Livable Communities: Shaping Land Use with High Quality Bus Service

Past, Present, and Future of Electric Trolley Buses in the United States

Rail~Volution
October 19, 2010
Past

Present

Future
What the heck is an electric trolley bus?
History
Meanwhile, in Europe...
Nancy, France guided trolley bus
Lyon, France articulated trolley bus
## ETB pros & cons

**Pros**

- Zero local air pollution
- Quietest vehicle available
- Performs well on hills
- Qualifies for FTA fixed-guideway funding
- Very low GHG

**Cons**

- Higher capital cost than diesel bus
- Less permanence than rail
- Depends on street quality for smooth ride
- Few systems in North America
Noise

* Translink Fleet Assessment Report, 2000, Sarasota County Area Transit, 2009
Bus life-cycle CO2 emissions by bus type

* Metro Transit Performance Audit, 2009
The implementation of an emissions control device does not change the energy or GHG performance of motorcycles significantly. Modal GHG performance is shown in Figure 2.

Figure 2 – Summary Modal GHG Emissions in g CO₂e/PMT
Blends into the Landscape
Or becomes part of the Streetscape
Opportunities abound...
Lower percentage of people driving
Bus Rapid Transit Toolkit

Without Bus Bulb - Bus Pulls Over, Must Wait For Traffic Before Moving

With Bus Bulb - Bus Stops In Lane, Vehicles Stop And Wait For Bus

Signal Gives Bus A Head Start Before Vehicles Go

Bus Queue Jump

Bus Communicates With Traffic Signal To Extend Green Light

Business Access And Transit Only (BAT) Lane

Right Lane Is For Bus Only Except For Right Turns And Business Access

City of Seattle
Quito, Ecuador
Moving forward