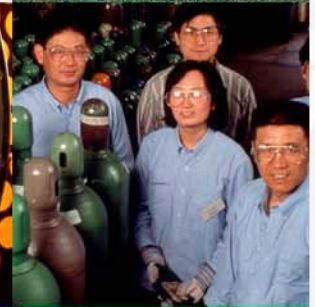
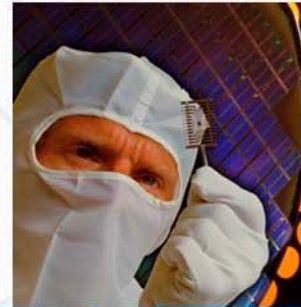




# Chemical Heritage Foundation Industry Conference *New Growth Opportunities*

**Ricardo S. Malfitano**  
**Senior Vice President**

June 28, 2005



**We deliver.**

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.

## 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%

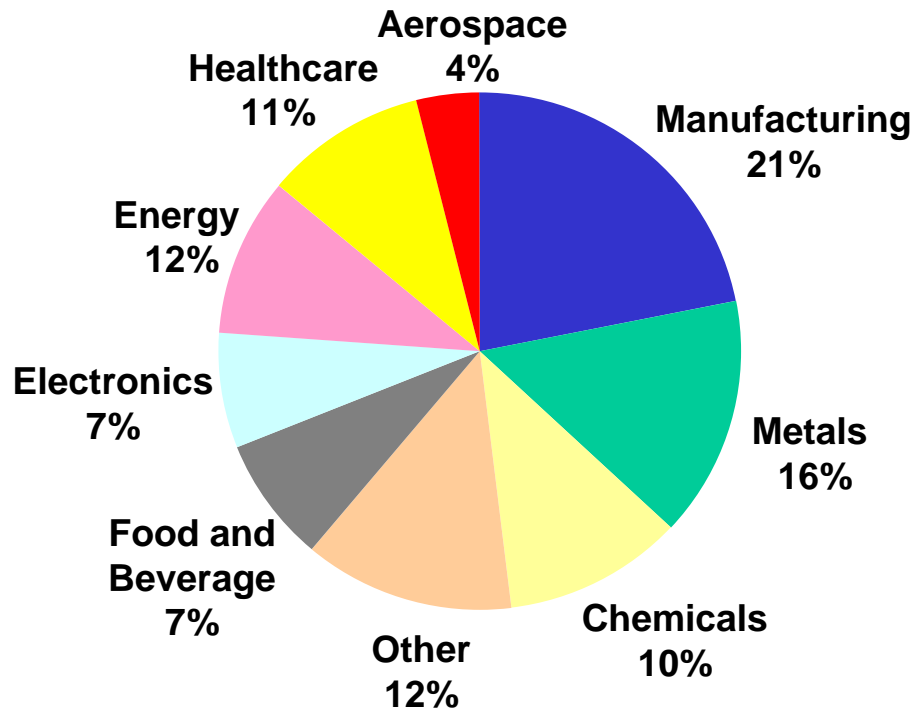
**Praxair has outperformed the S & P 500 over a 10 year period**

Source: Based on Standard & Poor's Investment Services information and company data.

# Growth Through Applications

**2004 Sales \$6.6 Billion**

## End Markets



## Organic Growth (YOY)\*

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**

# Why Gases Are Not Commodities!

## Packaged Gases

- ◆ Hundreds of thousands of small customers
- ◆ Small fraction of customers' cost
- ◆ Price stability

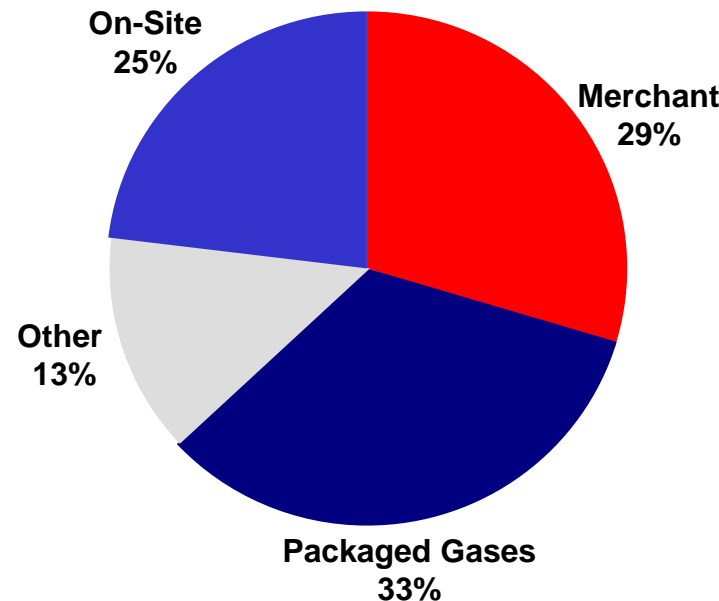
## Merchant Liquid Delivery Supply

- ◆ 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

## Distribution Method

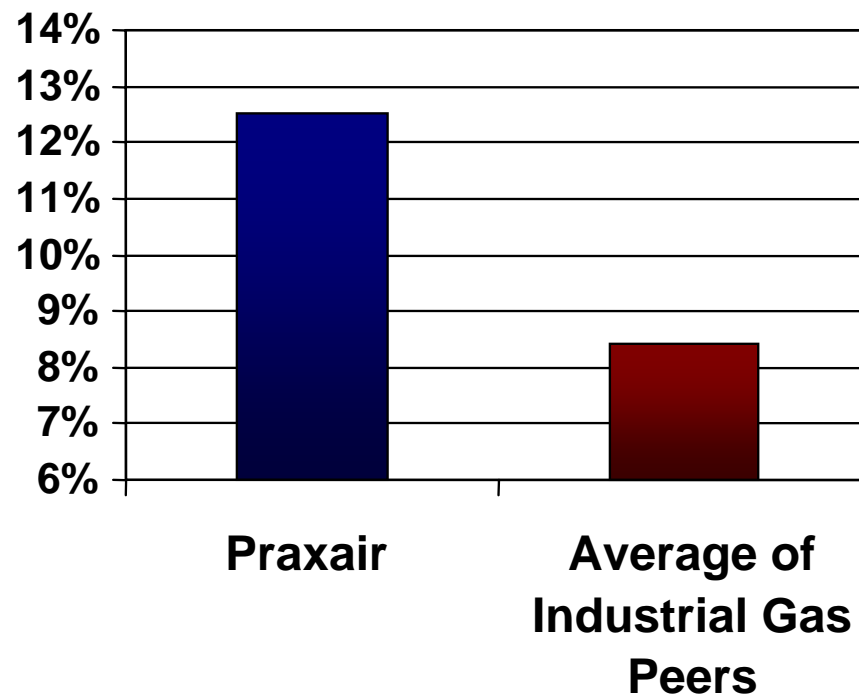


**Our business model  
delivers a higher return on  
capital and greater stability**

## 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 %



ROC=Net Operating Profit After Tax/Average Capital

Source: Bloomberg and company reports

(USD MMs)	<u>2004 Sales</u>	<u>Expected p.a Growth Rate</u>
◆ Hydrogen	\$ 690	20-25%
◆ Healthcare	\$ 740	8-12%
◆ Electronics	\$ 480	8-12%
◆ China	\$ 125	15-20%

**Secular trends in key growth platforms**

# A Perfect Storm for Oxygen Applications



- ◆ Higher energy efficiency
- ◆ Higher throughput
- ◆ Less emissions

*Steel*



Blast furnace coal injection

*Glass*



New oxyfuel burner

*Refining*



Process heaters

*Aluminum*



Remelting furnaces

*Utilities*



Reduced NOX emissions

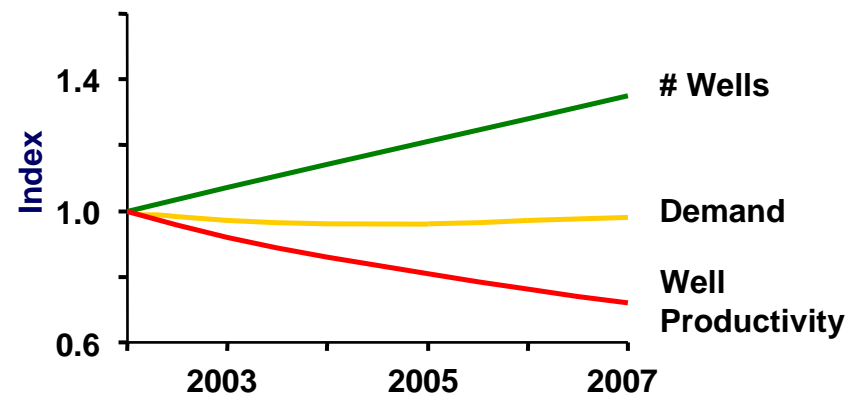
**PX will commercialize 20+ new application technologies in 2005**



- ◆ 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

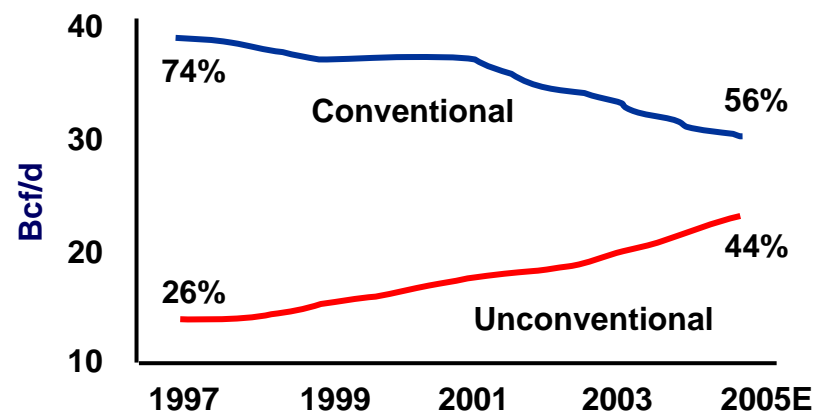
**Unconventional sources require more intense fracturing to unlock gas**

## North American Natural Gas Market

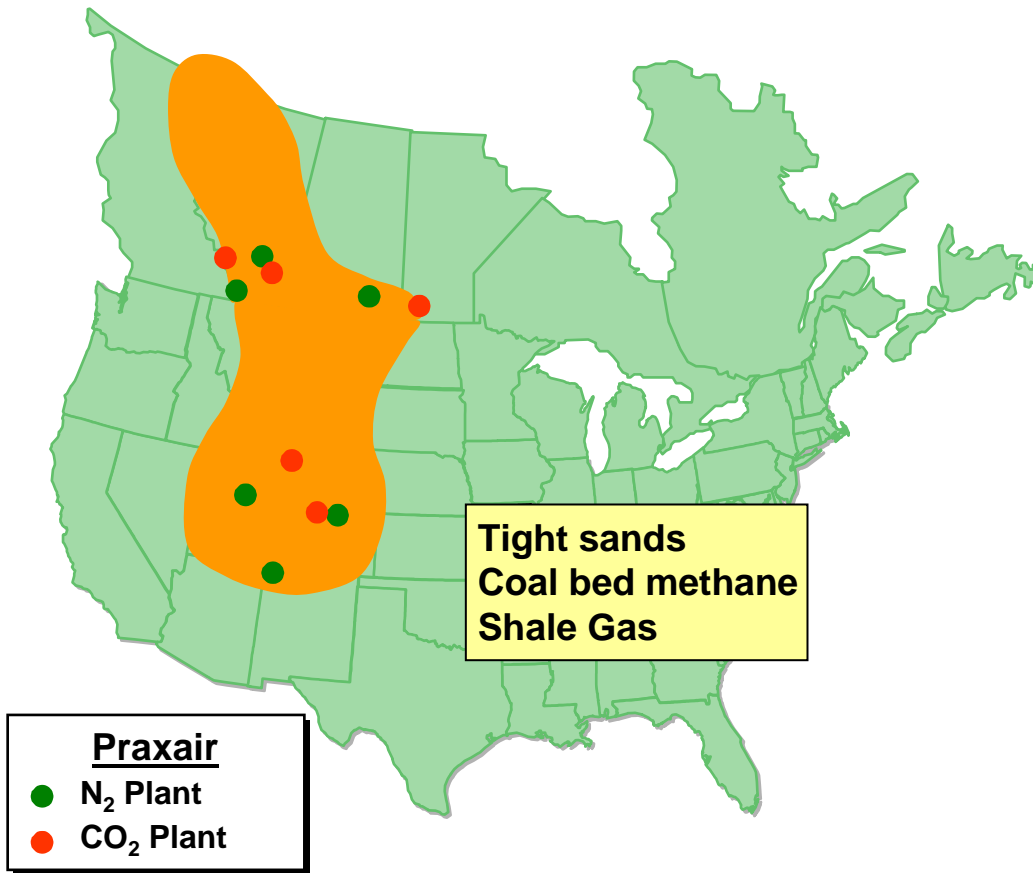


Sources: Cambridge Energy Resources (CERA)

## U.S. Natural Gas Production



Sources: BP, EIA, Advanced Resources International, Buckingham Resources

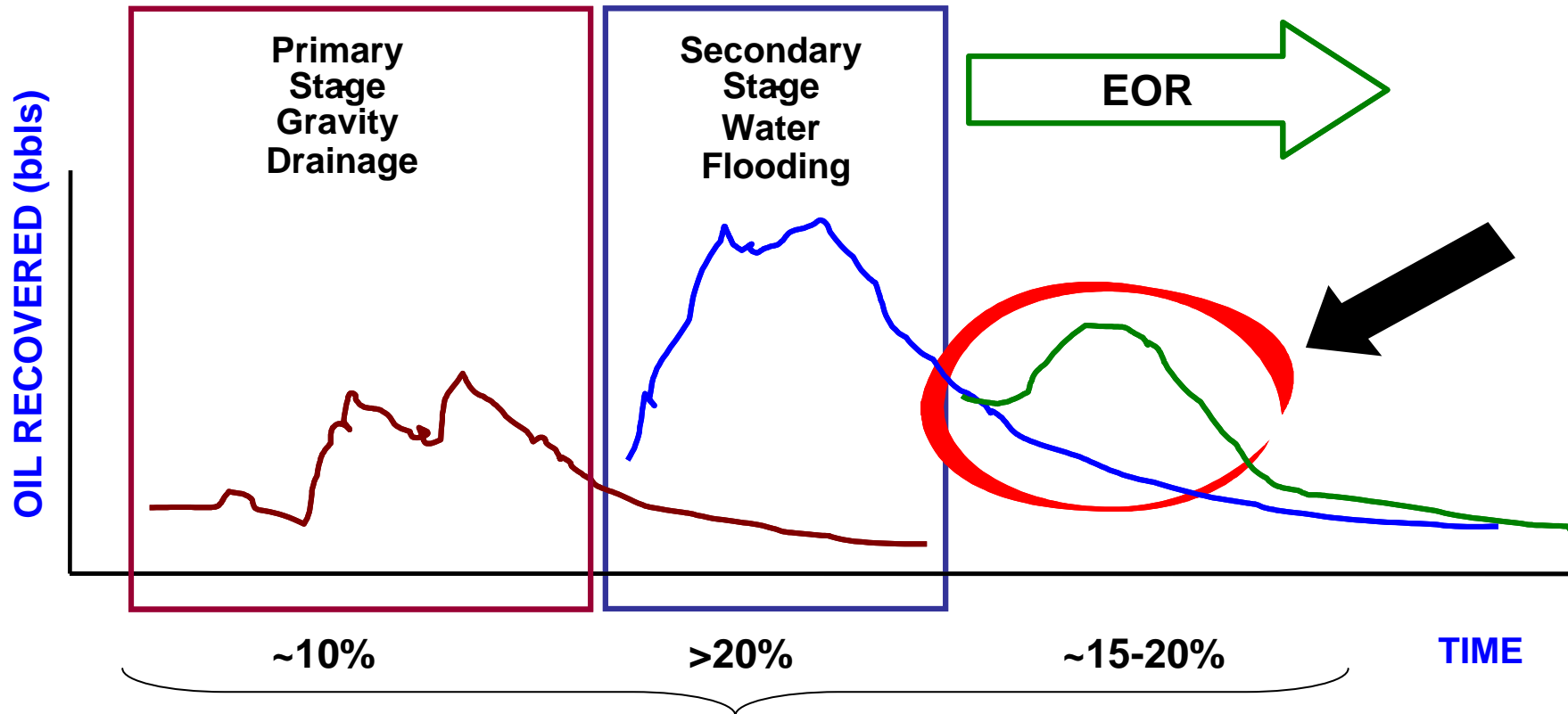


- ◆ US Rockies rig count has increased 75% since 2002
- ◆ CO<sub>2</sub> and N<sub>2</sub> widely used to fracture low permeability formations during well completion
- ◆ Praxair best positioned
  - Location
  - Expertise
  - Relationships
- ◆ Additional pipeline services

**\$200 MM revenues expected to grow 25% p.a.**

# Enhanced Oil Recovery (EOR)

## Typical EOR Production Curve



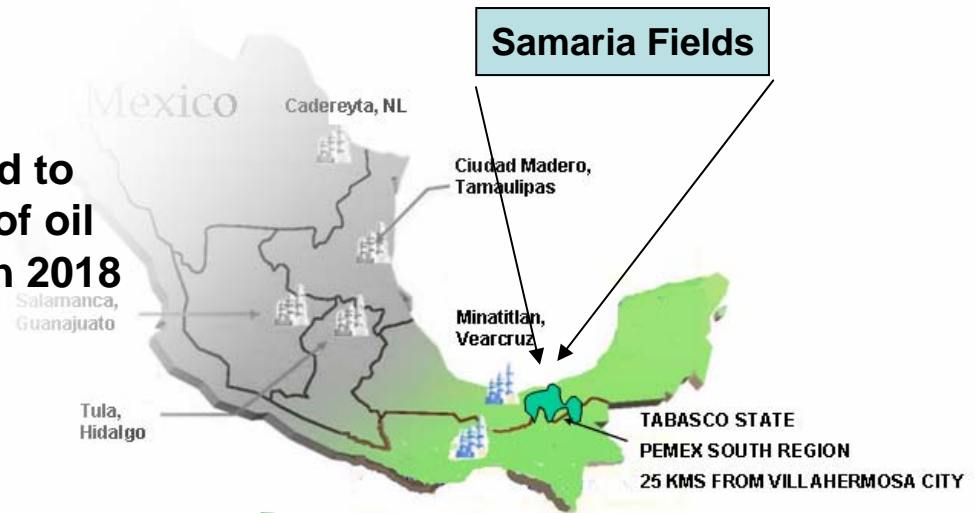
Recovery % of Original Oil in Place

Sources: Falcon Environmental

**Long term potential to recover 120 B barrels of oil in NA**

## PEMEX Samaria Oil Fields

- ◆ >6500 TPD of nitrogen production
- ◆ N<sub>2</sub> 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

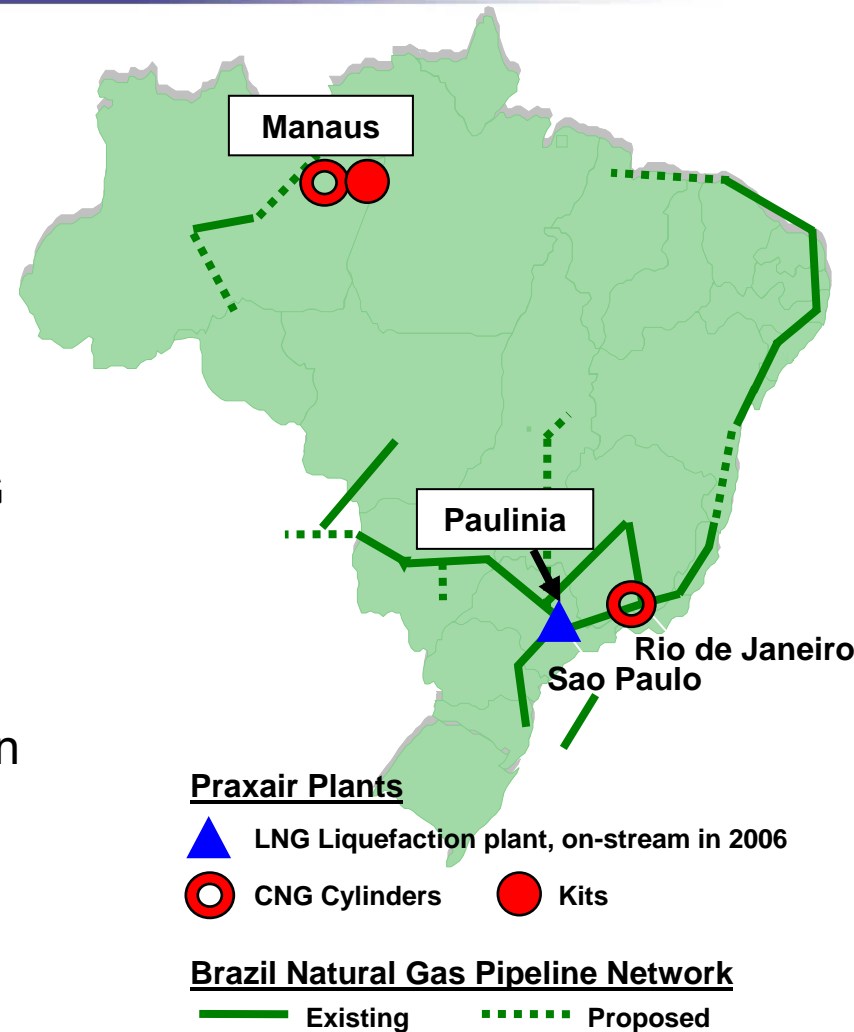


## Occidental Petroleum

- ◆ 1100 TPD N<sub>2</sub> production at Tupman, CA complex
- ◆ Full field N<sub>2</sub> injection flood to re-pressurize a primary reservoir
- ◆ Start-up Q2 2006



- ◆ **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**

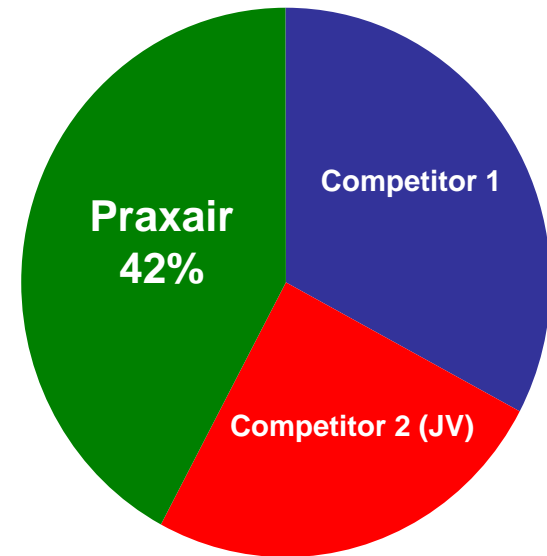
# Praxair India Set To Grow Strongly



- ◆ **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

~\$50 MM  
Sales

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



Source: Praxair Estimates

**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**

**We deliver.**