Media Information

March 3, 2009

Geneva Motor Show

Opel Zafira 1.6 CNG ecoFLEX Turbo: Performance meets economics

- Powerful: 150 hp and 210 Nm project compact van to a top speed of 200 km/h
- Eco-Friendly: A seven-seater with only 144 grams CO_2 per km
- Economical: Priced at 25,430 euros; fuel costs some five euros per 100 km

Geneva/Rüsselsheim. The days when environmental awareness and driving fun were mutually exclusive are over: For the first time, Opel has combined economical, low-emission Compressed Natural Gas propulsion with powerful turbocharger technology in the Zafira 1.6 CNG ecoFLEX Turbo.

The new Zafira 1.6 CNG ecoFLEX Turbo is now available, starting at 25,430 euros allowing Opel to ring in a new era of CNG with impressive performance. Its rated output of 150 hp and maximum torque of 210 Nm between 2 300 and 5 000 rpm ensure plenty of power in all situations. The high torque not only allows a more powerful drive, it also keeps energy consumption low in everyday use.

The seven-seater accelerates from 0 to 100 km/h in 11.5 seconds and has a top speed of 200 km/h. In the MVEG cycle, it consumes just 5.3 kg of natural gas per 100 km. This corresponds to a CO_2 emission figure of just 144 g/km – a new best-in-class in this vehicle and power category. Expressed in terms of the driver and all six passengers, this translates into just over 20 grams per seat and kilometer when the Zafira is fully loaded.

"With the development of this new natural gas turbo engine, we are consistently pursuing our strategy of turbo-charging engines to increase efficiency by extending it to powertrains using an alternative energy," says Hans Demant, Managing Director of Adam Opel. "The Zafira 1.6 CNG ecoFLEX Turbo showcases how we are constantly striving to lower

consumption on our cars, thereby emitting fewer emissions without making any concessions on performance."

Opel has been a pioneer in CNG vehicles in many European countries since 2001 with its unique monovalent^{Plus} concept, optimizing the engine for both natural gas and gasoline operation and thus offering full practicability for day-to-day use.

Dynamic van with outstanding cost efficiency and unrestricted variability

The new 1.6-liter CNG turbocharged engine comes standard with a six-speed manual transmission and joins the current 1.6-liter 94 hp CNG naturally aspirated unit. It will make natural gas propulsion attractive to a number of new target groups. With its truly excellent driving performance, the Zafira CNG ecoFLEX Turbo is an ideal vehicle for buyers looking for a comfortable and nippy traveler, for individual buyers as well as taxi and commercial fleets.

The 1.6-liter turbo engine is designed to run on either natural gas, biomethane or any mixture of the two. In natural gas mode alone, the range is up to 400 km, while the 14-liter reserve gasoline tank gives an additional range of 150 km for maximum flexibility. In Germany the navigation system can pinpoint all the CNG filling stations in the area.

The new Zafira CNG ecoFLEX Turbo is easy on the pocket, too. It has an average fuel consumption of around 5.3 kg of natural gas per 100 kilometers. In Germany, the entry-level price of the CNG turbo costs 780 euros less than the 1.9 CDTi variant with equivalent output. Because 1 kg of natural gas has roughly the same amount of energy as 1.5 liters of petrol, cars running on natural gas are potentially more efficient than those using conventional gasoline. Finally, CNG is cheaper than diesel or gasoline, making normal running costs lower on natural gas vehicles.

CNG prices remained fairly constant due to government taxation regulations. Those tax policies on the fuel are set to stay in place at least until 2018 in some European countries. Tax and insurance ratings on the car are at the same level as those of a comparable gasoline variant. The 150 hp natural gas van also has a clear environmental advantage. By virtue of its propulsion unit, it produces approximately 70 percent less nitrogen oxide than a

diesel, and almost 25 percent less CO_2 than a gasoline model (nearly 13 percent less CO_2 than diesel). What is more, the exhaust gases contain almost no soot particles.

Thanks to the intelligently designed underfloor arrangement of the four gas tanks around the rear axle, the Zafira's interior remains flexible and spacious. Like its sister models, the 1.6 CNG Turbo boasts the Flex7 seating system, enabling the interior to be converted quickly from a seven-seater to a two-seater without any complicated procedure of removing the seats.

With a loading volume of 645 liters (standard seat layout) and a maximum of 1,820 liters, the gas-propelled Zafira offers the largest luggage space of any seven-seater compact van.

Modern turbocharged engine with intelligent lightweight construction

The new engine propelling the Zafira 1.6 CNG ecoFLEX Turbo is provided with special pistons, valves and valve seats, plus separate injection systems for natural gas and gasoline. The engine management system has been optimized for natural gas. Like the 1.6 and 1.8-liter naturally aspirated ECOTEC engines, the 1.6-liter turbo engine belongs to the further developed third generation of Opel's Family 1 engine series, characterized by their 86-millimeter cylinder spacing. A trademark of this modern engine generation is its clever lightweight design. The engineers lowered the weight of the engine block alone by 20 percent compared to its predecessor, achieving greater rigidity and structural stability at the same time. Including its aluminum-bearing cap, the gray cast iron block weighs only 27 kg. In addition, this choice of material eliminates the need for complex and weighty noise-reduction measures in the engine periphery.

The cylinder head, oil pan and turbo-specific induction pipe with side-mounted throttle valve in the 1.6-liter turbo engine are, however, made of aluminum. Opel's typical method of integrating the turbocharger housing in the cast exhaust manifold is ideal in terms of both quick response and weight reduction. The turbocharger itself is water-cooled and was developed by Opel in cooperation with the specialist BorgWarner turbo systems. It is noted for its optimized flow geometry, improved materials and even longer service life. At an exceptionally light 131 kg, the high-performance unit weighs only 15 kg more than the

naturally aspirated (N/A) version. Other new turbocharged engines on the market in this displacement class are up to 15 kg heavier.

High-level safety

The Zafira CNG ecoFLEX Turbo safety features include a high-strength steel gas tanks and stainless steel gas pipes which are securely located outside the impact zone. German automobile club ADAC has long confirmed its safety in a crash test made after the first Zafira CNG was launched.

Results clearly showed that the risk of fire with natural gas vehicles is no higher than normal mainly because natural gas is less flammable than gasoline or diesel. In the highly unlikely event of a leak, gas dissipates immediately. This means CNG vehicles can be parked in any underground garage.

Like all Zafiras, the 1.6 CNG ecoFLEX Turbo also features the SAFETEC safety system that earned the new Zafira the maximum rating of five stars for passenger protection in the crash tests European New Car Assessment Program, called EuroNCAP.

Contacts:

Jean-Philippe Kempf
+49 (0)6142 766651 (office)
+49 (0)160 906 08956 (mobile)
Jean-Philippe.Kempf@de.gm.com

Text and photos can be downloaded from the Internet at http://media.opel.com