

Hydrogen Energy Solution Company

BTE



Hydrogen energy specialist

BTE (Beyond Technology Engineering)



BTE thinks of **customers.**

We are a company that provides consulting, product development, and services related to hydrogen refueling solutions from the perspective of our clients, based on the accumulated know-how of experts with over 10 years of experience in hydrogen fuel cells and control software, etc



BTE creates the **value of technology.**

Rich imagination and innovative research and development have yielded knowledge that is a precious asset to us, and through the creation and utilization of new technologies, we are enhancing the value of technology



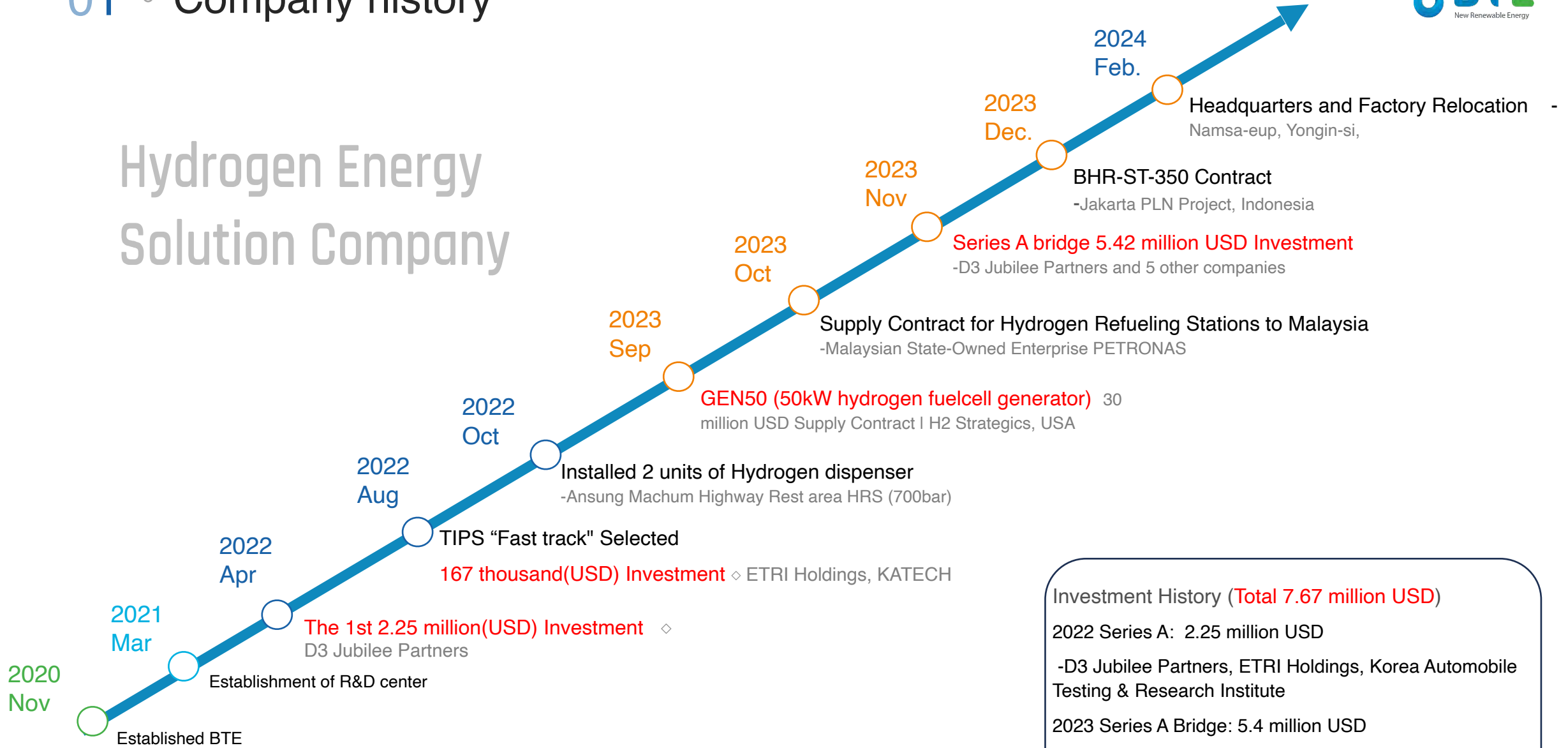
BTE leads the **future.**

In the surging waves of the hydrogen industry, prestigious companies around the world are competing. We are illuminating the future by finding our goals in the vast ocean without being swept away by the high waves

01 Company history



Hydrogen Energy Solution Company



Investment History (Total 7.67 million USD)

- 2022 Series A: 2.25 million USD
-D3 Jubilee Partners, ETRI Holdings, Korea Automobile Testing & Research Institute
- 2023 Series A Bridge: 5.4 million USD
-D3 Jubilee Partners and 5 other companies

02 Manpower



CEO

Paul Shim

Fuel cell and hydrogen experience 13years

| Patents

22 Fuel Cells and Hydrogen Parts

| Career

Doosan Fuel Cell Power (R&D)

Doosan Mobility Innovation (Team Leader)

| External activities

KGS Fuel Cell Advisory Committee (former),

Director of the Mobility Association Military Mobility Group

Master's degree at Chungbuk National University



Inho Lee | CTO

- 20 years experience in fuel cell & hydrogen
- BTE's CTO / Software Team Leader
- Export of 10 kW Fuel Cell Systems to Japan
- integration of reformer linked fuel cell system
- Pioneer in Fuel Cell Technology in Korea
- Doosan Fuel Cell Power Fuel Cell Specialist



Hyukjin Kang | Business DPT

- 11 years of business management/strategies
- 30 billion won in government projects
- PM experience in defense projects
- PM Experience (Drone and UGV)
- Hanaro TNS Senior Researcher
- 5 patents



Stella King | US VP & GM

- Head of US Branch
- Previously EVP at Fortress UAV (TX, USA)
- Annual Sales Revenue US\$25M
- MBA, University of Dubuque (IA, USA)
- BSBA, San Jose State University (CA, USA)
- 1st year 0-\$2M Sales Drones/UGV/Hydrogen

02 Company Overview



Summary



Company BTE Inc.

Established 2020 Nov.

Main Business Hydrogen Refueling Station
Hydrogen FuelCell
Hydrogen Energy Solution

Address Headquarter, factory and R&D
21-11, Gyeonggidong-ro, Namsa-eup
Cheoin-gu, Yongin-si, Gyeonggi-do,
Republic of Korea

Website www.bte-inc.co.kr
www.linkedin.com/company/bte-incorporated/



Organization

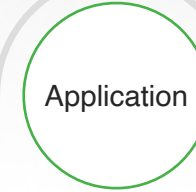


04 Mission Statement & Values

VISION

Global hydrogen energy solution leader growth goals

MISSION



Value chain to customer
Provide one-stop solution

With our partners
Strengthen of cooperative relations



Technical competitiveness
strengthening strategy

Through various channels
Sales and marketing



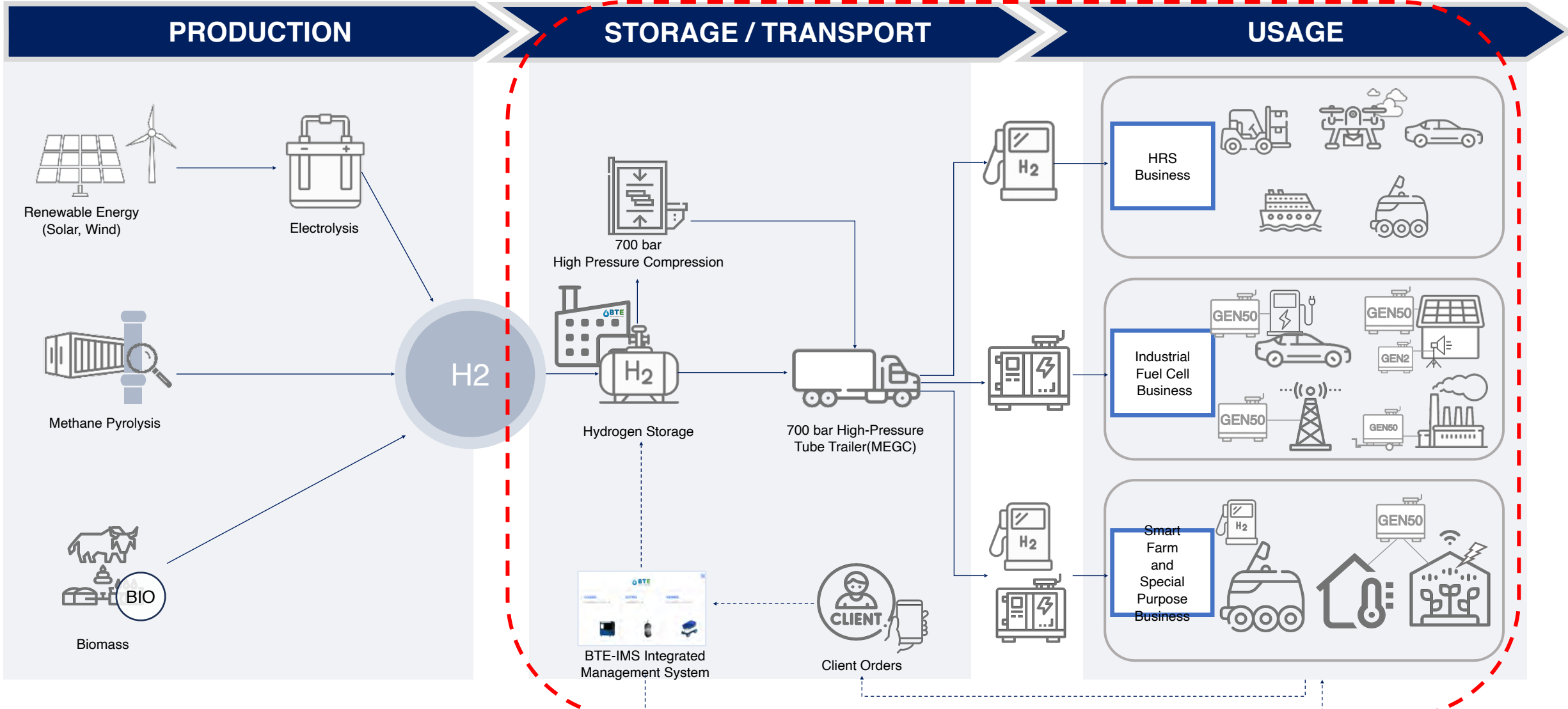
Strengthen of intellectual property
Establishing a Strategy



With beautiful imagination
we lead the
green change

05 Introduction to BTE Business

Providing the entire hydrogen value chain, from production to utilization



06 BTE Green Factory with Hydrogen

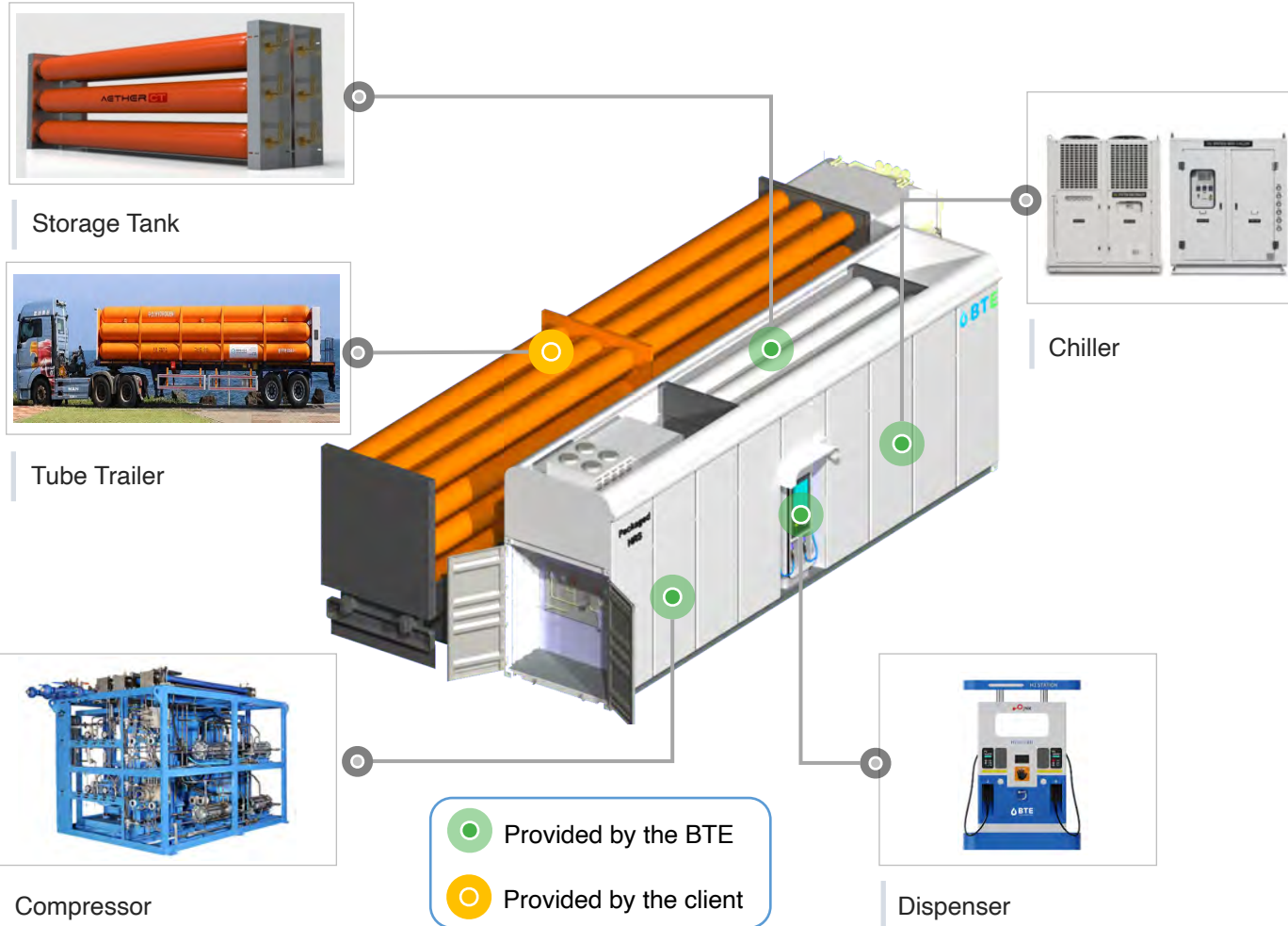


- Hydrogen Production/Storage/Generation using Eco-Friendly Renewable Energy
- 700 bar Ultra-High Pressure Hydrogen Compression and Customer Supply Service
- Establishment of Mass Production System for Key Products

07-1 Packaged Hydrogen Refueling Station

Mobile installation-type package hydrogen refueling station

- | Hydrogen mobility (hydrogen cars, hydrogen buses, etc.) for a 40-foot size mobile installation package hydrogen refueling station
- | Based on NEXO or Mirai, it is possible to refuel up to **16 vehicles** per day (simultaneous refueling of 2 vehicles)



Size	40ft Container
Dispenser	1kg/min, Dual Nozzle(350 / 700 bar)
H2 Storage Capacity	Over 60kg (Middle & High)
Protocol	SAE J2601
Code Standard	KGS FP217 (Mobile hydrogen refueling station subject to Ministry of Industry exemptions)
Weight	Under 65 Ton

01 Refuel 16 hydrogen car

02 Dual Nozzle (350/700)

03 1kg/min filling speed

04 Satisfy certification

07-2 Hydrogen refueller



Hydrogen refueller BHR-ST-350 optimized for hydrogen small mobility

| Hydrogen Forklift, Hydrogen Drone, Hydrogen UGV, Hydrogen Boat etc

Size 165cm x 200cm x 84cm(WHD)

Monitor 24 Inch Full Touch Screen

Material STS316, SCP, etc

Thickness 6T(Explosion-proof Zone) 1.5T(General Zone)

Post Processing Powder painting

Weight Under 500kg

01 All-in-one

02 Compact

03 Automatic remote

04 Highest level of safety



Control Board



External cooling system (Ready)



Booster & Compressor



Contactless cylinder Monitoring/control



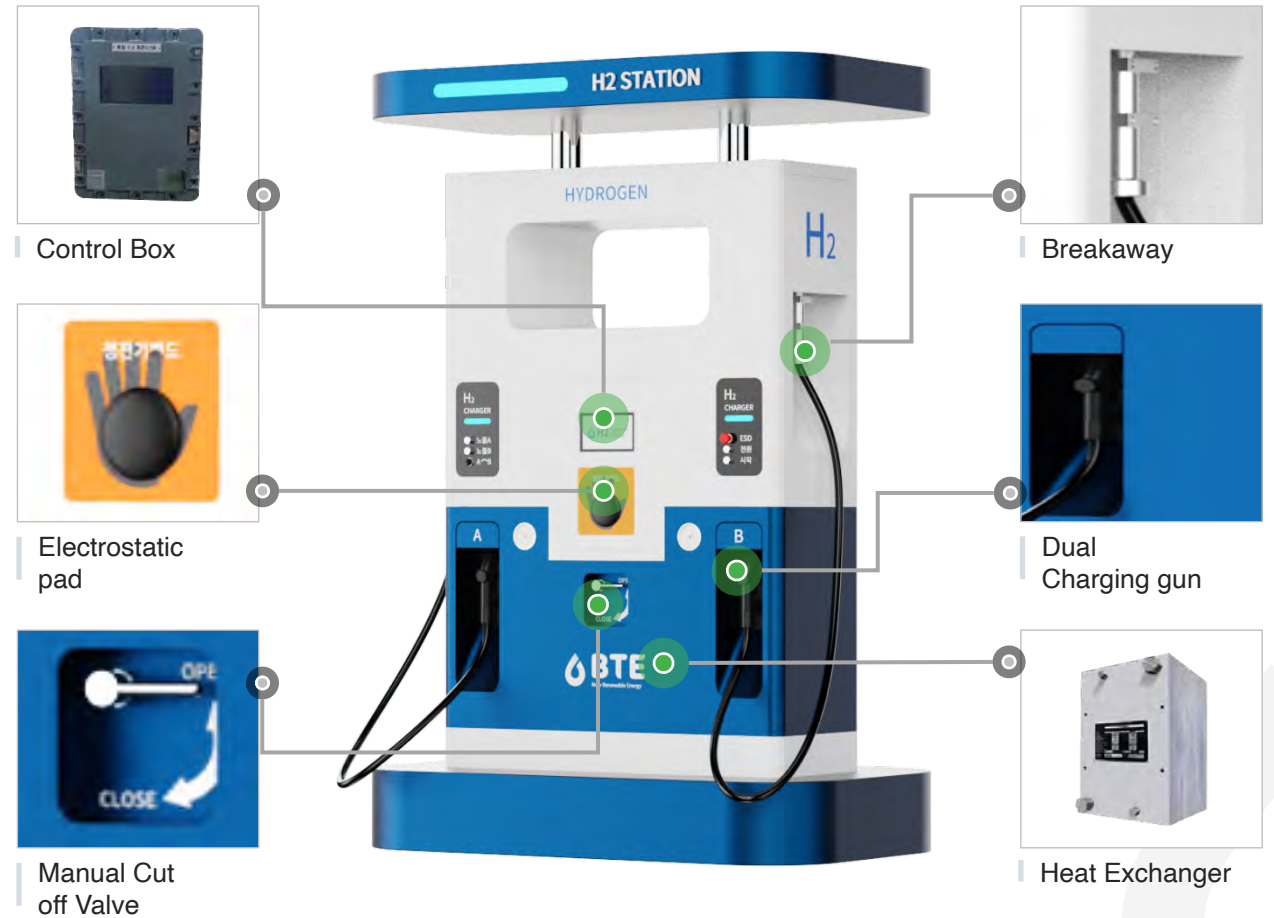
Charging gun

07-3 Hydrogen dispenser

Hydrogen dispenser(BHD-ST-HC-700)

| Hydrogen vehicle(car, bus, truck etc)

Size	1500 * 600 * 2550cm (WHD)
Fueling Protocol	SAE J2601
Material	STS316, EGI
Weight	500kg
Charging Pressure	70MPa
Safety Valve	set 92MPa
Design Pressure	95MPa
Design Temperature	-40°C ~ +85 °C

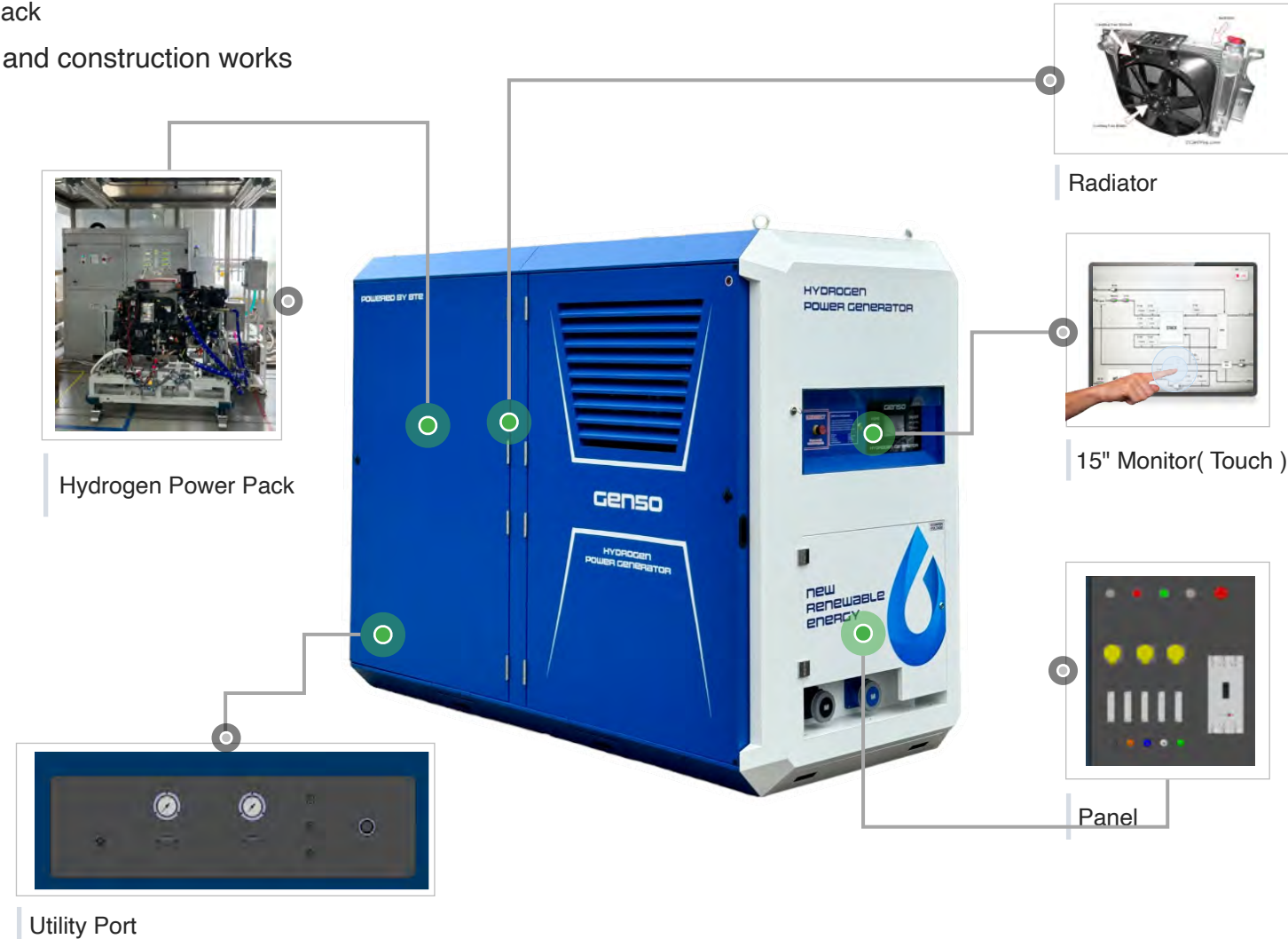


07-4 Fuel cell generator

Fuel cell generator

- | Generator powered by a 50~80kWh class hydrogen fuel cell power pack
- | Substitute for emergency generators such as outdoor concerts and construction works

Size	1400 * 2200 * 3000mm(WHD, TBD)
Output	50kw(200~4810VAC, 50/60Hz)
Efficiency	Up to 50%(Only electric Power Use)
H2 Consumption	3.6kg/hour @80kWh
H2 Purity	99.995% ↑
H2 Supply pressure	30~50bar (1/2" O.D ↑)
Weight	Under 2 Ton
Communication	Wired (RS232,485,CAN), Wireless (WIFI,LTE,Satellite)
FC Type	PEM (Low Temp), Water Cooling



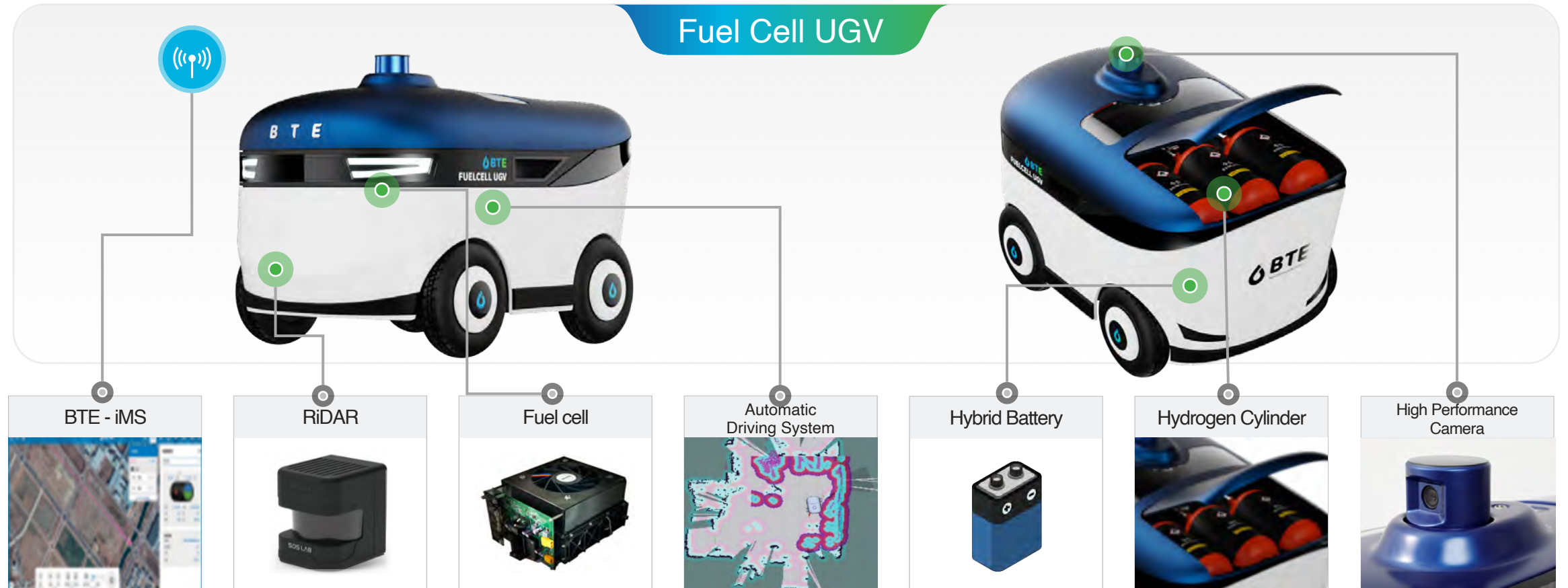
07-5 Fuel cell UGV



Hydrogen fuel cell UGV(Unmanned Ground Vehicle)

- | A self-driving UGV(Unmanned Ground Vehicle) capable of performing missions for 12 hours on a single charge
- | Military reconnaissance, mine removal, transportation, and for civilian delivery.

Fuel Cell UGV

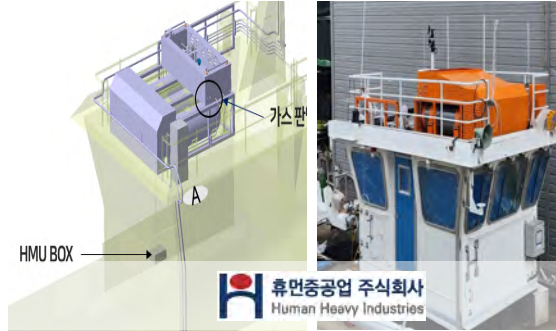


08 Performance

01 Hydrogen refueling station(BHR-350)
-DMI(Doosan mobility innovation)



02 Installation Hydrogen Fuel Cell Ship
Hydrogen Supply System



03 Hydrogen refueling station(BHR-350)
Installation Construction-CAMTIC



04 HRS Dispenser#1, #2 installation(BHD-700)
- Anseongmatchum highway rest



05 "CES 2023" 2 of Innovation Awards
(BHR-350 & Hydrogen UGV)



06 Hydrogen refueling station(BHR-350)
Wall-mart drone project-DroneUp



07 Fuel cell generators 38 million(\$)
Supply Contract Signed - US H2S



08 Hydrogen Refueling Station
BHR-ST-350-SE-Gas Solution



09 Core Competencies | intellectual property rights



Water Status of patents

2021

- 2021. 04. **Patented**
Integrated automated hydrogen station
Patented : 10-2408411
- 2021. 07. **Designed**
Hydrogen refueller
Designed: 30-1166117
- 2021. 12. **Patented**
Mobile integrated automatic hydrogen gas refueling device
Patented : 10-2638018

2022

- 2022. 04. **PCT Patent**
Mobile all-in-one automated hydrogen station
Application number : PCT/KR2022/004962
- 2022. 05. **Patent**
Mobile automatic hydrogen station
Application number : 10-2022-0064308
- 2022. 11. **Designed**
UGV
Patented : 30-1236398
- 2022. 12. **Patent**
Power Control Board for Mobility
Application number : 10-2022-0172492

2023

- 2023. 03. **Patent**
Mobile hydrogen gas refueling device
Application number : 10-2023-0030381
- 2023. 05. **Patent**
Package mobile hydrogen station
Application number : 10-2023-0060690
- 2023. 09. **Patent**
Mobile Hydrogen Fuel Cell Generator
Application number : 10-2023-0128831
- 2023. 09. **Patent**
Control Method for Mobile Hydrogen Fuel Cell Generator
Application number : 10-2023-0128830



Patented

10-2408411

Designed

30-1166117

Designed

30-1236398

Patent

10-2638018

Designed

30-1236398

Patent

PCT/KR2022/004962

Patent

10-2022-0172492

Patent

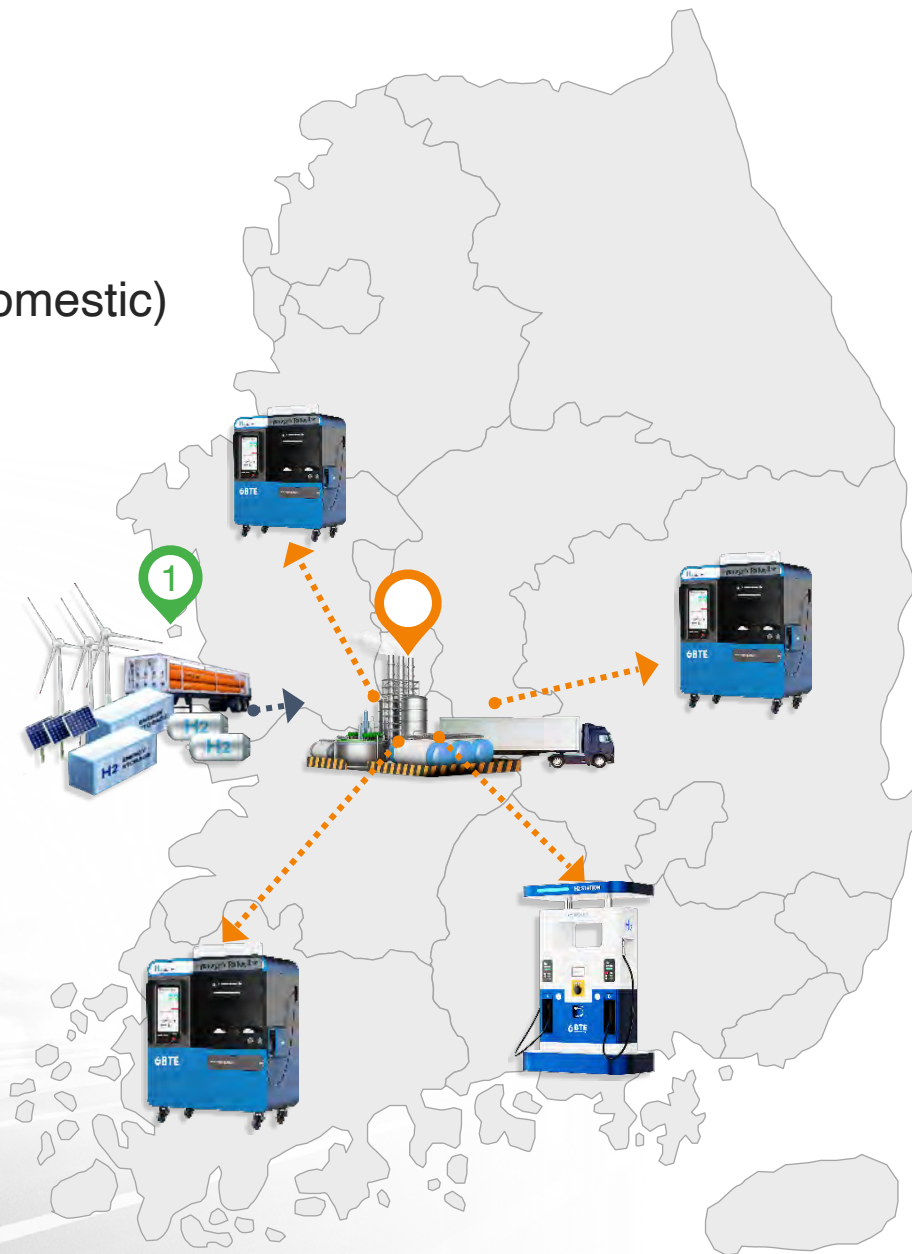
10-2022-0172492

10 Future plans#1

Fuel cell for mobility and Hydrogen service business (domestic)

▲ Ultra high pressure for mobility(350bar↑)
Hydrogen delivery and charging services

▲ Liquefaction / vaporization
Hydrogen gas supply



1 Utilization of Hydrogen in Wanju

Bio, Blue Hydrogen Production
(Building a supply chain for hydrogen pipes)

2 Ultra High Pressure refueling Plant(Wanju)

Ultra High Pressure Mobility Hydrogen refueling Plant / mass production of hydrogen supplies

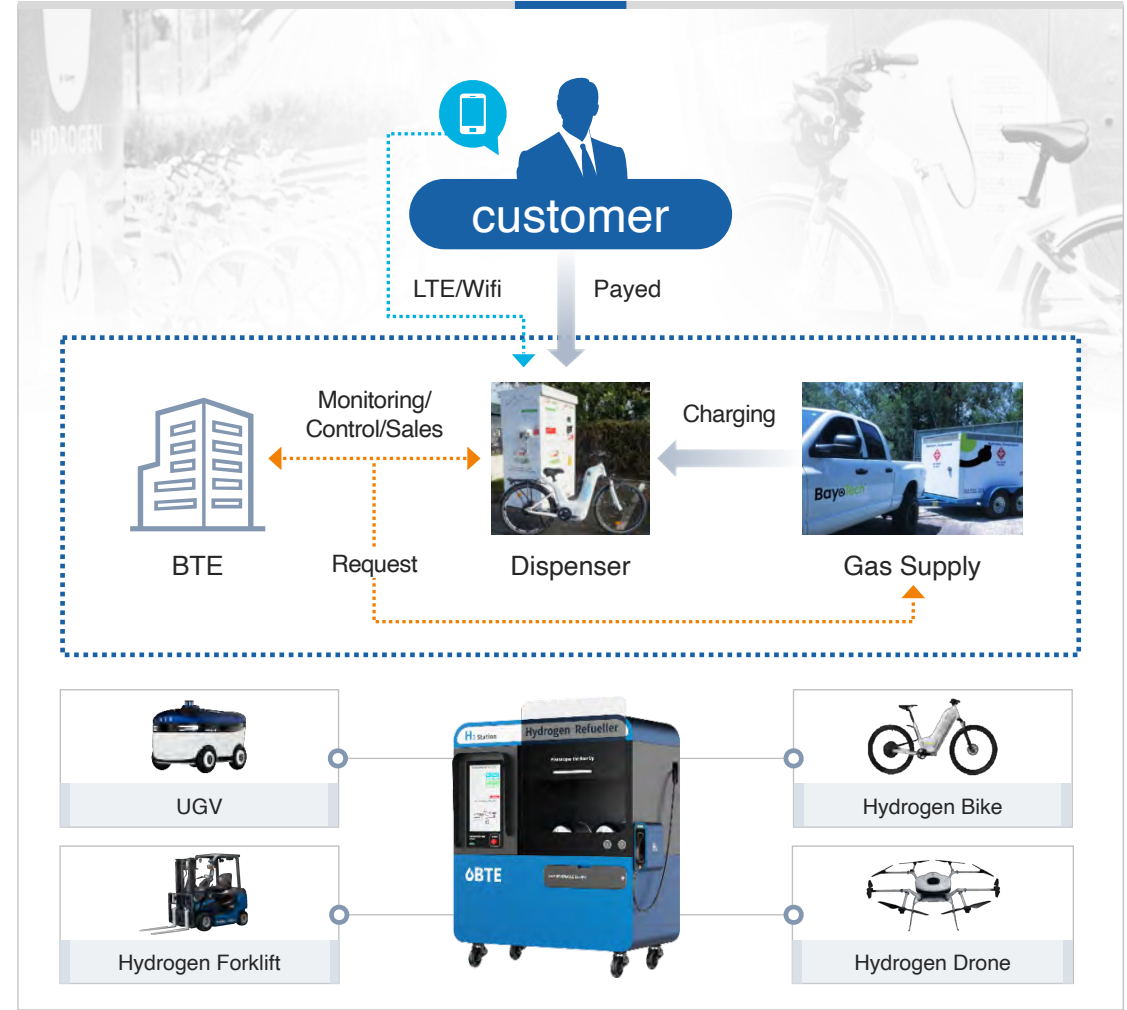
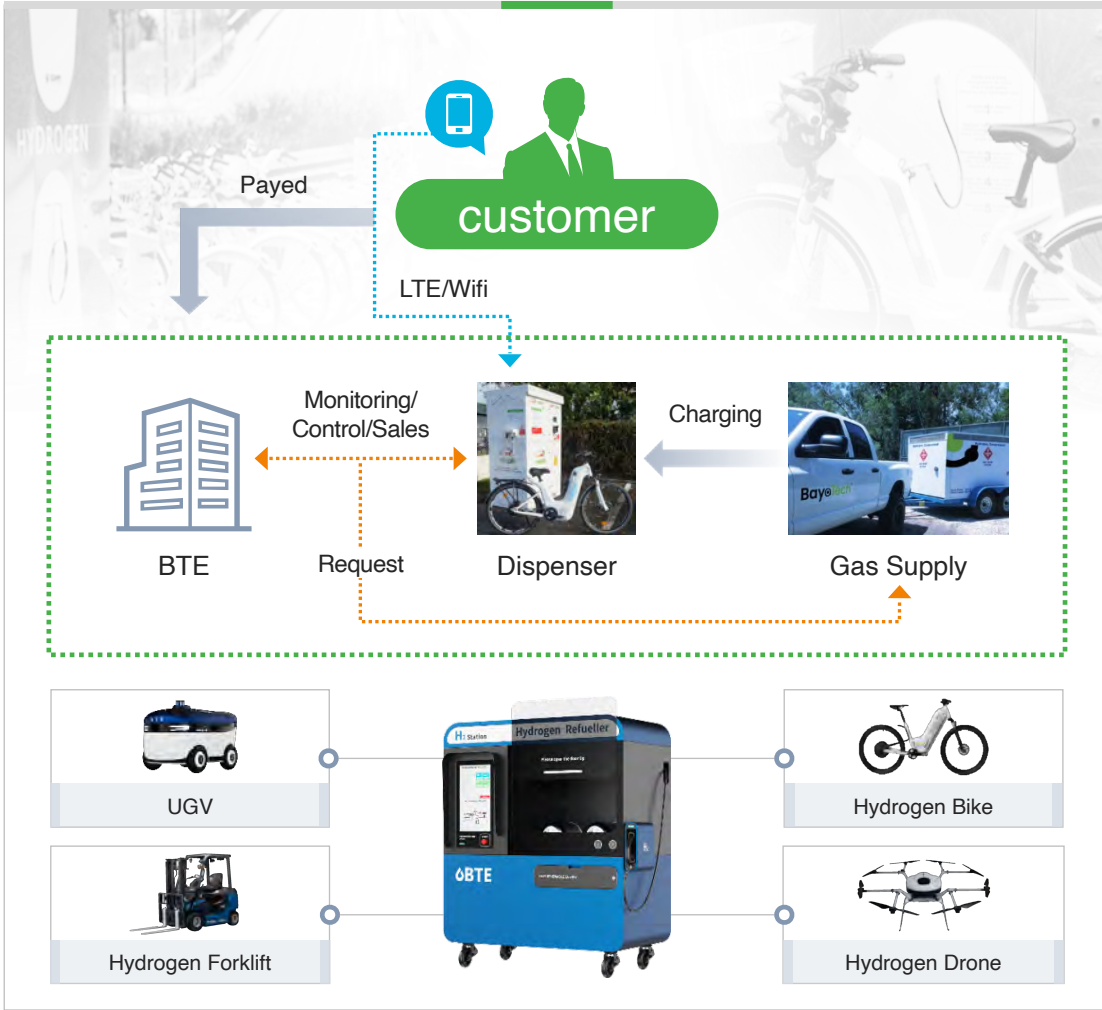
11 Future plans#2

BTE Mobility Hydrogen Supply and Sales Business

Subscription

BTE Mobility Hydrogen Supply and Sales Business

Non-subscription



12 Partners



Customers

Domestic				Overseas			



Partners

Domestic					Overseas			



Certification authority

--	--



Related organizations

국내					해외		

Let's Go Together

Innovative hydrogen-specialized company
moving forward from Korea to the world

BTE strives to preserve a clear and clean Earth by developing and distributing innovative hydrogen products and services, hoping to pass on a beautiful Earth to future generations. Based on hydrogen fuel cell system integration (S.I) and operation technology, BTE provides Zero Emission and Energy Recycling solutions and products utilizing hydrogen energy to improve the global environment and contribute to humanity.

BTE is committed to constant innovation and development, and through unceasing challenges and the courage not to fear failure, BTE aims to advance beyond South Korea and become a leading global **K-hydrogen company**.

Contact Us



ADD

▪ (17118) 21-11, Gyeonggidong-ro, Namsa-eup, Cheoin-gu, Yongin-si,
Gyeonggi-do, Republic of Korea



TEL

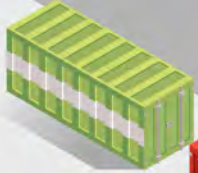
▪ 031.373.7652



H-Page

▪ www.bte-inc.co.kr





H2 STATION



DRONE STATION

