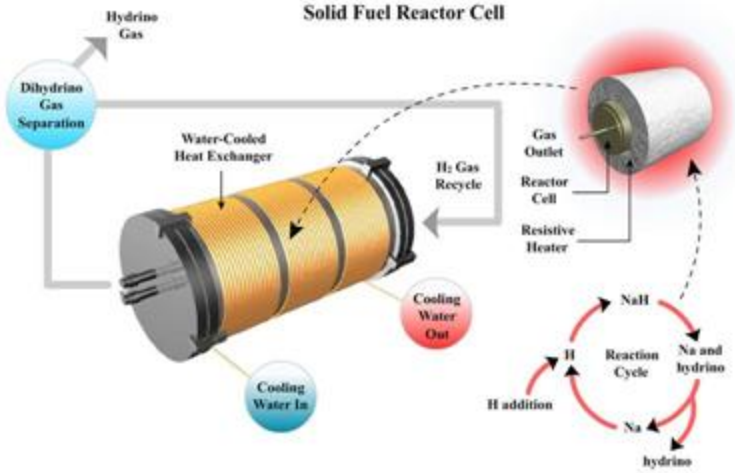
- Hydrogen is combined with sodium to form sodium hydride (NaH) and added to other chemicals, forming a solid fuel
- The solid fuel is heated
- NaH reacts to produce a Hydrino – lower-energy form of hydrogen
- The creation of the Hydrino releases thermal energy
  - The thermal energy heats water into steam, which drives a turbine to produce electricity
  - A small fraction of the energy released by the creation of the Hydrino is used to separate hydrogen from water and to regenerate the solid fuel



Commercialization

Potential Markets

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Initial market focus:

- Commercial space and industrial process heating
- Co-generation
- Central power generation
- Micro-distributed power

Other likely commercial applications include:

- Motive Power
- Lighting
- Laser
- Specialty Chemicals

Plant Process Diagram

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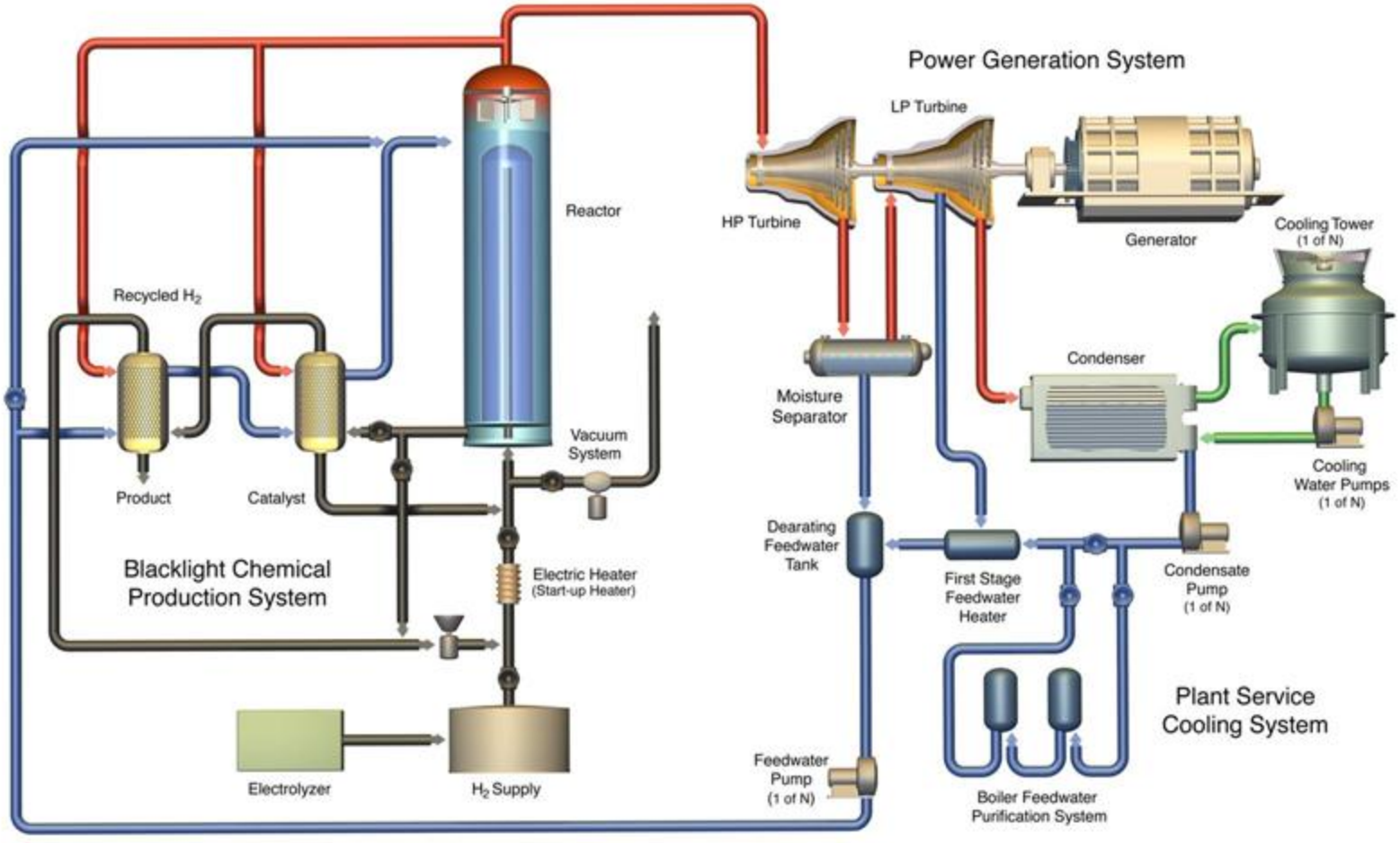

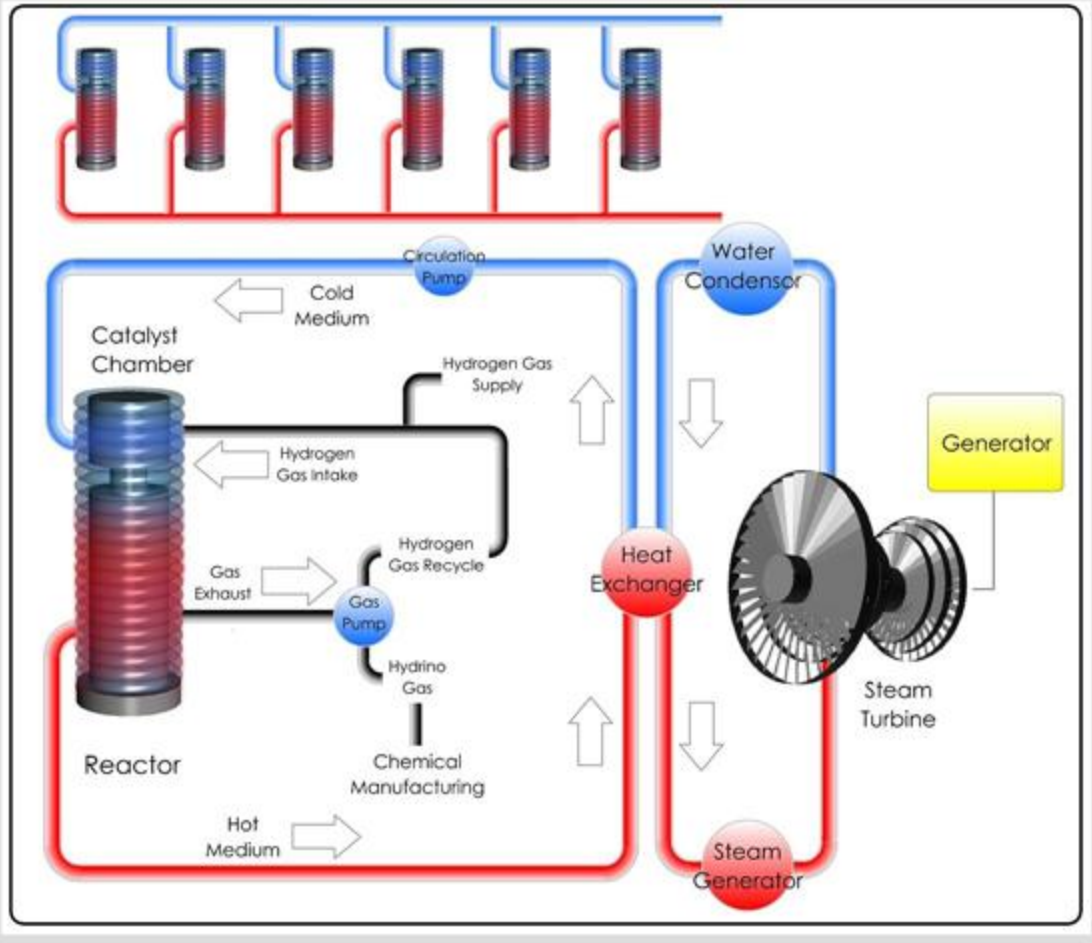
Circulation Pump
Water Condensor
Cold Medium
Catalyst Chamber
Hydrogen Gas Supply
Hydrogen Gas Intake
Generator
Hydrogen Gas Recycle
Gas Exhaust
Heat Exchanger
Gas Pump
Hydrino Gas
Steam Turbine
Reactor
Chemical Manufacturing
Hot Medium
Steam Generator

Path to Commercialization

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- Commercial-ready fuel and 50 kW to 75 kW validated prototype batch reactors
- Development work with global engineering firms
  - Three Top-tier engineering, construction and technical services firms are working with BLP to develop power systems
- Key future milestones are as follows:
  - 2010: Fabricate and test continuous-run prototypes
  - 2011 - 2013: Larger kW and small MW scale electric pilot plants

Revenue Model

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- BlackLight's model is focused on licensing power producers to utilize the BlackLight Process as a fuel/heat source replacement
- The Company is pursuing a broad licensing approach across the power industry
  - To date, it has entered into contracts with six utilities firms for up to 8,000 MW of power
    - Collectively these firms own, purchase, or manage electric power production of approximately 7,600 MW and service nearly 1 million customers
    - Maximum potential revenue under these contracts alone is approximately $500 million per year
- BLP plans to license EPC firms and OEMs on a sales-royalty basis
- In addition to recurring royalty payments, as the technology becomes more mainstream, potential for significant upfront fees
- OEM and power production deals in the pipeline for US, Canada, Europe, Middle East, India, and Asia, some with upfront royalty and development capital commitments

The Market Potential

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(Dollars in millions, except per kWh)

Licensing Fees to BLP	**Single Plant**	**United States** [1]	**Global** [1]
Total Delivered Energy (kW)	1,000,000		
Hours in a Year	8,766		
Total Annual Delivered Energy (kWh)	8.8 billion	21.0 trillion	106.3 trillion
BLP Licensing Fee per kWh	$ 0.01	$ 0.01	$ 0.01
Annual Potential Fee to BLP	$ 88	$ 210,415	$ 1,062,626
Capacity Utilization	75.0%		
Fee to BLP @ 75% Capacity	$ 66		

Source: EIA

(1) For illustrative purposes, assumes total delivered energy is derived from electrical power plants using the BlackLight Process.

IP Overview

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- The Company aggressively files and obtains patents relating to the BlackLight Process, application of the Process and the resulting hydrino products
- Numerous patent applications have been filed worldwide
  - 51 issued patents provide coverage in many major energy markets (2 in the U.S.)
  - >100 pending applications (important applications in U.S.)
  - World-wide applications related to the solid fuels process were filed on April 24, 2008 and July 30, 2009
- Management believes these applications, if ultimately issued as patents, will provide broad protection over the Company's proprietary process
- BLP's IP counsel is Finnegan, Henderson, Farabow, Garret & Dunner, LLP

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