

September 2023



# Accelerating the Low CO<sub>2</sub> Ammonia Adoption

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# AES Global Presence

## MISSION

Accelerating the future of energy, together.

## VALUES

 Safety first

 Highest standards

 All together

AES IS ENERGIZED BY A GLOBAL WORKFORCE OF APPROXIMATELY

9,100 PEOPLE

4

MARKET-ORIENTED STRATEGIC BUSINESS UNITS

32,326 Gross MW in Operation\*

Generation Capacity Under Construction 5,453MW

\$12.6B

TOTAL 2022 REVENUES

\$38B

TOTAL ASSETS OWNED & MANAGED

6

UTILITY COMPANIES

AES Serves  
2.6M  
UTILITY CUSTOMERS

\*23,494 proportional MW (gross MW multiplied by AES' equity ownership percentage)





# The New Strategic Business Units (SBUs)

## Renewables



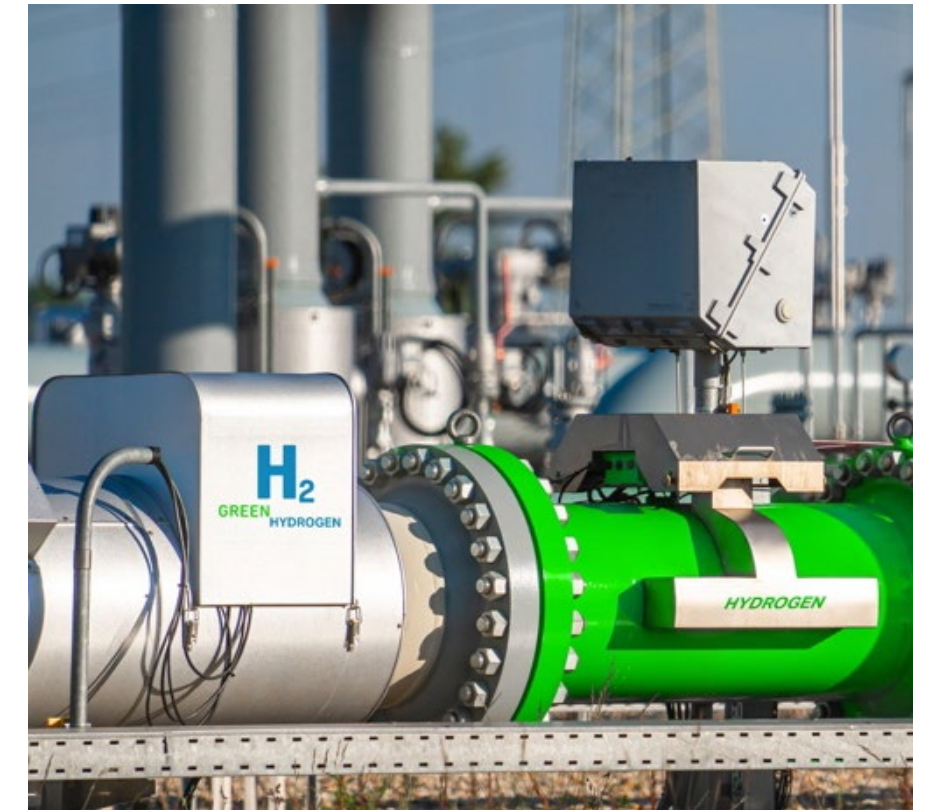
## Utilities



## Energy Infrastructure



## New Energy Technologies





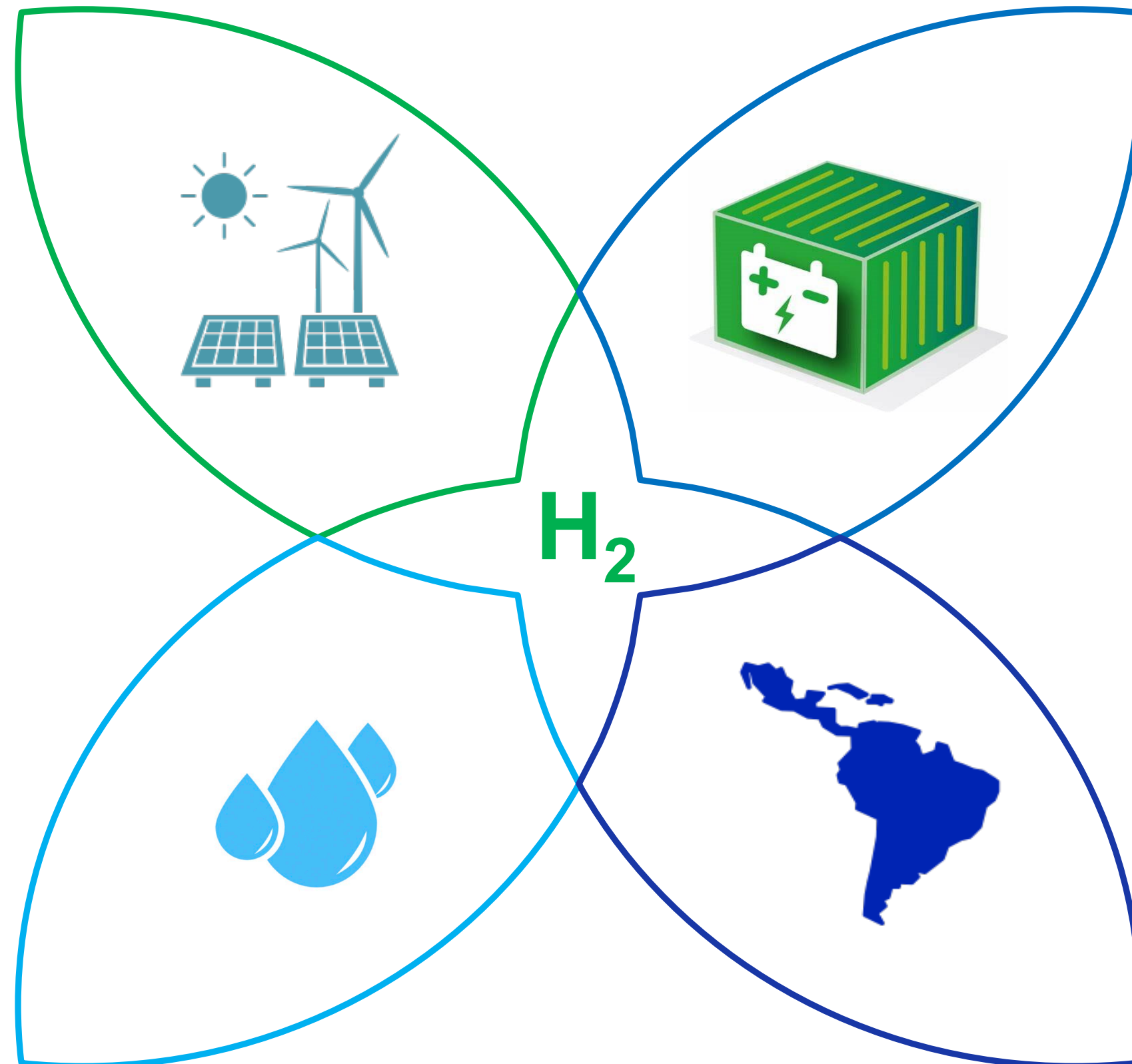
# AES Experience for Low CO<sub>2</sub> Ammonia

## Renewable Energy

- Leader building & operating renewable projects.
- Large portfolio of existing assets and projects.

## Water Desalination

- Expertise developing & operating water desalination projects.



## Energy Storage

- Leader developing and operating energy storage projects.
- Fluence – partnership AES and Siemens.

## Key Locations

- Existing assets & projects in most competitive regions for solar & wind power.

# Partnership Strategy

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## **Strategic Equity & Offtake Partnerships**

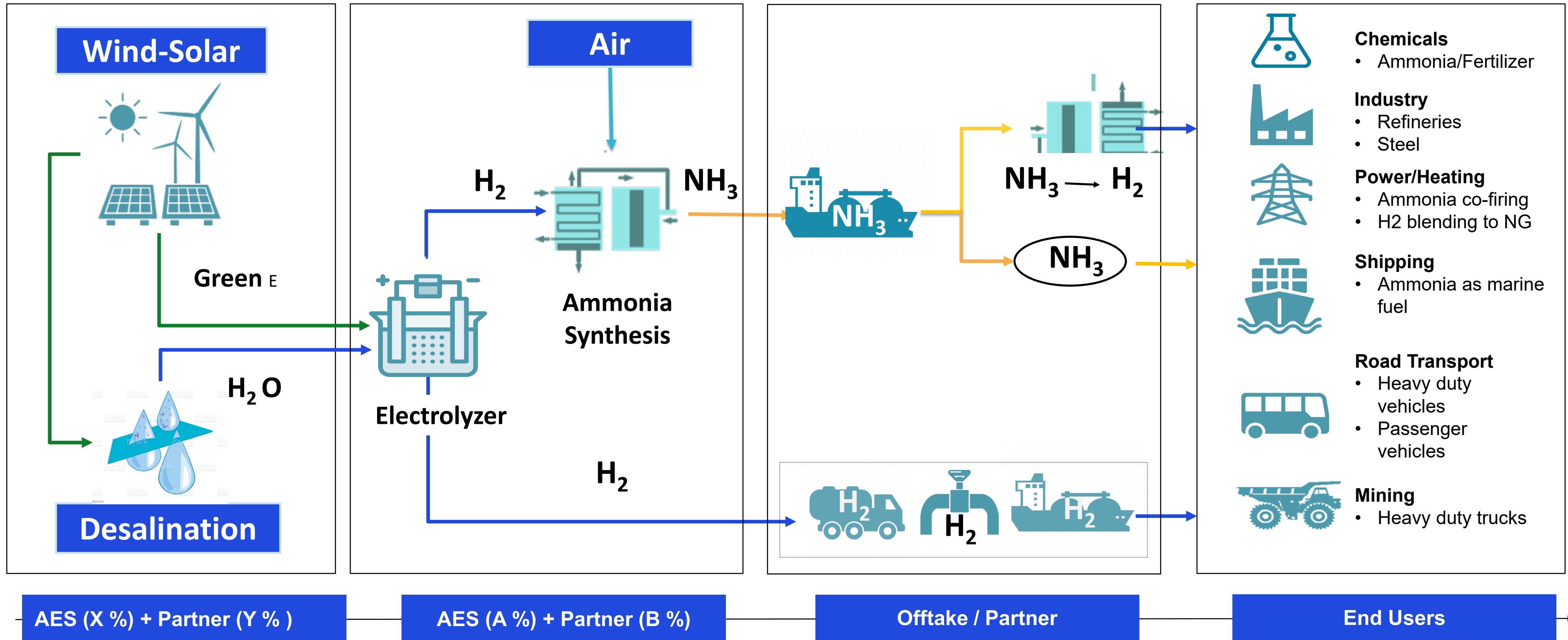
De-risk opportunities by guaranteeing creditworthy developers and off takers

2

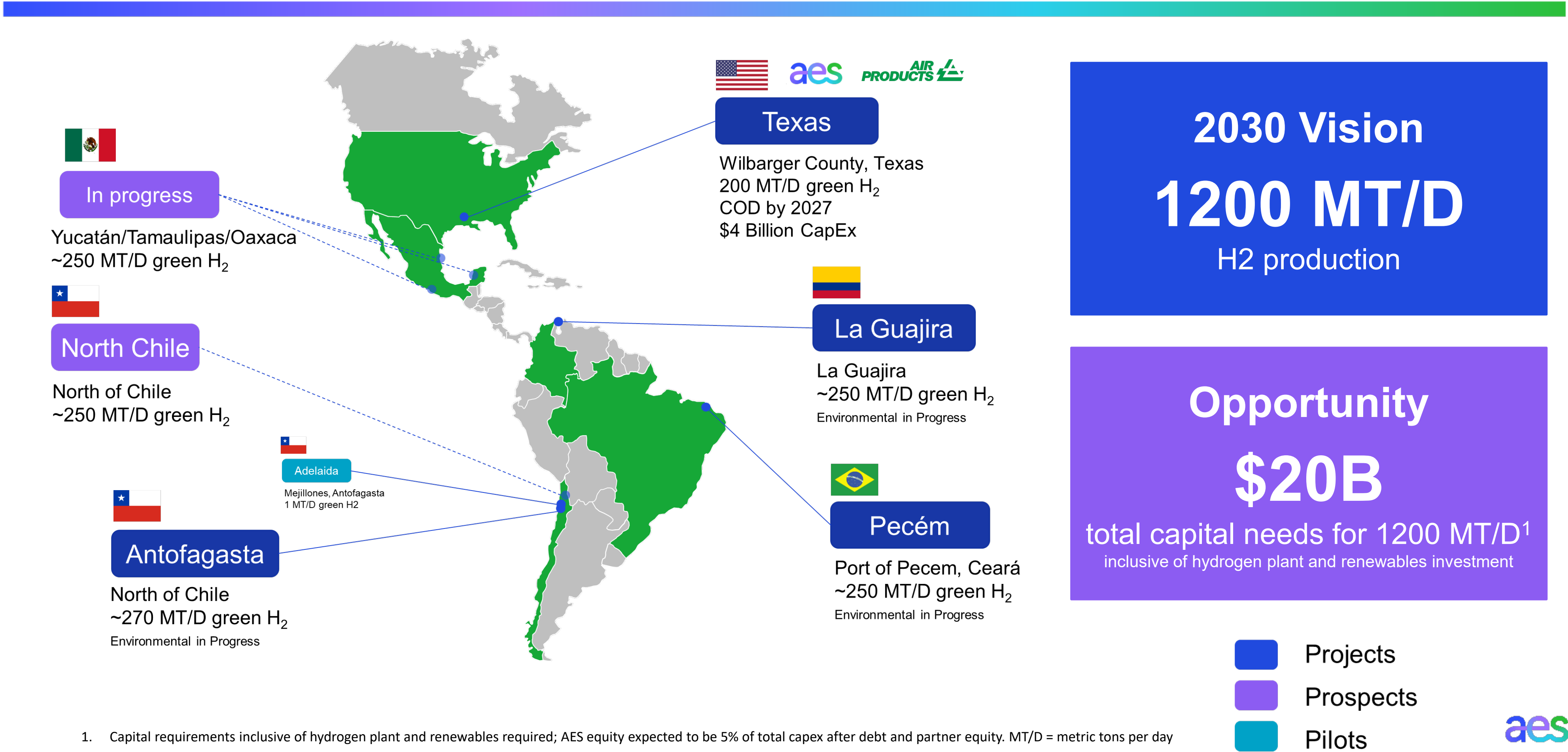
## **Production Innovation Partnerships**

Build competitive advantage by optimizing renewables & electrolysis integration

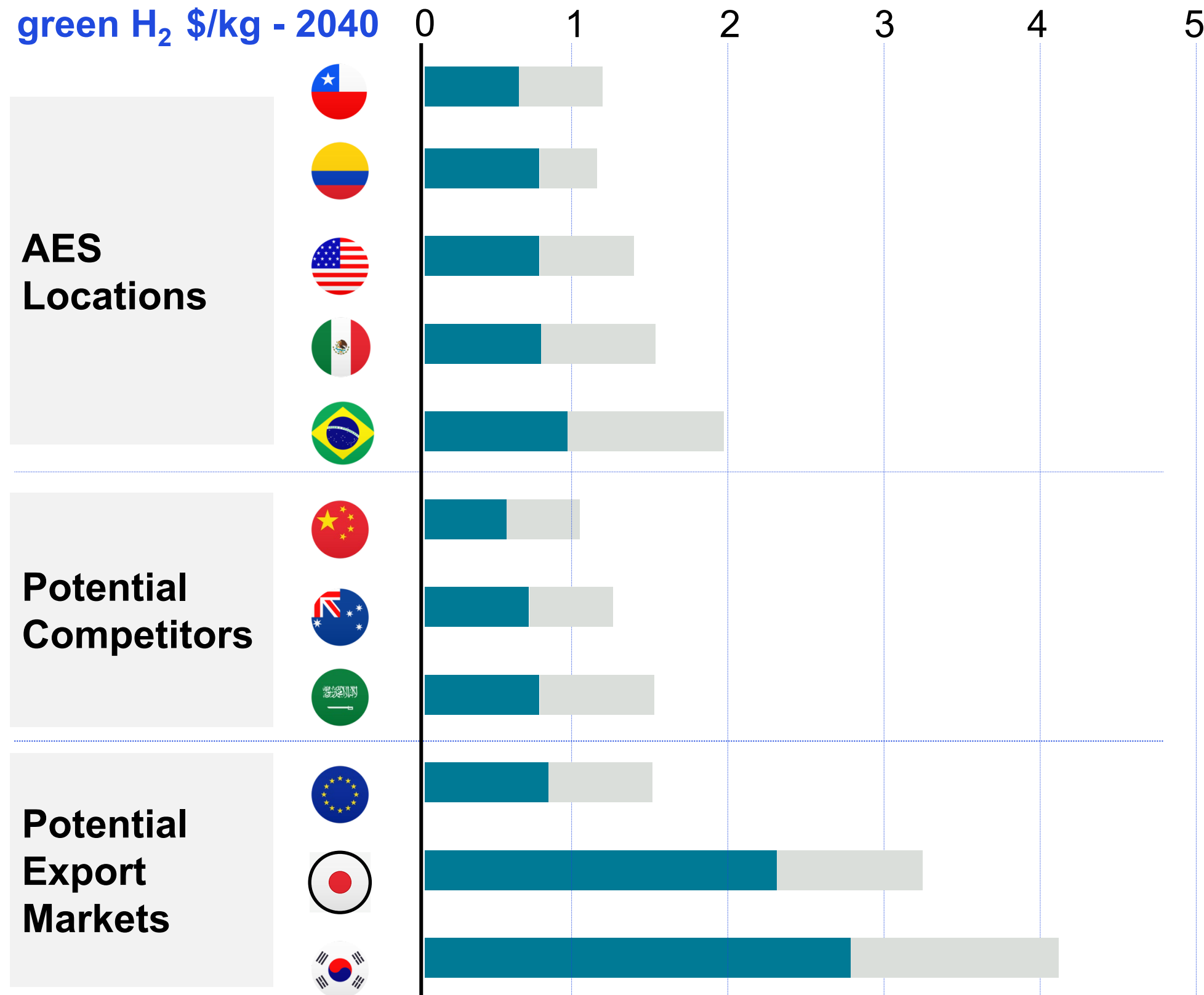
# Business Model



# AES Low CO<sub>2</sub> Hydrogen/Ammonia Pipeline



# The Potential of The Americas



Source: Adapted from IRENA & Accenture

This price of hydrogen is considered until the outlet of electrolyzer

Optimistic

Pessimistic

- South America can provide 35% of global Green Hydrogen
- The Americas have the most competitive LCOEs globally
- The region will support global diversification of energy production



# The Largest Green Hydrogen Project in US

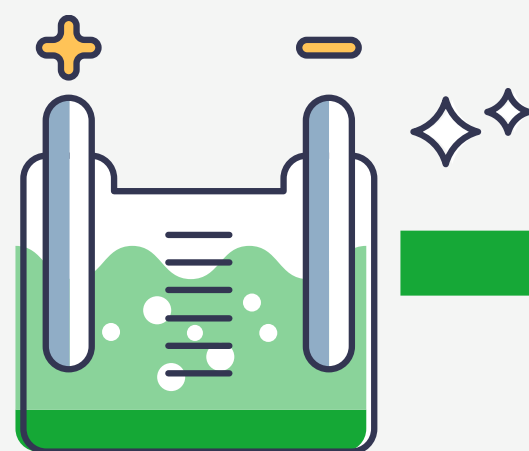
## Upstream

Wind and Solar

**Installed capacity ~1.5 GW**



Electrolyzers capable of producing **over 200 MT/D** of green hydrogen



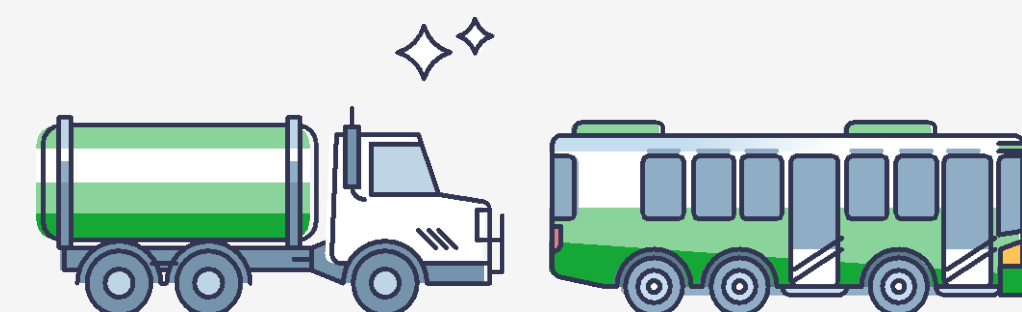
## Downstream ✨

Hydrogen



Industrial market

Hydrogen



Heavy duty transportation market

**Total Investment:** \$4 billion

**Commercial Operation:** 2027

**Location:** Wilbarger County, Texas

**Hydrogen Production JV:** 50:50 Air Products and AES

**Hydrogen Offtake and Marketing:** 100 % Air Products

**Avoids more than 50 million metric tons of CO2 over the project's lifetime, the equivalent of avoiding emissions from nearly 5 billion gallons of diesel fuel**

# To Be Prepared for Deliver Before 2030

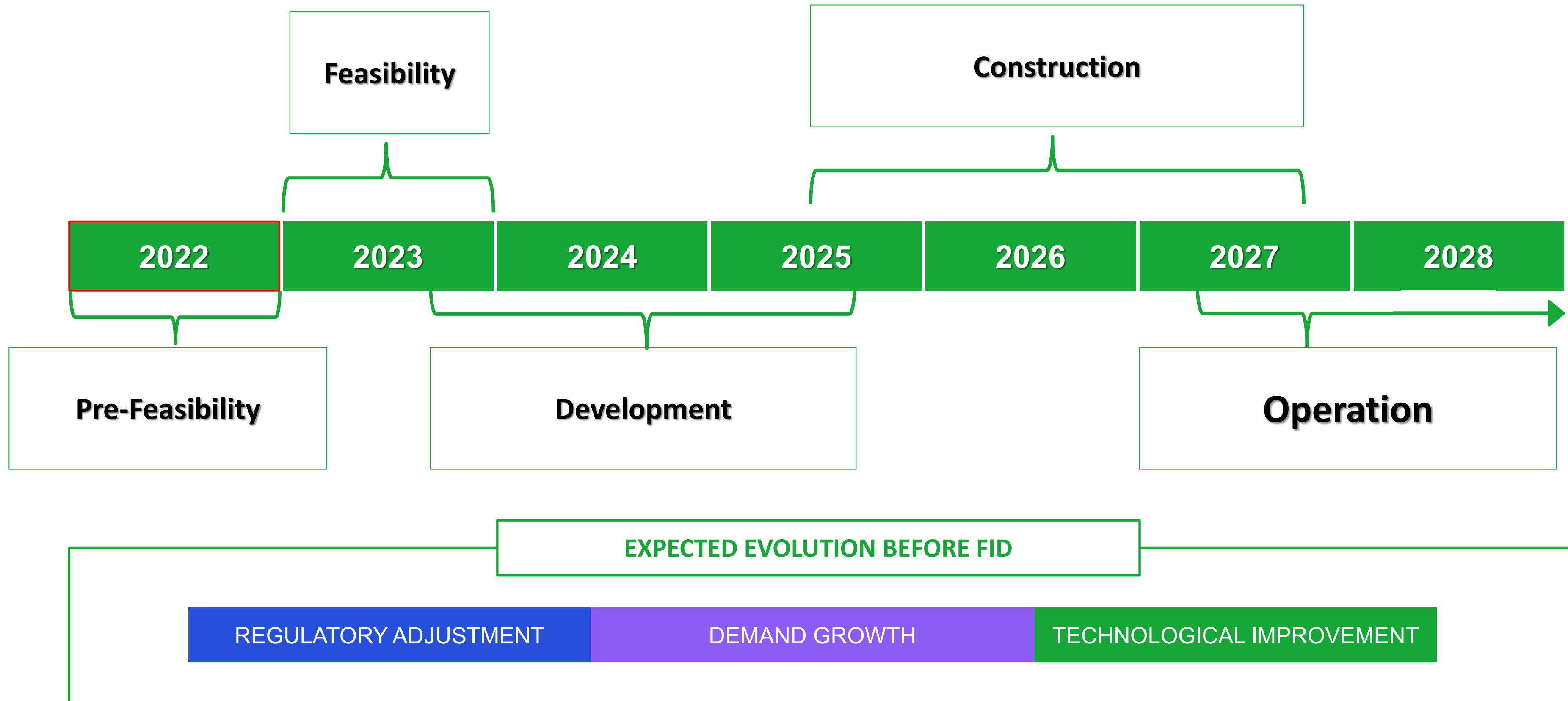


Most industries and regulations have initial targets for 2030 to reach carbon neutrality goals.





# Need to Act Now – Project Timeline



# Takeaways



**Experienced company accelerating the availability of low CO<sub>2</sub> Ammonia**

**Early COD based on advanced stage of development in the best world locations in The Americas**

**Strong business model to increase competitiveness, de-risking financially and technologically its low CO<sub>2</sub> ammonia projects**



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THANK YOU

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