

Europe's struggling NGV industry calls for increased political support

Last September, Ford-owned Volvo Car Corporation (VCC) announced that it will discontinue its production of natural gas vehicles (NGVs) after 2007. It is a blow for an industry still in its infancy, and a sign that NGVs are not as popular as environmentalists might like. NGVs are clean, efficient and cheap, so why are they struggling to get off the ground? And why is the European NGV industry so small compared to other parts of the globe? Industry specialists say they need government support, help from the car industry, and for customers to take the leap to a different technology.

Awards and cuts

Explaining VCC's decision to cut the production line of its NGVs, a company spokesman told Gas Matters: "The gas station infrastructure is not good enough and for this reason, and others, our customers are not choosing NGVs." The 'other reasons' are purely economic. "Since 1995 we have not been successful in NGVs. For our investment in NGVs to make

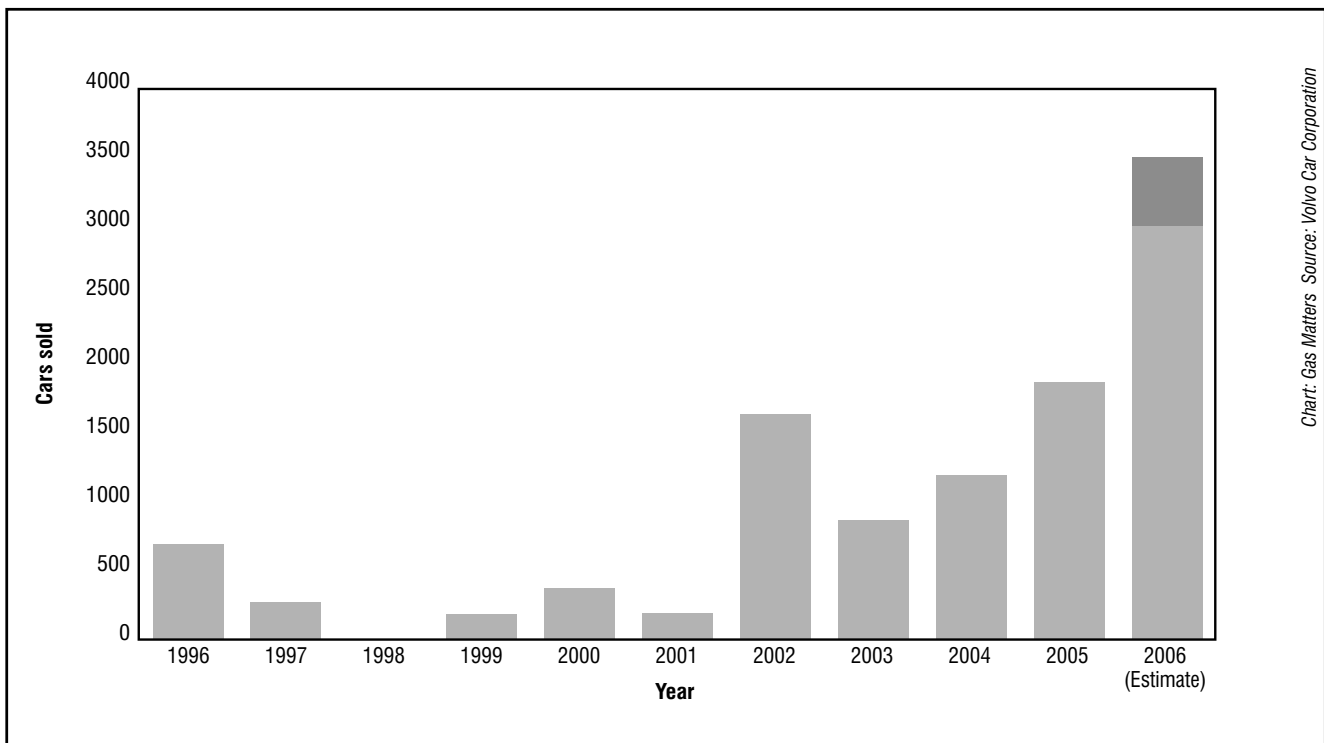
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a profit, we would have to sell between 12,000 and 15,000 such vehicles. Last year we sold about 3,500." It was a gloomy announcement for Sweden, one of Europe's NGV forerunners, and a strange one from a company that has led the push towards NGV technology for many years. When VCC released its new multi fuel concept car in Paris last year, it won a 4 star award.

Industry reaction

The NGV industry in Sweden and abroad reacted badly to the decision. Peter Boisen, chairman of the European NGV Association (ENGVA), and a former Volvo executive responsible for launching VCC's current NGV programme in 2001, told Gas Matters: "VCC claimed that there was too little profitability and this was caused by low sales volumes. There has been a lot of debate about this and people find it strange because sales have really taken off, particularly in this last year." Figures provided by VCC show that sales of its Bi-fuel vehicles have indeed increased significantly in the last few years. In 2001 just 194 cars were sold. In 2004, sales had risen to 1192, 1869 in 2005 and 3500 in 2006 (*see table page 20*). Of all the VCC S60 cars sold this year in Sweden, 14% were bi-fuel compressed natural gas (CNG) cars. They also represented 8% of all V70 car sales, more than three times higher than in 2005. More than 6% of all VCC cars sold in Sweden

VCC CNG car sales in Sweden from 1996-2006



this year are bi-fuel CNG cars. Two taxi companies in Stockholm are considering suing Volvo because they fear that the NGVs they bought will now have a depreciated second hand value. They may not win, but the case will no doubt stoke the fires of discontent.

Financing

Moreover, Boisen reckons financing a new NGV program for VCC would be easy. "I know how much it would cost VCC to renew the offer and I know we are talking

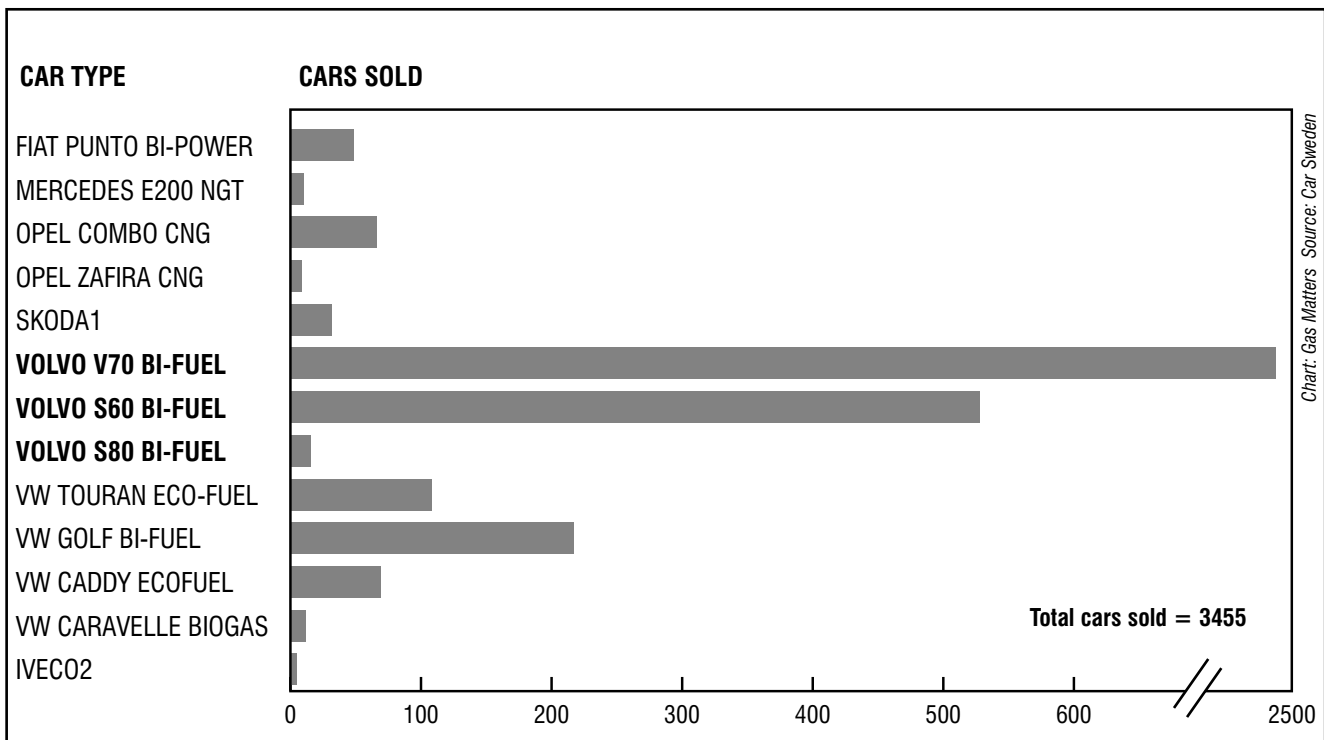
Two taxi companies in Stockholm are considering suing Volvo Car Corporation because they fear that the NGVs they bought will now have a depreciated second hand value

peanuts," said Boisen. "In 2001 VCC was saying that the product development cost for six new bi-fuel car models was in the order of €30 million. Now we are talking about extending the offer of two out of these six models. If you sell 1000 cars annually over a seven year period, €30 million is a lot of money, but if you sell up to 10,000 cars/year, then it is no longer a significant amount."

Decision makers

Though the decision was made by VCC, the rank and file of the company seem equally disgruntled. In a phone survey carried out in November on Volvo dealers in Sweden, more said they were unhappy with the decision than those who said they welcomed it. The question then arises as to why the decision was taken. Sceptics look across the Atlantic to VCC's parent company, Ford, which halted production of its own line of NGVs in 2005. "Many in Sweden feel that Ford is milking VCC," said Boisen, "And have only a small understanding of the efforts to promote the use of environmentally sound options, options

Breakdown of CNG car sales in Sweden in 2006



that would reduce oil dependence.” VCC responded by telling Gas Matters: “It’s Volvo who makes its own decisions, we manage our own business.”

Alternative fuels

Not everyone believes this to be true though. Maud Olofsson, Sweden’s energy minister, travelled to the US this month to discuss the matter with Ford. As Gas Matters went to press, Olofsson was still in Detroit, although a spokesman did tell Gas Matters: “In the end it is a decision from Ford. She [Olofsson] brought it up [with Ford] but they are doing a lot with other alternative fuel sources. Gas is not one of those.”

Liquid track

So, with such a decision from VCC (or Ford) what are the implications for the NGV industry in Europe? And why would Ford cut blossoming sales figures? Dr. Jeff Seisler, the executive director of ENGVVA, believes the car and oil companies are resistant to

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change because it would cause too disruptive a change in fuel policy for transport. “It is because the car and oil industries are on a liquid track,” Seisler said. “They have been selling liquids for all their existence. They are comfortable with them. Liquids are easy to carry around. The car manufacturers have built their industry around them.” Boisen echoed the sentiment: “A lot of American car companies are facing severe financial problems, but

they are taking the wrong way out. Instead of meeting the competition from Japan, Korea and Europe with new and more CO₂-efficient concepts, they are trying to protect the old style, conventional vehicle for as long as possible. This is not very clever.” If the oil and car industries are against promoting NGVs, then those trying to promote them are facing an uphill struggle.

Political support

The key, say both Seisler and Boisen, is political support. There is a direct correlation between countries with a high use of NGVs and those whose governments support NGV initiatives. In Sweden, Germany and Italy government initiatives have aided the growth of NGVs. Grants and government subsidies on fuel make natural gas a viable alternative. In the UK, one of the only countries in Europe whose buses do not run on natural gas, the tax paid by buses run on diesel is reimbursed at the end of each year, effectively promoting a less environmentally friendly fuel. The number of NGVs in the UK is negligible, with only 31 refuelling stations and a government with no specific policy. John Baldwin, director of the UK-based NGV Association, said: “In the UK it’s easy to use diesel, easy to use petrol, because the infrastructure already exists. You need

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tax breaks to fund the initial CNG infrastructure. If companies are to put a lot of money into NGVs in the UK, they need low tax rates in the first 10-15 years. That has happened in Germany where the government has come together with the gas industry and car manufacturers and fixed the duty on gas at the EU minimum until 2018.” Compare the UK too, to Italy which has 543 fuelling stations, over 400,000 CNG cars and a lower tax rate that makes the natural gas price 37% of the gasoline price. In Germany, the NGV fleet rose from 35,000 at the end of 2005 to 50,000 by the end of October 2006. In Sweden, the fleet of less than 8,000 at the end of 2005 is expected to reach 12,000 by the end of 2006. “This is very strong growth,” said Boisen. “Both the Swedish and the German governments have acted in support of NGVs via incentives and infrastructure, this is a real background for the market taking off.”

European legislation

As well as national-level support, Europe-wide legislation is also important for NGV growth. The EC’s track record is not good. It has set out a target to replace 20% of petroleum use in the transport sector with alternative fuels by 2020 – 10% with natural gas, 8% with biofuels and 2% with hydrogen. There is currently a European transport directive for hydrogen and biofuels but no natural gas directive. By 2010 the EC has said that the natural gas is expected to replace 5% of petroleum consumption for transport, but has not said how.

EC Energy Report

On December 14, the European Parliament approved a revised report, put forward by Eluned Morgan MEP, which recognised the need for a natural gas directive for transport. While it is a step in the right direction, those concerned will need to consolidate the advance. “We need to make sure that the EC respects the opinion of parliament and reflects this in its future work,” said Boisen. The early signs are not encouraging. In the EC’s energy report released on January 10, there was no reflection of the December 14 vote. The EC noted that the only significant alternative fuels are biofuels, liquids and biodiesel, but failed to specify natural gas. “We intend to challenge this,” said Boisen.

Cutting emissions

Morgan is positive, telling Gas Matters: “It is clear that NGVs could play an important role in European efforts to reduce CO₂ emissions, providing an alternative to petrol-based transport as well as boosting energy efficiency and energy saving opportunities. Deliberations regarding the content of the European Parliament’s response to the EC’s green paper are continuing, but I remain supportive of efforts to promote and encourage the use of NGVs in Europe.”

South America

Whether or not NGVs in Europe will ever be as big as they are in other parts of the world is debateable. In South America – Argentina particularly – NGVs are widely used. When economic troubles hit a few years ago, petrol prices rose more sharply than those of gas and oil. Companies and customers alike turned logically to NGVs. Now Argentina has 1.45 million NGVs and 1,500 fuelling stations, more than any country in the world.

Europe’s future

Baldwin still believes NGVs will have a place in Europe. “Once the cars are on the roads in Germany, 100,000 by 2008, made by the major car manufacturers, not conversions, then sales will take off given the combination of clear environmental benefits and around 50% fuel cost saving. In Germany with low tax fixed until 2018, car makers bringing out new CNG vehicles and gas companies building infrastructure. Coupled with concern over the planet and lower gas prices (compared to oil), we have all the conditions for a “perfect storm”. Given this, it should also work in the UK because the diesel-CNG price differential is so good.” In fact natural gas wins against its competitors on a ‘well to wheel’ emissions basis. Hydrogen may burn clean, but it takes too much energy to make. Ethanol too has its troubles. The land needed to produce enough ethanol to fuel cars is too large. The majority of ethanol used in Europe comes from Brazil. If we increase imports from Brazil, there is a distinct possibility that it will have to cut into the Amazon – the biggest CO₂ sink in the world – to find enough land to produce it.

Important time

What are the chances for NGVs then? Seisler believes this is an important time for the industry. “If we’re successful with current legislation, we can turn this into a much stronger, much firmer regulated market. As long as we get the attention of the Brussels policy makers, both in the commission and at parliament. I’m optimistic, but it depends on what happens in the next year with the regulation of CO₂ emissions. If things go badly we may have to reassess our outlook.” ■