

**Testimony of Wayne L. Rogers, Chairman & CEO
The Northeast Maglev, LLC
before the
US House Committee on Transportation and Infrastructure
Subcommittee on Railroads and Pipelines and Hazardous Materials**

***“When Unlimited Potential Meets Limited Resources:
The Benefits and Challenges of High-Speed Rail and Emerging Rail Technologies”***

May 6, 2021

Chairman Payne, Ranking Member Crawford, Members of the Subcommittee, thank you for this opportunity to appear today. I am Wayne Rogers, the Chairman/CEO of The Northeast Maglev, LLC and the Baltimore-Washington Rapid Rail, LLC.

The Northeast Maglev is a 100% US Veteran-owned company promoting the deployment of the fastest, proven mass transportation system in the world, the Super-Conducting Maglev, on the Northeast Corridor. BWRR is a railroad company, franchised by the Maryland Public Service Commission, to provide high speed rail service between Washington DC, Baltimore-Washington International Thurgood Marshall Airport (BWI), and Baltimore. When in service the SCMAGLEV project will provide 15-minute service between Washington and Baltimore and one hour service between Washington and New York, operating at 311 mph.

Thank you for the opportunity to testify about the US Maglev Deployment Program and the Baltimore-Washington SCMAGLEV Project specifically.

Our vision will connect the Northeast Corridor utilizing the fastest, proven, and tested transportation technology in the world today. A technology which is not only environmentally friendly and energy-efficient but is deliverable today.

The Northeast Corridor, or as it has been named the “Northeast Megalopolis,” is the most populous corridor in the United States. It holds over 50 million people, or 17% of the US population on 2% of the land area. The population density of approximately 1000 people per square mile vastly exceeds the US average of 80 people per square mile. Population projections show that the corridor will have continued growth.

The region accounts for 20% of US GDP. It is the home to not only the US Capitol and the White House, but also the NY Stock Exchange, the UN Headquarters, NASDAQ, the headquarters of ABC, NBC, CBS, NPR, Fox, Comcast, the New York Times, the Washington Post, and USA Today. Many major financial institutions such as JP Morgan Chase, Citigroup, Goldman Sachs, Fannie Mae, Freddie Mac, Capital One and Fidelity make their homes here. 54 of the Fortune Global 500 companies and 162 of the Fortune 500 are located in the region.

The region should have modern, first class transportation infrastructure.

The vision of bringing Maglev to the Northeast Corridor is one that Congress and the US Government has long supported.

The Final Report of the National Maglev Initiative in September 1993 laid the groundwork for where we are today. That report evaluated Maglev development efforts in Japan and Germany and found them to be technically feasible and desirable for deployment in the US. The Report concluded that in the 10 corridors it assessed, Maglev would cover all its operating costs and substantially contribute to its capital costs. More importantly,

“In the Northeast Corridor its revenues would cover total life cycle costs. These projected results reflect the ability of the technology to offer the best door-to-door travel time for distances up to 300 miles and very competitive travel times even up to 600 miles.”

The conclusion of the Final Report was that there were no technical impediments to developing/deploying Maglev in the US. The report examined the alternatives of buying a system from a foreign source to gain experience or totally developing one in the US.

“One approach is a US industry partnership to implement a foreign maglev design in the United States . . . The cost for this development work could be shared with the US and foreign industry partners, but, from a practical standpoint, the foreign industry would not likely spend additional development funds unless there is an assured market with a reasonable return time period.”

I appear before you today with an opportunity for the United States that is even better than that which was anticipated in 1993, a cost-free technology license.

Magnetic Levitation Development

Magnetic Levitation or “Maglev” transportation technology has been developed over a period of more than 50 years, and the Superconducting Maglev has its roots in the US, where the initial concepts were developed by two noted scientists at Brookhaven National Laboratory.

In Japan, what is now the Central Japan Railway Company (JRC) began Maglev technology development in 1962. In 1997 JRC began running tests on the Yamanashi Maglev Line “priority section” demonstrating SCMAGLEV technology. It is fully approved for public use.

Unlike conventional railway systems, the SCMAGLEV accelerates and decelerates not by a force generated by a mechanical motor, but through a magnetic force generated between the onboard superconducting magnets and electromagnetic coils in a guideway.

For propulsion, the SCMAGLEV system utilizes the concept of a linear motor, which resembles a conventional electric motor that has been “unrolled.” Rather than producing a rotational force,

the linear motor causes motion in a line along its length. In the SCMAGLEV system, the simultaneous attracting and repelling forces interacting between superconducting magnets on the train and propulsion coils in the guideway walls propel the train along a guideway at speeds over 300 mph.

In 1998, noting Japanese Maglev deployment and that the US still had no high-speed rail systems and was falling further and further behind in the world in technology, the Congress created the “Maglev Deployment Program”. The purpose of the program was not to study or to develop Maglev but to actually deploy a system at some location in the United States. A national competition was created for States to apply to the USDOT to select a single project. 12 applications were supported by 14 entities. 7 States were selected for further study, eventually to 3 with the goal of having one. After a span of work of over 20 years, the Washington Baltimore Maglev Project is the winner of that competition.

*Far exceeding the goals outlined originally, BWRR has entered into a technology agreement with JRC granting to BWRR a **cost-free** license to deploy the SCMAGLEV on the Northeast Corridor.* This saves the federal government what would have been billions of dollars in technology development and allows immediate deployment of the system.

Despite the tendency of some to label Maglev an ‘emerging technology’, the SCMAGLEV is a fully proven system. It has been thoroughly evaluated by the Japanese government, which acknowledged that the system technologies had been comprehensively established in 2009. In 2011, the Japanese government enacted SCMAGLEV technical standards. The Yamanashi segment is now being extended with multiple construction contracts underway to connect Tokyo and Nagoya.

As those of you who have traveled to Japan have experienced first-hand, JRC’s Tokaido Shinkansen Bullet Train high speed rail deployed in 1964, carried 168 million passengers in 2019, with an average annual delay under a minute and no accident-related fatalities ever in 57 years. SCMAGLEV will not replace the bullet train, it will be in addition to existing service.

Northeast Maglev believes that this will be the same with deployment of the SCMAGLEV on the Northeast Corridor. AMTRAK will still continue to carry millions of passengers. *SCMAGLEV is not targeted as competition with AMTRAK, rather is complementary and focused on the 94% of passengers that still utilize their automobile for corridor travel.*

The Maglev Deployment Program and Congress

Maturity of the technology was a clear desire of Congress for the Maglev Deployment Program. It was funded by Congress who provided \$60 million in contract authority and authorized \$950 million as part of TEA-21 in 1998. SAFETEA-LU provided an additional \$90 million in contract authority. \$10 million was provided in FY19 appropriations and \$2 million in each of FY20 and FY21. The Maglev *Deployment* Program was a statement of US Government policy that Maglev

had been studied sufficiently and emphasized building a high-speed maglev project in the best corridor in America. It has been a long and focused effort.

The Baltimore-Washington Maglev Project

The Baltimore-Washington Project which I represent is the winner of the MDP competition.

Our short-term vision for this project is to connect Washington, DC to BWITM Airport in about 9 minutes, after a one-minute stop, the City of Baltimore in about 5 minutes, for a total DC to Baltimore trip of 15 minutes. Our longer-term vision is connecting cities and airports to New York City in one hour, ultimately to Boston at 311+ mph.

In pursuing our vision, we are guided by four (4) principles:

1. Best in the world technology. The project will utilize not only best in the world transportation technology but will incorporate all advanced software and technical systems in providing 21st century transportation.
2. Job Creation. The DC to Baltimore leg is anticipated to create in construction **123,000 job years and 38,000 professional service job years.** Regional labor **employee labor earnings are estimated at \$8.8 billion.** The Project will not only create jobs it will provide **skilled training for thousands of workers.** BWRR has signed an agreement with the National Association of Building Trade Unions (NABTU) to build the project under a project labor agreement. The project has not only been endorsed by the NABTU but also the Eastern Atlantic States Council of Carpenters, the Baltimore DC Metro Building Trades Council, the Maryland Transportation Builders, the Painters and Allied Trades Union, and the Laborers International Union NA. The Project has garnered business support being endorsed by the Baltimore City, Baltimore, Northern Anne Arundel and Prince George's County Chambers of Commerce as well as the Maryland Hispanic Chamber and several Black chambers of commerce.
3. Diversity, Equity and Inclusion. The Project has a written DEI plan, developed with minority firms, civil rights groups and social activists. The Project's goal is **40% of construction related jobs to be provided to people of color and women,** taking great care also to seek representation of recruits from the jurisdictions where the Project will have a presence.
4. Combatting Climate Change. Transportation is a huge contributor to global climate change. DC to Baltimore have over 120 million car trips per year. The Project will **reduce Vehicle Miles Travelled between 9 and 12% diverting up to 16 million car trips.** This means reducing greenhouse gas emission by more than 2 million tons.

Environmental Status of the Project

In 2016, a full Environment Impact Statement was begun for the Project by the Federal Railroad Administration. Over 200 public and agency meetings have been held. The Draft Environmental Impact Statement was issued on January 15, 2021. Six virtual public hearings were held on the DEIS ending April 10, 2021 and while there are always negative comments about a large infrastructure project, 79% of the commentors who testified, testified in favor of the Project. The comment date for the DEIS closes on May 24, 2021. We hope to have the final EIS and Record of Decision by the first quarter of 2022.

Public Support for the Project

Over 19,500 people have signed a petition in favor of the Project. Over 3,300 people have written letters of support to elected officials. Polling conducted in 4 different years since 2011 show over 86% support for the Project in the corridor. In Prince George's County in April 2021 polling showed 72% of African Americans in favor of the Project and 68% of the general public in favor, despite not having a stop in the County. Only 19% of the people in the County were against the Project.

Congressional Action Needed

The private sector has invested over \$120 million in the BWRR Project. The federal government has provided the State of Maryland \$27.8 million in MDP cooperative agreement funding, as well as an additional \$26 million in funding approved but not yet contracted.

For the Project to proceed as envisioned under the MDP, Congress will need to replenish funding in the MDP that is needed to undertake the detailed engineering, geotechnical investigations and other activities necessary for the Project to proceed to construction, as well as continued System Technology Familiarization (safety review) activities undertaken with the FRA, BWRR and JRC leading to the rules for the safe operation of SC Maglev in the United States.

We are requesting \$300 million in contract authority for the MDP which would be provided to the State of Maryland to complete activities precedent to finalizing construction. At this time, we estimate the civil capital costs to be around \$9 billion.

The Government of Japan has stated a willingness to provide significant financial support for the cost of the initial operating segment between Baltimore-Washington, DC.

This precedent setting combination of no-cost technology licensing, mobilization of financing from the private sector, and off-shore, multiplies the effect of government funding to deliver infrastructure.

With support from the private sector and the Japanese Government, if action is taken by the Congress and timely action by the FRA, we anticipate revenue service could begin around 2030.

We look forward to working with the Committee to meet those requirements and to bring the SCMAGLEV Project in our most important corridor to fruition.

Thank you for the opportunity to testify today.