



Testing the Power of Tomorrow.

Bus Technology and Alternative Fuel Program

For more information, visit: www.translink.bc.ca

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Baseline Diesel Bus

Standard diesel buses selected from TransLink's current fleet have been included in the test program to establish a baseline from which the other test buses will be compared. They are 40-foot buses manufactured by New Flyer in 2001. Although these buses are not the latest generation of diesel buses available on the market (which provide lower emissions), they are among the best performing diesel buses in TransLink's fleet with respect to emissions.





PHASE TWO 2006 +

Hybrid Bus: Orion Bus Company

This latest generation Orion VII hybrid model includes the HybriDrive™ series hybrid propulsion system from BAE Systems.

How does this Hybrid bus work?

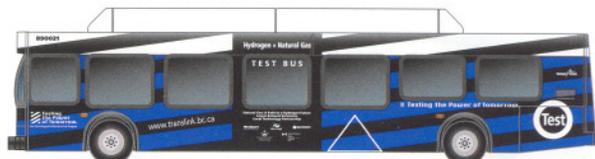
This hybrid bus is powered by an electric motor. Electricity for the motor is generated by a diesel engine and regenerative braking. This energy is stored in a battery pack.

Hydrogen + Natural Gas Bus

These 40-foot, low floor compressed natural gas (CNG) buses were introduced to the fleet in 1998. They have been retrofitted with Cummins C Gas Plus engines.

What is a Hydrogen + Natural Gas bus?

An HCNG bus uses recycled waste hydrogen that would otherwise go into the atmosphere, combined with compressed natural gas.



BAE SYSTEMS

Orion

Westport
INNOVATIONS INC.

Clean Energy

Sacré-Davey
INNOVATIONS

TRANSLINK IS EXPLORING THE WAVE OF THE FUTURE

Starting in September of 2005, we're testing and evaluating a variety of different buses that involve innovative propulsion technologies and alternative fuels. During the test program, vehicle performance, emissions, noise and other important factors will be measured. As well, customers will have a chance to ride the buses and tell us what they think through onboard surveys. Results from this program will help TransLink plan the purchase of its future bus fleet. Watch for the colourfully marked buses running on regular bus routes throughout Greater Vancouver.



Checklist:

Here are some of the features we'll be examining:



emissions and exhaust odour



engine noise



fuel economy



acceleration, braking & hill-climbing ability



capital cost



maintenance and operating costs

P H A S E O

Hybrid Bus: Allison Transmission

These 40-foot, low-floor diesel-electric hybrid buses were manufactured by New Flyer Industries in 1995 for use on the Ballard Fuel Cell Demonstration. They have been repowered with a Cummins ISB diesel engine and an Allison Transmission EP40 propulsion system.

How does this Hybrid bus work?

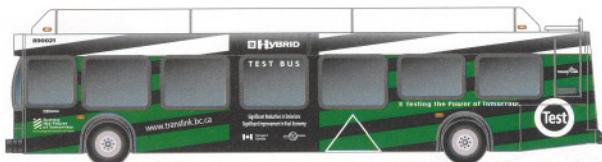
As the bus starts to roll, an electric motor provides the initial power. As speed increases, the power source transitions to the diesel engine. When operating, regenerative braking assists in maintaining the power supply.

Compressed Natural Gas Bus

These 40-foot, low-floor compressed natural gas (CNG) buses were introduced to the fleet in 1998. They have been repowered with Cummins C Gas Plus engines and continue to be powered using CNG.

What is a Compressed Natural Gas bus?

CNG-powered vehicles use natural gas – the same fuel that is used in many B.C. homes in stoves, water heaters, furnaces and clothes dryers.



The first of 228 state-of-the-art, zero-emission electric trolley buses has arrived

TransLink is already a leader in providing transit buses that offer alternatives to the traditional diesel engine. The contract for the new \$223-million electric trolley fleet is one of the largest public transit vehicle purchases in North America. The pilot trolley bus is currently on the road and the rest of the new fleet will begin arriving in August of 2006.



N E 2 0 0 5

Biodiesel Bus

These 40-foot, low-floor diesel buses were manufactured by New Flyer in 2001 and are the same as other 2001 diesel buses operating in TransLink's current fleet. The difference is that these buses are being fueled with a blend of 20% biodiesel and 80% diesel.

What is a Biodiesel bus?

Biodiesel is produced from domestic, renewable resources using vegetable oil or animal fats.

Bus with Diesel Particulate Filter

These 40-foot low-floor diesel buses were manufactured by Nova Bus in 2005 and use ultra-low sulfur diesel. These buses are also equipped with diesel particulate filters to reduce emissions.

How does a Diesel Particulate Filter work?

A diesel particulate filter is a catalytic device used to reduce particulate matter, carbon monoxide and hydrocarbon emissions.

