A Transporation & Climate Action Strategy for Northeast and Mid-Atlantic States

As the challenge of climate warming dogs us, the transportation sector is frequently overlooked as a key contributing sector. The recent announcement that nine Northeast and Mid-Atlantic governors (Rhode Island, Massachusetts, Connecticut, Vermont, Delaware, Maryland, New Jersey, Pennsylvania, Virginia,) and the mayor of Washington, D.C. are moving forward with a regional clean transportation initiative is a welcome sign.

The Transportation & Climate Initiative (TCI) is a regional collaboration of Northeast and Mid-Atlantic states and the District of Columbia to design a new regional low-carbon transportation policy that would cap and reduce carbon emissions from the combustion of transportation fuels, and invest proceeds from the program into low-carbon and more resilient transportation infrastructure. The work of TCI is facilitated by the Georgetown Climate Center.

The goals of TCI’s regional proposal include reducing climate-change pollution, creating economic opportunity, and improving transportation equity for currently under served and overburdened populations. It also sets a goal of completing the policy design process within one year, after which each signatory jurisdiction will have a year to adopt and implement the policy.

The TCI announcement is a wake-up call for Rhode Island’s Resiliency Rhody Strategy project is the State’s Transit Master Plan (TMP) currently charged to advance a comprehensive transit vision for Rhode Island over the next two decades.

An additional network that runs alongside the Resiliency Rhody Strategy project is the State’s Transit Master Plan (TMP) currently charged to advance a comprehensive transit vision for Rhode Island over the next two decades.

Meanwhile, the National Oceanic and Atmospheric Administration (NOAA) predicts sea level rise in Rhode Island upwards of nine feet by 2100. Rising seas increase the risk of storm surge, which leads to increased coastal damage. The inland areas of the state are also more vulnerable as instances of intense precipitation are on the rise; since 1958, New England has recorded a 71% increase in high intensity rainfall incidents. It is also quite clear that flooding, rising seas, and storm surge, due to climate change threaten to erode our transportation infrastructure as well.

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Protecting America’s Workers Act Introduced

On February 7, 2010, six workers were killed and at least 50 injured when the Kleen Energy power plant in Middletown, Connecticut exploded after workers used natural gas at high pressure to remove debris in the plant’s piping. During this process, the natural gas found an ignition source and exploded. The hazards of making use of natural gas in such a procedure are well known. Standard safety protocols established in both OSHA and USEPA risk management rules existed that required all potential sources of ignition from welding, electrical equipment be eliminated before this blow-out procedure is utilized. But, in a rush to finish construction of the plant, these were ignored. In fact one of the mechanical subcontractors recognizing the recklessness of the procedure refused to have his employees work on the site that day. Subsequent pressure from professional engineering, building code, fire safety associations and the US Chemical Safety Board as well as Congressional hearings succeeded in getting industry to discontinue this natural gas blow-out practice.

PAWA amends the Occupational Safety and Health Act to: expand coverage to public sector workers; expand worker rights following OSHA citations; increase protections for whistle-blowers; increase penalties for high gravity violations; and adjust penalties for inflation, to provide rights for victim family members during OSHA investigations of worksite fatalities.

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Tackling Climate Impacts in Our Transportation System.

The Ninth Circuit court of Appeals ruled in 2007 that the National Highway Traffic Safety Administration had to take climate impacts into consideration when devising its automobile fuel-efficiency standards. During the Obama administration the social cost of carbon was pegged by the Environmental Protection Agency (EPA) at $45 per ton. Using this calculus, an average car emits a ton of GHG every two months. To offset the car’s GHG, an annual expense would be added to a car’s price: roughly $250 a year for the life of the car. Needless to say, the Trump administration has no interest in this approach. The circuit court’s ruling, however, lends momentum to the notion that we need to be relentless in incorporating climate impacts and climate warming mitigation in devising any broad public health and economic development policies and practices.

A way forward is to make climate impacts central to our decisions and developments related to transportation. Such a model would also embrace a new low-carbon transportation policy that would cap and reduce carbon emissions from the combustion of transportation fuels, and resist the development and design of built environments that only serve to enable high-carbon transportation. Such a model would require some form of carbon pricing. One model is California’s utilization of a GHG pricing assessment. In 2015, 437 companies calculated an internal price on carbon. For example, since 2012 Microsoft business unit managers have included the price of carbon emissions in their unit when reporting profits or losses each quarter. Microsoft business units are then charged an internal tax based on each unit’s energy usage. The money is transferred into a common fund that invests in environmental sustainability projects within the company.

Microsoft’s environmental sustainability team inventories the amount of energy that each business unit will consume in a quarter. This includes office space, data centers or business air travel. Those kilowatt-hours and gallons of fuel are then converted into metric tons of carbon. The environmental sustainability team then proposes projects and plans clean energy production, more energy efficient buildings and commitments to long-term sustainable power infrastructure to offset emissions.

Microsoft charged its business units about $20 million for their emissions in 2015. The company reduced its emissions by the equivalent of 7.5 million metric tons of carbon dioxide and saved more than $10 million through reduced energy consumption in three years. Investors also appear to be keenly interested in linking GHG emissions to investment choice. The California Public Employees’ Retirement System, for example, which manages more than $300 billion, has publicly announced support for carbon pricing efforts in its investment decisions.

Rhode Island could calculate and level charges on transportation related GHG emissions that would include features of the built environment that increase GHG emissions (parking garages and parking lots, development outside transit-rich and walkable sectors, etc.) to be deposited into a carbon mitigation bank. This bank could then fund targeted projects that reduce transportation-related GHG emissions, such as expanding the scope and frequency for mass transit and built environment features that enhance walkability and bike riding.

In order to mitigate GHG emissions, states and municipalities throughout the country have made reducing personal vehicle miles traveled a policy priority. Minneapolis for example, has proposed an 80 percent reduction in transport emissions by 2050 by reducing driving miles by 40 percent. The city has proposed reducing the number of parking spaces required, increasing the walkability of neighborhoods by encouraging more dense housing and even banning new gas stations within city limits in service of that goal. Denver has proposed a $1.2 billion investment in sidewalks and public transit.

At the state level, the California Air Resources Board has proposed:

- Quadrupling the number of trips made by walking.
- Limiting urban growth boundaries.
- Instituting congestion pricing and parking pricing.
- Prioritizing transit, walking and biking projects for state infrastructure funding.

Related Operational and Policy Proposals

Supporting the role of public transportation in reducing the GHG emission profile of the transportation sector could also be promoted based on planks developed over the past several years by local transit advocates.

- Encourage municipal and local leaders to adopt transit-oriented development in all new development projects in the design phase and imbue such requirements in the contractual and bid process. Transit-oriented development is a climate mitigation approach that prescribes a mixture of housing, food market, office, retail, commercial and cultural amenities to reinforce dense walkable and bike friendly neighborhoods within close proximity to public transportation. This is a climate friendlier option than expansion into forestsed areas, farm lands and watersheds.

- Encourage a public transit promotion plan as part of any publicly funded (through tax stabilization) developmental proposal in which access to public transit is emphasized and indeed central to the design. In contrast, the Providence Place Mall development proposal was a disaster in that pedestrian and public transit access was left out completely.

- Dedicate a portion of registration fees and vehicle sales taxes to public transportation, biking and enhanced walking infrastructures (complete streets).

- Establish congestion pricing plan in central metro areas to reduce gridlock, GHG emissions and air pollutants and raise money for various transit, biking and enhanced pedestrian infrastructures.

- Encourage private firms and municipal and state departments that offer free parking for employees and visitors to offer public transit incentives based on the EPA’s “Best Workplaces for Commuters” program recommended in the RI State Guide Plan. An encouraging step is that the Unified Transportation Work Program now includes $300,000 to pilot a GovPass program.

- Encourage large institutions, especially those that are tax exempt and large businesses to adopt a bus route as a community service by funding some operational costs, distributing and posting schedules, notifying employees, and riders. This is similar to programs in other states which encourage private firms to adopt a stretch of highway.

- Establish GHG emission fees and mileage taxes on gig economy transport (UBER, LYFT) and regulate these services as taxi service is regulated.

- Establish an ongoing Public Transit & Climate Change Mitigation Consortium to explore transit and traffic issues. This consortium could include business, public health, RIPTA, RIDOT, labor, state and city planning, elderly, disabled, affordable housing advocates, and students.

THE RICOSH NEWSLETTER

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Choosing Benign Cleaning Products

Choosing more benign cleaning products does however require a systematic approach that involves:

1. Identifying what is to be cleaned (areas, rooms, surfaces, etc.) and to what end.
2. Identification and recognition of the hazards of all cleaning products.
3. Exploring and evaluating alternatives to conventional cleaning chemicals.

Cleaning means removing organic matter, salts, oils, grime and visible soils, with detergents and surfactants and rinsing with water. Sometimes this will help remove a number of microorganisms.

Disinfecting means using a product or process (germicide) to kill pathogens. Infectious disease specialists use the term “inactivate.” Disinfectant refers to a product that kills most organisms except bacterial spores; sterilizers are designed to kill all organisms, including bacteria.

When there is a pathogen-linked outbreak (SARS, MRSA or norovirus) or concern about microorganisms, the situation gets complicated. This is because the aim is no longer cleaning but disinfecting, i.e. killing some pathogen. Since the risk especially in a health care or child inhabited setting from pathogenic microorganisms such as MRSA or norovirus, or bloodborne pathogens (HBV, HCV, and HIV), the effectiveness of the disinfectant must be paramount.

What is being cleaned and why? Different objectives will require different methods and products. What is being cleaned? (dirt, dust, food surfaces, mold and mildew, graffiti?) Asking this simple query is the first step in deciding what to use.

Disinfecting - Cleaning to Kill:

Disinfecting is different from disinfecting. Disinfectants have been demonstrated to be effective against surface mold growth viruses and bacteria, responsible for the spread of respiratory infections. Common disinfectants include glutaraldehyde (a strong disinfectant used for medical instruments); bleach, hydrogen peroxide, alcohol and quaternary ammonium compounds (known as “quats”, mainly used for low-level disinfection of surfaces such as floors and furniture). Antimicrobial efficacy of green cleaning products cannot be assumed but must be demonstrated.

However not everything in a facility needs to be disinfected, nor can be.

Use and Handling of Cleaners

Alternative cleaning products should have labeling and an accompanying SDS which should identify any hazards—as required by OSHA. Review the product literature to understand how to prepare the product (liquid, fine powder, granule; alternative product. (Third party certification sites will also have helpful info.) Consider the form of the product (liquid, fine powder, granule; concentrated or dilute) and how its preparation, or use, might have a potential for hazardous exposure to workers. Some compounds will arrive in enclosed containers ready for use; and others will arrive in highly concentrated or powder form and need to be mixed or diluted by housekeeping of custodial staff.

Many cleaning products used by janitorial and housekeeping staff contain toxins that can cause irritation to the skin, eyes and lungs and trigger acute respiratory reactions including asthma events. Some cleaning products contain compounds that pose environmental risks to aquatic sources. Massachusetts conducts a systematic surveillance registry on work-related asthma. 18% of all confirmed cases in their surveillance registry from 2003-2013 were due to exposure to cleaning products.
The Hazards of Cleaning Products and Turning to Healthier Products & Practices

Many cleaning products used by janitorial and housekeeping staff contain toxins that can cause irritation (to skin, eyes and lungs) and acute respiratory reactions, some trigger asthma events. And some contain compounds that pose environmental risks to aquatic sources. California’s Work-Related Asthma Prevention Program (CDPH) tracks cases of occupational asthma. In 2012, they found that 10% of all California workplace asthma cases were caused by exposure to cleaning products.

Greening the Cleaning Industry in Southern New England

The Rhode Island Department of Environmental Management (RIDEM) with funding from EPA is embarking on a project to encourage the janitorial and housekeeping community in Rhode Island and Southeastern New England to:
- provide training and education on the hazards of conventional cleaning chemicals.
- explore substitutions for conventional chemicals with sustainable choices.
- advocate for policies that inaugurate institutional changes to switch to safer chemical use.

Education and training will focus on exposure to conventional cleaners, their fate and transport into the environment, and the efficacy of alternative cleaning products, and source reduction techniques.

There are approximately 200 janitorial services employed in various commercial and residential properties in RI. Many commercial, residential, educational, public and private facilities have in-house janitorial and housekeeping employees. RIDEM’s Office of Customer and Technical Assistance (OCTA) offers to engage with private janitorial and housekeeping companies with public and private facilities and with labor unions to promote safer and healthier cleaning products and practices.

RIDEM is partnering with Northeast Waste Management Officials’ Association (NEWMOA), the Massachusetts Office of Technical Assistance (OTA) and Massachusetts Toxic Use Reduction Institute (TURI) who are supplying technical and educational support to the project. For more information contact Ann Battersby, Senior Environmental Scientist, RIDEM, Office of Customer and Technical Assistance, 1-401-222-4700 ext. 7284, Email: ann.battersby@dem.ri.gov.

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Selected Provisions of PAWA
- Expand OSHA coverage to millions of state and local government employees in the 24 states where they are not currently covered and federal workers – the original OSHA Act of 1970 did not include coverage for public sector employees or federal employees.
- Authorize felony penalties against employers who knowingly commit OSHA violations that result in death or serious bodily injury and extend such penalties to corporate officers and directors. Under the current law, criminal penalties for the willful death of a worker are only misdemeanors. In addition, the PAWA proposes a combination of fines to be increased to a maximum of $250,000 for individuals and $500,000 for organizations for OSHA violations which cause or contribute to a worksite fatality and ‘serious bodily harm’ and include possible criminal prosecution.
- Establish rights for families of workers who were killed on the job by giving families the right to meet with OSHA investigators, receive copies of citations, and to have an opportunity to make a statement before any settlement negotiations and also to be involved in pleading and reviews before the OSHA Review Commission where OSHA citations are formally contested by employers.
- Improve whistleblower protections for workers who report unsafe working conditions by extending the time limits on filing a whistle-blower complaint to 180 days from the current 30 days.
- Expand workers’ right to contest an OSHA citation and penalties. An employee or employee representative may challenge the ranking severity of an OSHA citation as well as the size of any proposed penalty. Currently employees and their representatives are only allowed to contest the length of time to abate the cited hazard(s).
- Ensure worker safety is protected in a timely manner by mandating that an employer correct hazards even while an OSHA citation (if it is ranked as serious, willful or repeated) is being contested. Currently, if an employer challenges an OSHA citation, the employer does not have to mitigate the hazard(s) cited. OSHA will often choose to reduce or even or downgrade a citation to secure timely abatement of hazards.
- Update obsolete consensus standards. There are approximately 200 general industry and maritime consensus standards that were adopted in the early 1970s and that effectively are out of date. PAWA within two years would require OSHA to update these standards.