



VOICES :: *By Andrew J. Littlefair*

NATURAL GAS: THE CLEANER, CHEAPER DOMESTIC ALTERNATIVE FUEL CHOICE

The natural gas vehicle industry has come a long way since Clean Energy was founded 11 years ago. We started the company with the notion that natural gas could and would become an important alternative fuel for transportation. Progress toward achieving this goal has been dramatic and is accelerating. The growth in deployment of natural gas vehicles (NGVs) worldwide has been explosive, topping 8.2 million vehicles today throughout Europe, the Middle East, South America, and Asia, up from 5 million just a year ago. Over 25 OEM consumer NGVs are made in Europe.

In the United States, the current transition of heavy-duty vehicles from diesel to natural gas fuel has been the single most important trend.

The original impetus for this transition was growing public pressure to improve air quality by reducing harmful vehicle emissions. From the beginning, natural gas had a clear environmental edge. It was far cleaner than gasoline or diesel. Over time, the 'clean air' gap has narrowed as the EPA tightened emissions standards for all heavy-duty vehicles – diesel and natural gas-powered alike. However, natural gas engine technology remains three years ahead of diesel as the Cummins ISL-G engine met (or 'certified to') the EPA's most stringent 2010 heavy-duty standard in 2007, making this engine six times cleaner than the cleanest diesel.

More recently, mounting pressure from government at all levels to reduce greenhouse gas emissions by using low-carbon fuels has been a key driver for change in the transportation sector. Natural gas significantly exceeds diesel's performance in this category and can reduce greenhouse gases by up to 30 percent according to the California Energy Commission.

Now we have heavy-duty natural gas-fueled Class 8 trucks coming off the assembly lines of major manufacturers. These trucks are being deployed at the huge container Ports of Los Angeles and Long Beach, where up to 8,000 trucks are set, within the next five years, to replace dirty diesel trucks for goods movement. And the ports just begin to indicate the impact on regional trucking, which is seeking to control costs while driving 'green.'

The cost of heavy-duty NGVs is coming down as production expands and technology improves. They now are approaching the cost of diesel vehicles, which are actually increasing in price as manufacturers struggle to comply with 2010 EPA standards. Most important is the widening gap between the price of diesel and gasoline, and the price of natural gas.

In Southern California on July 4th – what should be Independence Day from Foreign Oil – the average cost per gallon for CNG at public access stations was \$3.20. And the price for fleet operators with fuel contracts was even less. On the same day, regular gasoline was selling for \$4.60 per gallon and diesel for \$5.00 per gallon.

As the price of gasoline and diesel continues to rise, all of us face a serious economic burden – from individuals fueling at the pump to commercial fleets in the refuse, transit, and goods movement trucking sectors. There's an added impact on consumers who must pay more for food and other products because skyrocketing transportation fuel costs are included in the selling price.

All these factors combine to create a burgeoning interest in natural gas fuel, all across the country and the world. Representatives of the refuse, transit, and trucking sectors are contacting Clean Energy with increasing frequency, asking us how switching to natural gas fuel can reduce their operating costs and help them comply with environmental quality mandates.

At Clean Energy, we have never seen such a surge in demand. And we remain committed, as we were at the outset, to provide natural gas fuel for transportation – because it has genuinely proven to be the cleaner, cheaper, domestic alternative fuel choice.

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— *Andrew J. Littlefair is President and Chief Executive Officer of Clean Energy, www.cleanenergyfuels.com*