



FOR IMMEDIATE RELEASE

Westport Fuel Systems Makes Diesel Trucks Climate Neutral With Hydrogen

*The experts for fuel transportation technologies are showcasing their solutions
at the "Hydrogen + Fuel Cells Europe" trade show in Hanover*

VANCOUVER, BC (04-17, 2023) – Westport Fuel Systems Inc. (TSX: **WPRT** / Nasdaq: **WPRT**), a global leader in low-emissions alternative fuel transportation technologies, enables diesel engines to run on green hydrogen as standard. The CO₂ emissions of heavy commercial vehicles can thus be reduced to almost zero in the short term and economically – without compromising on performance, safety and reliability.

In September 2022, Westport presented its H₂ HPDI fuel system at the IAA Transportation in Hanover. Following its successful appearance at the leading trade fair for the commercial vehicle industry, Westport is now returning to Germany: the company will showcase its hydrogen solutions for heavy-duty commercial vehicles at "Hydrogen + Fuel Cells Europe", a special platform of the Hanover industry trade show, from 17 to 21 April.

"The demonstration of our H₂ HPDI fuel system is a milestone. Vehicle manufacturers around the world are realising that there are many paths to the goal of significantly reducing emissions," says David Johnson, CEO of Westport.

In many countries and regions around the world, the debate on a clean transport sector is gaining momentum. In February this year, the EU Commission presented its ambitious CO₂ reduction targets: By 2040, new trucks and buses in the European Union should emit 90% less CO₂ than in 2019. In doing so, the Commission emphasises that manufacturers of heavy-duty vehicles can use various technologies to achieve the emission targets – such as electrification, hydrogen fuel cells or hydrogen in vehicles with combustion engines.

Green hydrogen as a CO₂-neutral energy carrier for internal combustion engines – this concept is increasingly receiving more and more attention in the global commercial

vehicle industry, alongside electric powertrains and battery-powered vehicles with fuel cells. A technology such as Westport's H₂ HPDI fuel system offers decisive advantages over other concepts:

- Nearly no CO₂ emissions throughout the entire process chain
- Up to 20% more power, 15% more torque and 10% higher efficiency than diesel fuel
- Linkage to proven diesel engine technology, therefore rapid scaling and market introduction are possible
- Commonality with existing production facilities

Westport's expertise in alternative fuel systems has grown steadily over the past 30 years. The nucleus of today's globally active supplier, which produces tanks, injection systems and control modules among other components, was a spin-off from the University of British Columbia in Vancouver. Research engineers and students succeeded in significantly reducing the NO_x and CO₂ emissions of diesel engines in heavy commercial vehicles without limiting efficiency and performance. Their idea: to use only a small amount of diesel for ignition and then inject liquid gas under high pressure as fuel in continuous operation. The HPDI principle was born: High Pressure Direct Injection.

The fuel system has since been used in numerous truck and bus models with LNG and bio-LNG drives from various manufacturers. Since 2018, Westport has been working intensively on rolling out the platform for green hydrogen as well. To this end, the company has signed evaluation agreements with leading commercial vehicle manufacturers: Together, engineers are evaluating the performance, efficiency and emissions of combustion engines equipped with the hydrogen-capable high-pressure direct injection system H₂ HPDI. In autumn 2022, for example, tests with Scania's 13-Litre CBE1 platform showed a peak Thermal Efficiency of 51.5% – compared to around 35% for conventional diesel engines. Other test series show that power is 20% and torque 10% higher than the base diesel engine. A hydrogen storage unit with 80 kilograms enables a range of 800 kilometres – almost climate-neutral with green hydrogen.

"The further development of proven diesel engine concepts and the use of existing production infrastructure are prerequisites for commercial vehicle manufacturers to be able to offer efficient and cost-effective solutions for low-emission transport at short

notice. Our H₂ HPDI system is a smart solution for this," says Anders Johansson, who as Vice President at Westport is responsible for the OE-business. Despite its pioneering role with the H₂ HPDI system, the company does not rely exclusively on the use of hydrogen in combustion engines – rather, it also develops its own solutions for fuel cells and batteries in electric cars, buses, trains and forklifts.

This holistic approach includes a global ecosystem. For example, Westport will invest in an innovation centre in Changzhou, China, and establish a production site for hydrogen components. "The city of Changzhou is committed to becoming the capital of new energy industries. This makes it an ideal partner for growth," says CEO David Johnson.

In view of the European Union's Green Deal and the technological expertise for diesel engines in Germany, Johnson also sees Europe as a very important market for hydrogen applications. In addition, the German government concluded an energy partnership with Canada last year. Green hydrogen produced in Newfoundland is to be shipped to Germany as ammonia as early as 2025. Possibly by then the first climate-neutral trucks will be on the road in this country, supplied with hydrogen via an H₂ HPDI system from Westport in Vancouver.

At the "Hydrogen + Fuel Cells Europe" trade show in Hanover, you can already take a look at the future of climate-friendly transport. Visit us in hall 13 at stand D44!

"Hydrogen + Fuel Cells Europe" is the special platform for hydrogen applications within the Hannover industry trade show 2023 from 17 to 21 April. More than 300 exhibitors from 25 countries are expected to attend.

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Further information about Westport Fuel Systems Inc., all of the company's media kits and other publications can be found online at <https://wfsinc.com/news>.

Materials on the HPDI fuel system can be found at <https://www.westport-hpdi.com/download-area/>.

For a video detailing the success story of Westport's HPDI fuel system, visit <https://www.youtube.com/watch?v=5biHb5G5GKo>.

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Images and Captions



The dawn of a new era: The hydrogen-powered combustion engine truck from Westport Fuel Systems in Sacramento/California in September 2022.

DSC00747.JPG



The truck pulls up at a hydrogen fuelling station in Sacramento.

DSC01250.JPG



A number of simulations have been run and a typical truck cycle will allow approximately 800-km of range.

DSC01907.JPG



Successful test: The hydrogen truck on the highway in California.

Westport Truck driving 2.JPG



On this dashboard, Westport engineers can track the performance of the H₂ HPDI fuel system in real time.

H2 HPDI Performance
Dashboard.JPG

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About Westport Fuel Systems

At Westport Fuel Systems, we are driving innovation to power a cleaner tomorrow. We are a leading supplier of advanced fuel delivery components and systems for clean, low-carbon fuels such as natural gas, renewable natural gas, propane, and hydrogen to the global transportation industry. Our technology delivers the performance and fuel efficiency required by transportation applications and the environmental benefits that address climate change and urban air quality challenges. Headquartered in Vancouver, Canada, with operations in Europe, Asia, North America, and South America, we serve our customers in more than 70 countries with leading global transportation brands. At Westport Fuel Systems, we think ahead. For more information, visit www.wfsinc.com.

Contacts:

Westport Media Relations

T: +1 947-339-8097

E: media@wfsinc.com

Westport Investor Relations

T: +1 604-718-2046

E: invest@wfsinc.com

Media Relations Germany – MT-Medien Corporate Communications

T: +49 511-228860-88

E: westport@mt-medien.com