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Experiences in Perú with conversion of vehicles from gasoline to natural gas

Speaker:
Johnny Nahui Ortiz, Ph.D.
Center for Energy Conservation & Environment
CENERGIA (Lima-Perú)
CENERGIA (Center for Energy Conservation & Environment) is an organization dedicated to conduct studies associated with Energy Efficiency and Renewable Energies as well as other related topics.

Natural Gas has become available in Lima as from August 2004 and it is presently used in Electricity Generation, Industrial Plants, Residential Households and Transportation Units.

A program (COFIGAS) for facilitating conversions of vehicles from gasoline to natural gas has been designed by a local financial bank (COFIDE).
## Conversions to Natural Gas

### LATIN AMERICA

<table>
<thead>
<tr>
<th>Country</th>
<th>Converted Vehicles</th>
<th>Stations</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>1,459,236</td>
<td>1,400</td>
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<tr>
<td>Brasil</td>
<td>1,228,079</td>
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<td>Colombia</td>
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<td>Venezuela</td>
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<td>149</td>
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<td>Bolivia</td>
<td>38,855</td>
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<tr>
<td>Chile</td>
<td>5,500</td>
<td>12</td>
<td>May. 2005</td>
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<tr>
<td>Trinidad &amp; Tobago</td>
<td>4,000</td>
<td>13</td>
<td>Abr. 2005</td>
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<tr>
<td>Perú</td>
<td>22,018</td>
<td>17</td>
<td>Nov. 2007</td>
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</tbody>
</table>

### INTERNATIONAL

<table>
<thead>
<tr>
<th>Country</th>
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<th>Stations</th>
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<td>Italia</td>
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<td>China</td>
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<td>Ucrania</td>
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<td>Egipto</td>
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<td>Rusia</td>
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<tr>
<td>Canada</td>
<td>20,505</td>
<td>222</td>
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</tr>
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</table>
Perú

Vehicles converted to Natural Gas
As from 1992, COFIDE (Development Financing Corporation) operates as an intermediate financial bank in order to provide assistance to export and small-medium size companies.

COFIGAS (Financed Conversion Program to Natural Gas) has been structured by COFIDE to finance the conversion process to natural gas for light vehicles units (taxis, private cars), public transportation units (buses) and heavy transportation units, assuring more efficiency and higher revenues available for end users as a result of generated savings, which may reach up to 60% of current consumption.
Market Target

Potential vehicle market in Lima for conversions in the next 5 years is estimated at 149000 units, from which 115000 would be private cars, 31000 taxis and 3000 corporate or state owned. Overall demand for financing would reach US$137 million.

Considering penetration percentages similar to other Latinamerican experiences, the target market vehicle is estimated as 29000 units for the period 2007-2011, being the financing demand for conversions as US$ 29 million.
Processes Involved

Certification Boards
Registration at Shops
Registration of Vehicles Converted
Control and Safety of Conversions
Customer Service
Design and Construction of Service Stations
Conversions Financing
Intelligent Load Systems
The Conversion Process

Shop

Conversion Certification

Information on Conversions and Revisions

Service Station

Vehicles Approved and Disapproved for Loading Gas

Daily Sales and Revenues

Administrator of Intelligent Load System

Updates on Payments and Delays

Banks

Chip Verification and Natural Gas Supply
COFIGAS for Vehicles in Perú

Conditions:
Finances 100% of project
Rate interest according to market
Payment through INFOGAS (Intelligent Load)
Partial warranties
For More Information:

Johnny Nahui Ortiz, Ph.D., C.E.M.
Senior Energy Consultant at CENERGIA
Center for Energy Conservation and the Environment
Derain Street 198, Lima 41-Perú
Email: jnahui@cenergia.org.pe
Web Site: www.cenergia.org.pe (Spanish / English)

Thank you!