Green Hydrogen : The Sarawak Strategy for a Sustainable Future

The Right Honourable Datuk Patinggi Tan Sri (Dr) Abang Haji Abdul Rahman Zohari Bin Tun Datuk Abang Haji Openg

Premier of Sarawak

ASIA PACIFIC GREEN HYDROGEN 2024 CONFERENCE & EXHIBITION

10 - 12 JUNE 2024

BORNEO CONVENTION CENTRE KUCHING, SARAWAK

www.hydrogenapac.com

An Event Hosted and Supported by

Ministry of Energy and Environmental Sustainability Sarawak

BUSINESS EVENTS SARAWAK

TRIBE LEGACY SARAWAK CAMPAIGN

SARAWAK More To Discover

Organised by

BORNEO BUSINESS CONNECT

Transition of Economies


Source: Borneo Post


Source: Borneo Post


Source: Malaysian Palm Oil Board

1

Resource-Based Economy

1980s

Transition of Economies


Batang Ai Hydroelectric Dam

Bakun Hydroelectric Dam


Murum Hydroelectric Dam

1

Resource-Based Economy

1980s

2

Renewable Energy

2000s


Baleh Hydroelectric Dam (completion by 2030)

Source: Sarawak Energy Berhad

Transition of Economies

Source: See Hua Daily News

Source: Borneo Post

Source: Jabatan Penerangan Malaysia

1

Resource-Based Economy

1980s

2

Renewable Energy

2000s

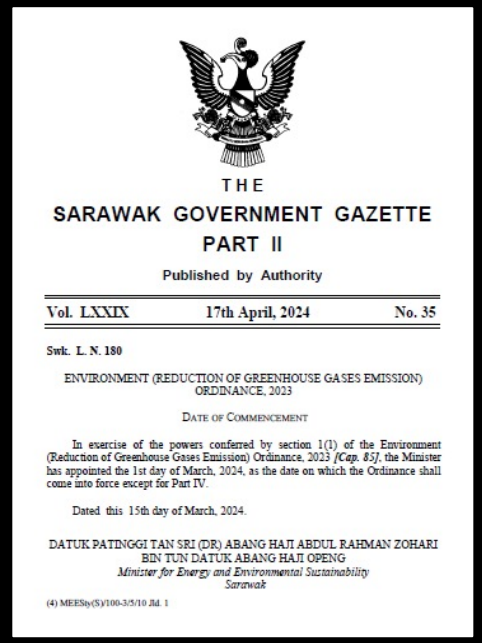
3

Digital Economy

2018

Transition of Economies


Source: Borneo Post



THE
SARAWAK GOVERNMENT GAZETTE
PART II

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ENVIRONMENT (REDUCTION OF GREENHOUSE GASES EMISSION) ORDINANCE, 2023

DATE OF COMMENCEMENT

In exercise of the powers conferred by section 1(1) of the Environment (Reduction of Greenhouse Gases Emission) Ordinance, 2023 *[Cap. 85]*, the Minister has appointed the 1st day of March, 2024, as the date on which the Ordinance shall come into force except for Part IV.

Dated this 15th day of March, 2024.

DATUK PATINGGI TAN SRI (DR) ABANG HAJI ABDUL RAHMAN ZOHARI BIN TUN DATUK ABANG HAJI OPENG
Minister for Energy and Environmental Sustainability
Sarawak

(4) MEESty(S)/100-3/5/10 Jld. 1

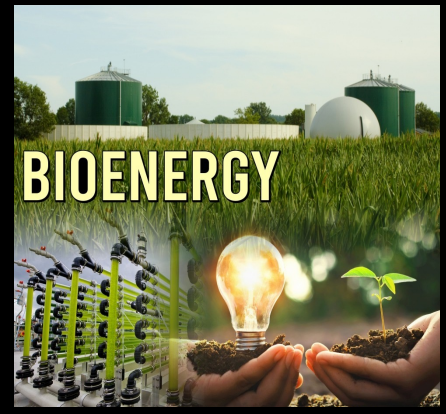

Source: MEESty

4

Green Economy
& Sustainability

2021

Transition of Economies



4

Green Economy & Sustainability

2021

5

Net Zero & Future Economies

2024 >>

Our Humble H_2 Journey

Source: Sarawak Government Portal

Source: Sarawak Energy Berhad

South-East Asia's First Integrated Hydrogen Refueling Station (2019)

Source: Sarawak Energy Berhad

Source: Sarawak Energy Berhad

Source: SEDC Energy


Source: The Borneo Post

HYDROGEN-POWERED TOYOTA MIRAI (2023)

Source: Wap Car

Source: Dayak Daily

SARAWAK HYDROGEN-POWERED AUTONOMOUS RAPID TRANSIT (ART)

Source: The Sun

Source: Sarawak Metro

Source: Sarawak Metro

SARAWAK HYDROGEN BUS

Source: Sarawak Metro

Source: Dayak Daily

Source: Borneo Post

SARAWAK HYDROGEN HUBS

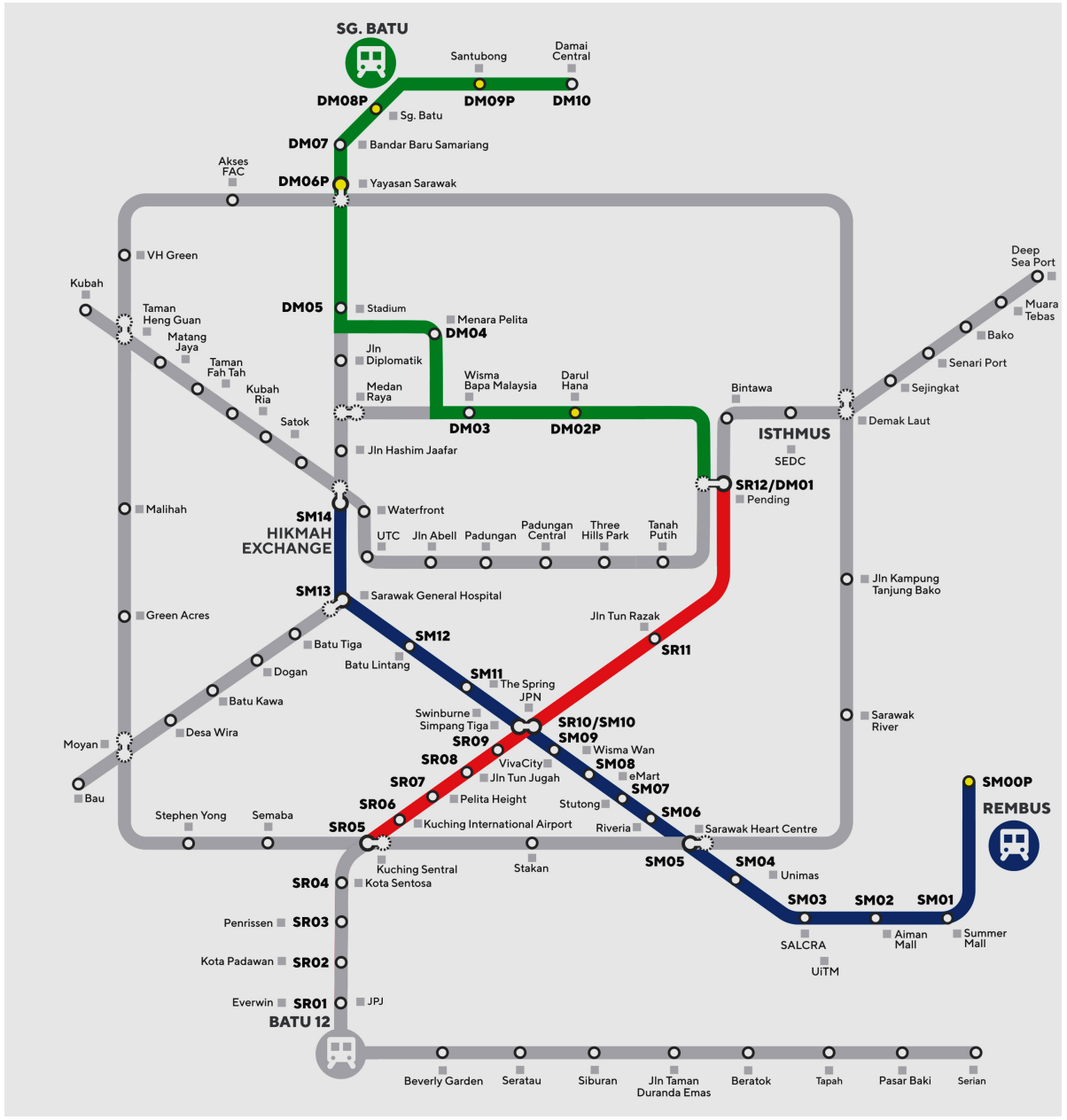
Source: SEDC Energy

Sarawak H2 Hub
Tanjung Kidurung, Bintulu


Source: Sarawak Metro

Rembus H2 Plant
Kota Samarahan

Kuching Urban Transport System



Source: Sarawak Metro

PETROS MULTIFUEL STATION (2022)

Source: SEDC Energy

H2ornbill

SEDC ENERGY · Sumitomo Corporation · ENEOS

H2BISCUS

SEDC ENERGY · LOTTE CHEMICAL · SAMSUNG E&A · KNOC

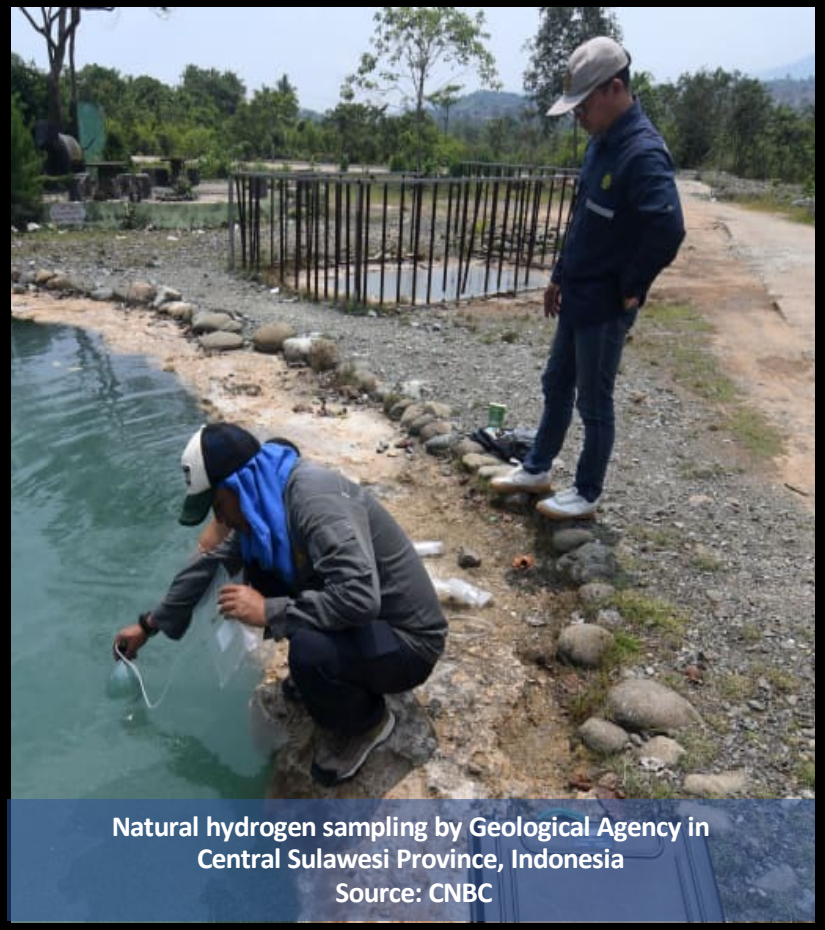
Source: SEDC Energy

Source: SEDC Energy

Both projects are targeted to produce:

- **240,000 tonnes of clean hydrogen/annum for export to Japan and South Korea as early as 2028.**
- **9,000 tonnes of clean hydrogen/annum for domestic distribution and utilization.**

Students measure the concentrations of hydrogen in the exposed soil.
Source: University of Pretoria



Natural hydrogen sampling by Geological Agency in Central Sulawesi Province, Indonesia
Source: CNBC

A well for natural hydrogen production in Geneva, Nebraska
Source: New Scientist

Natural Hydrogen




Centre of Excellence for Clean Energy

PRELIMINARY SARAWAK ENERGY TRANSITION POLICY OVERVIEW

Secure, Equitable, and Clean Energy Future for Sarawak

OBJECTIVES

Energy Security
Maintain adequacy and reliability of energy supply

Equitable & Just Transition
Achieve affordable and accessible energy for all at the right pace

Sustainable
Energy from renewable/sustainable sources

Economic Growth
Ensure continuous economic growth as Sarawak transitions to a clean energy future

FOCUS AREA

- Power
- Transportation
- Industry
- Buildings (Residential & Commercial)

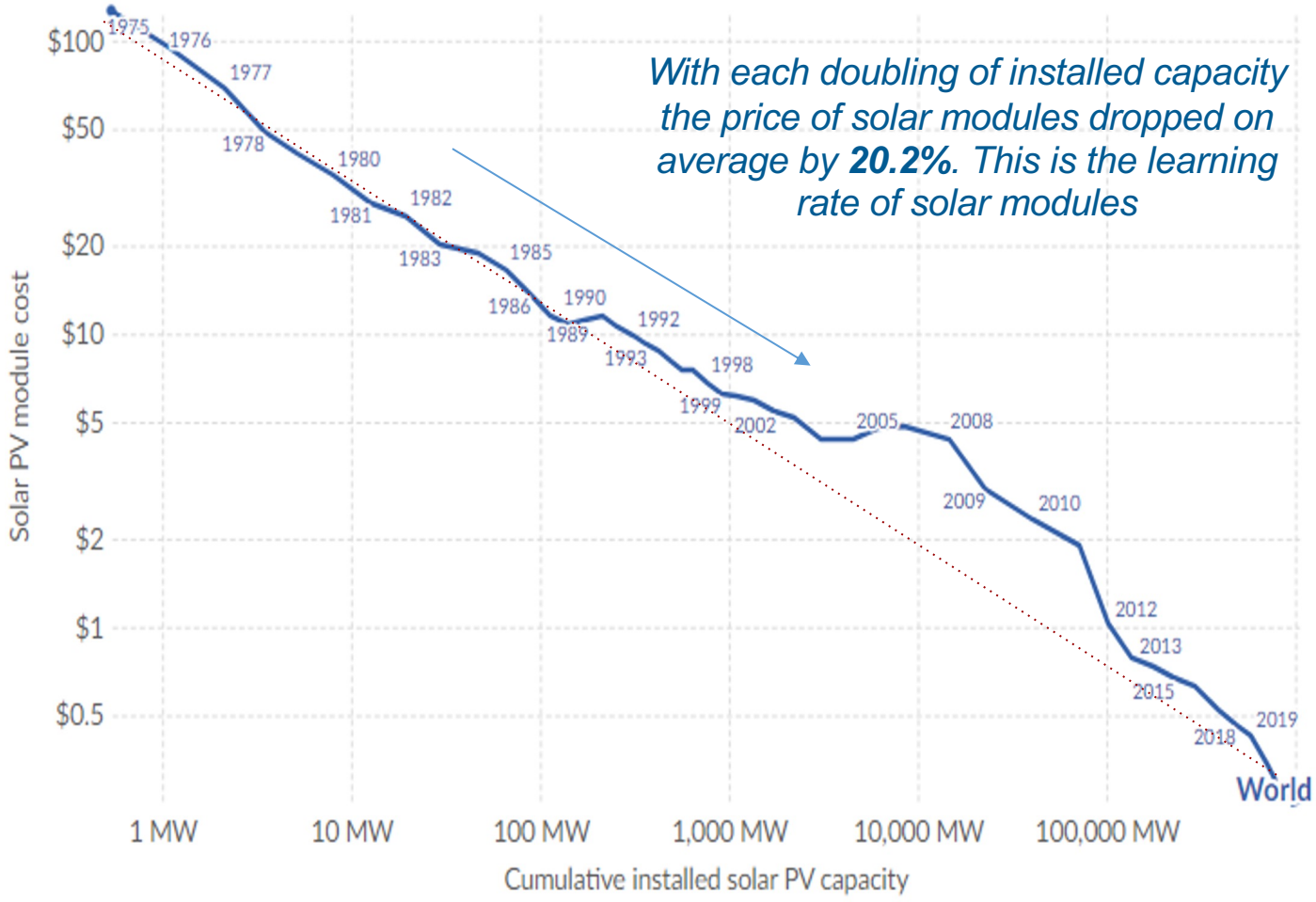
PILLARS

- Renewable Energy
- Hydrogen
- Energy Efficiency
- Green Mobility
- Bioenergy
- Synthetic Fuels
- CCUS
- O&G

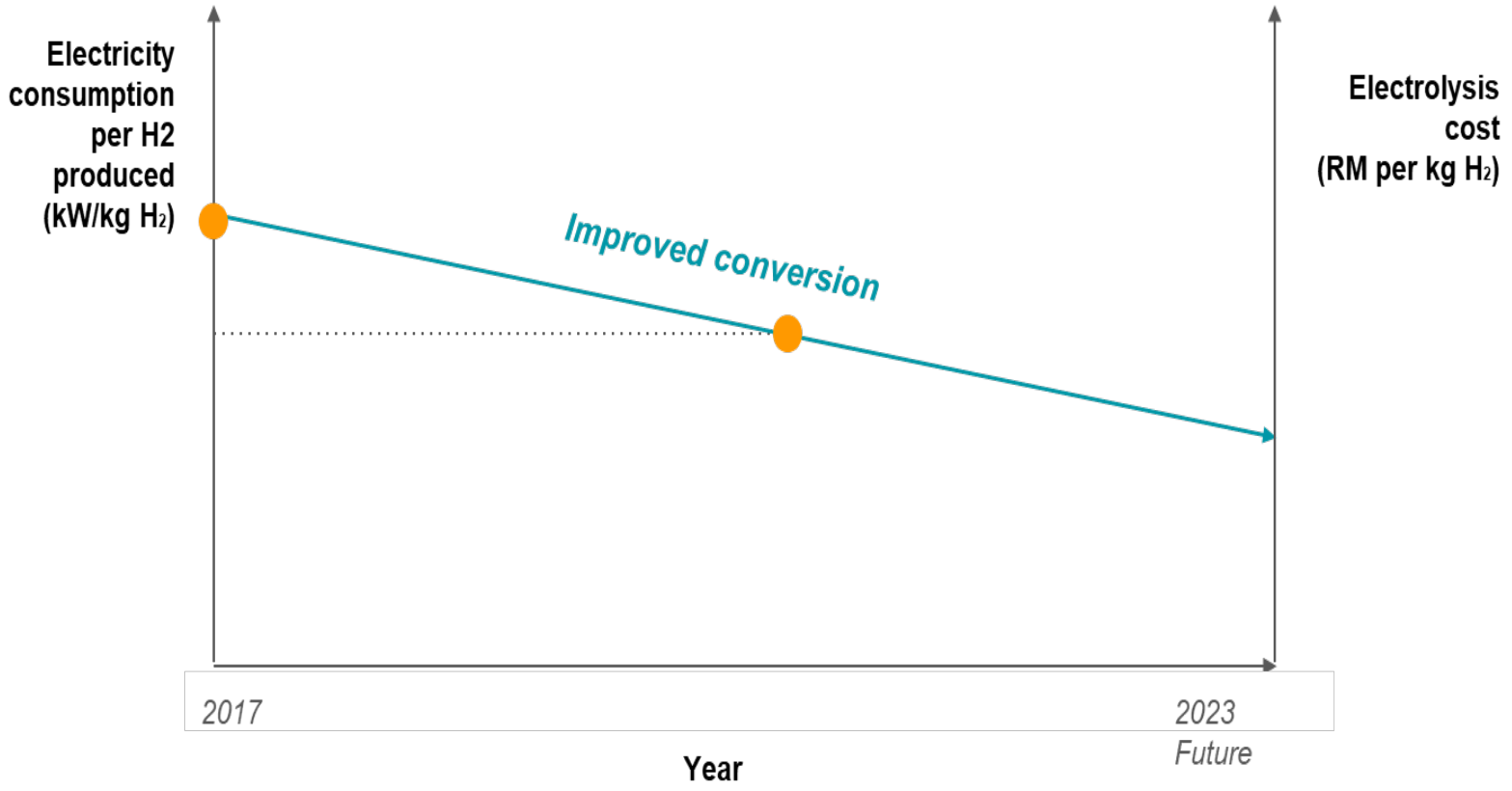
ENABLERS

- Policy & Regulatory Support
- Financing & Investment
- Technology & Infrastructure
- Skills & Talents
- Public Awareness

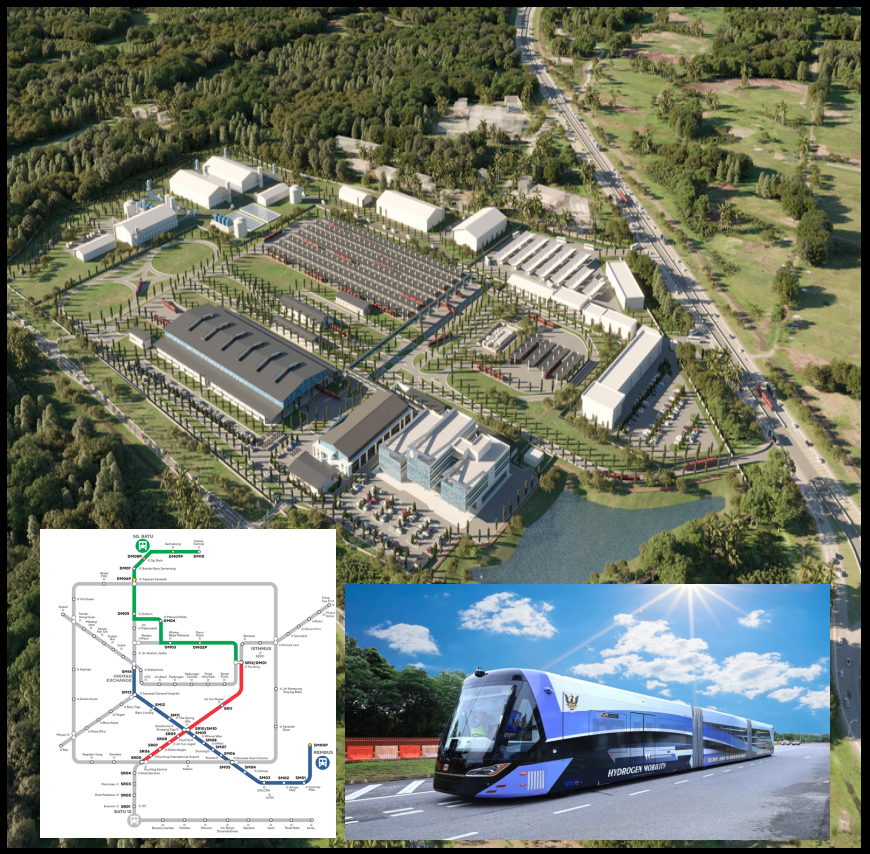
The price of solar modules declined by 99.6% since 1976



More effective technology will improve electrolysis efficiency over time, reducing the cost of producing hydrogen



Our humble H_2 journey so far



Thank you