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## INDUSTRY & COUNCIL UPDATES

### THE RAIL ELECTRIFICATION COUNCIL VENTILATES THE ISSUES

The Rail Electrification Council convened its 7th semi-annual meeting on October 25, 2022, concluding an extraordinary year of work.

**RAIL KEYNOTER.** Mr. Michael Johnsen, Senior Advisor on Climate and Sustainability, Federal Railroad Administration (FRA), addressed FRA's Climate Challenge for the rail industry, the dependence on diesel motive power, how railroad rights of way could be explored to create renewable energy options, and how the railroads need to identify supporting infrastructure as additional electrification opportunities, to reduce GHG emissions. The Council works with the FRA on clean energy initiatives.

**ELECTRIC TRANSMISSION KEYNOTER.** Maria Robinson, the Director of the Department of Energy (DOE) Grid Development Office, spoke about a major program she administers to plan and fund a major transformation of the electric grid. The GDO assists in financing major transmission processes under the *Infrastructure Investment and Jobs Act* (IIJA) and the *Inflation Reduction Act* (IRA). The DOE has a large internal program looking at transmission planning via several scenarios such as upgrading or adding transmission capacity, potentially including a full macro grid. Additionally, the DOE will prioritize projects that increase the grid's resilience to extreme weather and other challenges.

**RAILROAD PANEL** Representatives from Progress Rail, Wabtec, BNSF Railway, and Mobility Impact Partners (MIP) addressed the overall sustainability of the railroad operating model and technological opportunities. The MIP rep talked about the importance of sustainability in transportation operations, saying more investors are asking railroads to reduce their emissions profile, and rail needs to become more part of the conversation about efficient, clean energy equity investments. Panelists noted an overall trend toward decarbonization that could be significantly aided by government funding for technology innovation when the technology is available. These technologies should not focus on solving individual problems but on driving the industry toward more sustainable solutions, they said.

**PERMITTING AND SITING REFORM.** The meeting wrapped up with several updates relevant to the Council's overall mission.

Christina Hayes, Executive Director, Americans for a Clean Energy Grid, gave an update on the proposed *Energy Infrastructure and Security Act* (EISA), which makes major changes in Federal siting and permitting laws, including the National Environmental Policy Act (NEPA). The bill is designed to solve the current issues affecting transmission projects, which take several more years to authorize and construct than fossil fuel pipelines. As of this writing, the EISA appears dead in this congress however the chances of resurrecting infrastructure and siting legislation in the next Congress remain high.. [Read](#) our summary in this newsletter.

**FEDERAL FUNDING.** Wayne Killen Senior Consultant, U.S. Department of Energy’s Loan Program, gave an update on the Advanced Technology Vehicles Manufacturing (ATVM) Program. That program has four rail applicants covering zero emission rail, repowering existing diesel locomotives, autonomous on short new rail lines to/from ports, and freight cars with installed batteries.

Since its inception, the Rail Electrification Council has witnessed major changes in the transportation and energy policy areas. Post-pandemic, the electrification of rail has arguably picked up steam. Now is a very good time to join the Council and advance our agenda!

As for 2022, our work has been extensive---

- A white paper on the Benefits of Rail Electrification ([Benefits of Rail Electrification](#))
- Comments to the Federal Energy Regulatory Commission (FERC) on its Proposed Transmission Planning rules ([FERC NOPR Comments](#))
- A letter of support to the California legislature in support of high-speed rail ([REC California HSR Support Letter](#))
- A response to the DOE’s Notice of Intent on Transmission Facilitation Program
- Outreach to rail companies, including passenger rail, and state departments of transportation
- Monitoring implementation of the IIJA, the IRA, and the development of federal permitting and siting legislation
- Expansion of the Council’s Board of Advisors



### RAIL ELECTRIFICATION IN THE GOLDEN STATE: 3 DEVELOPMENTS

Transportation accounts for 40 percent of California’s carbon emissions. Thankfully, rail electrification has been making great strides recently in the Golden State. The under-construction electrification of the Caltrain corridor between San Francisco and San Jose, and subsequent California High Speed Rail construction of electrification infrastructure, are the largest rail electrification projects currently underway in the United States. The 2018 California State Rail Plan endorses electrification on all of California’s main passenger rail corridors. These projects are developing valuable industry experience in electric rail construction, operations, and supplier manufacturing.

Caltrain | <https://www.caltrain.com/projects/electrification>

Caltrain is a regional/commuter rail line serving the San Francisco Peninsula and the Santa Clara (aka Silicon Valley). With 28 regular stops between San Francisco and Gilroy, Caltrain had an average weekday ridership of 216,400 in Q4 2021. The Caltrain Modernization Program (CalMod) is a \$2.4 billion project that includes the electrification of the 51 miles of tracks between 4th and King station in San Francisco and Tamien station in San Jose. CalMod also includes grade separations, track capacity upgrades, and installation of Positive Train Control. After many years of planning, electrification construction began in July 2017. The main contractor is Balfour Beatty Infrastructure, which also built the last two major rail electrification projects in the U.S.: Denver's 25kV electric RTD Rail system built 2010-2019) and Amtrak's New Haven-Boston 25 kV electrification of the late 1990s.

Construction is nearing completion on nearly 138 miles of 25 kV 60 Hz AC overhead catenary wire, seven paralleling stations, two traction power substations, and one 'mid-way' switching station. The last foundation required for the new overhead catenary system was completed in February 2022.

**California High-Speed Rail** | <https://hsr.ca.gov/> - <https://www.buildhsr.com/>

The Caltrain corridor now being electrified will be shared with the San Francisco-San Jose segment of the California High-Speed Rail (CHSR) project. In June 2022, the California High-Speed Rail Authority (CHSRA) released the Final Environmental Impact Report (EIR) / Environmental Impact Statement (EIS) for the approximately 43-mile San Francisco to San Jose 'blended' project section. The CHSRA Board of Directors is slated to approve this section's Final EIR/EIS at its August 17-18, 2022, meeting. With the approval of the San Francisco-San Jose segment, 423 miles of the 500-mile Phase 1 CHSR San Francisco-Anaheim system will have final environmental clearance.

**FUNDING.** In June 2022, Gov. Gavin Newsom signed the California state budget into law, which included the \$4.2 billion release of bonds for California high-speed rail construction in the Central Valley. This includes funding to build the first section of electrified track. The Track and Systems Contract is expected to be approved by the CHSRA Board of Directors by 2023. Some legislative leaders held up funding for electrification, saying that the funds would be better used for local transit projects in the Los Angeles area, or that electrification was not needed because the trains could run on (unproven) hydrogen technology instead. In response, a coalition of passenger rail advocates, industry labor and environmental organizations, and other elected officials pushed for the electrification funding. The **Rail Electrification Council** sent a letter ([REC California HSR Support Letter](#)) to key legislators to support electrification funding to California legislative leaders in January 2022.

**IMPACTS.** The \$4.2 billion of bond money allocated this year is part of the original bond funding from *Proposition 1A*, passed by voters in 2008, which specifically called for funding an electrified high-speed rail system. A recent UC Berkeley-Los Angeles Times poll showed that 56% of California voters support the CHSR project's construction. With the recent rise in petroleum prices, more Californians see the need to end the state's dependence on fossil fuels. The completed CHSR system will remove the equivalent of more than 400,000 cars from roads each year. The cost of adding freeway lanes or airport capacity equivalent to that of the statewide high-speed rail network is estimated to be more than twice as much as high-speed rail and would dramatically increase greenhouse gas emissions.

**BRIGHTLINE PLANS** | <https://www.gobrightline.com/brightline-west>

Brightline is planning to build a new passenger train to connect the LA metropolitan area to Las Vegas. It will be fully electrified with a 25 kV system similar to Caltrain and CHSR, with Siemens Velaro trainsets trains running up to 180 mph between a station south of the Las Vegas Strip and one in the Victorville/Apple Valley area, with future extensions to Rancho Cucamonga and Palmdale. The Brightline West line will mostly run within the Interstate 15 right-of-way. At Rancho Cucamonga, passengers will be able to connect to Metrolink San Bernardino Line service to Los Angeles Union Station. Pending

funding and final permitting/environmental reviews, the project may begin construction in 2023.

*Article courtesy of Brian Yanity, Californians for Electric Rail*

## **FERC'S ELECTRIC TRANSMISSION REFORMS: IMPORTANT TO RAIL**

For the first time in more than a decade, the Federal Energy Regulatory Commission (FERC) proposed sweeping changes to how electric transmission is planned and paid for. The rulemaking (Docket No. 21-17) is important to the **Rail Electrification Council** because a Final Rule could re-enforce the importance of siting transmission lines on or under “brownfield” rights-of way - like longitudinal railroad ROWs and rail yards, which would reduce environmental review, land disturbances, and landowner objections. Infrastructure permitting and siting has historically been a state-controlled process, but the Council believes that siting “best practices” should be part of FERC’s reforms.

The Council’s Comments ([FERC NPOR Comments](#)) contend that FERC can and should advise companies and regulators about the best practices for siting transmission lines. Utilizing railroad rights-of-way allows projects to be planned and constructed with fewer regulatory constraints and intrusions on private land or in sensitive areas. Demand for major high voltage transmission expansions nationally will pressure the power industry and regulators to be more creative.

The Council is determined to have an impact on the electric system by arguing for better utilization of transportation networks, especially since this is a time of major transition in the nation’s energy picture, driven by climate change, extreme weather, and emissions concerns, as well as the need to bring remote renewable resources to market.

The two industries have operated in separate “siloes” for too long. This Final Rule, which is expected to be completed early in 2023, will probably be followed by proposed rules improving the interconnection of distributed electric generation – especially wind and solar facilities – and a major initiative promoting interstate transmission.

## **INFRASTRUCTURE INVESTMENT IS FINALLY ON RAILS**

The activity at FERC and the Department of Energy (DOE) reflects a fresh reappraisal by national policymakers of the need to strengthen our energy and transportation infrastructure. In less than 18 months, Congress has enacted or proposed the most significant energy infrastructure legislation since the Carter Era in the 1970s. Those pieces of legislation are good news for the electrification of our domestic transportation systems and the growing activity surrounding climate change mitigation and clean energy. These developments add fuel to the expanding electrification of the U.S. and Canadian economies, starting with transportation and the decarbonization of electric generation. Railroads will be impacted by the speed and intensity of these developments. Three pieces of legislation lead the way:

### **A. INFRASTRUCTURE INVESTMENT AND JOBS ACT OF 2021**

The IIJA provides \$65 billion for electric power infrastructure, which the DOE is now planning to allocate, billions more for a national network of vehicle charging stations, and billions for battery materials, manufacturing, and recycling. This bipartisan bill has wide-ranging implications for the energy and transportation economies, job creation, and combating climate change

### **B. INFLATION REDUCTION ACT OF 2022**

This legislation allocates \$370 billion to grid and transportation decarbonization and constitutes the nation’s largest climate-related investment. To advance this agenda, the IRA provides the DOE with \$2 billion for loan financing for electric transmission determined to be in the national interest, \$760 million for grants to

states designed to help with transmission siting, and \$100 million for planning and modeling for interregional and offshore transmission that would serve wind and other renewable energy projects. The Act is expected to reduce U.S. greenhouse gases by 30-40 percent by 2030 by funding tax credits, grants, loans and other support for clean energy.

### C. ENERGY INDEPENDENCE AND SECURITY ACT (EISA) OF 2022 (proposed)

Senator Joe Manchin (D-WV), chair of the Senate Energy & Natural Resources Committee, released this long-awaited infrastructure permitting bill on September 26. In recognition of the need for major investment in the transmission system to encourage zero-carbon electric generation and make the system more resilient to extreme weather, the bill time-limits federal environmental reviews under the National Environmental Policy Act, streamlines federal permitting processes for certain projects, and overhauls the DOE's process for designating transmission corridors, which has been an abject failure since its adoption in 2005. The bill would preserve state jurisdiction over siting in accordance with the *Federal Power Act*, with one big exception: very large, high-capacity interstate transmission lines. Unlike the "backstop" siting provisions enacted in 2005, the bill prioritizes individual transmission projects designated as in the "national interest" by FERC and DOE. Importantly, the bill may encourage using existing rights-of-way –an unprecedented invitation for railroads to monetize access to their real estate network in the public interest.

As of this writing, the EISA appears dead in the 117th Congress, as it was excluded from this year's National Defense Appropriations bill, which is "must-pass" legislation, despite support from Sen. Manchin and the White House. The chances of resurrecting infrastructure and siting legislation in the next Congress remain high, however.

## 2023 OUTLOOK

Next year, the Rail Electrification Council's agenda will be more important than ever. The transportation and energy sectors are actively evolving at the transactional, regulatory, policy, and physical construction levels. The importance of railroads and electrification of several segments of the economy is in the news! FERC, DOE, DOT, the FRA, and the Congress will impact your business. Let us help your company navigate this complex environment starting in January. We'd be proud to include you in our planning.

Contact Jim Hoecker ([james.hoecker@huschblackwell.com](mailto:james.hoecker@huschblackwell.com)) and Steve Griffith ([Steve.Griffith@nema.org](mailto:Steve.Griffith@nema.org)) to discuss further.

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