

The International Association for Natural Gas Vehicles presents

# NGV2008

## 11th IANGV CONFERENCE & EXHIBITION

Sponsored and hosted by *Instituto Brasileiro de Petróleo*, the Brazilian Petroleum Institute

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### Bosch Roars into Dual Fuel

The heavy-duty dual-fuel sector looks set to change with auto parts giant Robert Bosch making a serious entrance into the market here in Rio this week. After a low-key two year development period, using technology originally developed by DieselGas in New Zealand, Bosch has released an aftermarket conversion kit, promising diesel substitution rates of 90%.

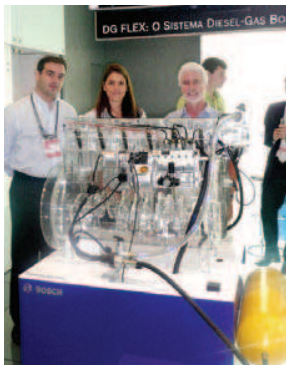
Conditions in Brazil are ideal both for the development and release of the kit,

says Robson Carlos Marzochi, the local marketing manager for Bosch. "Natural gas for vehicles is well understood already, and the economics are favorable for fleet operators to convert," he told NGV2008 in Rio.

#### 18-Month Payback Seen

Depending on duty cycles, Marzochi estimates that the Bosch kit, fully fitted with four CNG cylinders for around R\$30,000 (approximately \$18,000 U.S.), has a payback period of around 18 months for a typical bus or truck fleet operator.

Engine families compatible with the system currently include VW MWM and Mercedes-Benz OM series engines with more expected to be added in the near future.



Bosch sales chief Robson Carlos Marzochi and Bosch engineer Martha Mello Canelada with Harvey Reid of DieselGas

Development engineer Martha Mello Canelada said a dedicated development team of up to 30 engineers has worked on perfecting the system over the past two years. As well as producing expected economic benefits, the system also delivers air quality benefits, reducing particulates by 75%.

Brazil is just the beginning for Bosch in the dual-fuel market, with development work already under way in Asia and other markets. Initially focusing on Euro II mechanical engines, the company also has its eyes set on electronic and lower emission engines.

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### 65 Million NGVs by 2020

IANGV president John Lyon (he also heads FuelMaker) tells how a confluence of factors makes him confident that strong NGVs growth will continue.

Other industry veterans share his point of view. *Pages 2-3*

### Micro Motion in China

Emerson invests \$30 million in factory for Coriolis flow meters for Asia-Pacific CNG dispensers.

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### Big Ones on the Calendar

Major NGV meetings are planned for Italy and California this autumn and Asia in 2009 (Madrid too), and NGV2010 will be held in Rome. *Page 4*



Carros das Polícias em Rio – It's a big town but you might get lucky and see one.

The police in Rio de Janeiro have taken delivery of some 700 Volkswagen Gol.6 cars converted to natural gas-gasoline bi-fuel operation.

White Martins (Booth C12), a unit of Praxair, supplied BRC conversion kits and Cilbrás Type I fuel cylinders for the Rio police cars.