

Rail Electrification Council – Annual Meeting Program

November 19, 2020 1-4PM EST

Microsoft Teams

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RAILROAD ROUNDTABLE: STRATEGIES FOR THE 21ST CENTURY

Freight and passenger rail transportation is enormously important to modern North American economies as a critical infrastructure network. Railroads have not only been a pillar of the American society for nearly 200 years, the industry's recent advertisements also portray freight rail as a harbinger of the future, despite the fact that trucking dwarves' rail with respect to the movement of freight. Where highway transportation appears on the verge of major electrification, for economic and environmental, as well as technological, reasons. freight rail may be preparing to undergo its own modernization. How long will the low cost of diesel fuel delay that transformation? What is the strategic plan for the major railroads and does electrification figure in its future? Although railroads are generally planned and operated in silos quite separate from those of electric utilities, could these two networks functions that could be mutually reinforcing? This panel address strategic, operational, and policy considerations that railroads are currently thinking about.

PANELISTS: **

Michael Cleveland, Senior Manager of Emerging Technologies, BNSF Railway. In this role, Michael is responsible for leading the electrification team looking into ways of reducing BNSF's consumption of diesel fuel. This includes (battery) electric locomotive technologies, battery electric and hybrid cargo handling equipment, and energy management. Additionally, Michael is responsible for alternative fuels and locomotive emissions technologies.

Mathieu Ducharme, Directeur/Manager Senior, Canadian National (CN) Railway. Mathieu has assisted CN as a Research & Development Senior Manager since early 2019. Prior to CN, Mathieu was Chief Technology Officer for Centum Adetel Group developing and supplying train control & information systems to most of the major railway rolling stock manufacturers. Mathieu has been developing transit railway hardware and software systems for close to 15 years both in North America and in Europe.

Mariah C. Morales, Government Affairs and Corporate Communications, AMTRAK. Mariah manages Amtrak's relationships with coalitions, trade associations, and advocacy groups.

Margaret Cederth, Director of Planning and Sustainability, California High-Speed Rail Authority. Margaret Cederth was appointed by Governor Newsom in

2019 to be the Director of Planning and Sustainability for the California High-Speed Rail Authority. Her duties include policy development and implementation, station and station area planning, greenhouse gas emissions inventory, tracking, and offsets, renewable energy planning, sustainable design, and district-scale sustainability approaches.

RENEWABLE ENERGY TRENDS AND ELECTRIFICATION

Many sectors of the American and Canadian economies, including transportation, heating, and data centers, are relying more heavily of electricity as the motive power. Likewise, the generation of electricity may increasingly come from intermittent renewable resources, driven both by market economics and public policy. Large potential sources of dispatchable wind and solar resources exist in areas without customers to support them, making expansion and upgrades of the electric transmission grid a vital consideration. Because transmission is uniquely difficult to site, brownfield rights-of-way offer important alternative ways to locate facilities without use of private property or environmentally sensitive natural features. What will be driving the evolution of energy markets and will railroad ROWs help alleviate the difficulties associated with infrastructure siting?

PANELISTS: **

Hannes Pfeifenberger, Principal, The Brattle Group, author of numerous studies including *Well-Planned Electric Transmission Saves Customers Costs*. Other Brattle economists have also written several treatises, among them *The Coming Electrification of the North American Economy: Why We Need A Robust Transmission Grid*, 2019.

Dale Osborn, Consulting Advisor (retired), Policy and Economic Studies Dept., Mid-Continent Regional Transmission Organization

Gabe Tabak, Counsel, American Wind Energy Association (AWEA)

ENERGY & TRANSPORTATION INFRASTRUCTURE INVESTMENT

What to Expect from the Next Administration? **

Jim Hoecker, REC Counsel, Husch Blackwell LLP and Hoecker Energy Law, former FERC Chairman

REPORT ON 2020 and 2021 AT THE COUNCIL

Accomplishments in 2020, Planned Activities for 2021

Steve Griffith, Industry Director, NEMA's Transportation System Division

***Questions from attendees will be invited*