Chemical Heritage Foundation Industry Conference
New Growth Opportunities

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Forward Looking Statements

The forward-looking statements contained in this announcement concerning demand for products and services, the expected macroeconomic environment, sales, margins, earnings growth rates, and other financial goals involve risks and uncertainties, and are subject to change based on various factors. These include the impact of changes in worldwide and national economies, the cost and availability of electric power, natural gas and other materials, development of operational efficiencies, changes in foreign currencies, changes in interest rates, the continued timely development and acceptance of new products and processes, the impact of competitive products and pricing, the impact of tax, accounting and other legislation, litigation, government regulation and the effectiveness and speed of integrating new acquisitions into the business.
Financial Outperformance

**Sales**
(10-year compound annual growth rate)

- **Praxair**: 9%
- **S&P 500**: 7%

**Return on Equity**
(10-year average)

- **Praxair**: 21%
- **S&P 500**: 14%

**Earnings**
(10-year compound annual growth rate)

- **Praxair**: 13%
- **S&P 500**: 11%

**Total Shareholder Return**
(10-year compound annual growth rate)

- **Praxair**: 17%
- **S&P 500**: 12%

Praxair has outperformed the S & P 500 over a 10 year period

Source: Based on Standard & Poor’s Investment Services information and company data.
Growth Through Applications

End Markets

2004 Sales $6.6 Billion

Organic Growth (Y.O.Y.)*

- Manufacturing + 10%
- Metals + 21%
- Energy + 18%
- Healthcare + 6%
- Chemicals + 8%

* Ex currency, nat gas, and acquisitions

2004 Global GDP +4%

Sales grow faster than our end markets

Chemical Heritage Foundation Industry Conference - Philadelphia  6/28/05
**Why Gases Are Not Commodities!**

**Packaged Gases**
- Hundreds of thousands of small customers
- Small fraction of customers’ cost
- Price stability

**Merchant Liquid Delivery Supply**
- Limited distribution range – 200/250 miles
- Cryogenic installation at customer site
- 5 year requirements contracts
- Price escalation

**On-Site/Pipeline Supply**
- Price recovers capital and fixed costs
- 15 year Take or Pay contracts
- Escalation formulas
  - Electricity/gas
  - Inflation
  - Currency exposure

Our business model delivers a higher return on capital and greater stability.
Operating Model

Driving Sustainable Growth

- Focus on 11 core geographies
- Key growth platforms
  - Hydrogen
  - Healthcare
  - China
  - Electronics
- Application technologies
- New growth opportunities
  - Oil/gas well services
  - Enhanced oil recovery
  - Brazil energy markets
  - India
- Flawless project execution
- Productivity / Six Sigma

2004 ROC %

<table>
<thead>
<tr>
<th>Praxair</th>
<th>Average of Industrial Gas Peers</th>
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<tbody>
<tr>
<td>14%</td>
<td>6%</td>
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<tr>
<td>13%</td>
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<td>12%</td>
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<td>9%</td>
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<td>8%</td>
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<td>7%</td>
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ROC=Net Operating Profit After Tax/Average Capital

Source: Bloomberg and company reports
### Key Growth Platforms

<table>
<thead>
<tr>
<th>(USD MM$s)</th>
<th>2004 Sales</th>
<th>Expected p.a Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen</td>
<td>$ 690</td>
<td>20-25%</td>
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<tr>
<td>Healthcare</td>
<td>$ 740</td>
<td>8-12%</td>
</tr>
<tr>
<td>Electronics</td>
<td>$ 480</td>
<td>8-12%</td>
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<tr>
<td>China</td>
<td>$ 125</td>
<td>15-20%</td>
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Secular trends in key growth platforms
A Perfect Storm for Oxygen Applications

- Higher energy efficiency
- Higher throughput
- Less emissions

Blast furnace coal injection
New oxyfuel burner
Process heaters
Remelting furnaces
Reduced NOX emissions

PX will commercialize 20+ new application technologies in 2005
North America Gas Well Services

- Increasing number of natural gas wells
- North American production basins in decline
- Unconventional gas sources increasing in importance
  - Tight sands
  - Coal bed methane (CBM)
  - Shale gas

Unconventional sources require more intense fracturing to unlock gas

North American Natural Gas Market

North American Natural Gas Market

Sources: Cambridge Energy Resources (CERA)

U.S. Natural Gas Production

Sources: BP, EIA, Advanced Resources International, Buckingham Resources
US Rockies rig count has increased 75% since 2002

CO₂ and N₂ widely used to fracture low permeability formations during well completion

Praxair best positioned
- Location
- Expertise
- Relationships

Additional pipeline services

$200 MM revenues expected to grow 25% p.a.
Enhanced Oil Recovery (EOR)

Typical EOR Production Curve

- **Primary Stage - Gravity Drainage**: Recovery ~10%
- **Secondary Stage - Water Flooding**: Recovery >20%
- **EOR**: Recovery ~15-20%

**OIL RECOVERED (bbls)** vs **TIME**

- LONG TERM POTENTIAL TO RECOVER 120 B BARRELS OF OIL IN NA

Recovery % of Original Oil in Place

Sources: Falcon Environmental
**Enhanced Oil Recovery Projects**

**PEMEX Samaria Oil Fields**
- >6500 TPD of nitrogen production
- N$_2$ injection and new wells expected to recover additional 470 MM barrels of oil and 540 BCF of natural gas through 2018
- Start-up Q1 2007

**Occidental Petroleum**
- 1100 TPD N$_2$ production at Tupman, CA complex
- Full field N$_2$ injection flood to re-pressurize a primary reservoir
- Start-up Q2 2006
Brazil Energy Markets

- **Increasing role of natural gas**
  - Greater availability / supply
  - Govt. promoting natural gas use
  - Competitive prices

- **Conversions from alternative fuels**
  - 5% of cars converted and growing
  - Replacing industrial/commercial LPG

- **Praxair participating actively**
  - CNG cylinders & conversion kits
    - Market growing at 20% p.a.
    - JV with Petrobras for LNG distribution
  - Areas not served by pipeline
  - First plant: Q1 2006 start-up

Source: Praxair estimates

Natural gas business driving growth in South America
Praxair India Set To Grow Strongly

- Economy gaining momentum
- Paradigm shift in gas buying pattern
  - “Sale of plant” to “Sale of gas”
- Gas industry to register double-digit growth from 2005-10
- Praxair #1 position
  - Strong relationships with industry leaders
- Recent business wins
  - Tata Steel
  - Saint Gobain
  - Owens Corning
  - Hospet Steel

Industrial Gas Market Supplied By Global Players
($260 MM)

- Praxair 42%
- Competitor 1
- Competitor 2 (JV)

Source: Praxair Estimates

~$50 MM Sales

Sales of $110 MM expected to grow ~20% p.a. through 2010
Why Praxair?

- Strong, sustainable, organic growth
- Diverse end markets and applications technology
- High return on capital
- Long term customer retention
- Substantial free cash flow generation
- Capital and operating discipline
- Strong corporate governance