

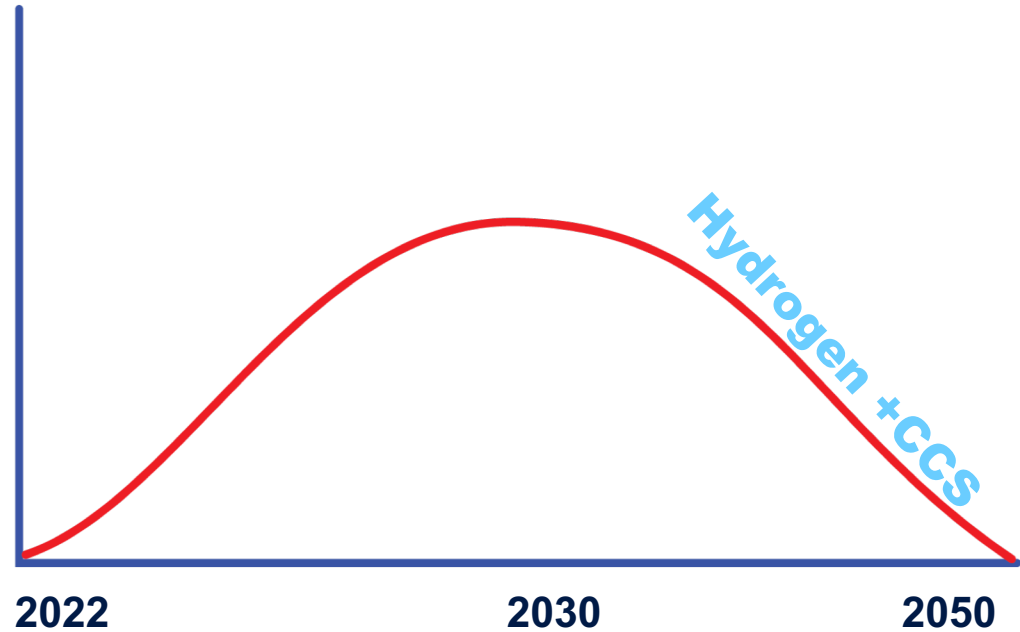
FIFTY SHADES OF GREEN

Mahmood Dailami

Brescia 4 May 2022



- Decarbonization is challenging & critical
- What is being done not what is being said





- As demand grows, decarbonization technology will become more essential



- The challenges is too big and require collaboration for stake holders across the value chain

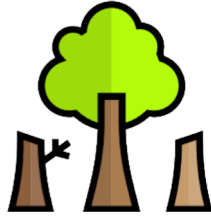


- Investments more than trillion dollars, where the money going to come from?

Sustainability is much more comprehensive than just reducing carbon emissions and decarbonization



BAUXITE



DEFORESTATION



WATER CONSUMPTION



SPL MANAGEMENT



PEOPLE WELLBEING



SAFETY & PEOPLE



COMMUNITY

Three pathways of GHG some are easy and others very difficult and extremely expensive



Power

Electrical

Decarbonization



Process

Emissions

Reduction



Recycling

Collection

Sorting

Power Generation Decarbonization

The most significant drive of Aluminium sector Emission Reduction

- Current CO₂ omission by Aluminum Industry 1.1 billion tons CO₂ per year (2% of world emission)
- Target 2025- 250,000 tons
- 60% generated from Power

Power Generation Decarbonization



Coal 18-20 tons CO₂/T. Al



Gas 8-10 tons CO₂ T.Al



Hydrogen 4-5 tons CO₂ T.Al

World Average 16.5 tons / T. Al

GCC – Gas to Solar



By 2025 EGA will
produce 600,000
tons from Solar
Energy

The Process

Common to all producers, World Average 14.5 kwh/kg. Al,
GCC 12.8 kwh/kg.Al



MoU with Mitsubishi feasibility CCS for Carbon
Anode Production level

Recycled Aluminium



Feasibility
150,000 / year Recycling Plant,
Production in 2024



270,000 tons / year



Invested US\$ 50 million re-melting facility

Others are considering

GAC Sustainability Drive

GAC COMMITTEES

GHG
ESG
Recycle study

SPL

Zero Land fill

WATER CONSUMPTION

85% Recycled

THANK YOU