



7 May 2021

SCMAGLEV Project c/o Lauren Molesworth  
Maryland Transit Administration  
6 Saint Paul St, Baltimore, MD 21202

To Whom It May Concern:

Please accept these comments on the draft environmental impact statement (DEIS) for the Baltimore-Washington maglev project.

Global climate change is the signature environmental issue of our time. Billions of dollars per year are being spent understanding and combatting this problem. Expensive policies, such as giving Amtrak a one-time federal grant roughly equal to all of the federal subsidies given to Amtrak over its 50-year history, have been justified based on the assumption that doing so would save a few tons of greenhouse gas emissions (as reported in the *Washington Post* May 1 article on President Biden's commemoration of Amtrak's 50<sup>th</sup> anniversary). Any policy that saves emissions is automatically assumed to be good.

So it is somewhat perplexing that the draft environmental impact statement for the Baltimore-Washington superconducting maglev train omits almost any mention and does not report any analysis of the net greenhouse gases that will be produced from maglev train operations. In fact, there is almost no mention of greenhouse gases in the entire environmental impact statement and its numerous appendices.

This is important because it is presumed by many members of the public, and in particular by *Washington Post* writers, that the maglev project will reduce greenhouse gas emissions. As the *Post's* April 2, 2021, report on the draft environmental impact statement stated, "The maglev train would help cut greenhouse gas emissions, taking about 16 million car trips off the road annually by 2045, according to the FRA." Yet that is not what is stated in the DEIS.

Though it is 654 pages long, the DEIS itself has only two brief statements on the effects of the maglev on greenhouse gas emissions. The first is on page 4.4-9:

The SCMAGLEV Project would likely result in an increase to corridor wide criteria pollutant and greenhouse gas emissions, particularly in areas around station locations due to increased traffic, but would reduce overall mobile source emissions regionally. . . . (see Section 4.16 Air Quality for additional details and potential mitigation measures).

The section 4.16 on Air Quality reports on page 4.16-11 that:

The SCMAGLEV system will operate entirely on electricity, with the exception of certain maintenance vehicles. As a result, the SCMAGLEV train will not increase greenhouse gas emissions. However, as described in Section 4.19 Energy, the SCMAGLEV system will result in an increase in power consumption in the region. Therefore, an increase in greenhouse gas emissions from powerplants would likely occur.

In other words, the maglev train itself will emit no greenhouse gases, and any reduction in motor vehicle travel that results from maglev operations will reduce greenhouse gas emissions. However, emissions from

non-point sources, namely the power plants that generate the electricity to power the maglev, will increase. Nowhere is an estimate of this increase reported in the DEIS nor are any mitigation measures described.

A little more information is found in Appendix D.9, the *Air Quality Technical Report*. This 72-page document reports on pages 60-63 that construction of the maglev will produce 84,000 to 98,500 tons of carbon dioxide. However, it does not estimate how many tons will be generated by the power plants supplying electricity to operate the maglev.

The chapter of the DEIS on energy, 4.19, reveals that the maglev will consume far more energy than all of the motor vehicles and trains that it takes off the road. Table 4.19-7 reports that all of the cars, trucks, buses, and trains that the maglev would replace would have been expected to consume slightly more than 1 trillion British thermal units (BTUs) of energy in 2045. But the maglev itself would consume 4 trillion BTUs for a net increase of nearly 3 trillion BTUs.

According to the U.S. Energy Information Administration's State Electricity Profile for Maryland, electricity generated in Maryland produces 733 pounds of carbon dioxide per megawatt-hour of electricity. The District of Columbia is even worse, emitting 1,393 pounds of carbon dioxide per megawatt-hour. Since most of the miles of the proposed maglev line would be in Maryland, I'll assume for now that the electricity used to power the maglev will come from Maryland, not DC or out-of-state, power plants.

Since 4 trillion BTUs is equal to 1.17 million megawatt-hours, that means generating the electricity needed to operate the maglev will produce 858 million pounds or 389,000 metric tons of carbon dioxide per year.

The 1.17 million megawatt-hours required to operate the maglev, incidentally, represents 3 percent of all of the electric power generated in Maryland. While Maryland may seek to increase its reliance on renewable sources of energy, adding 3 percent to electricity demands will make this challenge even more difficult than it already is. In addition, even if renewable sources of electricity can be developed, construction of such renewable power plants will produce hundreds of thousands if not millions of tons of greenhouse gases.

Meanwhile, assuming the automobiles replaced by the maglev are powered by gasoline and the buses are powered by Diesel, together they would produce 145 million pounds or 66,000 metric tons less carbon dioxide. The trains replaced by the maglev are also powered by electricity and they would save 29 million pounds or 13,000 metric tons of carbon dioxide.

The net effect is that maglev operations would add 310,000 metric tons of carbon dioxide to the atmosphere each year. Over 30 years of operations, that represents nearly 10 million metric tons of carbon dioxide. This dwarfs the 84,000 to 98,500 tons of carbon dioxide emitted by construction that is reported in the DEIS appendix D.9.

This doesn't count the increase in greenhouse gas emissions resulting from congestion caused by the maglev project. According to table 4.2-6 of the DEIS, the maglev would dramatically increase congestion in the Mount Vernon East station area. Increased congestion means increased fuel wasted means increased greenhouse gas emissions.

In short, maglev operations would be a major net producer of greenhouse gases, a fact not clearly stated in the DEIS. While the DEIS does estimate the greenhouse gases produced by construction, this is buried deep in an appendix, not in the body of the DEIS itself. The production of greenhouse gases to operate the maglev is not reported at all.

This is a major deficiency of the DEIS. Environmental impact statements are not supposed to be sales documents. As stated in the original Council on Environmental Quality regulations written for the National

Environmental Policy Act, environmental impact statements are to report “the overall, cumulative impact of the action proposed (and of further actions contemplated).”

The maglev DEIS contemplates both construction and operation of the Baltimore-Washington maglev, but reports only on the construction impacts on greenhouse gas emissions, leaving operational impacts to the readers’ imaginations. As indicated by the *Washington Post* article of April 2, many readers imagined wrongly.

The final environmental impact statement must give an honest assessment of the impact of the maglev project on greenhouse gas emissions. If the assessment imagines that renewable sources of electricity will be used to power the maglev, it must calculate both the dollar and environmental cost of constructing such renewable power plants.

It must also recognize that electricity is fungible and that renewable energy power plants built in Maryland might be better used to power homes, industry, commercial uses, or electric cars than to power the maglev. In other words, unless all electric power used in Maryland is converted to renewable power, the FEIS cannot assume that construction of enough renewable power plants to power the maglev alone will be sufficient to mitigate the environmental impact of the maglev.

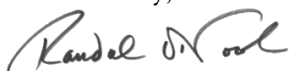
The other signature issue of our time is social justice. Policies that tax the poor and benefit the rich are socially unjust. Yet that is what the Baltimore-Washington maglev would require. Bus fares between Baltimore and Washington currently range from \$2.50 to \$20. Amtrak fares range from \$19 to \$44. Projected maglev fares are estimated to range from \$27 to \$80 with an average of \$60. Clearly, the maglev will mainly be patronized by high-income or wealthy people.

Neither the DEIS nor the 2018 alternatives analysis includes a detailed benefit-cost analysis or even a projection of operating costs and fares. Fares will probably not be enough to cover operating costs, including depreciation, and certainly will not be enough to cover capital costs. This means the \$11 billion to \$13 billion capital costs and some of the operating costs will have to be paid for by Maryland and federal taxpayers.

Maryland gets a considerable portion of its tax revenues from sales taxes, which are regressive. Thus, any state funding for the maglev will be socially unjust. Any federal funding for the maglev would come from deficit spending, which is likely to have long-term negative effects on low-income people as well. Considering all of the possible transportation projects in the country, a project whose primary beneficiaries will be high-income people but that will require virtually 100 percent of its construction costs to be paid for by taxpayers should be a very low priority. While social justice is not an environmental issue, this should be discussed in the section on environmental justice.

In sum, it appears that this project is not viable on any economic, environmental, or social grounds. It will cost far more than the revenues it produces. Its costs will be paid for by ordinary taxpayers, but it will serve mainly high-income elites. Its environmental costs greatly outweigh the benefits. The final EIS should be accompanied by a clear statement that the environmentally and socially preferred alternative is “no build.”

Yours truly,



Randal O'Toole