

ZERO EMISSIONS O THE DRIVENUTS CONTROL OF THE PROPERTY OF THE

American Institute of Chemical Engineers, Cleveland Section

Visit our Web Page at:

https://www.aiche.org/community/sites/local-sections/cleveland

Join our LinkedIn Group called:

AIChE Cleveland Section and let colleagues know it is available

Wednesday, November 17, 2021, 6:00 PM

Burntwood Tavern, Fairlawn-Akron (Possible Zoom Alternate)



H2 Powered SARTA Fuel Cell Electric Bus Fleet; Akron Joint Meeting

By Kirt Conrad, SARTA CEO, Stark Area Regional Transit Authority, Ohio kconrad@sartaonline.com

Abstract: SARTA, under Kirt Conrad's leadership, has replaced much of its bus fleet, purchased buses that run on Compressed Natural Gas (CNG), opened Northern Ohio's first public-private CNG fueling facility, revamped many of its routes, built the Belden Village Transit Center and advanced the Mahoning Road corridor project. They are also deploying 11 fuel cell buses, which will be the largest fleet in the country outside of California. SARTA along with Ohio State University's Center for Automotive Research Lunched the Midwest Fuel Cell Center of Excellence and the Renewable Hydrogen and Fuel Cell Collaborative in 2017.

Not only are fuel cells considered safer than gasoline-powered vehicles, they are also 2x-3x more efficient! The fuel cell is able to use 40%-60% of the energy from the fuel, the hydrogen, to power the vehicle. To put that into perspective, a typical gasoline engine is less than 20% efficient at doing the same thing. This efficiency means that the fuel cell can reduce the need for about 9,000 gallons of fuel over the lifetime of the vehicle and that the carbon released into the atmosphere would decrease by 100 tons per vehicle. That's the equivalent of 10 school buses of carbon emissions! A fuel cell also has no moving parts to the operation as it is only gas that flows through the system. No moving parts mean no noise and an almost whisper-like operation. It also means lower maintenance costs and less engine wear. Overall, the biggest environmental piece of information regarding a fuel cell is this... the only byproducts of the process are heat and water, drinkable water at that!

Hydrogen-powered vehicles are the fuel-efficient future of sustainable public transportation. By making the switch to hydrogen fuel, we're doing our part to conserve natural resources, reduce reliance on foreign fuel sources, bring thousands of jobs to the Midwest, improve the health in our cities and create a greener, cleaner future for our citizens.

A key initiative of the Renewable Hydrogen Fuel Cell Collaborative, the Midwest Hydrogen Center of Excellence is a regional ambassador for the advancement and adoption of hydrogen-powered, zero-emission vehicles (ZEV) in Midwestern public transit.

Bio: Kirt Conrad is a senior executive in Public Transit with expertise in alternative energy and public policy. During his career, he has lead campaigns that have increased ridership over 30% and increased revenues by 20%, secured over \$50 million in competitive grants and managed construction programs from railroad rehabilitation to LEED certified building in the transportation industry. He also lead the purchase of 50 miles of railroad right-of-way and use of transportation infrastructure as a multi-modal corridor for both freight and commuter service. Since 2009, Kirt Conrad has been the CEO of the Stark Area Regional Transit Authority (SARTA) in Canton, Ohio. SARTA operates 100+ buses with 200+ employees. Last year nearly 2.6 million passenger trips were transported by over 30 fixed routes or demand response services throughout Stark County.

Burntwood Tavern, Fairlawn, Ohio (Zoom Alternate)

3750 West Market Street 6:00 – 6:30 pm: Social Gathering

Fairlawn, OH 44333 6:30 – 7:30 pm: Dinner

fairlawn@burntwoodtavern.com 7:30 – 8:30 pm: Presentation with Q&A

234-466-7372

Meeting Location:

COVID-19 Mask & Vaccine Protocols may be in place

Cost: \$22 members & guests, \$10 retired & unemployed, and \$10 students

Menu: https://www.burntwoodtavern.com/ohio

Choice of: lobster bisque, house salad or caesar salad

Choice of: tavern dip, asiago crusted chicken, cedar salmon, fish & chips or angus burger





RSVP by November 10th with Joseph Yurko and AIChE: <u>j.yurko@sbcglobal.net</u>

