Repsol YPF: Activities in Argentina

September 2003
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7. OTHER ACTIVITIES
8. HUMAN RESOURCES
1. ARGENTINA

AND

REPSOL YPF
Form of Government: Republican, representative and federal

Area: 2.8 MM km² (continental)

Population: 37 million


G.N.P. per head (2002): US$ 2,750


Imports (2002): US$ 8,470 million

Source: Ministry of Economy
Formed by Argentina, Brazil, Paraguay, Uruguay

Area: 11.9 MM km2

Population: 209 million

GNP: us$ 633 billion

Source: Ministry of Economy, World Bank, Dresdner KB
Mercosur: Key factor for Regional Integration (cont.)

Source: Ministry of Economy; WB; Dresdner Bank
Proven Oil Reserves: 2,821 MM bbls (as of 12/31/2002)

Proven Natural Gas Reserves: 664 billion m³ [23.3 Tcf] (as of 12/31/2002)

Oil Production: 0.75 MM bbl / d

Natural Gas Production: 125 MM m³ / d [1.6 Tcf/y]

Source: Secretary of Energy
Oil Exports Year 2002: 2,156 MMus$

Gas Exports Year 2002: 264 MMus$

Products Exports Year 2002: 1,610 MMus$

Hydrocarbon Exports Year 2002: 4,030 MMus$

Hydrocarbons Exports / Total Exports: 16%

Source: Secretary of Energy
**Hydrocarbon Reserves (2001-2002)**

- **Brazil**
  - Oil Reserves: 8,400 MM bbl
  - Gas Reserves: 7.8 Tcf

- **Bolivia (*)**
  - Oil Reserves: 440 MM bbl
  - Gas Reserves: 54.9 Tcf
  - \((p1 + p2)\)

- **Chile**
  - Oil Reserves: 150 MM bbl
  - Gas Reserves: 3.5 Tcf

- **Argentina**
  - Oil Reserves: 2,821 MM bbl
  - Gas Reserves: 23.3 Tcf

- **Paraguay**
  - Oil Reserves: 0 MM bbl
  - Gas Reserves: 0 MMm³

- **Uruguay**
  - Oil Reserves: 0 MM bbl
  - Gas Reserves: 0 MMm³

(*) During the last few years gas reserves have increased significantly.

Source: Secretary of Energy, EIA, others
Growth in the Energy Field was very high in the 1990 - 2001 period.

Investments in Oil, Gas and Electricity 1990-2000: $ 78,000 million
Growth in the Energy Field was very high in the 1990–2000 period

Breakdown of Investments in Oil, Gas and Electricity 1990-2000 $ MM

- Oil and Gas: 41904
- Products: 7475
- Electricity: 16475
- Pipelines: 1633
- Gas Prov.: 7689
- Petrochemicals: 2849

Source: Ministry of Economy
Next years will have a great potential

**Consumption of Energy**

**Commercial Energy Use**

High Income

USA

Greece

Italy

Spain

Uruguay

Chile

Brazil

Bolivia

Argentina

KgOE per capita

Source: World Development Indicators 2003, World Bank
Potential Producing Basins

- **ARGENTINA and REPSOL YPF S.A.**

Areas to bid

![Map of Argentina showing potential producing basins and areas to bid.](source: Secretary of Energy)
1989  Deregulation starts in Argentina

1990/1991  Repsol purchases oil areas

1993  Privatization of YPF S.A.

1996  Repsol takes control of Astra C.A.P.S.A.

1999  Repsol takes control of YPF S.A., investing more than $15 billion and becomes Repsol YPF
## Main Competitors

<table>
<thead>
<tr>
<th>E&amp;P</th>
<th>R&amp;M</th>
<th>LPG</th>
<th>G&amp;E</th>
<th>Chemicals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petrobras</td>
<td>Esso</td>
<td>Total</td>
<td>Endesa</td>
<td>Dow</td>
</tr>
<tr>
<td>Pan American Energy</td>
<td>Shell</td>
<td>Shell</td>
<td>Perez Companc</td>
<td>Others</td>
</tr>
<tr>
<td>Total</td>
<td>Petrobras</td>
<td>Others</td>
<td>Capex</td>
<td></td>
</tr>
<tr>
<td>Chevron</td>
<td>Others</td>
<td>Others</td>
<td>Others</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. EXPLORATION & PRODUCTION
### EXPLORATION & PRODUCTION
**Argentina and Repsol YPF in E&P (Year 2002)**

<table>
<thead>
<tr>
<th></th>
<th>Argentina</th>
<th>Repsol YPF in Argentina</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OIL PRODUCTION</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M Bls/d</td>
<td>0.769</td>
<td>0.436</td>
<td>57</td>
</tr>
<tr>
<td><strong>GAS PRODUCTION (Net)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M m3/d</td>
<td>110</td>
<td>44</td>
<td>40</td>
</tr>
<tr>
<td><strong>PRODUCTION</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M BOE/d</td>
<td>1.461</td>
<td>0.716</td>
<td>49</td>
</tr>
<tr>
<td><strong>OIL RESERVES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M Bls</td>
<td>2800</td>
<td>1400</td>
<td>50</td>
</tr>
<tr>
<td><strong>GAS RESERVES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Billion m3</td>
<td>670</td>
<td>267</td>
<td>40</td>
</tr>
<tr>
<td><strong>RESERVES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M BOE</td>
<td>7013</td>
<td>3081</td>
<td>44</td>
</tr>
</tbody>
</table>

Source: Secretary of Energy and own data
## EXPLORATION & PRODUCTION
### Argentina and Repsol YPF in E&P (Year 2002)(cont.)

<table>
<thead>
<tr>
<th>REPSOL YPF</th>
<th>World</th>
<th>Latin America</th>
<th>Argentina</th>
<th>% Argentina vs. World</th>
</tr>
</thead>
<tbody>
<tr>
<td>OIL PRODUCTION M Bls/d</td>
<td>0.584</td>
<td>0.471</td>
<td>0.436</td>
<td>75</td>
</tr>
<tr>
<td>GAS PRODUCTION (Net) M m3/d</td>
<td>66</td>
<td>51</td>
<td>44</td>
<td>67</td>
</tr>
<tr>
<td>PRODUCTION M BOE/d</td>
<td>1.000</td>
<td>0.792</td>
<td>0.716</td>
<td>72</td>
</tr>
<tr>
<td>OIL RESERVES M Bls</td>
<td>2019</td>
<td>1691</td>
<td>1400</td>
<td>69</td>
</tr>
<tr>
<td>GAS RESERVES Billion m3</td>
<td>516</td>
<td>447</td>
<td>267</td>
<td>52</td>
</tr>
<tr>
<td>RESERVES M BOE</td>
<td>5261</td>
<td>4501</td>
<td>3081</td>
<td>59</td>
</tr>
</tbody>
</table>

Source: Repsol YPF – Year 2002
EXPLORATION & PRODUCTION
Repsol YPF in Argentina: Production per Basin (BOE per day-Year 2002)

5 PRODUCTIVE BASINS

NOROESTE (58500)
CUYANA (41800)
NEUQUINA (453400)
GOLFO SAN JORGE (140500)
AUSTRAL (21600)
## EXPLORATION & PRODUCTION
### Argentina: Companies in Basins – Year 2002 -

<table>
<thead>
<tr>
<th>COMPANY</th>
<th>NORTHWEST</th>
<th>CUYANA</th>
<th>NEUQUINA</th>
<th>SAN JORGE</th>
<th>AUSTRAL</th>
<th>% PROD (Oil+Gas)</th>
</tr>
</thead>
<tbody>
<tr>
<td>REPSOL YPF</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>50.4%</td>
</tr>
<tr>
<td>PAN AMERICAN</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td>10.4%</td>
</tr>
<tr>
<td>PETROBRAS</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td>8.4%</td>
</tr>
<tr>
<td>CHEVRON</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td>5.1%</td>
</tr>
<tr>
<td>PLUSPETROL</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.5%</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>3.4%</td>
</tr>
<tr>
<td>WINTERSHALL</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>3.4%</td>
</tr>
<tr>
<td>TECPETROL</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>3.1%</td>
</tr>
<tr>
<td>VINTAGE</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td>2.8%</td>
</tr>
<tr>
<td>CAPSA CAPEX</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td>1.8%</td>
</tr>
<tr>
<td>PIONEER</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>1.7%</td>
</tr>
<tr>
<td>SIPETROL</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td>1.5%</td>
</tr>
<tr>
<td>Others</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>4.5%</td>
</tr>
</tbody>
</table>

Source: IAPG – Year 2002
3. REFINING AND MARKETING
<table>
<thead>
<tr>
<th></th>
<th>Argentina</th>
<th>Repsol YPF</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>REFINERIES CAPACITY</td>
<td>667,000</td>
<td>319,500</td>
<td>48%</td>
</tr>
<tr>
<td>bbl/d</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SALES OUTLETS</td>
<td>6,096</td>
<td>1,904(*)</td>
<td>31%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(*) Includes 50% of Refinor Service Stations

As of June 30 2003
### REFINING AND MARKETING

Argentina and Repsol YPF in R&M (cont.)

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**Repsol YPF in:**

<table>
<thead>
<tr>
<th></th>
<th>World</th>
<th>Latin America</th>
<th>Argentina</th>
<th>Argentina vs World%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>REFINERIES CAPACITY</strong></td>
<td>1,176,000</td>
<td>436,000</td>
<td>319,500</td>
<td>27%</td>
</tr>
<tr>
<td><strong>bbl/d</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SALES OUTLETS</strong></td>
<td>6,636</td>
<td>2,833</td>
<td>1,904(*)</td>
<td>28%</td>
</tr>
</tbody>
</table>

(*) Includes 50% of Refinor Service Stations

As of June 30 2003
Source: 20F Repsol YPF
REFINING AND MARKETING
Location of Refineries and Logistics in Argentina

Repsol YPF Refineries

Refineries where REPSOL YPF has an interest

Other Companies Refineries

Oil Pipeline
Products Pipeline
Under Project
Production

Refining Capacity (Boe/day)

<table>
<thead>
<tr>
<th>Location</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luján de Cuyo</td>
<td>120,000</td>
</tr>
<tr>
<td>La Plata</td>
<td>189,000</td>
</tr>
<tr>
<td>P. Huincul</td>
<td>25,000</td>
</tr>
<tr>
<td>Bahía Blanca</td>
<td>30,500</td>
</tr>
<tr>
<td>Campo Durán</td>
<td>28,000</td>
</tr>
<tr>
<td>Dock Sud</td>
<td>122,000</td>
</tr>
<tr>
<td>Campana</td>
<td>88,000</td>
</tr>
<tr>
<td>Pto. Galván</td>
<td>19,000</td>
</tr>
<tr>
<td>San Lorenzo</td>
<td>39,000</td>
</tr>
</tbody>
</table>
Location of Refineries and Logistics in Argentina (cont.)

- Province of Buenos Aires
  - Bahía Blanca
  - Puerto Galván
  - Campana
  - Dock Sud
  - La Plata
4. LPG
**LPG**

**LPG Production in Argentina**

---

### REPSOL YPF PRODUCTION

838 Thousand MT

<table>
<thead>
<tr>
<th>REF.</th>
<th>PLANT</th>
<th>PRODUCER</th>
<th>THOUSAND MT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LA PLATA + PLP</td>
<td>YPF</td>
<td>491</td>
</tr>
<tr>
<td>2</td>
<td>GRAL. CERRI</td>
<td>YPF</td>
<td>45</td>
</tr>
<tr>
<td>3</td>
<td>LUJAN DE CUYO</td>
<td>YPF</td>
<td>218</td>
</tr>
<tr>
<td>4</td>
<td>LOMA LA LATA</td>
<td>YPF</td>
<td>19</td>
</tr>
<tr>
<td>5</td>
<td>F. MORADO</td>
<td>UTE</td>
<td>24</td>
</tr>
<tr>
<td>6</td>
<td>SAN SEBASTIAN</td>
<td>UTE S.SEBASTIAN</td>
<td>15</td>
</tr>
<tr>
<td>7</td>
<td>C. DURAN</td>
<td></td>
<td>26</td>
</tr>
<tr>
<td>8</td>
<td>MEGA</td>
<td></td>
<td>207 (*)</td>
</tr>
</tbody>
</table>

**TOTAL YPF + AFFILIATES**

838

---

**ARGENTINA TOTAL PRODUCTION: 2,570 THOUSAND MT**

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**2002**

- Domestic Market: 33%
- Petrochemicals: 28%
- Exports: 39%

---

(*)Not available for Repsol YPF marketing
Retail Market (bottling + in bulk + piped)

Repsol YPF Gas (85% Repsol YPF, 15% Pluspetrol) – Trade Mark : YPF Gas

<table>
<thead>
<tr>
<th>World</th>
<th>Latin America</th>
<th>Argentina</th>
<th>Argentina vs. World %</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,220</td>
<td>1,000</td>
<td>340</td>
<td>11 %</td>
</tr>
</tbody>
</table>

Repsol YPF SALES

Thousand tn / year

2002

- 37% Repsol YPF
- 36% Total Gas
- 8% Shell Gas
- 19% Others

- 36% Bottling
- 64% In Bulk + Piped + Propellent

Total Argentina 970,000 tons / year

Bottling: Mature Market
In Bulk: Market with high growth potential
Piped: natural substitute for bottling
6. NATURAL GAS AND ELECTRICITY
ARGENTINA

Gas produced - Year 2002 (in thousand m3). Breakdown by destination

<table>
<thead>
<tr>
<th>Destination</th>
<th>Quantity (thousand m3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>In Field Consumption</td>
<td>3,833,319</td>
</tr>
<tr>
<td>Delivered to Transcos</td>
<td>32,282,870</td>
</tr>
<tr>
<td>Delivered to Third Parties</td>
<td>2,329,979</td>
</tr>
<tr>
<td>Reinjected</td>
<td>3,516,716</td>
</tr>
<tr>
<td>Withheld in Plants</td>
<td>1,456,052</td>
</tr>
<tr>
<td>Flared</td>
<td>846,558</td>
</tr>
<tr>
<td>Exported</td>
<td>1,504,644</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>45,770,138</strong></td>
</tr>
</tbody>
</table>

Source: Secretary of Energy
Electric Projects in which Repsol YPF participates

- CTSMT (45%) 340 MW
- CTT (45%) 430 MW
- Dock Sud 775 MW (40%)
- Chihuido 37 MW
- Filo Morado (50%) 63 MW
- Plaza Huinca 37 MW
- Los Perales 74 MW
7. CHEMICALS
### QUIMICA
Chemicals: Argentina and Repsol YPF

<table>
<thead>
<tr>
<th>PRODUCTION CAPACITY</th>
<th>World</th>
<th>Latin America</th>
<th>Argentina</th>
<th>Argentina vs World %</th>
</tr>
</thead>
<tbody>
<tr>
<td>tn / year</td>
<td>6,551</td>
<td>2,551</td>
<td>2,551</td>
<td>39%</td>
</tr>
</tbody>
</table>

Includes own capacity and interests in other companies.
The Petrochemical Market in Argentina - Background

- Raw materials availability
- Deregulated economic background
  - Sustained growth of all segments
  - Insufficient domestic productive capacity
  - High import increase
- Share capital restructuring
- Regional Integration - MERCOSUR
7. OTHER ACTIVITIES
A company devoted to Construction and Services aiming mainly at the Oil, Gas and Petrochemical sectors.

Also, it is the only company in the market that integrates engineering and construction activities with the manufacturing of equipment for turn key plants.

Our activities:

Æ Integral Construction of Industrial Works and turn key plants
Æ Equipment and process modules manufacturing
Æ Provision of Services for Oil and Gas Industries
Æ Operation and maintenance of Plants (Gas, compression, electricity generation, etc.)

**Shareholders:** YPF S.A.  **2002 Sales:** 138 M. U$S
8. HUMAN RESOURCES
<table>
<thead>
<tr>
<th>Area</th>
<th>Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream America</td>
<td>1230</td>
</tr>
<tr>
<td>Downstream Latin America</td>
<td>4682</td>
</tr>
<tr>
<td>Downstream LPG Latin America</td>
<td>589</td>
</tr>
<tr>
<td>Downstream Chemicals</td>
<td>425</td>
</tr>
<tr>
<td>Gas Area</td>
<td>13</td>
</tr>
<tr>
<td>Astra Evangelista</td>
<td>1256</td>
</tr>
<tr>
<td>Corporation</td>
<td>634</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>8829</strong></td>
</tr>
</tbody>
</table>

June 2003
<table>
<thead>
<tr>
<th>Position</th>
<th>Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director</td>
<td>50</td>
</tr>
<tr>
<td>Senior Technician</td>
<td>685</td>
</tr>
<tr>
<td>Semi Senior Technician</td>
<td>1996</td>
</tr>
<tr>
<td>Junior Technician</td>
<td>1036</td>
</tr>
<tr>
<td>Administrative personnel</td>
<td>916</td>
</tr>
<tr>
<td>Operator</td>
<td>4146</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>8829</strong></td>
</tr>
</tbody>
</table>

June 2003
Expatriates

Argentinians abroad 136

Foreigners in Argentina 87

August 2003
Repsol YPF: Activities in Argentina

September 2003
10. APPENDIX
**NW BASIN**

- Total Area: 158000 km²
- Wells drilled: 970
- Production Wells (2002): 89

**Repsol YPF - NW BASIN**

- Production: 59 k BOE/d
- Oil Reserves: 59 M Bls
- Gas Reserves: 49 B m³

- Mainly a gas basin
- Gas pipelines to Northern Chile and Buenos Aires
- Refinor Refinery
EXPLORATION & PRODUCTION
Cuyana Basin

CUYANA BASIN

Total Area: 58000 km²
Wells drilled: 2440
Production Wells (2002): 934

Repsol YPF – CUYANA BASIN

Production: 42 k BOE/d
Oil Reserves: 150 M Bls
Gas Reserves: 0.4 B m³

- Only Oil
- Pipelines
- Luján de Cuyo Refinery
EXPLORATION & PRODUCTION
Neuquina Basin

NEUQUINA BASIN
Total Area: 125000 km²
Wells drilled: 12640
Production Wells (2002): 5460

Repsol YPF - NEUQUINA BASIN
Production: 453 k BOE/d
Oil Reserves: 844 M Bls
Gas Reserves: 197 B m³

• Oil and Gas basin (The best)
• Gas pipelines to Chile and Bs.As.
• Mega
• Plaza Huincul Refinery
EXPLORATION & PRODUCTION
Golfo San Jorge Basin

**GOLFO SAN JORGE BASIN**
- Total Area: 92000 km²
- Wells drilled: 29600
- Production Wells (2002): 10030

**Repsol YPF – GOLFO S.J. BASIN**
- Production: 141 k BOE/d
- Oil Reserves: 332 M Bls
- Gas Reserves: 8 B m³

- Mainly an Oil basin
- Low Recovery Factor
- Recent Gas discovery
**AUSTRAL BASIN**

*Total Area: 145000 km²*

*Wells drilled: 1820*

*Production Wells (2002): 450*

---

**Repsol YPF – AUSTRAL BASIN**

*Production: 22 k BOE/d*

*Oil Reserves: 14 M Bls*

*Gas Reserves: 13 B m³*

---

- **Oil and Gas basin**
- **On Shore and Off Shore**
- **Gas pipelines to Chile and Bs.As.**
Argentine Crude Oils: Export Logistics

Ships
- Rosales - LP Q = 2150 m³/h
- Allen - Rosales Q = 1500 m³/h
- P.Hdez - LC Q = 400 m³/h
- P.Hdez - Chile Q = 750 m³/h

Railroad

Pipelines

Refining and Marketing
Service Stations Distribution in Argentina

- Repsol YPF: 31%
- Petrobras: 27%
- Shell: 18%
- Esso: 13%
- Other + White Pump Gasoline Stations: 11%

Number of Service Stations: 6,096

Own Data: June 30, 2003
Number of Service Stations: 1,904

- Red XXI: 1,319 (69%)
- OPESSA: 131 (7%)
- Resale: 454 (24%)

Own data: June 30 2003
**Mature market with a low growth rate**

**Very competitive market**

**High negotiation power with distributor / retailer**

**Plant Installed overcapacity**

**Good product offer**

**Inadequate regulations control**

**Presence of small companies with high level of informality**

**In the process towards formalization**

**Recent development - 6 years**

**Repsol YPF Gas is the leader in its development**

**Repsol YPF Gas has 50,000 active clients**

**Moderate entry barriers**

**Main competitors: Shell Gas, TotalGaz, Extragas, Amarilla Gas, Areco Gas**

**Regional competitiveness**

---

**PRICES Deregulated throughout the whole chain**
<table>
<thead>
<tr>
<th></th>
<th>Argentina</th>
<th>Repsol YPF in Argentina</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROVEN GAS RESERVES</td>
<td>663</td>
<td>240</td>
<td>36%</td>
</tr>
<tr>
<td>Billion m³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GAS PRODUCTION</td>
<td>125</td>
<td>44</td>
<td>36%</td>
</tr>
<tr>
<td>MM m³/d</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Secretary of Energy

Annual Data
OPERATIONS
• Country's largest distributor
• Covered area: 2,150 km²
• 3 City Gates: Buchanan - Gutiérrez - Ezeiza
• Distribution network: 15,774 km
• Firm transportation capacity: 22.8 MM m³/day

THE MARKET
• City of Buenos Aires and South of Greater Buenos Aires.
• Clients: 1.9 million
• Distributed gas volume: 5,755 MM m³ (year 2002)
• Annual Revenues: 719 MM $ (fiscal year 2002)
OPERATIONS

- Country’s highest growth distributor, second largest distributor.
- Covered area: 15,000 km²
- Distribution network: 20,369 km.

THE MARKET

- North and West of Greater Buenos Aires and Province of Buenos Aires.
- Clients: 1.2 million
- Distributed gas volume: 3,300 MM m³ (year 2002)
- Annual Revenues: 436 MM $/year (fiscal year 2002)

GN Ban is a Gas Natural Group Company

- Gas Natural SDG 19%
- Invergas 51%
- Others 30%

Invergas is a Gas Natural subsidiary
Electricity Generation: Argentina and Repsol YPF

<table>
<thead>
<tr>
<th>GENERATION CAPACITY MW</th>
<th>Argentina (1)</th>
<th>Repsol YPF (2)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>23,278</td>
<td>800</td>
<td>3.4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1,800</td>
<td>7.7%</td>
</tr>
</tbody>
</table>

(1) According to our interest in each project
(2) At 100% of the projects

**Argentina Generation Capacity (MW)**

- Thermal: 12,733
- Hydro: 9,540
- Nuclear: 1,005

Source: CAMMESA
NATURAL GAS AND ELECTRICITY

Electricity Generation: Argentina and Repsol YPF (cont.)

<table>
<thead>
<tr>
<th>INSTALLED CAPACITY MW</th>
<th>World</th>
<th>Latin American</th>
<th>Argentina</th>
<th>Argentina vs the World %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1,130</td>
<td>800</td>
<td>800</td>
<td>71%</td>
</tr>
</tbody>
</table>
## NATURAL GAS AND ELECTRICITY

### Repsol YPF Power Plants

<table>
<thead>
<tr>
<th>Plant</th>
<th>Power (MW)</th>
<th>Energy (GWh/year)</th>
<th>Gas (MMm3/d)</th>
<th>Interest (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filo Morado</td>
<td>63</td>
<td>450</td>
<td>0.8</td>
<td>50%</td>
</tr>
<tr>
<td>CTT</td>
<td>430</td>
<td>3,200</td>
<td>2.0</td>
<td>45%</td>
</tr>
<tr>
<td>CTSMT</td>
<td>340</td>
<td>2,500</td>
<td>1.6</td>
<td>45%</td>
</tr>
<tr>
<td>CDS</td>
<td>775+70</td>
<td>6,000</td>
<td>3.0</td>
<td>40%</td>
</tr>
<tr>
<td>Chihuído</td>
<td>37</td>
<td>310</td>
<td>0.3</td>
<td>100%</td>
</tr>
<tr>
<td>Pza. Huincul</td>
<td>37</td>
<td>270</td>
<td>0.3</td>
<td>100%</td>
</tr>
<tr>
<td>Los Perales</td>
<td>74</td>
<td>550</td>
<td>0.6</td>
<td>100%</td>
</tr>
</tbody>
</table>
Natural Gas Distribution Companies:

- Gasnor
- Gas NEA Mesopotamia
- Litoral Gas
- Ecogas Centro
- Gas Natural BAN
- MetroGas
- Ecogas Cuyo
- Camuzzi Gas Pampeana
- Camuzzi Gas del Sur
NATURAL GAS AND ELECTRICITY

Natural Gas Distribution Companies

Gas Natural BAN

MetroGas
<table>
<thead>
<tr>
<th>PROJECT</th>
<th>INVESTMENTS MM US$</th>
<th>PRODUCTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEGA</td>
<td>690</td>
<td>Ethane, LPG, Gasoline</td>
</tr>
<tr>
<td>Profertil</td>
<td>680</td>
<td>Urea / Ammonia</td>
</tr>
<tr>
<td>PBB Polisur</td>
<td>875</td>
<td>Ethylene (Enlargement)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Polyethylene (Enlargement)</td>
</tr>
<tr>
<td>Metanol</td>
<td>140</td>
<td>Methanol</td>
</tr>
</tbody>
</table>
LA PLATA REFINERY

NAPHTA

AROMATIC UNIT (600 KT/YEAR)

OLEFIN UNIT (429 KT/YEAR)
- PROPYLENE
- PROPANE
- C4 FRACTION

ENSENADA PLANT

BENZENE
CYCLOHEXANE
TOLUENES
XYLENES

PP (PETROKEN)
OXO ALCOHOLS
MTBE, BUTENE, BUTANE

MAXIMUM INTEGRATION BETWEEN REFINERIES AND BASE AND DERIVATIVE CHEMICALS