



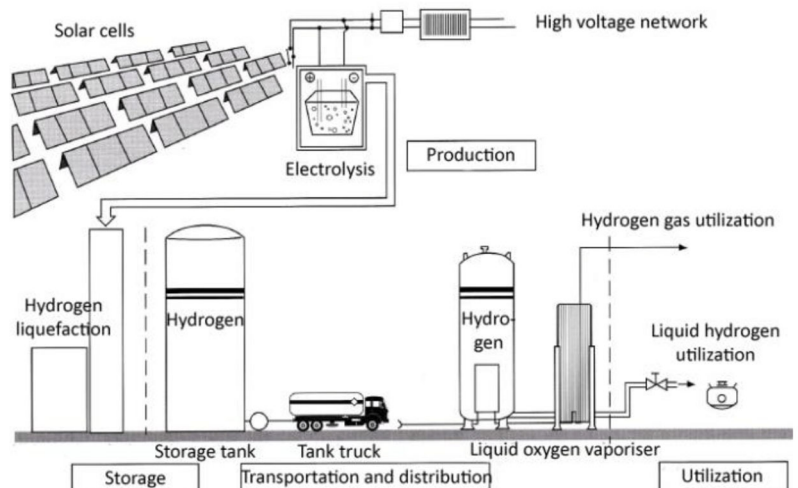
IEEE Tech Talk

Utility Scale Hydrogen Production

Tuesday September 27, 2022, 4 pm PDT

Live Stream Seattle Washington

Join us for a session on Utility Scale Hydrogen Production. How does it work? What do you need to create this energy source? Find out today when we host prominent speaker on this Topic. Hydrogen is now used to fuel cars, planes, and factories. It is a clean source that produces zero emissions.



Register at: <https://events.vtools.ieee.org/m/322384>



World Fuel Services is collaborating to develop world-class Green Ammonia production in the Great Plains region, and we have secured the lowest pricing in the world for this product. Our production is expected to come online in 2025, and expected to produce 500,000-1,000,000 tons NH_3 annually at each facility (up to 5 different facilities, depending on secured demand). Being a stable, high-density Hydrogen carrier with extensive infrastructure and safety/trade regulations already in place, our goal is rapid, cost-effective, large-scale decarbonization of industrial process heat (aluminum, steel, cement, glass manufacturing etc.), dispatchable zero-carbon power generation, and replacement for diesel/gasoline in transportation. We also have end-use EPC partners lined up to assist in the decarbonization transition, and WFS is prepared to invest into new infrastructure to facilitate adoption of Ammonia/Hydrogen fuel.

Windom Shields

Mr. Shields has a broad STEM background, having graduated as a Pre-Medicine student in 2016 with a second degree in Spanish language and literature. I've now been with WFS since early 2019, joining in an analytical role. His work here started with C&I clients to evaluate on-site and utility scale solar and wind project economics. Recognizing the need for a renewable liquid energy carrier, and seeing the firm barriers to Hydrogen adoption related to storage and transportation, he was reassigned earlier this year to his current role as head of renewable fuel development. He has a passion for sustainable economics and renewable business development.

Please welcome Windom Shields...





Stephen Almeida Jr.

The evolution of said Microgrid is expanding. Fuel Cells inherently foster a widespread diversity of application via size capacities and various chemistries. Applications at Community Microgrids complete with renewable Energy sources integrated with Distributed Energy Resources - layered with software as a win win for all.

Utility Scale Hydrogen - can speak towards the diversity of application for H2 via Electrochemical Technology and some tradition CHP tech - that has tested rather successfully to operate on H2 for Clean Gas2Power solutions. The observed global acceptance of H2 by increasing number of Utilities-injecting H2 to the existing NatGas pipeline at preferred percentages - effectively decarbonizing grid delivered gas/electricity. Lastly, as former Board Member to FCHEA - keen insight to what now may prove practical ... Utility Campaign sponsored by Edison Electric Institute fostering widespread

adoption of H2 for centralized injection and decentralized Utility strategies like Substation fortifications including H2 Storage advancing Energy/H2Hubs and Virtual Power Plants. Utility partnerships with both SMR and Electrolysis OEMs.

Distributed Energy Resources/ Renewable Energy Consultant - Subject Matter Expert at EEI

Mr. Almeida, Jr. is an energy efficiency (EE), demand response (DR), and demand side management (DSM) program expert with over 17+ years' experience in the energy industry. He possesses a deep understanding of supply and demand side energy markets, including utilities, ESCOs (Energy Service Companies), brokerages and aggregators. He specializes in the field of Distributed Energy Resources (DERs) and their integration spanning Battery Storage, Fuel Cells and micro-Clean Heat and Power systems.

Please welcome Stephen Almeida...

