

Transportation Policy in the Global Warming Era

This fall we will see a multibillion dollar joint ballot measure for our Sound Transit and the Regional Transportation Investment District (RTID/ST). The election debate previews the future of transportation policy, although it does not predict it.

The result of this fall's election on the Regional Transportation Investment District and Sound Transit will obviously play a pivotal role in the upcoming legislative session and beyond. But pass or fail, transportation policy makers will face a new imperative -- the need to reduce global warming pollution from transportation, which contributes more than 50% of global warming pollution in Puget Sound.

To date, the overriding political consideration has been to "do something" about transportation, and global warming has barely been an afterthought. The RTID/ST joint ballot measure ties a 5% increase in highway capacity to Sound Transit expansion plans, with obvious implications for global warming. However, neither RTID nor Sound Transit have seriously analyzed the global warming impacts of the new highways or light rail expansion.

Concerns about global warming have led the Sierra Club, the largest and most well-known environmental organization in Washington State, to oppose the joint ballot measure. They have been joined by the Cascade Bicycle Club and Conservation NW, and most recently King County Executive Ron Sims. When this environmental opposition is added to the opposition that arises to any tax measure, passage of RTID/ST is in doubt. What is not in doubt is that global warming concerns will play a pivotal role in transportation policy, not just this election cycle, but beyond. Not just because the science tells us it must, but because the public increasingly expects political leaders to respond to the challenge of global warming.

What we know about global warming and transportation

The starting point for any discussion of global warming is the scientific bottom line -- we must reduce greenhouse gas emissions by 80% by 2050 to avoid catastrophic climate change. Even if we reach this goal, we are not guaranteed success. Scientists have not reached consensus on what level of atmospheric CO₂ will create a tipping point where global warming feeds on itself. The predicted date of an ice-free Arctic was recently shortened from 2050 to 2030 based on the increasing rate at which ice is melting.

Although China may recently have passed the United States in total emissions, our country still remains the leader in per-capita emissions. Global progress on reducing emissions turns on the ability of the United States to do its fair share to reduce emissions, because without U.S. leadership, developing nations will not follow. In the United States, leadership has fallen to states, counties and cities. To different degrees, Washington state, King County, and the City of Seattle have all committed to dramatically reducing global warming pollution. These actions have been met with

public support, as citizens have come to understand the extraordinary threat posed by global warming.

To reduce global warming pollution we have to address transportation. Nationwide it causes approximately a third of emissions. In Puget Sound it is responsible for over 50% of emissions.

So, what will it take to reduce emissions from the transportation sector? The Urban Land Institute recently studied greenhouse gas emissions and transportation in a national context. <http://www.smartgrowthamerica.org/gcindex.html>. Their key finding focused on the importance of reducing automobile use:

[I]f sprawling development continues to fuel growth in driving, the projected 59 percent increase in the total miles driven between 2005 and 2030 will overwhelm expected gains from vehicle efficiency and low-carbon fuels. Even if the most stringent fuel-efficiency proposals under consideration are enacted, notes co-author Steve Winkelman, “vehicle emissions still would be 40 percent above 1990 levels in 2030 – entirely off-track from reductions of 60-80 percent below 1990 levels by 2050 required for climate protection.”

ULI’s experts conclude that greenhouse gas emission reductions require not just cleaner fuels and greater efficiency, but also a significant reduction in the number of miles driven.

Experts in our region have reached a similar conclusion. Governor Gregoire has appointed a Climate Action Team to make recommendations on how the region can reduce global warming pollution. The Transportation Technical Working Group calls out our driving habits as critical:

While new technologies and cleaner fuels are vital to reducing GHG emissions, as long as annual vehicle miles traveled continues to grow, we'll never be able to meet the state's 2020, 2035, and 2050 goals.

See <http://www.ecy.wa.gov/climatechange/TWGdocs/tra/92007TRAOptions.pdf>

The bad news for global warming is that automobile use is predicted to dramatically increase, nationally and locally. The Puget Sound Regional Council oversees growth management in this region, and has studied future trends in driving. Destination 2030, the regional transportation plan, says that vehicle miles traveled will increase by 43% in Pierce, King and Snohomish counties by 2030.

New highways play a significant role in increasing driving. Studies have demonstrated that in areas like Puget Sound, new highways fill up within five to ten years. <http://www.vtpi.org/gentraf.pdf>. The idea that new highway lanes reduce emissions by reducing congestion has also been debunked -- the emissions from additional driving

overwhelm the temporary benefits of congestion relief.

http://www.sightline.org/daily_score/archive/2007/10/04/lanes-and-ghgs.

The further bad news is that Sound Transit cannot solve the problem by itself. The final environmental impact statement at pg. 4.2-7 points out its limited impact:

With implementation of the Plan Alternative, vehicle miles traveled across the entire Sound Transit District are expected to be approximately one percent less than with the No Action Alternative.

Sound Transit, even when fully implemented, is only a 1% decrease from a 43% percent increase in driving predicted by the Puget Sound Regional Council.

Given this dramatic increase in driving, unless we dramatically change our transportation policies, the experts tell us cannot hope to meet our greenhouse gas emission goals. The current model, from a global warming perspective, is broken.

What does this mean for Transportation Policy?

Possible defeat of the RTID/ST package. While polling shows support for the joint ballot measure, it also shows that support drops dramatically when the public understands the global warming implications. If it loses, expect a spirited legislative session on all aspects of transportation policy.

The return of a stand alone transit package. Under current law, Sound Transit may come back to the ballot in 2008. While many predict that legislators and the Governor may try to hold it off in an election year, the pressure to make progress on light rail may prove too strong. A recent Elway poll showed that 80% of the public expect the measures to come back as separate measures if they do not pass this fall.

Court challenges. The failure to analyze greenhouse gas emissions is almost definitely a violation of Washington's State Environmental Policy Act, which requires thorough analysis of government actions significantly affecting the environment. The ballot measure may also face constitutional challenges on the "one person -- one vote" rule, because the RTID and ST voting districts are not contiguous.

Congestion Pricing. If RTID wins or loses, expect congestion pricing to emerge as a solution. Expect it to emerge quicker if RTID loses, because it is a powerful funding source. Slower if RTID passes, because the public will likely not want to pay tolls when they just agreed to pay RTID sales and motor vehicle excise taxes.

A recent study by King County, *Destination 2030 – An Alternative Route*, shows that using congestion pricing on our limited access freeways can finance all maintenance needs, keep the highways flowing, finance Sound Transit, finance additional transit improvements, and reduce greenhouse gas emissions.

http://www.metrokc.gov/budget/TIF/TIF_report_26April2007.pdf. That type of funding will be difficult to resist if RTID/ST fails.

State Global Warming Targets. Whether RTID/ST wins or loses, expect a raft of recommendations on transportation from the Governor's Climate Action Team to meet state goals to reduce greenhouse gas emissions. These include:

- greenhouse gas emission analyses of roads and transit
- changes in funding priorities
- support for more efficient cars and cleaner fuels
- support for tolling
- new state policies to reduce driving
- incorporation of greenhouse gas emission targets into the growth management act
- support for alternatives to vehicles

http://www.ecy.wa.gov/climatechange/cat_twg_trans.htm.

Conclusion

The public demand for better mobility options will now also be accompanied by public demand for solutions on global warming. That will transform the political landscape and transportation policy in the long run, if not the short run.

We are entering an era where we can no longer continuously expand mobility in the face of rising demand. Just as with energy and water, in transportation we now must begin an era of conservation. We will have to reduce trips through smart land use policies, user fees, and other incentives for alternatives. In the world of water supply, the era of building big dams is over. In the world of transportation supply, the era of building new limited access freeways is also ending. Dramatically reducing vehicle miles driven will stand alongside clean fuels and more efficient vehicles as a solution to our greenhouse gas emissions from the transportation sector. That is, if we are serious about global warming.

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