

January 10, 2011

Memo to Sound Transit

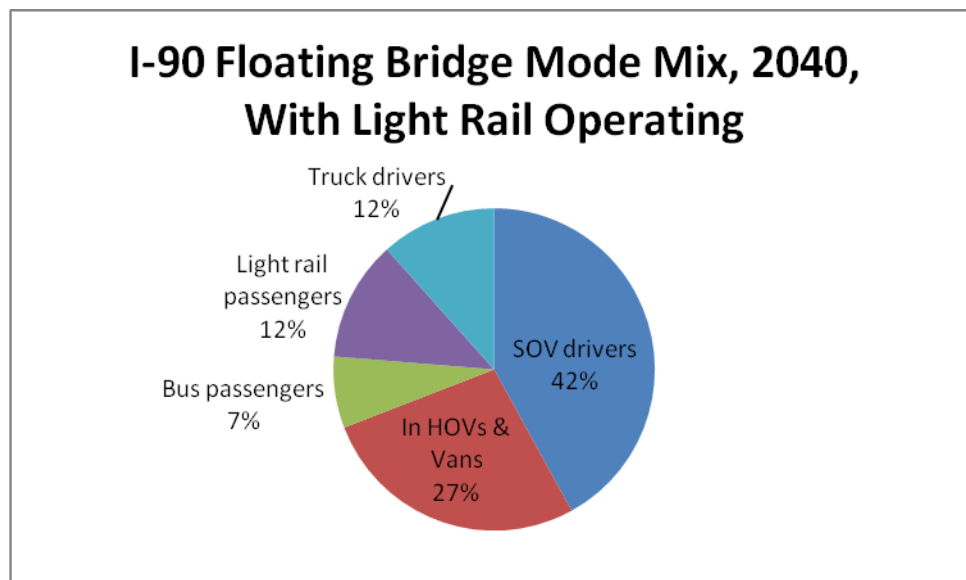
In re: Comments Requested on Supplemental Draft EIS for East Link

Thank you for the opportunity to comment.

In this comment CETA reiterates and amends its comment letter of February 25, 2009, demanding that the East Link EIS document include a no-build alternative that analyzes an express bus transit system with a ridership forecast equivalent to (or even greater than) the forecast for the proposed light rail. Amended specific demands for the Final EIS are underlined.

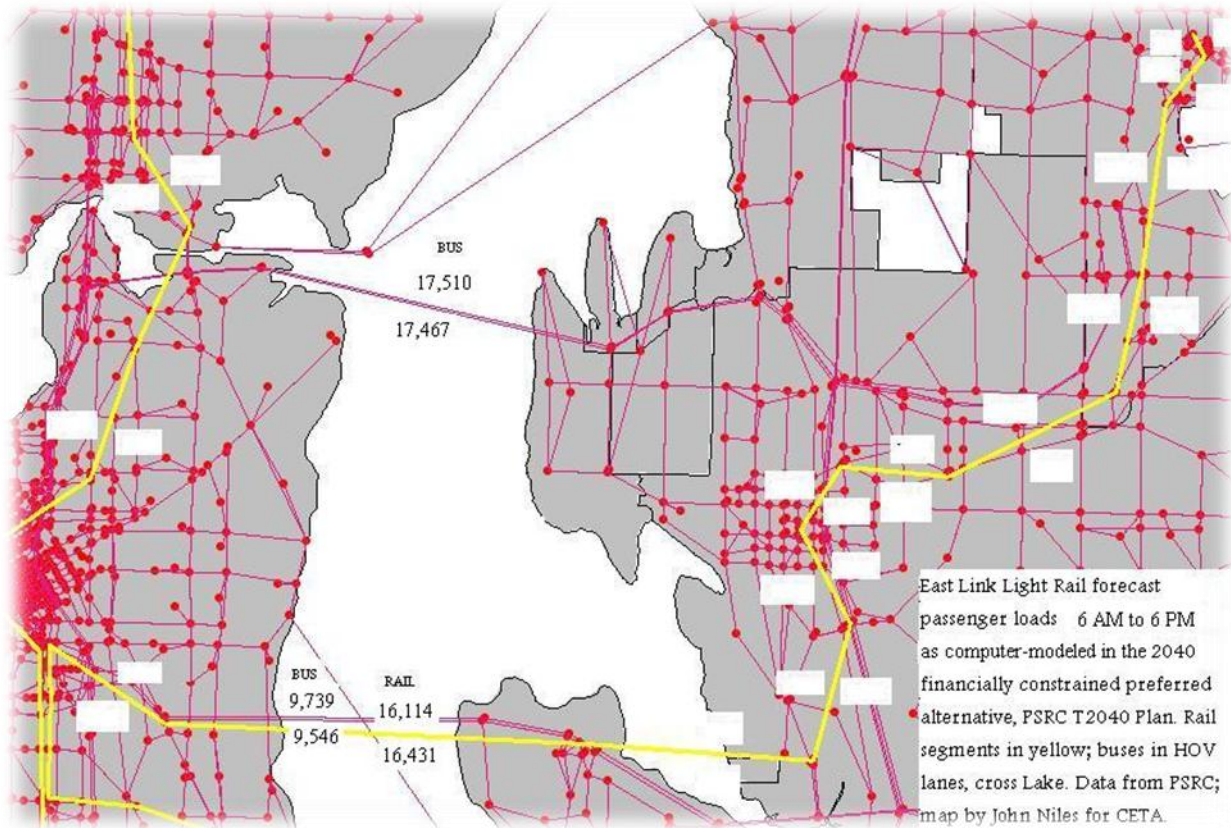
We offer the following additional, new evidence that an express bus alternative is feasible and critically important:

1. New evidence of East Link performance in the future is provided in modeling for the Puget Sound Regional Council's Transportation 2040 Metropolitan Transportation Plan approved on May 20, 2010. The plan encompasses modeling of the region's 2040 transportation network, including full build out of Sound Transit's long range light rail plan. With PSRC's data, provided cooperatively to us in disaggregated form, we at CETA developed the following graphic portrayal of mode split on a modeled 2040 weekday for the all-day, two-way volume of travelers forecast to be crossing the I-90 floating bridge segment between Mercer Island and City of Seattle, including both the light rail tracks and the remaining motor roadways:



This graphic illustrates that East Link light rail on the I-90 cross-Lake segment yields a relatively small, marginal fraction of the mode mix. Billions of dollars in construction provide a remarkably small 12% mode share for light rail travelers on the I-90 Bridge. The vast majority of travelers in this segment of the East Link corridor – 88% -- will continue to move in road vehicles, even with light rail in place, according to the Metropolitan Transportation Plan for central Puget Sound region. Furthermore, the

PSRC model reveals very strong bus transit performance both cross-Lake and in the region generally. Over both Lake Washington bridges, bus transit is forecast by PSRC to carry 63% of the daily weekday transit load in 2040, even with a complete light rail network available. The all-day bus and light rail ridership forecast for 2040 is illustrated in the following graphic:

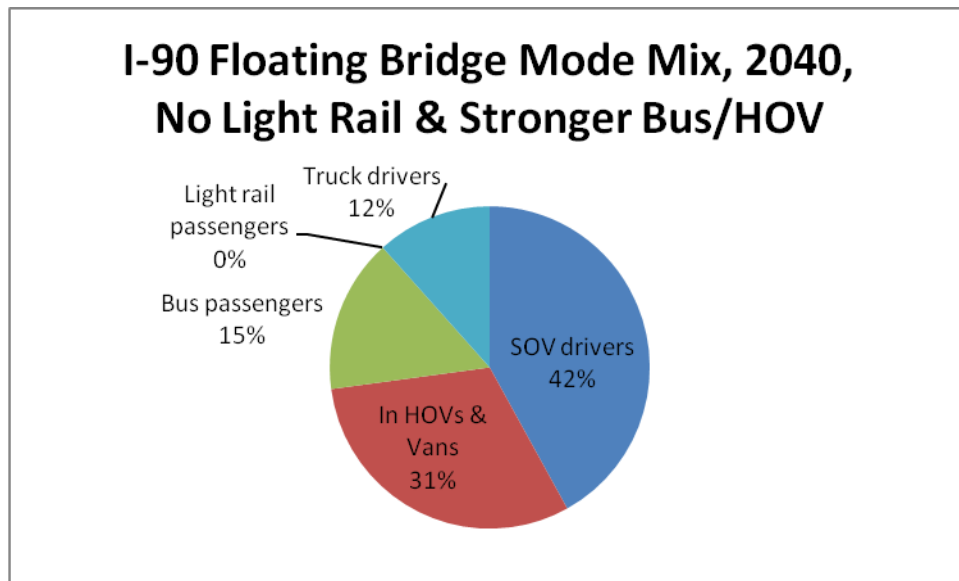


The assumptions made by Sound Transit in the East Link draft EIS about the performance of its own, very weak No-Build alternative come out to only 10,000 fewer transit boardings per day for all of the region in 2030. This forecast result obtains with all present bus routes continued and East Link light rail not implemented. In other words, a poor, no-build, minor-bus-improvement alternative comes close to meeting the transit volume of light rail.

When resources are limited, common sense dictates pushing the bus system harder to see what it can do. That's what CETA wants to see revealed in the Final EIS.

As documented in our previous comment letter that the rail passenger volume forecast for 2040 could be alternatively achieved with bus service enhancements and rideshare incentives, CETA contends that a No-Build all-bus/HOV alternative could be specified to yield the mode split shown in the following graphic. The SOV and truck mode shares do not change, and light rail passengers are absorbed in buses and private HOVs. The mode mix illustrated below for one of the East Link segments with a transit ridership equivalent to the preferred East Link alternative could be reasonably achieved by operating the I-90 center roadway in 2040 as an additional two-way HOV lane for buses and qualified vans. This alternative would avoid the costs of light rail construction on this segment and all other segments.

CETA is demanding that a strong all-bus, no-build transit alternative be evaluated with a transit ridership forecast equivalent to or greater than that for light rail, as illustrated here for the I-90 segment:



And there's more:

2. In ramping up to its Greenhouse Gases (GHG) Endangerment Finding of December 7, 2009 -- <http://www.epa.gov/climatechange/endangerment.html> -- the Environmental Protection Agency provided additional information that makes analyzing a strong No Build alternative more important than ever before. CETA invites Sound Transit's attention to the following words on page ES-2 of EPA's *Technical Support Document* (April 17, 2009) for Endangerment and Cause or Contribute Findings for Greenhouse Gases under the Clean Air Act:

"Greenhouse gases, once emitted, can remain in the atmosphere for decades to centuries, meaning that 1) their concentrations become well-mixed throughout the global atmosphere regardless of emission origin, and 2) their effects on climate are long lasting."

It's very important to emphasize that the impact of GHG emissions are cumulative. This characteristic must influence the choices to be made in the development of transportation improvements in the U.S.A. Simply building a railroad emits a lot of carbon, so the carbon-reducing effects of the completed railroad in operation must be extraordinary and long-lasting. That's not likely to be the case with East Link Light Rail.

The cumulative impact of GHG emissions makes life cycle analysis of East Link very important. GHG emissions are cumulative starting from the beginning of work on light rail construction. A useful educational presentation on life cycle analysis of transportation choices is offered by the University of California at <http://www.sustainable-transportation.com>.

The Draft Environmental Impact Statement (DEIS) for the Sound Transit East Link Light Rail Project provides data supporting a cursory accounting of cumulative GHG emissions from construction. We take energy consumption from light rail construction as a proxy for GHG emissions. As stated in the DEIS, the energy to construct this new light rail segment is 6 to 9 *trillion* BTU total over a period of a

decade. After the segment is constructed and in operation in the early 2020s, the reduction in BTU consumption because of people who are forecast to ride the train instead of drive cars is 1.5 *million* BTUs per day. *Trillions consumed in total to build it, but mere hundreds of millions saved annually.* A thousand million is a billion, and a thousand billion is a trillion. Under a range of assumptions and some arithmetic, the DEIS is implying that somewhere between 14 and 22 years of future light rail operation would be required to save an amount of energy in the long run equivalent to the construction energy consumed in the short term.

Because GHG emissions from energy consumption are cumulative, and because cars, trucks, and buses are likely over the next decade to reduce their carbon emissions through electrification of power via batteries and fuel cells, the East Link train if constructed is likely to add to cumulative GHG in the global atmosphere, despite the rhetorical claims of project proponents.

The DEIS energy calculations for comparative savings from train patronage replacing automobile trips are likely wrong because of recently emerging trends in motor vehicle improvement. The energy consumption and GHG emissions of East Link light rail during construction are likely never to be compensated by the energy saved and GHG emissions reduced from East Link light rail operation and patronage. This likelihood needs to be assessed in the Final EIS. The express bus alternative demanded by CETA, requiring far less construction, should be analyzed in the same manner.

The nature of cumulative GHG emissions, plus the argument above that the incremental improvement of light rail to transit market share can be achieved through a No Build alternative incorporating strong utilization of bus and HOV modes, together underline CETA's demand that a stronger No Build alternative be included in the environmental analysis.

Although regional agencies may not have adopted a policy, developed a plan, or identified funding for a high-performance express bus service as a substitute for light rail in the I-90 East-West corridor, this kind of no-build alternative is clearly feasible to implement along the lines of existing Sound Transit Regional Express and Metro RapidRide services. There is a published Record of Decision for a related north-south express bus service along I-405. The funding for a strong No-Build would be available if light rail were not built. Sound Transit should describe and analyze this alternative in the Final EIS.

Respectfully yours,



John Niles

Co-chair and Technical
Director, CETA