

# **Strategy Report**

# Argus Low Carbon Hydrogen

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### **Executive summary**

- Overview of the study
- Asia Pacific (APAC) and the Middle East region hydrogen supply and demand summary
- Demand oriented country and supply oriented country identification
- Regional total and firm low-carbon hydrogen supply overview

# Introduction to hydrogen

- · Hydrogen specification and definitions (grey, blue, and green)
- Countries with hydrogen strategy (global perspective)
- Current use of hydrogen
- Different hydrogen production routes
- Existing and new application of hydrogen in different sectors

# **Country level analysis**

#### Japan

- Country Overview: Country scorecard, key indicators, decarbonization targets and policy
- Hydrogen strategy and assessment
- Funding: Funds/support scheme related to development of hydrogen economy
- Supply: Japan's domestic low-carbon hydrogen supply
- Demand:
  - Country assessment
  - Demand summary
  - Sector specific overview and corresponding sector hydrogen development plans
  - Comprehensive long-term hydrogen demand analysis for transport and power generation sector
  - Long-term breakeven price analysis for transport, power generation, steel, gas-grid, and refining sectors

#### South Korea

- Country Overview: Country scorecard, key indicators, decarbonization targets and policy
- Hydrogen strategy and assessment
- Funding: Funds/support scheme related to development of hydrogen economy
- Supply: South Korea's domestic low-carbon hydrogen supply
- Demand:
  - Country assessment
  - Demand summary
  - Sector specific overview and corresponding sector hydrogen development plans
  - Comprehensive long-term hydrogen demand analysis for transport, power generation, and gas grid sectors
  - Long-term breakeven price analysis for transport, power generation, steel, and gas-grid sectors

# Australia

- Country Overview: Country scorecard, key indicators, decarbonization targets and policy
- Hydrogen strategy and assessment



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- Funding: Funds/support scheme related to development of hydrogen economy
- Supply: Australia's domestic low-carbon hydrogen supply
- Demand:
  - Country assessment
  - Sector specific overview and corresponding sector hydrogen development plans
  - Hydrogen demand from existing grey hydrogen consumption replacement (fertilizers)
  - Long-term breakeven price analysis for fertilizers, transport, power generation, steel, and gas-grid sectors

#### India

- Country Overview: Country scorecard, key indicators, decarbonization targets and policy
- Hydrogen strategy and assessment
- Funding: Funds/support scheme related to development of hydrogen economy
- Supply: India's domestic low-carbon hydrogen supply
- Demand:
  - Country assessment
  - Sector specific overview and corresponding sector hydrogen development plans
  - Hydrogen demand from existing grey hydrogen consumption replacement (fertilizers and refinery)
  - Long-term breakeven price analysis for fertilizers, refinery, transport, steel, and gas-grid sectors

#### China

- · Country Overview: Country scorecard, key indicators, decarbonization targets and policy
- Hydrogen strategy and assessment
- Supply: China's domestic low-carbon hydrogen supply
- Demand:
  - Country assessment
  - Demand summary
  - Sector specific overview and corresponding sector hydrogen development plans
  - Comprehensive long-term hydrogen demand analysis for transport sector
  - Long-term breakeven price analysis for transport, and steel sectors

#### Middle East

- Middle East summary
- Region supply-side summary

#### Oman

- Country Overview: Country scorecard, key indicators, decarbonization targets and policy
- Hydrogen strategy and assessment
- Supply: Oman's domestic low-carbon hydrogen supply
- Demand:
  - Country assessment
  - Sector specific overview and corresponding sector hydrogen development plans

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- Hydrogen demand from existing grey hydrogen consumption replacement (fertilizers and refinery)
- Long-term breakeven price analysis for fertilizer, refining and steel sectors

#### Saudi Arabia

- · Country Overview: Country scorecard, key indicators, decarbonization targets and policy
- Hydrogen strategy and assessment
- Supply: Saudi Arabia's domestic low-carbon hydrogen supply
- Demand:
  - Country assessment
  - Sector specific overview and corresponding sector hydrogen development plans
  - Hydrogen demand from existing grey hydrogen consumption replacement (fertilizers and refinery)
  - Long-term breakeven price analysis for fertilizer, refining and steel sectors

#### **United Arab Emirates (UAE)**

- · Country Overview: Country scorecard, key indicators, decarbonization targets and policy
- Hydrogen strategy and assessment
- Supply: UAE domestic low-carbon hydrogen supply
- Demand:
  - Country assessment
  - Sector specific overview and corresponding sector hydrogen development plans
  - Hydrogen demand from existing grey hydrogen consumption replacement (fertilizers and refinery)
  - Long-term breakeven price analysis for fertilizer, and refining sectors

# Sustainable Aviation Fuel (SAF)

- Introduction to SAF
- Asia Pacific (APAC) and Middle East SAF policy discussion
- APAC and Middle East long-term aviation fuel and hydrogen demand analysis
- Potential SAF export market analysis:
  - Potential export market-East of Suez overview
  - EU SAF policy coverage
  - Long-term EU SAF demand outlook
  - Long-term hydrogen demand in Europe for aviation sector

# **Marine fuel**

- Introduction to marine bunker fuel
- International Maritime Organization (IMO) decarbonization goals
- Analysis of potential low carbon bunker fuels (ammonia, methanol, and hydrogen)
- Demand:
  - APAC long-term marine fuel demand
  - Long-term APAC e-fuel demand
  - Long-term hydrogen demand in marine sector