

# Intercity Transit Hybrid Bus Fact Sheet



## Hybrid biodiesel electric buses make up 20 percent of Intercity Transit's coach fleet.

The first hybrids for the south Puget Sound region went into service in 2010 and another seven the summer of 2012.

More hybrids will arrive in 2014 to continue replacement of the oldest buses in Intercity Transit's fleet. The vehicles with a "bubble" top operate on a planet friendly mix of biodiesel, ultra-low sulfur diesel, and electricity.

### What are the benefits of hybrid buses?

Hybrid buses:

- Significantly reduce emissions that cause smog, greenhouse gases, and public health issues
- Reduce fuel consumption about 33%
- Require less maintenance
- Reduce diesel exhaust odor, vehicle noise
- Have same operating reliability as traditional propulsion engine buses

### How does the hybrid bus work?

- Diesel-electric hybrid buses use both electricity and diesel, the same concept as hybrid automobiles.
- Bus batteries store energy and recharge when the bus decelerates. When demand for power exceeds battery capacity, the diesel engine provides extra energy.
- The stored electricity is used for a cleaner and smoother propulsion.
- A computer controls the output of the two power sources, diesel and electricity, so the buses always use the most efficient source.

### Why is the agency using hybrid buses?

Intercity Transit was an early leader in the use of biodiesel and conservation efforts. The agency has been widely recognized for its long history of sustainable practices, including becoming the first transit system in the nation to receive a gold rating by the American Public Transportation Association in 2012.

Procurement of these vehicles is feasible with significant federal funding awards to Intercity Transit thanks to the support of its congressional delegation.

### How are these buses paid for?

Most of the cost of the hybrids are covered with federal funding. Over the years this has included ARRA stimulus funds as well as State of Good Repair, Clean Fuels, and discretionary grant funds.

### What do hybrid buses cost?

Each bus cost about \$600,000 (including tax).



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## **How do the new buses fit with Intercity Transit's fleet?**

The hybrid vehicles look, operate, and are maintained largely the same as all other coaches in the Intercity Transit fleet. The agency utilizes an extended lifecycle maintenance program to maximize vehicle longevity.

## **What is the history of hybrid buses?**

In 2004, several transit agencies within the region, including Intercity Transit, tested a diesel-electric hybrid bus for 18 months in a variety of driving conditions. These Puget Sound transit agencies evaluated the test bus on its operating system, fuel consumption, operational feasibility, customer and driver acceptance, and emission level reductions. Hybrid buses are now in operation at many transit systems in Washington State and throughout the nation.

## **Hybrid Bus Quick Facts:**

- Buses are 40 feet long; 11 feet high; 8.5 feet wide; weigh 30,800 pounds.
- Buses have a life cycle of 14-16 years.
- Each bus seats 37 passengers and accommodates additional standing passengers.
- Buses have GPS activated audio and visual stop announcements, air conditioning, reading lights, little road noise, built-in safety features, and exterior bike racks.
- Buses are accessible, low-floor models which accommodate easy boarding and have two wheelchair positions.
- Each bus has a fuel capacity of 112 US gallons.
- The fuel cost savings per bus is approximately \$142,000 over the life of the vehicle. We anticipate maintenance cost savings, as well.
- Buses are manufactured by Gillig located in the San Francisco Bay Area, which has numerous subcontractors based here in Washington State.

## **Contact Us**

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