Hydrogen Air Vehicle

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Description

**Air-borne vehicles such as private airplanes, commercial aircraft, cargo aircraft powered by hydrogen fuel cells*

Hydrogen air vehicles have zero emissions.

1. Expected impact
   - Zero carbon emissions (produce only water as a by-product)
   - Abundant supply
   - Affordability is expected to improve – maintenance costs are low
   - Significant reduction in noise pollution as fuel-cell powered motors are silent
   - Difficulty of storing and transporting large volumes of hydrogen
   - Limited choice of destination – refueling infrastructure may not be available at every destination

2. Technology requirements

Hydrogen fuel cell technology is widely used already but further improvements are expected over the coming decade, which should increase efficiency and reduce costs.

3. Regulatory requirements
   - Regulatory framework for operations and safety/security standards of hydrogen air vehicles
   - Regulatory framework for distribution of hydrogen for refueling

4. Investment requirements
   - Relatively high infrastructure investment –refueling infrastructure needs to be available at every takeoff/landing platform

Tags

FCEV **Future mobility** **Hydrogen aircraft** **hydrogen**

STEEP

- Technological

Links

TRENDS

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Rating criterion	04.06.2020
Importance	