



Climate Change and Transportation: An "Inconvenient Truth"

Editorial by Tom Warne

In monitoring the topics and issues facing the transportation industry each week, we see numerous news stories, actions and events focused on or influenced by the debate on climate change. Climate change has clearly emerged as one of the defining issues which will impact transportation for the foreseeable future. In a break from the traditional *Tom Warne Report* format, I have chosen to offer this editorial on the issue of climate change, including my thoughts on how it will influence transportation policy and projects, and the role transportation leaders might take.

Like spokes on a wheel, many sub-topics lead to the common hub known as climate change, such as greenhouse gas (GHG) emissions, carbon footprints, carbon impacts, strategies for reducing CO₂, global warming, air quality impacts, public health concerns, fossil fuel dependence, per capita fossil fuel consumption, holes in the ozone layer, receding glaciers, declining snow pack, the disappearing ice sheet in Greenland, and the shrinking continent of Antarctica: All have been discussed and studied for many years. However, only during the last five years or so has climate change become such a powerful force - changing societal norms and government policy and practice. Whether or not you believe in Al Gore's "inconvenient truth," the climate change debate is framing transportation policy in ways that will forever change the way we do business and Americans travel. In fact, the impact of this debate is for many transportation professionals and policy makers, an "inconvenient truth" in and of itself.

Briefly reviewing a few recent events sets the stage for this discussion:

Seattle, Washington – A Seattle City Councilman introduced legislation this Fall that would require the Washington State Department of Transportation to evaluate the carbon impacts of the long overdue reconstruction of the Alaskan Way Viaduct.

Beijing, China – ENR reported on November 9, 2007 that China was refusing to accept caps on their carbon emissions because of a belief that emerging economies should be allowed to grow unfettered by environmental constraints. It was noted that China had produced 58% of all greenhouse gas emissions in the world from 2000-2006.

On June 1, 2005 Governor Arnold Schwarzenegger signed Executive Order S-3-05 that calls on the state to reduce its greenhouse gas emissions by 80% below 1990 levels by the year 2050.

San Bernardino County, California, August 21, 2007 – In a settlement with Attorney General Jerry Brown, the county has agreed to prepare an inventory of all known or "reasonably discoverable" sources of greenhouse gas emissions currently existing in the county. It will inventory GHG's between 1990-2007, project them into the year 2020, then prepare a "GHG Reduction Plan" focusing on discretionary

land use decisions and detail reduction measures to be implemented. Compliance appears even more daunting when considering the county controls only 15% of the land area within its boundaries.

It is widely accepted that a third of our country's emissions inventory is produced by transportation sources - mostly the private automobile.

The European Union is advancing a plan that will require airlines to address carbon impacts in their operations. Foreign carriers would also be required to comply. Thirty-two percent of the fees at Frankfurt International Airport are proposed to be based on climate impacts.

Las Vegas, Nevada - The US Department of Transportation, Nevada Department of Transportation and the Sierra Club settled litigation relating to the air quality impacts of the US 95 Corridor improvements.

Michael Savonis, Air Quality Team Leader with the FHWA, spoke at the recent annual meeting of the American Association of State Highway and Transportation Officials in Milwaukee on climate change. He told the audience that coastal water levels along the Gulf of Mexico could rise two to four feet in the next 50 to 100 years.

The growth in the US Green Building Council's Leadership in Energy and Environmental Design (LEED) continues at an unprecedented pace, ranging from commercial buildings to residential construction in locations across the country.

Under the heading of things we control and those we don't, note the following: USA Today reported on November 1, 2007 that the online journal, Carbon Balance and Management published a study that same day showing that very large wildfires in the western United States can release as much CO₂ as all the transportation and energy-related sources in a given state in one year.

The American public is definitely concerned about the quality of the environment and, in particular, the quality of the air they breathe. Long-standing programs to recycle household waste have been joined by low or zero emission vehicles, compact fluorescent light bulbs, Energy Star-rated construction, and other programs limiting individual climate impacts. On the EPA's web site you can calculate your personal carbon impact and see recommendations to reduce your personal footprint. (Hint: Mostly you have to lower your thermostat and drive a lot less.) The notion of climate change has been more than publicly tolerated; it is being embraced and, to some degree, reaches into nearly every home in the country. Whether or not you believe in the "inconvenient truth", the hearts and minds of the people of this country are increasingly focused on climate change and how it might impact our quality of life and that of our posterity.

How will transportation be impacted by climate change in the years to come? I believe the two are now inseparable and that to ignore climate change or the public's embrace of its principles is unrealistic; a strategy that will ultimately reduce mobility. Two paths are available for addressing the effects of climate change on transportation. The first involves simply reacting to climate change, creating longer environmental documents, attempting to disprove or ignore the health impacts of CO₂ and other GHG's, or otherwise trying to work around this new barrier to increased capacity for the nation's transportation system. It is largely a defensive posture without regard for the future.

The second path requires using the climate change agenda to advance transportation issues and actions that might not otherwise be possible without this impetus. It is a more aggressive approach and places

transportation policy-makers in a leadership role – accepting climate change – as a launching board for more effective and aggressive transportation policy that achieves objectives long out of reach for a variety of reasons. This policy approach not only addresses mobility but also deals with the public’s desire to see progress in mitigating emissions incident to movement in their communities.

In order to accept and advance this second strategy, transportation leaders will need to do several things. First, better science will lead to better understanding of “transportation climate impacts” and meaningful strategies for mitigating related emissions. The one-third statistic occurs in virtually every speech given or article written on the subject of climate change. Transportation leaders must comprehend every aspect of transportation’s contribution and be able to articulate convincing, responsible positions. Knowledge is power and transportation leaders and organizations must have the best available information on climate change and transportation. This approach will allow leaders to influence climate change debate from a position of strength.

Second, transportation leaders need to be involved in the climate change discussion at all levels of government, on appointed commissions and boards, and in their own communities by speaking out and advancing their agenda instead of reacting to someone else’s. Regulatory bodies vary from state to state but often they have one thing in common – no representation from the transportation industry. In my home state of Utah, the eleven-member Air Quality Board is charged with dividing emissions budgets among emission sources. To my knowledge, the 2001 appointment of Jim Horrocks, a local engineer from American Fork, Utah, was the first transportation-related appointment to the board.

Third, transportation leaders are going to have to tackle tough public policy issues and decisions. When governors start issuing executive orders about climate change, appointed officials in those states can either advance their transportation agenda by promoting a thoughtful strategy that brings climate change and transportation together or allow a disjointed process to drive them apart. Ultimately, positive action will mean guiding elected officials through the difficult decisions about land use and transportation decision-making. As painful as this might become, it is an inevitable future. The situation in San Bernardino County provides a glimpse into how far-reaching the climate change initiative can be. From all appearances, all major residential, commercial or transportation related projects must go through the newly established climate change “filter” by the attorney general.

The transportation climate change agenda must address both mobility and global climate issues. As an industry, we should advocate clean fuels, improved systemic performance, better modal interfaces, more competitive freight movements, faster deployment of intelligent transportation systems, and more effective integration of land use and transportation decision-making.

Leadership is the issue and advancing a climate change transportation agenda the mission. It won’t be done from the sidelines or from a defensive posture. Rather, armed with knowledge, science and a passion for transportation mobility, leaders in our industry can turn what may feel like “an inconvenient truth” into a powerful tool to benefit the people of our nation. The choice is ours: which path will we take?

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