



# **SCMagLev - Not the Solution**

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The Baltimore-Washington Rapid Rail (BWRR) (the project developer) and the Northeast MagLev (TNEM) (the promotional entity) have the short-term goal of obtaining Federal Railroad Administration (FRA) approval to build a magnetic levitation (maglev) train between Baltimore and Washington, DC, with the long-term goal of extending the train operation to New York City by way of Philadelphia. Japan's Superconducting Magnetic Levitation (SCMagLev) train is the high-speed, ground-based transportation system TNEM is promoting to build in the northeast corridor of the United States.

Information about the SCMagLev and BWRR's plans to build and operate the system have raised many questions and concerns. This is one of a series of articles that identifies and discusses some the many questions and concerns citizens and communities have identified with moving forward in building and operating the SCMagLev.

#### **Abstract**

The Northeast Maglev (TNEM) promises the SCMagLev will <u>alleviate transportation bottlenecks</u> between Baltimore and Washington, D.C., and <u>revenues will sustain and pay for the system</u>. This and other promises were made by promoters of other expansive high-speed and maglev projects in the United States and worldwide. This position paper delves deeper into the outcomes, consequences, and unfulfilled promises experienced in other countries with moving forward and approving the building of these systems. These bring into question the actual value of building the proposed SCMagLev when there are more higher-value transportation projects in which to invest that provide a far bigger "bang for the buck" than building a train system most D.C. residents and Marylanders cannot afford to ride.

### **Questions & Concerns**

(1) What has happened with Asia's attempts to build and operate new high-speed train systems?

Carol Park, Senior Policy Analyst for the Maryland Public Policy Institute, cites experiences in China, Taiwan, and South Korea, stating: 1

- "In China, a bullet train crash in the city of Wenzhou in 2011 killed 40 people. The crash was blamed on poor design and mismanagement."
- "In Taiwan, the bullet train system rang up \$1.5 billion in losses over seven years, requiring a \$1 billion government bailout." (Author's Note: as of 2018)
- "In South Korea, a high-speed rail line connecting Seoul to Incheon closed in 2018 after just four years of service because 75 percent of seats were unoccupied."

CATS - Citizens Against the SCMagLev

<sup>&</sup>lt;sup>1</sup> Park, Carol. "Transportation Lessons from Asia for the Northeast Maglev." Originally published in the *Daily Record*. The Maryland Public Policy Institute. December 7, 2018. <a href="www.mdpolicy.org/research/detail/lessons-from-asia-for-the-northeast-maglev?fbclid=IwAR2C1sAfojicOFJ7J6jXCqvtGmKADrtVAopQpP7XRZnc38V25p8G5wWp2s4">www.mdpolicy.org/research/detail/lessons-from-asia-for-the-northeast-maglev?fbclid=IwAR2C1sAfojicOFJ7J6jXCqvtGmKADrtVAopQpP7XRZnc38V25p8G5wWp2s4</a>.

- (2) What happened with the train in South Korea?
  - The South Korean government "built the Seoul-Incheon line despite consistent warnings of inadequate demand. The project was politically, rather than commercially, driven, in that the Korean officials wanted to present a futuristic version of Korea to the international community as part of the 2018 Pyeongchang Winter Olympics." However, following the Olympics, with the system continuously operating with 75 percent of the seats empty and requiring large government subsidies to maintain operation, South Korea pulled the plug.
- (3) What realities are supporters of SCMagLev ignoring and glossing over?
  - Park observes: "SCMagLev supporters in Maryland have similar non-business motives for backing the project. Baltimore has been experiencing a steady population decline over the years, and many supporters believe that connecting the city to economically vibrant D.C. could reverse that trend. This vision has blinded the advocates to serious concerns about the project."
  - "First, though the project purports to be a private effort," Park notes, "high-speed train projects are generally magnets of questionable government subsidies," as demonstrated by California's bullet train. The Maglev website currently predicts that the project would cost \$10 billion to \$15 billion without cost overrun. California's bullet train, which was estimated to cost \$6 billion originally, has surged to a pricetag of \$10.6 billion. If we apply this rate of cost overrun to Maglev, we can realistically expect the project to cost \$17.6 billion to \$26.5 billion. Even at its current price tag, Maglev would still be one of the most expensive rail lines ever built on a per-mile basis, at an estimated cost of \$250 million per mile." (Author's Note: \$15 billion estimate in 2018 is now a \$16 billion estimated cost in 2021.)

The Northeast Maglev (TNEM) CEO Wayne Rogers and other Baltimore-Washington Rapid Rail (BWRR) representatives have stated that no tax dollars will be required to build or operate the SCMagLev. However, Wayne Rogers has said: "'We can't build our infrastructure 100 percent privately,' . . . "<sup>6</sup>

Park writes: "The problems begin here. So far, only \$5 billion has been pledged by the Bank of Japan toward construction. This means up to \$10 billion more will be needed under the current price-tag, and up to \$21.5 billion with the likely cost overrun." Every other system around the world has experienced cost overruns. "That money will be taxpayers' dollars, a large portion of that likely having to come out of Maryland residents' pockets. Rogers did not hesitate in asking for government subsidy: 'Yes, we'll go raise private investment but it can't all be private investment. We can't rebuild our infrastructure 100 percent privately.'"

Where would the needed tax dollars come from to subsidize the SCMagLev construction and operations? Most likely the tax dollars will be taken from other far-higher-priority state and national

<sup>&</sup>lt;sup>2</sup> Ibid.

<sup>&</sup>lt;sup>3</sup> Ibid.

<sup>4</sup> Ibid

<sup>&</sup>lt;sup>5</sup> Park, Carol. "Maglev: A high speed train to higher taxes." The Maryland Public Policy Institute. February 7, 2018. www.mdpolicy.org/policyblog/detail/maglev-a-high-speed-train-to-higher-taxes.

<sup>&</sup>lt;sup>6</sup> Park, Carol. "Transportation Lessons from Asia for the Northeast Maglev." Originally published in the *Daily Record*. The Maryland Public Policy Institute. December 7, 2018. <a href="https://www.mdpolicy.org/research/detail/lessons-from-asia-for-the-northeast-maglev?fbclid=lwAR2C1sAfojicOFJ7J6jXCqvtGmKADrtVAopQpP7XRZnc38V25p8G5wWp2s4">https://www.mdpolicy.org/research/detail/lessons-from-asia-for-the-northeast-maglev?fbclid=lwAR2C1sAfojicOFJ7J6jXCqvtGmKADrtVAopQpP7XRZnc38V25p8G5wWp2s4</a>.

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 www.mdpolicy.org/policyblog/detail/maglev-a-high-speed-train-to-higher-taxes.
 Ibid.

infrastructure projects, such as bridges and tunnels, and highway maintenance, repair, replacement, and enhancement, already long overdue in being addressed.

According to Park: "Unfortunately, the private sector is unlikely to invest in a project that has no evidence for profitability. After all, Maglev would target the elite business travelers and be out of reach of most residents of Maryland or D.C., due to its high-ticket prices. In addition to Amtrak, a variety of private bus companies already provide affordable trips between D.C. and Baltimore. With such narrow ridership prediction, it seems reasonable to be pessimistic about Maglev's revenue stream and profitability." MARC is also a viable transportation system for travel between D.C. and Baltimore. <sup>10</sup>

Note: According to Maglev officials, the service would target the 'elite business travelers' and charge prices' similar to or higher "than Amtrak, which already provides regular rail service" between D.C. and Baltimore, and on to New York City.

- Second, between D.C. and Baltimore, Amtrak is far into the Federal Railroad Administration's approval
  process of upgrading their infrastructure, equipment, and stations to support faster trains on existing
  rights-of-way. Continuous high-speed rails that have replaced the prior generation rails and a new
  Baltimore-Washington International Airport train station represent just two of the demonstrable
  upgrades already completed and in operation, supporting both Amtrak and MARC commuter and
  traveler services.
- Third, building the SCMagLev "will inevitably disrupt the communities along the line." 12 The destruction of homes and businesses during the building of the elevated portions of the line and the subsequent noise of the trains, as well as the potential of electromagnetic field exposure and dangerous emissions from the tunneled sections must be taken into consideration. The destruction of a large area of the remaining green space between Baltimore and D.C., is of grave concern. The negative environmental impacts of tunneling and handling of the soils removed to build the tunnel (some of which may still be contaminated from previous landfills<sup>13</sup>) and the subsequent sound and vibration to homes and buildings generated by the hurtling trains underground are concerns. The negative consequences to our residents, communities, and state far outweigh any marginal benefits of building and operating the SCMagLev would potentially bring to Maryland.
- Fourth, as Park notes: "Given the immense cost estimate of Maglev and no private partners that seem
  excited to step in, the Maglev project is doomed to become an expensive failure. In addition, using
  general taxpayers' money to build a high-speed rail system that will be mainly used by high-income
  residents will only exacerbate Maryland's inequality."<sup>14</sup>

<sup>10</sup> MARC - Maryland Area Regional Commuter train service. "... previously known as Maryland Rail Commuter, is a commuter rail system comprising three lines in the Baltimore–Washington metropolitan area. MARC is administered by the Maryland Transit Administration (MTA), a Maryland Department of Transportation (MDOT) agency, and is operated under contract by Bombardier Transportation Services USA Corporation (BTS) and Amtrak over tracks owned by CSX Transportation (CSXT) and Amtrak. With some equipment reaching speeds of 125 miles per hour (201 km/h) on the Penn Line, MARC is purported to be the fastest commuter railroad in the United States." <a href="mailto:en.wikipedia.org/wiki/MARC Train">en.wikipedia.org/wiki/MARC Train</a>. <sup>11</sup> Park, Carol. "Transportation Lessons from Asia for the Northeast Maglev." Originally published in the *Daily Record*. The Maryland Public Policy Institute. December 7, 2018. <a href="https://www.mdpolicy.org/research/detail/lessons-from-asia-for-the-northeast-maglev?fbclid=lwAR2C1sAfojicOFJ7J6jXCqvtGmKADrtVAopQpP7XRZnc38V25p8G5wWp2s4">en.www.mdpolicy.org/research/detail/lessons-from-asia-for-the-northeast-maglev?fbclid=lwAR2C1sAfojicOFJ7J6jXCqvtGmKADrtVAopQpP7XRZnc38V25p8G5wWp2s4">en.www.mdpolicy.org/research/detail/lessons-from-asia-for-the-northeast-maglev?fbclid=lwAR2C1sAfojicOFJ7J6jXCqvtGmKADrtVAopQpP7XRZnc38V25p8G5wWp2s4</a>.

https://mde.state.md.us/programs/LAND/MarylandBrownfieldVCP/Documents/www.mde.state.md.us/assets/document/brownfields/anacostia.pdf.

<sup>9</sup> Ibid.

<sup>&</sup>lt;sup>13</sup> Anacostia River Park, Colmar Manor, Maryland.

<sup>&</sup>lt;sup>14</sup> Park, Carol. "Maglev: A high speed train to higher taxes." The Maryland Public Policy Institute. February 7, 2018. www.mdpolicy.org/policyblog/detail/maglev-a-high-speed-train-to-higher-taxes.

## (4) Who benefits from the SCMagLev?

- The elite traveler who can afford the high-ticket price.
- The investors who are seeking to turn a profit, especially if taxpayers' dollars subsidize the building and operation of the SCMagLev, which past international experience has shown would be highly likely.
- JP Rail, the designer, builder, and operator of the SCMagLev, and the Japanese government on interest paid to service the \$5 billion loan.
- The proposed SCMagLev segment will only make three stops. The residents of Anne Arundel and Prince George's Counties are unlikely to experience any commercial or economic development in their neighborhoods, yet they will bear the brunt of the pollution, damage, and destruction SCMagLev construction and operation will bring. In short, residents along the route will pay a high price and receive little-to-no benefit from the SCMagLev.

# (5) What do the supporters of the SCMagLev say about the projected ridership?

- Park states: "Supporters of the SCMagLev dismiss concerns about insufficient ridership. They argue that the success of bullet trains in Japan demonstrate these hurdles can be overcome. That's exactly what officials in China, Taiwan and South Korea thought, only to discover that the situation in Japan is unique." <sup>15</sup>
- She adds: "Most of Japan's 128 million inhabitants live in a few densely populated cities. Many of those residents are rich enough to afford the expensive train tickets." <sup>16</sup> As a culture, most Japanese are willing to overlook the negative consequences the SCMagLev has brought into their communities because of their high level of pride in their country's accomplishments.
- According to Park: "Compared to Japan, the situation is the polar opposite in Baltimore, where many of the residents who depend on public transit are low-income workers. If these residents are to commute between Baltimore and D.C., they would need an option that is affordable and easily accessible from their homes. MagLev is neither."<sup>17</sup> Americans are patriotic, but the national need for this technology has not been established. The city bus service links to MARC, which provides reliable and cost-effective transportation. It annually moves (Pre COVID-19) over 9 million passengers in and out of D.C.<sup>18</sup> There is also low-cost bus service between the two cities.

### (6) How can the existing systems improve?

Park suggests: "Instead of wasting energy experimenting with dangerous projects like Maglev, Maryland government should redirect its energy to finding more efficient ways to allocate taxpayers' money to improve the safety of the existing transit system in Maryland. Making maximal use out of minimal

<sup>&</sup>lt;sup>15</sup> Park, Carol. "Transportation Lessons from Asia for the Northeast Maglev." The Maryland Public Policy Institute. December 7, 2018. <a href="https://www.mdpolicy.org/research/detail/lessons-from-asia-for-the-northeast-maglev?fbclid=lwAR2C1sAfojicOFJ7J6jXCqvtGmKADrtVAopQpP7XRZnc38V25p8G5wWp2s4">https://www.mdpolicy.org/research/detail/lessons-from-asia-for-the-northeast-maglev?fbclid=lwAR2C1sAfojicOFJ7J6jXCqvtGmKADrtVAopQpP7XRZnc38V25p8G5wWp2s4</a>.
<sup>16</sup> Ibid.

<sup>&</sup>lt;sup>17</sup> Ibid.

<sup>&</sup>lt;sup>18</sup> MDOT MTA Performance Improvement - Ridership. Data through 12/31/2020. Maryland Department of Transportation - Maryland Transit Administration. <a href="https://www.mta.maryland.gov/performance-improvement">www.mta.maryland.gov/performance-improvement</a>.

taxpayers' dollar to improve Maryland's transit network should be the priority." <sup>19</sup> Focusing on maintenance and safety of the existing systems is key to preventing accidents and improving services, which is far more important than building another train system only the wealthy can afford to ride.

Park concludes: "If Maryland wants to improve its transportation system, it should focus on ensuring that its existing projects are safe and managed properly. Whether this is done by restructuring the Maryland Transit Authority (MTA), or by privatizing some of the current MTA operations to incentivize better performance, it will not take billions of dollars to ensure Maryland residents have a reliable and integrated public transportation systems." <sup>20</sup>

- (7) Where we agree with TNEM's CEO Wayne Rogers.
  - Wayne Rogers has stated: "Infrastructure is fundamentally a government responsibility, which has failed."<sup>21</sup> He is right. Many governments in other countries have failed by partnering with private companies to build trains that turned out to be costly, dangerous, and increasingly reliant on government; that is, on taxpayer support. We do not need to spend tax dollars to subsidize a train system for the wealthy when there are far more important transportation projects in need of funding, projects that serve and are used regularly both by D.C. residents and Marylanders.

## **Findings/Conclusion**

Maryland and the United States can avoid recreating the same high-speed "bottomless tax-dollar pit" by abandoning the Northeast Maglev's SCMagLev immediately, before it is too late. The funds should be used to address the many transportation priorities far worthier of attention. These systems are better integrated within our regional transportation infrastructure. Funds should be used to enhance access to the existing rail and commuter transportation systems to continue support of a broader demographic of residents and commerce. These funds should not be used to build a transportation system that only the wealthy can afford to ride. At this juncture, "... it is not too late for Maryland officials to stop supporting Maglev, a high-speed train to higher taxes."

#### Want to Help?

- (1) Share this information with your family, friends, neighbors, and community.
- (2) Join our Facebook page: www.facebook.com/groups/CitizensAgainstSCMagLev.
- (3) Contact your elected officials to express your opposition to building the SCMagLev, go to: myreps.datamade.us.
- (4) Submit multiple public comments often at <a href="https://www.bwmaglev.info/index.php/contact-us">www.bwmaglev.info/index.php/contact-us</a>. State your objection(s), and always end by saying you support the "No Build Alternative."
- (4) Learn more about the concerns and impacts the SCMagLev will have on our communities, see: <a href="https://www.stopthistrain.org/">www.stopthistrain.org/</a>.
- (5) Make a contribution to support Citizens Against the SCMagLev (CATS) and Maryland Coalition for Responsible Transit (MCRT) at mcrt-action.org. Your donation, in any amount, is appreciated. Thanks for your support!

<sup>&</sup>lt;sup>19</sup> Park, Carol. "Maglev: A high speed train to higher taxes." The Maryland Public Policy Institute. February 7, 2018. www.mdpolicy.org/policyblog/detail/maglev-a-high-speed-train-to-higher-taxes.

<sup>&</sup>lt;sup>20</sup> Park, Carol. "Transportation Lessons from Asia for the Northeast Maglev." The Maryland Public Policy Institute. December 7, 2018. <a href="https://www.mdpolicy.org/research/detail/lessons-from-asia-for-the-northeast-maglev?fbclid=lwAR2C1sAfojicOFJ7J6jXCqvtGmKADrtVAopQpP7XRZnc38V25p8G5wWp2s4">https://www.mdpolicy.org/research/detail/lessons-from-asia-for-the-northeast-maglev?fbclid=lwAR2C1sAfojicOFJ7J6jXCqvtGmKADrtVAopQpP7XRZnc38V25p8G5wWp2s4</a>.

<sup>21</sup> Ibid.

<sup>&</sup>lt;sup>22</sup> Park, Carol. "Maglev: A high speed train to higher taxes." The Maryland Public Policy Institute. February 7, 2018. www.mdpolicy.org/policyblog/detail/maglev-a-high-speed-train-to-higher-taxes.

#### **About the Author**

Daniel E. Woomer is a community activist and technical expert. He retired after a long career that included positions with Westinghouse Defense Center, Johns Hopkins University's Applied Physics Laboratory, and the U.S. Department of Energy (DOE). During his career with the DOE, he worked in various positions with the Energy Information Administration and the Office of Congressional and Intergovernmental Affairs, and he helped set up the Office of Technology Transitions. He also served for several years as an adjunct faculty member with the University of Maryland University College, where he developed and taught mathematics, supervisory and leadership classes.

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(2) Park, Carol. "Transportation Lessons from Asia for the Northeast Maglev." The Maryland Public Policy Institute. December 7, 2018. <a href="www.mdpolicy.org/research/detail/lessons-from-asia-for-the-northeast-maglev?fbclid=lwAR2C1sAfojicOFJ7J6jXCqvtGmKADrtVAopQpP7XRZnc38V25p8G5wWp2s4">www.mdpolicy.org/research/detail/lessons-from-asia-for-the-northeast-maglev?fbclid=lwAR2C1sAfojicOFJ7J6jXCqvtGmKADrtVAopQpP7XRZnc38V25p8G5wWp2s4</a>.

Maryland Public Policy Institute: "The Maryland Public Policy Institute is dedicated to advancing freedom and opportunity for every Marylander. We fulfill our mission by developing and promoting policy ideas that enable Maryland citizens and policy makers to chart a path to a freer and more prosperous future." (<a href="https://www.mdpolicy.org/about/">https://www.mdpolicy.org/about/</a>) "The author of the original article is Carol Park, a senior policy analyst in the Center for Business and Economic Competitiveness at the Maryland Public Policy Institute. Ms. Park can be reached at <a href="mailto:cpark@mdpolicy.org">cpark@mdpolicy.org</a>." (<a href="https://www.mdpolicy.org/research/detail/lessons-from-asia-for-the-northeast-maglev?fbclid=lwAR2C1sAfojicOFJ7J6jXCqvtGmKADrtVAopQpP7XRZnc38V25p8G5wWp2s4">https://www.mdpolicy.org/research/detail/lessons-from-asia-for-the-northeast-maglev?fbclid=lwAR2C1sAfojicOFJ7J6jXCqvtGmKADrtVAopQpP7XRZnc38V25p8G5wWp2s4</a>)

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(4) MDOT MTA Performance Improvement - Ridership. Data through 12/31/2020. Maryland Department of Transportation - Maryland Transit Administration. <a href="https://www.mta.maryland.gov/performance-improvement">www.mta.maryland.gov/performance-improvement</a>.

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Citizens Against the SCMagLev (CATS) is a confederation of scientists, engineers, experts, community organizations and citizens in support of transportation infrastructure improvements that benefit our communities, state, and nation. CATS opposes the construction of an expensive transportation system serving a small minority of the wealthy at the cost of taxpayer funds far better used to maintain and improve the transportation infrastructure needed and used daily by all citizens, businesses, and commerce. For up-to-date information on the SCMagLev opposition, see our Facebook page at: <a href="https://www.facebook.com/groups/CitizensAgainstSCMagLev">https://www.facebook.com/groups/CitizensAgainstSCMagLev</a>.