Praxair, Inc.
James S. Sawyer
Executive Vice President and Chief Financial Officer

Citi Basic Materials Symposium
December 1, 2009

www.praxair.com
This document contains “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. These statements are based on management’s reasonable expectations and assumptions as of the date the statements are made but involve risks and uncertainties. These risks and uncertainties include, without limitation: the performance of stock markets generally; developments in worldwide and national economies and other international events and circumstances; changes in foreign currencies and in interest rates; the cost and availability of electric power, natural gas and other raw materials; the ability to achieve price increases to offset cost increases; catastrophic events including natural disasters, epidemics and acts of war and terrorism; the ability to attract, hire, and retain qualified personnel; the impact of changes in financial accounting standards; the impact of tax, environmental, home healthcare and other legislation and government regulation in jurisdictions in which the company operates; the cost and outcomes of litigation and regulatory agency actions; continued timely development and market acceptance of new products and applications; the impact of competitive products and pricing; future financial and operating performance of major customers and industries served; and the effectiveness and speed of integrating new acquisitions into the business. These risks and uncertainties may cause actual future results or circumstances to differ materially from the projections or estimates contained in the forward-looking statements. The company assumes no obligation to update or provide revisions to any forward-looking statement in response to changing circumstances. The above listed risks and uncertainties are further described in Item 1A (Risk Factors) in the company’s latest Annual Report on Form 10-K filed with the SEC which should be reviewed carefully. Please consider the company’s forward-looking statements in light of those risks.
Unique Revenue Model

On-Site/Pipeline Supply

♦ 15 year take-or-pay contracts
♦ Indexed to energy, inflation, currency

Merchant Liquid Supply

♦ Exclusive supply agreements
♦ Sourced as by-product from on-site

Packaged/Medical Gases

♦ Cylinder and equipment rental
♦ Sourced as by-product from bulk

Integrated system; contract terms drive high ROC
Stable Pricing Through the Cycle

U.S. LIN/LOX Indexed Price vs. Volume

Price

Volume

Q1 '07 Q1 '08 Q1 '09
Proven Track Record Driving Productivity

♦ Production

♦ Distribution

♦ Administration

Productivity savings are sustainable

<table>
<thead>
<tr>
<th>Year</th>
<th>Production Cost (MM)</th>
<th>Distribution Cost (MM)</th>
<th>Administration Cost (MM)</th>
<th>% of Cost Stack</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>270</td>
<td>320</td>
<td></td>
<td>5%</td>
</tr>
<tr>
<td>2008</td>
<td>320</td>
<td></td>
<td></td>
<td>5%</td>
</tr>
<tr>
<td>2009F</td>
<td>450</td>
<td></td>
<td></td>
<td>7%</td>
</tr>
<tr>
<td>2010F</td>
<td></td>
<td></td>
<td>~300</td>
<td>5%</td>
</tr>
</tbody>
</table>
Oxygen Plants

♦ Standardized product lines
  - Up to 3000 TPD
  - >90% of plant builds

♦ Multi-year Technology Roadmap

**Oxygen Cost Index ($ per ton O$_2$)**

- 2006
- 2008
- 2010
- 2012

Maintaining competitive advantage in plant offerings
Secular Growth Drivers

- Environmental applications
- Demand for energy supplies
  - Cleaner fuels
  - Expand/diversify sources
- Emerging economies
  - Growing population
  - Infrastructure investment
  - Outsourcing captive production

Strong long-term growth outlook
Environmental Regulations Drive Demand

♦ Oxy-fuel is the low cost solution for environmental compliance

♦ Lower energy usage reduces CO₂ emissions and continues to drive oxy-fuel applications

♦ Praxair has the expertise and technology to capitalize on the opportunity

### Commercial Pipeline

<table>
<thead>
<tr>
<th>Sector</th>
<th>($MM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilities – Mercury Capture</td>
<td>150</td>
</tr>
<tr>
<td>Glass &amp; Cement</td>
<td>160</td>
</tr>
<tr>
<td>Iron</td>
<td>310</td>
</tr>
<tr>
<td>Steel</td>
<td>190</td>
</tr>
<tr>
<td>Non-Ferrous Metals</td>
<td>190</td>
</tr>
<tr>
<td>Refinery &amp; Chemicals</td>
<td>120</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,120</strong></td>
</tr>
</tbody>
</table>

Multiple regulations create over $1 B opportunity
Photovoltaic Supply Chain

**Crystalline**

- Hydrogen, Nitrogen
- Argon
- Nitrogen
- Polysilicon → Silicon Ingots → Silicon wafer → Solar Cell → Solar Module
- Nitrogen, Argon, Silane, Ammonia, CF4, Targets
- Nitrogen, Welding Gases

**Thin-Film**

- Oxygen, Nitrogen
- Silane, Helium, Phosphorous and Boron dopants, Ammonia, Target
- Substrate/Raw Materials → Solar Module

Praxair products used extensively throughout the supply chain

Pictures courtesy of DOE’s Office of Energy Efficiency and Renewable Energy; Hemlock Semiconductor
# Biofuels

<table>
<thead>
<tr>
<th>BioFuel</th>
<th>2015 RFS Mandate (MM gallons)</th>
<th>Associated Commercial Plants</th>
<th>Approximate U.S. Annual Gas Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cellulosic Biofuel</td>
<td>3,000</td>
<td>15-30</td>
<td>$300 MM</td>
</tr>
<tr>
<td>Biomass Based Diesel</td>
<td>1,000</td>
<td>7-10</td>
<td>$150MM</td>
</tr>
<tr>
<td>Other Advanced Biofuels (Algae)</td>
<td>1,500</td>
<td>3</td>
<td>$50MM</td>
</tr>
</tbody>
</table>

- Opportunity for technology advancement
  - Yield and productivity improvements
  - Gasification process challenges
  - Gas cleanup, processing and mixing

Potential ~$500 MM gases market by 2015
Hydrogen for Refining

- **Global growth drivers**
  - Growing diesel demand
  - Heavy sour crude
  - Fuel emission standards
  - Outsourcing captive production
  - Emerging markets

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**Hydrogen demand expected to grow by ~14 BCF/day by 2015…equivalent to 140 world-scale SMRs**

**Praxair H₂ Sales**

- **2008**: $1.1 Bn
- **2013F**: $2+ Bn

% of New H₂ Demand by Region

- United States: 35%
- China/India: 15%
- Canada/Oil Sands: 13%
- Middle East: 12%
- Other: 15%
- Brazil, Mexico: 10%
- Other: 15%

- **Source**: Praxair estimates

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**Strong growth expected to continue**
Supporting Refiners’ New Challenges

♦ In-house refining expertise
  – H₂/energy studies
  – Customized process solutions

♦ H₂/energy optimization
  – H₂ recovery/purification
  – Liquids recovery
  – Refinery gas processing

♦ Suite of O₂ applications
  – Productivity and emissions reduction

Expertise and technology creating differentiation and new opportunities
Coal Gasification

♦ Active in China
  – Limited oil and gas availability
  – Plenty of low cost coal
  – Syngas chemical feedstock

♦ Praxair oxygen supply
  – Large oxygen plants
  – Integrated with gasification technology
  – 6,000 TPD in backlog

Significant future growth opportunity
Global Warming / CO₂ Legislation

Reduce CO₂ Footprint Through Energy Efficiency

CO₂ Capture and Sequestration

Well-positioned with short and long-term solutions
Strong Presence in Emerging Economies

Praxair Sales

- United States: 44%
- South America: 18%
- Mexico: 6%
- Europe: 14%
- PST: 5%
- Canada: 5%
- Asia: 8%

2008 Sales $10.8 Bn

Per Capita Gas Consumption (% of US)

- U.S.: 100%
- Mexico: 24%
- Brazil: 19%
- China: 4%
- India: 1%

Strong growth expected from emerging economies
Increasing Gas Intensity – Two Examples

**O₂ Intensity - Acetic Acid**
(Ton O₂ / Ton AA)

- Butane oxidation
- Butane oxidation
- Methanol carbonylation
- Methanol carbonylation

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Source: Praxair estimates

**Argon intensity - Welding**
(CF argon per lb consumables)

- W. Europe
- United States
- China

Source: Praxair estimates

~40,000 TPD of new O₂ demand for China coal to chemicals

Air-based
- Air-enrichment
- NG partial oxidation
- Coal based gasification

Citi Basic Materials Symposium - NYC 12/1/09
Growth Continuing in China

2009F Sales of ~$400 MM*

♦ Petrochemical
♦ Metals
♦ Gasification
♦ Electronics
♦ Food & beverage
♦ Other

Vertically integrated business with high distribution density

*Combined sales.  Under construction
Growing in India

2009F Sales ~$200M

♦ Praxair #1 position

♦ $1B industrial gas market growing 15% p.a.

♦ 80% of production geared to domestic consumption
  – Growing middle class
  – Infrastructure investments
    • Steel, Chemicals, Refining

♦ Captive users moving to purchased product

♦ Awarded 90 MMSCFD H₂ and 500 TPD N₂ supply for Indian Oil Company - Start-up 2012

Strong opportunity pipeline
South America

2009F Sales ~$1.6 B

- **Pro-growth policies**
  - Low interest rates
  - Fiscal discipline
  - Foreign reserves

- **Pragmatic stimulus package**

- **Expanding middle class**

- **Growth from energy, metals and manufacturing markets**

- **Best positioned and preferred supplier**

**Forecast sales growth of ~10% p.a. and OP growth of ~15% p.a.**
Strong Opportunities in Mexico

2009F Sales ~$500 MM

- Praxair strongest position
- Increasing opportunities with PEMEX
  - Enhanced oil recovery
  - Oil well services
  - Hydrogen for refining
- Upswing in industrial investment
- $100 - $150MM per year capital investment

Energy sector will drive strong growth
Strong Project Backlog

- 42 major on-site projects
- Project start-ups 2009 to 2011
- ~$2 billion in capex
- 2/3 in emerging markets
- Diverse markets and geographies

Q3 2009

# of projects, by region

Project backlog will drive revenue and earnings growth
Long-Term Growth From New Projects and Technologies

Annual Organic Sales Growth

- **IP**: Industrial production + 5-8%
- 3-5%: On-site project backlog
- 2-3%: Environmental and energy technologies
- ??: Base business follows IP

*Expect double digit EPS growth over the cycle*

Future earnings growth will significantly outpace the economy

*Industrial production
Principles of Sustainable Development

Governance and Integrity
Maintain strong systems and a culture of global corporate governance, compliance, ethics, human rights, integrity and accountability.

Strategic Leadership
Stay current with, and take advantage of, emerging global opportunities, developments and challenges to position Praxair for the future.

Customer Commitment
Focus relentlessly on the delivery of customer value through continuous innovation that helps our customers enhance their product quality, service, reliability, productivity, safety, energy efficiency and environmental performance.

Environmental Responsibility
Achieve continuous environmental performance improvement and energy efficiency in our operations.

Employee Safety and Development
Provide opportunities that allow employees to develop to their fullest potential in a creative, inclusive and safe environment.

Community Support
Participate in community development in regions where we operate.

Financial Performance
Maintain year-on-year recognition from shareholders and stakeholders for top-tier financial performance.

Stakeholder Engagement and Communication
Partner with internal and external stakeholders to achieve a strong, secure and sustainable society, economy and environment.