Hydrogen + Heritage

BCER 1304 at Sullivan, Surrey, Metro Vancouver, BC. Canada
Our Goals

The Fraser Valley Heritage Rail Society’s goals have two distinct themes:

GET CARS <> FIX CARS <> OPERATE CARS

&

Be the first in North America to operate a hydrogen powered passenger service
The BC Electric Rail Line in the Fraser Valley

1910 to 1950
The original catenary system delivered 600V DC to the four 75hp motors (one per axle). This is no longer permitted.

Other options:

**Diesel**: Cheap, dirty, not authentic...not preferred but used on the first heritage car, BCER1225.

**Hydrogen Fuel Cells and Battery Hybrid**: Expensive and regulatory burden could be heavy. This is our preferred option for the 2nd car, BCER1304.
The Current Configuration

Restored 1913 St Louis railcar BCER 1225 and “disguised” diesel donkey (250kw) at Cloverdale
The Baggage Car as a Power Car

To utilize the large space inside the baggage car to house a power generator set and fuel system. This will provide the 600DC required to drive the 2 electric motors on each truck.
The Vancouver region has an established hydrogen infrastructure that is being “showcased” during the Vancouver/Whistler 2010 Winter Olympic Games.

Both Ballard and Cummins/Westport are located in Metro Vancouver and are able to meet the requirements for a price!

Sacre-Davey’s integrated Waste Hydrogen Utilization Program (iWHUP) produces fuel cell grade hydrogen in North Vancouver.

The rail line runs alongside a hydrogen refuelling station at BC Hydro’s Powertech facility in Surrey.
Operating the Restored Railcar
The City of Surrey is a great supporter of the Fraser Valley Heritage Rail Society and continues to place great value in the project. Local businesses have also been active supporters particularly with “in kind” donations of time, expertise and materials.
Useful Links

Fraser Valley Heritage Rail Society
• www.fvhrs.org

City of Surrey, BC
• www.surrey.ca

British Columbia Hydrogen Highway
• www.hydrogenhighway.ca