

HIGH-SPEED AND ELECTRIC RAIL

High speed rail for intercity travel can be a substitute for plane travel and long-distance car trips. The U.S. does not currently have *any* high-speed rail routes.¹ In contrast, China has 30,000 kilometers of high-speed routes; some can move passengers at over 250 km/hr.² Proponents say that high speed trains represent a rapidly scalable climate solution and can outperform both flying and driving in every measure - capacity, mobility, convenience, speed, safety, efficiency, cost, energy consumption, profitability, national security, carbon footprint, physical footprint, economic development, smart growth, and more.³

There has been interest in the U.S. in developing high-speed infrastructure for decades, and at times, government funding has been set aside to support it. But none of these efforts so far have produced results. This could soon change, if a new generation of climate-conscious high-speed rail enthusiasts gets their way.⁴ However, high-speed rail is expensive, and there is opposition to public funding for high-speed rail from the automobile and aviation industries.⁵

Rail is already a relatively efficient method of transporting goods and people, but when powered by electricity rather than diesel, it can be even more efficient – and when this electricity is produced by clean or renewable sources, emissions can be negligible. The long distances that characterize the U.S. land mass make electric trains cost-prohibitive in some cases, but for shorter distances where it is feasible, electrification can make a difference in GHG emissions.

- Fishery friendliness: High-speed rail is a fishery friendly practice with negligible potential impacts to fishery ecosystems and resources.
- Co-benefits: High-speed rail can reduce traffic congestion, reduced noise, reduce road accidents, and offer travel options that are less susceptible to weather delays and interruptions compared to aviation.
- Environmental externalities: High-speed rail can improve air quality by reducing the need for plane and car travel.
- Policy catalysts: High-speed rail can be promoted through infrastructure investment and tax incentives.
- More information:
 - [Drawdown: High-speed rail](#)

¹ Waite, Marilyn (August 24, 2021). "Why the US needs to get on track with high-speed rail." *GreenBiz*.

<https://www.greenbiz.com/article/why-us-needs-get-track-high-speed-rail>

² Drawdown. High-speed rail technical summary. <https://drawdown.org/solutions/high-speed-rail/technical-summary>

³ U.S. High Speed Rail Association. <https://ushsr.com>

⁴ Birenbaum, Gabby (March 10, 2021). "Gen Z's high-speed rail meme dream, explained." *Vox*. <https://www.vox.com/2021/3/10/22303355/gen-z-high-speed-rail-biden-map-meme-buttigieg>

⁵ Birenbaum, Gabby (March 10, 2021). "Gen Z's high-speed rail meme dream, explained." *Vox*. <https://www.vox.com/2021/3/10/22303355/gen-z-high-speed-rail-biden-map-meme-buttigieg>

- [Waite, Marilyn \(August 24, 2021\). "Why the US needs to get on track with high-speed rail." *GreenBiz*.](#)
- [Birenbaum, Gabby \(March 10, 2021\). "Gen Z's high-speed rail meme dream, explained." *Vox*.](#)
- [High Speed Rail Alliance](#)
- [High Speed Rail Association](#)
- [North Atlantic Rail](#)
- [Drawdown: Electric trains](#)
- [Nunno, Richard \(May 30, 2018\). "Electrification of U.S. railways: Pie in the sky, or realistic goal?" *Environmental and Energy Study Institute*.](#)
- [Vartabedian, Ralph \(July 7, 2021\). "Are electric trains the future for the American railroad?" *Government Technology*.](#)

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