



# Bringing Hydrogen and Clean, Grid-Free Power to the Aviation Industry

Michael Dymant, Chairman  
e1 Air

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The logo for NEXA Capital Partners, LLC, featuring a stylized 'N' made of three horizontal bars. To the right of the logo is the text 'NEXA Capital Partners, LLC' and 'NEXA Capital powers the industry' below it.

**NEXA** Capital Partners, LLC  
NEXA Capital powers the industry

# Aviation's Challenges & Market Drivers

- **Tough Target Needing Novel Solutions:** ICAO aims for *net-zero aviation* by 2050<sup>1</sup>, a complex transition compared to other modes of travel, like road and rail
- **Hydrogen is Needed Now to Support Industry Development:** However, only hydrogen carriers such as methanol and ammonia are within commercial reach this decade.
- **Airports eTransition:** As a first step airports are *deploying charging stations* to support the EV automobile market, and adopting eGSE (Electric Ground Service Equipment) equipment to *meet decarbonization* goals
- **Airport Power Surge:** Airport electricity demand is projected to increase by *5-10x* by 2050<sup>2</sup>
- 2023 FAA Mandate: Major airports *must invest* in backup power like generators and microgrids to enhance resilience<sup>3</sup>
- **Lack of Space & Power:** Airports lack space and grid capacity to support the MW to multi-MW eTransition power demands including EV charging for cars and buses
- **Expensive Power:** Demand charges and unnecessary fixed costs will *limit adoption* of EV charging stations and eGSE
- **Reliable Power:** Grid power can be inconsistent, "*Not Firm*," or unavailable interrupting airport operations

1. [States adopt net-zero 2050 global aspirational goal for international flight operations](#), International Civil Aviation Organization (ICAO), 2022
2. [Solar to Dominate US Power Generation Capacity with 10x Growth by 2050](#), Mercom India
3. [AIRPORT INFRASTRUCTURE Selected Airports' Efforts to Enhance Electrical Resilience](#), GAO 2023

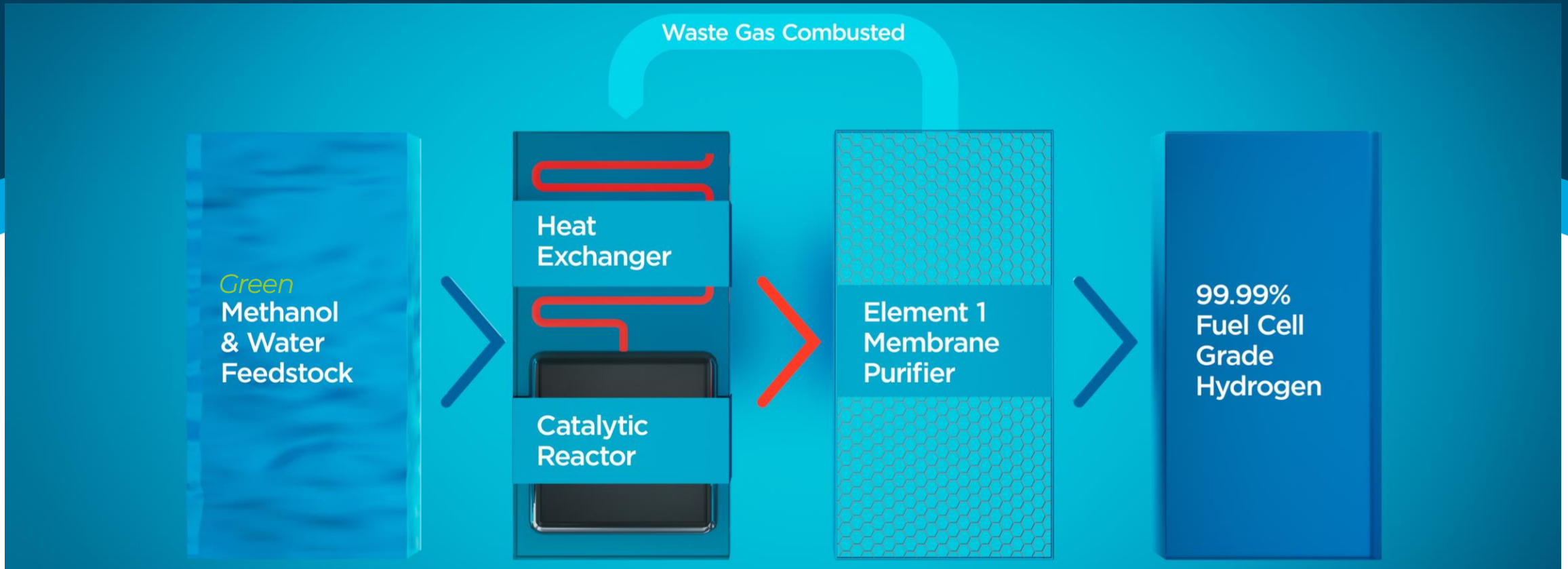


## e1 Air Products & Solutions

- Liquid Hydrogen Carriers such as ethanol, methanol and ammonia provide means with which to transport H<sub>2</sub> at scale to airports everywhere.
- **Green Methanol:** H<sub>2</sub>COH
- e1 Air products will provide H<sub>2</sub> on demand at the point of consumption, eliminating the logistical, and cost challenges inherent in distributing compressed H<sub>2</sub> for both fuel and fuel cell use
- e1 Air provides off-grid moveable containerized clean power solutions enabling the adoption of eGSE equipment at airports, and supporting the charging of EV cars and buses



# The Technology



**e1 Air's Methanol Reformer:** The patented M Series H<sub>2</sub> generator converts a mix of methanol and water into clean H<sub>2</sub> when and where it's needed  
**Major Cost Savings:** Delivers H<sub>2</sub> at 70% less cost than traditional methods and when integrated with a fuel cell provides cost-competitive power for EVs

**Environmentally Friendly:** Produces zero harmful emissions from particulates, NO<sub>x</sub>, or SO<sub>x</sub>

**Already in Market:** This technology is now being commercialized in EV auto racing, maritime shipping, and land-based backup power applications

# e1 Air Management Team



## Hank Krakowski | Chief Executive Officer, e1Air

CEO of Conure Aviation Group, Principal NEXA Capital and Chairman of Nanovapor, Inc. Previous positions include Chief Operating Officer of the FAA and Vice President, Flight Operations and Vice President Safety, Security & Quality for United Airlines. Hank holds a Masters in Business Management from National Louis University.



## Greg Haugen | Chief Financial Officer, e1Air

CFO for Element 1 since 2012. Previously 10 years as the CFO for Advanced Power Technology, a publicly traded semiconductor company. Greg holds a science degree from Lewis & Clark College.



## Robert Schluter | Chief Commercial Officer, e1Air

Co-founder and Chief Commercial Officer for Element 1 Corp. Previously the Managing Director of e1 Marine, and Founder & President for Pangaea Technology Resources. Robert holds a Business degree from Ithaca College.



## Todd Couper | Vice-President of Operations

Expert consultant in aviation fuels and airport ground operations. Previous Head of Fueling Services at United Ground Express and Director of Fuel Operations and Services at United Airlines. Todd holds a Marketing Business Degree from Columbia College Chicago.



## Michael Dyment | Managing Partner, NEXA Capital

Trusted advisor in the aerospace, transportation, and finance sectors for over 40 years. Previous experience includes high-ranking positions at Pricewaterhouse, AT Kearney, and Andersen. Michael holds a Masters in Aeronautic Engineering from MIT.



## Dave Edlund | President, Element 1

Co-founder and inventor of the Element 1 technology. Former VP of Protonex Technology Corp. and CTO & co-founder of IdaTech. Dave holds a PhD. In Chemistry from the University of Oregon.