



Driving  
clean energy  
forward

# FCHJU Stake Holders event

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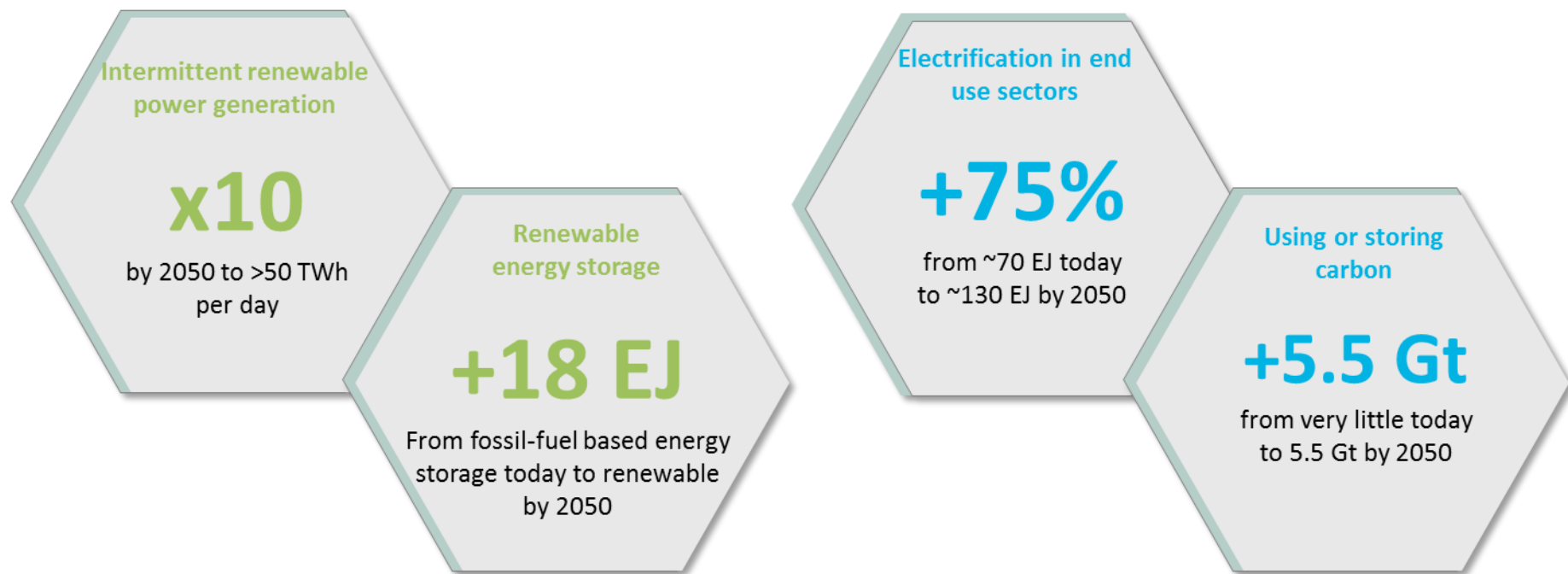
# Energy transition has become a reality!

## The energy transition creates multiple challenges

Enable the renewable energy system



Decarbonize end uses



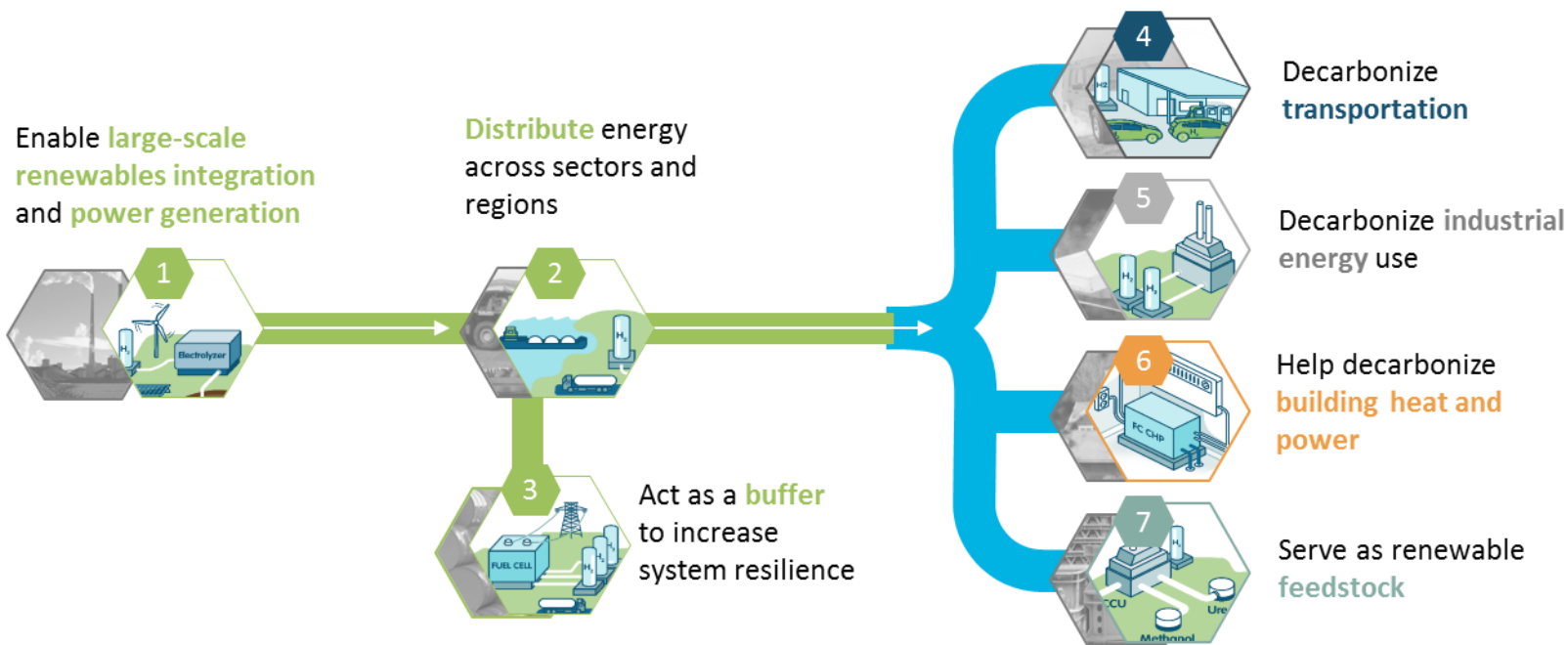
Note: 1 EJ =  $10^{18}$  joules = 1 day of worldwide consumption of energy

Source: Hydrogen Council, IEA

# Hydrogen, the key driver of the energy transition

## Why Hydrogen? It can help mitigate all these challenges

Enable the renewable energy system —————> Decarbonize end uses —————



# The impact of Hydrogen is colossal

## Hydrogen can benefit the energy system, environment and economy

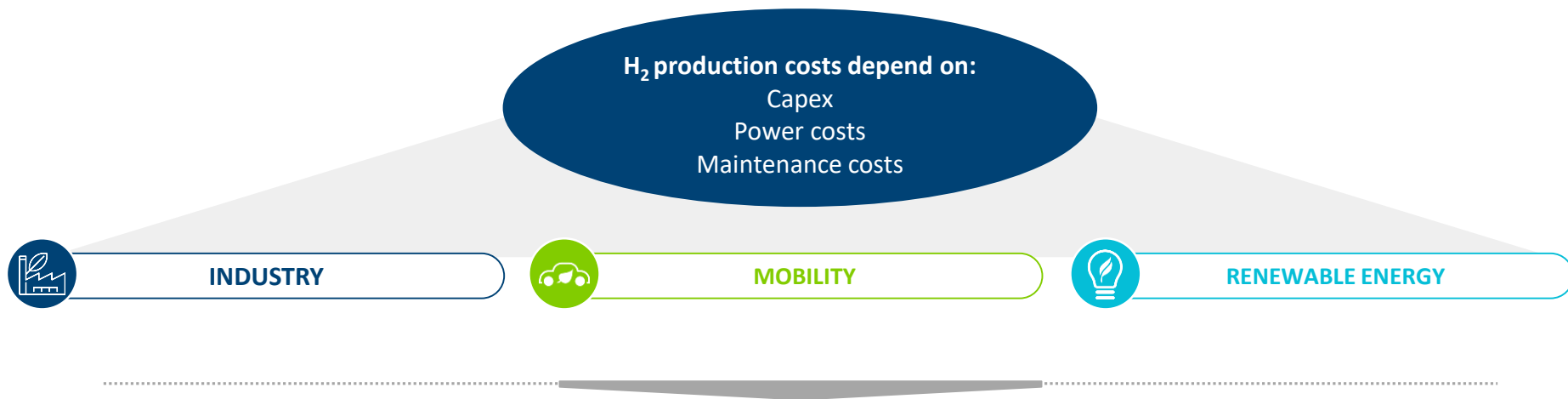
Estimated impact in 2050



Note<sup>1</sup>: Value add of fuel cells

Source: Hydrogen Council, IEA ETP Hydrogen and Fuel Cells CBS, National Energy Outlook 2016

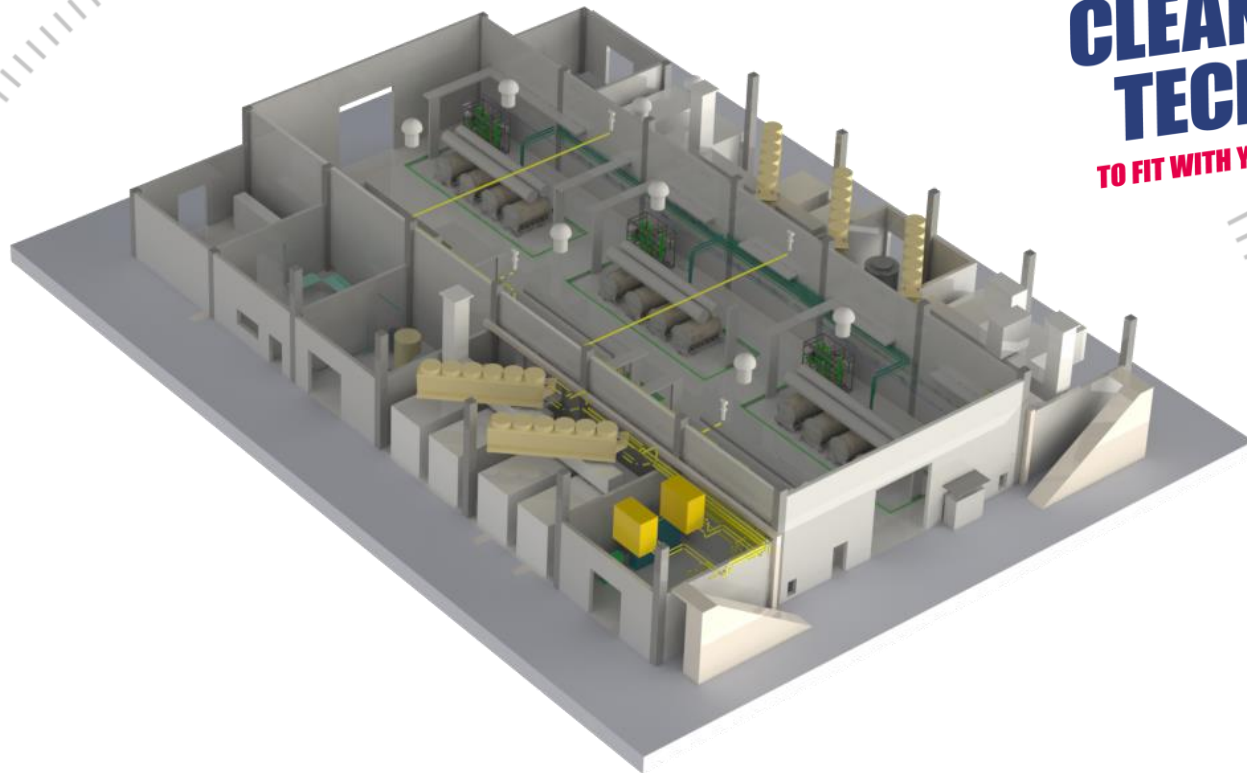
## Hydrogen: a solution already competitive



- H<sub>2</sub> production **is already profitable for Mobility and Industry markets**, and is **expected to become even more profitable** with the decrease in both Capex and cost of power (even in taking into account the decrease in selling prices)
- McPhy is introducing very **large platforms** that are able to produce **H<sub>2</sub> at €2/kg** and therefore offering competitive and decarbonized alternative to steam reforming of natural gas

# AUGMENTED CLEAN HYDROGEN TECHNOLOGIES

TO FIT WITH YOUR LARGE-SCALE APPLICATIONS



NEW  
2018!

Scalable architecture: 4 / 20 / +100 MW

20 MW cluster: a footprint < 900m<sup>2</sup>

High pressure production: 30 bar

Quick response & High energy efficiency



**Augmented McLyzer**  
Our new generation of electrolyzers

# AUGMENTED CLEAN HYDROGEN TECHNOLOGIES

TO FIT WITH YOUR LARGE-SCALE APPLICATIONS

NEW  
2018!

To 400 kg per day and more

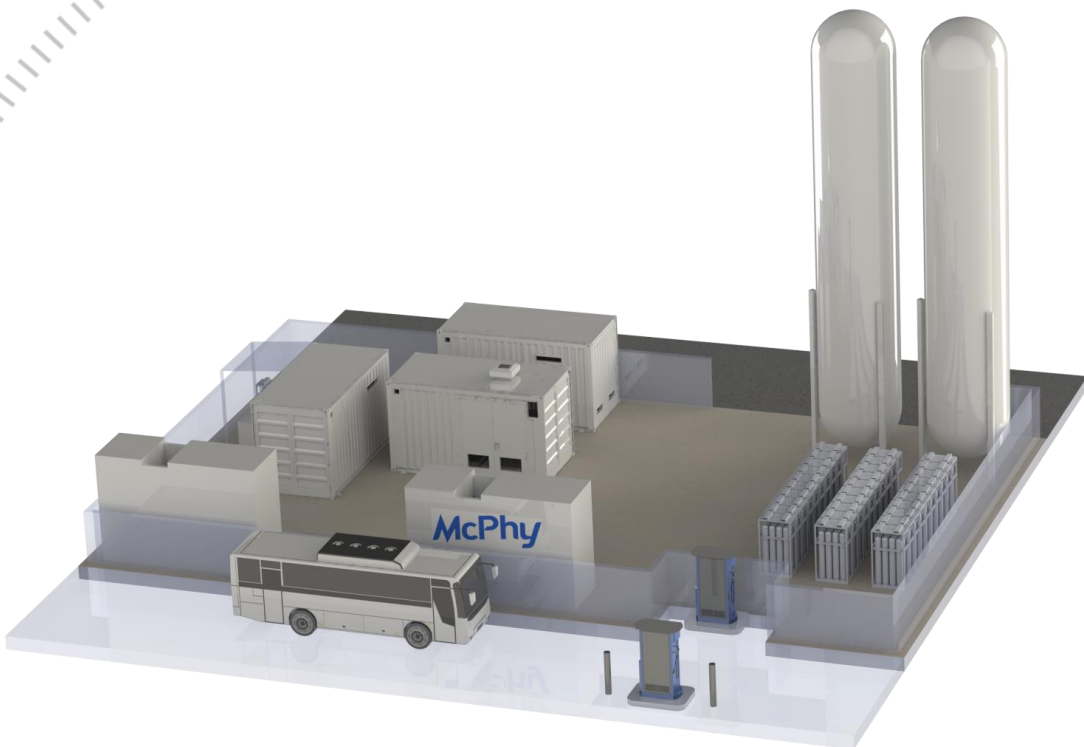
At 350 and / or 700 bar

For heavy transport: buses, trucks, trains,  
boats ; and / or for large fleets

Interfaces with an electrolyzer for true  
clean mobility chain



**Augmented McFilling**  
Large-scale clean mobility solutions





Driving  
clean energy  
forward

# Thank You

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