



## **AEM Electrolyser** Advantages

# AEM Electrolyser has significant advantage regarding anode electrodes costs

- Low CAPEX without Titanium or Platinum coated cell materials & no Iridium coated electrodes
- Low OPEX with dynamic operation
- Best In class performance with very high ionic conductivity, excellent chemical stability in toxic media and distinguished mechanical integrity



## **Applications** of the Technology

- Defossilization of mobility and transportation
- · Chemical industry for manufacturing of ammonia and fertilizers
- Research labs for testing purposes
- Petrochemical industries to produce petroleum products
- Energy management solutions (storage and management)



# **Innovation** to the Technology

- Utilizing cheaper and more abundant materials and coatings for electrodes and stack components to decrease Capital costs
- Using best in class membranes with higher efficiency, durability, ionic conductivity, and lower costs
- A novel microprocessor coupled with in house software to monitor performance of each cell and help with malfunction control

### Path to **Green Hydrogen**

# Transport Layer Membrane On, Hall Anode Cathode Cathode Catalyst

Schematic cell design of AEM Electrolysis

# Block Diagram of the Electrolyser Unit To Vent Display Moniter Particulate Filter Dryer Dryer Buffer Storage Vessel O2 Stream To Vent Electrolyser

