



Seef Eldin Aboul-Ella Otifey  
Eyad Amr Sayed Ibrahim  
Karen Sameh Abdallah  
Under supervision  
Dr. Mohamed Saeed Abdul Ghaffar  
Eng. Dina Hosny Elnaggar

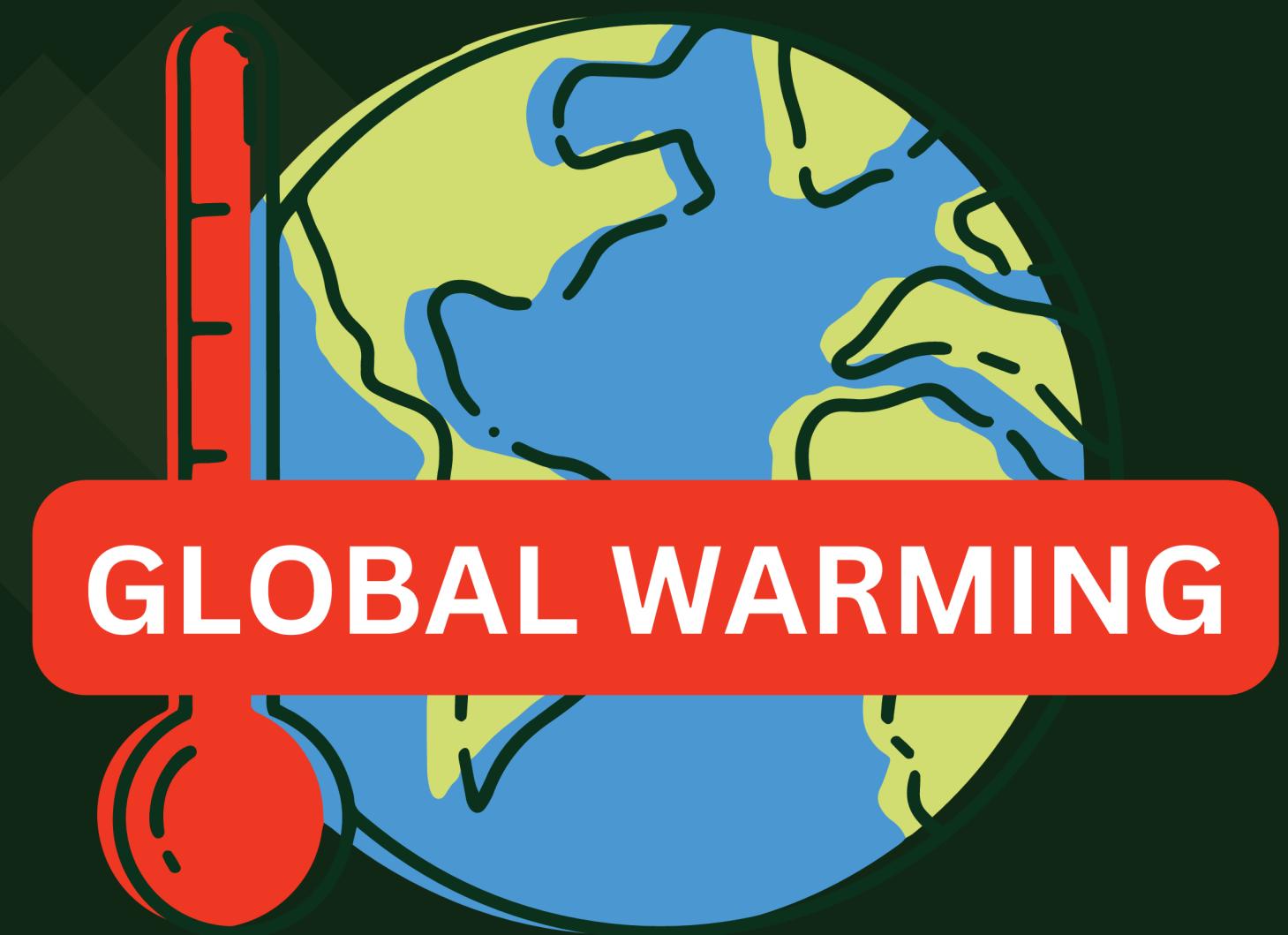


# Clean Energy Vehicles and AI Integration





# CLIMATE CHANGES



## GLOBAL WARMING

1

## ***Flood Disaster***

due to global warming the ice sheets or **ice bars will melt which will lead to overflowing of water**

2

## ***Increased drought***

Warmer temperatures enhance **evaporation**, which reduces surface water and **dries out soils and vegetation**

3

## ***More health risks***

A study in China to quantify the effect of different temperature measures on **malaria**, found that each **5°C increase in average temperature above 10°C was associated with a 22% increase in malaria cases**



# GREEN HYDROGEN





**GREEN HYDROGEN**

**WIND TURBINES**



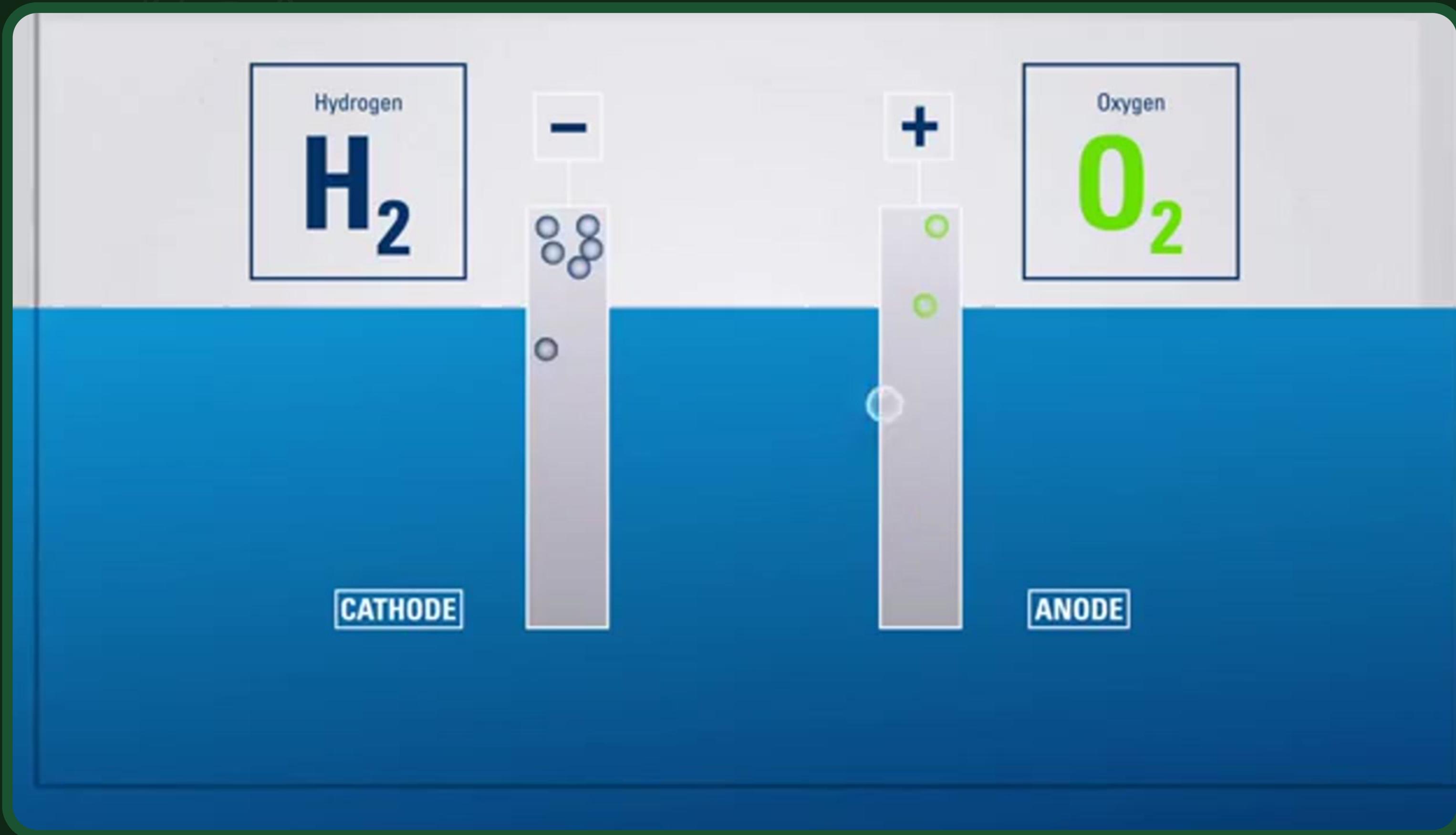
***HydroElectricity***



**SOLAR PANELS**



# WATER ELECTROLYSIS



- *Methods of hydrogen storing:*

1

***Compression***

2

***liquefaction***

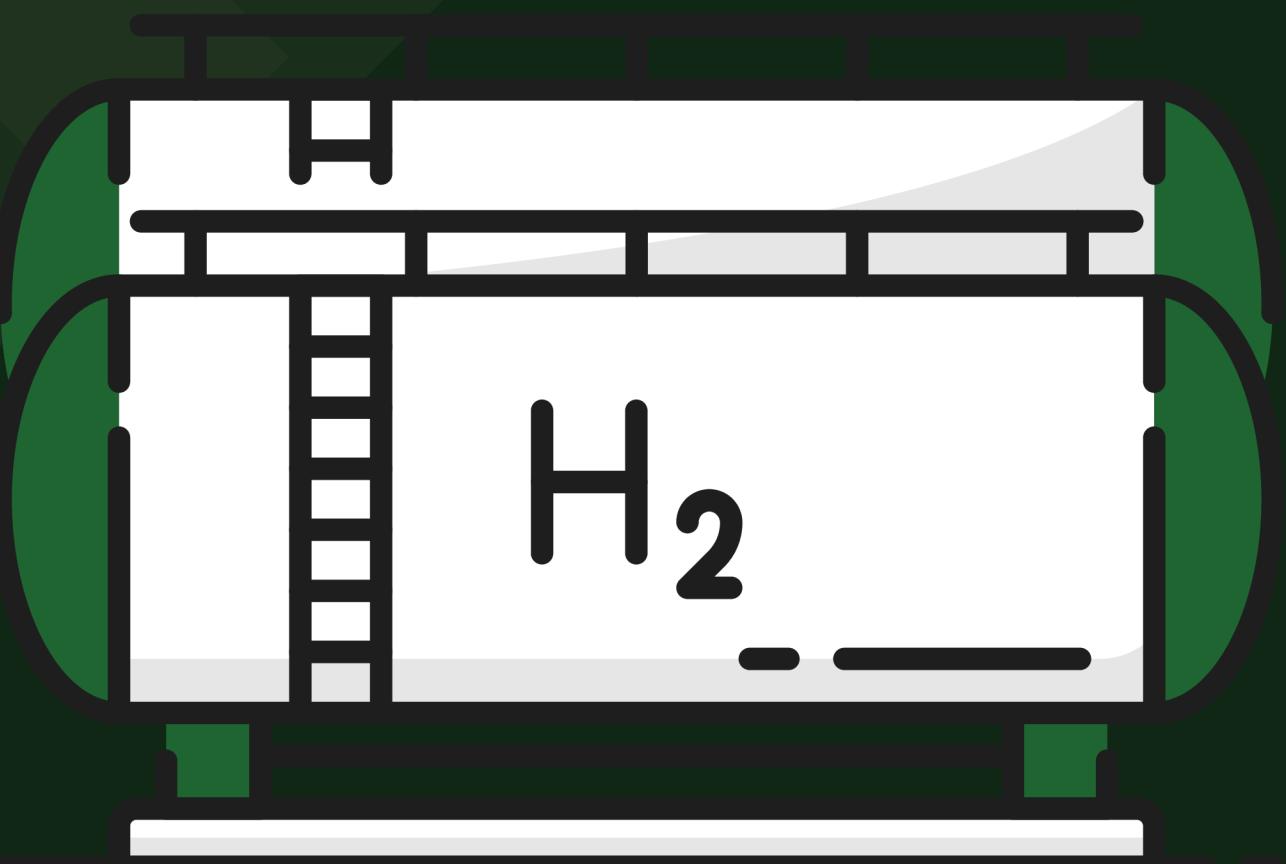
3

***material-based storage***

4

***Low-Temperature Storage***

- ***Safe and efficient storage.***



# Compression

- required Pressure : around **350-700 Bar**
- **Compact Storage**
- **High Energy Content**
- **Quick Charging**

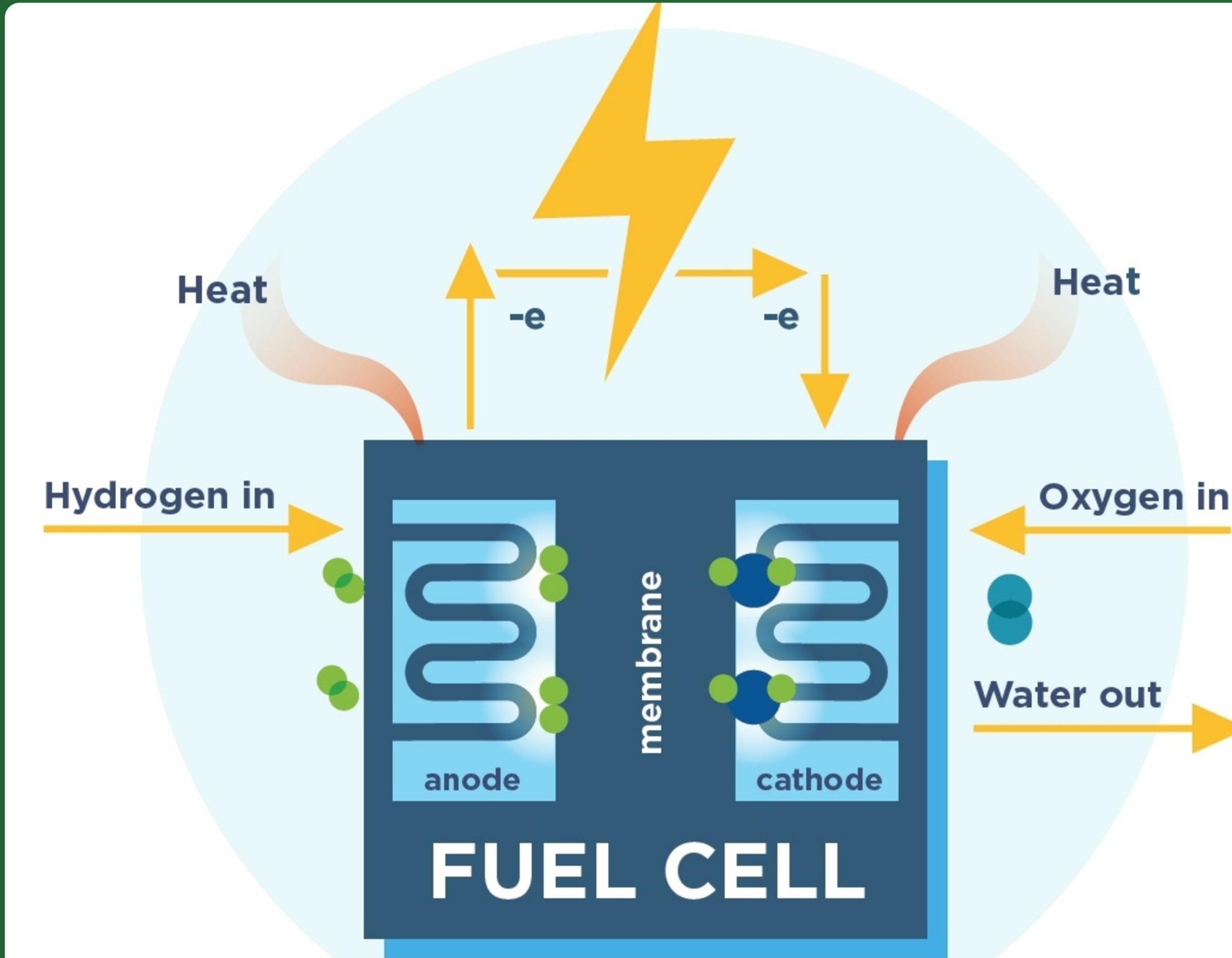


*Hydrogen Cylinders*

# FUEL CELL

- *Definition of a fuel cell and its function*

- *Basic operation*







# SWOT Analysis

Strength, Weakness, Opportunities, and Threats

## S

- Environmental Benefits
- High Energy Density
- Fast Refueling
- Energy Storage

## W

- High Production Costs
- Limited Infrastructure
- Energy Efficiency
- Safety Concerns

## O

- Growing Demand for Clean Energy
- Technological Advancements
- Government Support
- Integration with Other Sectors

## T

- Competition from Battery-Electric Vehicles (BEVs)
- Market Volatility
- Technological Challenges
- Public Perception

# *Competitors*

