

Webinar 3
on
HYDROGEN VIA AQUEOUS-PHASE REFORMING (APR)
by
Professor (Dr) P. D. Vaidya
Institute of Chemical Technology

Aqueous-phase reforming (APR) is a low-temperature catalytic process that reforms bio-carbohydrates in the liquid phase. APR produces high quality H₂ (with less CO) and CO₂ from diluted bio feeds over a catalyst (e.g., Pt) in a single reactor. APR has several advantages over vapour-phase steam reforming: it needs lower temperatures; provides additional H₂ through WGS; saves energy by avoiding vaporization of feed; reduces cost by avoiding an extra WGS reactor; and lowers catalyst deactivation. It is advantageous to apply the APR process for reforming bio feeds (such as bio-oils, bio-alcohols, sugars, polyols, algae and waste biomass streams from agricultural and industrial supplies) to H₂.

Webinar 4
on
HYDROGEN BY ELECTROLYSIS OF WATER
by
Mr. Soni J.P
Tyssenkrupp (UHDE)

- Different routes for production of Hydrogen
- Hydrogen generation via water electrolysis – different methods
- ThyssenKrupp Alkaline Water Electrolysis technology
- Brief design features of Electrolyser
- Water Electrolyser system configuration

- Typical economic details for Hydrogen production
- Utilization of Hydrogen to downstream value added products

Webinar 5

on

ADVANCED ENERGY STORAGE MANUFACTURING OPPORTUNITIES

by

Dr Rahul Walawalkar

Policy, Technology & Market Drivers for India

With a strong policy support from Indian government, India is emerging as one of the fastest growing markets for energy storage. IESA anticipates the Indian market will deploy 500- 600 GWh of energy storage across stationary and mobility applications during 2021-2027. Considering this demand Indian government has launched Advanced Chemistry Cell Battery Manufacturing PLI (Production Linked Incentive) in May 2021. Apart from incentivizing 50 GWh of ACC battery manufacturing capacity, Demand generation is a key focus of this PLI. Since launch of the ACC PLI, Indian regulators, CERC has already issued draft ancillary services regulations, there is also renewed focus on hybrid RE+storage tenders and India has also revamped the FAME-2 incentive scheme for electric vehicles. This presentation will provide overview of the policy and regulatory framework in India and highlight opportunities for collaboration between Industry and academia.

Webinar 6

on

ESG (ENVIRONMENTAL, SOCIAL, AND GOVERNANCE) INNOVATIONS IN THE ENERGY STORAGE / ELECTRIC VEHICLE SECTOR

by

Dr. Richard Lobo

Asst. Vice President, Head Innovation and CQH (Business Excellence)

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With the EV revolution taking the world by storm, ESG (Environmental, Social and Governance) – will make up the criteria that will measure a company and country's

sustainability and ethical impact. There are a number of innovations in ESG today from raw material sourcing, Green tyres, Battery Management AI and battery end of life - repurpose /reuse/recycle. The topic will shed light on these innovations and provide perspective for attendees to consider careers/commercial pursuits in the area.