Challenges of the Energy Supply in the 21st Century

Jérôme Ferrier, President IGU

RIO OIL & GAS, 19 September 2012
GAS RESERVES IN THE SOUTHERN CONE – 2011 vs 2001
CEDIGAZ - Tcf

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>7.8</td>
<td>14.7</td>
</tr>
<tr>
<td>Brazil</td>
<td>27.5</td>
<td>33.4</td>
</tr>
<tr>
<td>Bolivia</td>
<td>23.8</td>
<td>23.8</td>
</tr>
<tr>
<td>Peru</td>
<td>9</td>
<td>12.5</td>
</tr>
</tbody>
</table>

+226 Tcf Shale Gas? (EIA/ARI)

+774 Tcf Shale Gas? (EIA/ARI)
GAS PRODUCTION OUTLOOK – BRAZIL & ARGENTINA
IEA WEO 2011 – New Policies Scenario (Bcm)
BRAZILIAN GAS SUPPLY AND DEMAND
BRAZILIAN DEPARTMENT OF ENERGY (Bcm)

Sources: Historical data: Balance energetico 2011 (MME)
Forecast: Matriz energetica 2030 (MME)
1. FOSTER INFRASTRUCTURE INTEGRATION BY ENSURING THE BANKABILITY OF NEW TRANSCONTINENTAL GAS PIPELINES AND CROSS BORDER INTERCONNECTION.

- Exemption of Third Party Access
- Use of an international currency reference
- Differentiation of the regulatory rates of return

2. ENSURE COMPATIBILITY OF TARIFF SYSTEMS BETWEEN NATIONAL AND TRANSIT FLOWS.

- Harmonization of tariff structures
- Elimination of « pancaking » of tariffs at the border
- Promotion of the « entry-exit » tariff system within balancing zones
3. SIMPLIFY ACCESS TO PIPELINES FOR CROSS-BORDER SHIPPERS
   - Harmonization of the main cross-border access rules for shippers
   - Development of a secondary market of cross border capacity
   - Addressing the issue of a set of common rules for shippers

4. DEVELOP A REGIONAL LEVEL OF INTEGRATION, INITIATIVE AND PROGRESS FOR THE GAS INDUSTRY.
   - Initiatives of « open seasons »
   - Development of hubs and market places
   - Fostering of market coupling and extension of balancing zones
« OBRIGADO PELA SUA ATENÇÃO »