

UNESCO Global Environment Seminar
Carbon-Free Island Jeju by 2030
For Climate Change

May, 2023



제주특별자치도
Jeju Special Self-Governing Province





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I CFI 2030 Background

Preserving our clean natural environment

- ✓ **World's only UNESCO-designated 'Natural Treasure Island'**
 - Biosphere(2002), World Natural Heritage(2007), Global Geopark(2010)

Securing energy supply

- ✓ **High dependence on mainland-generated power supply**
 - Massive blackout (2006) due to HVDC malfunction

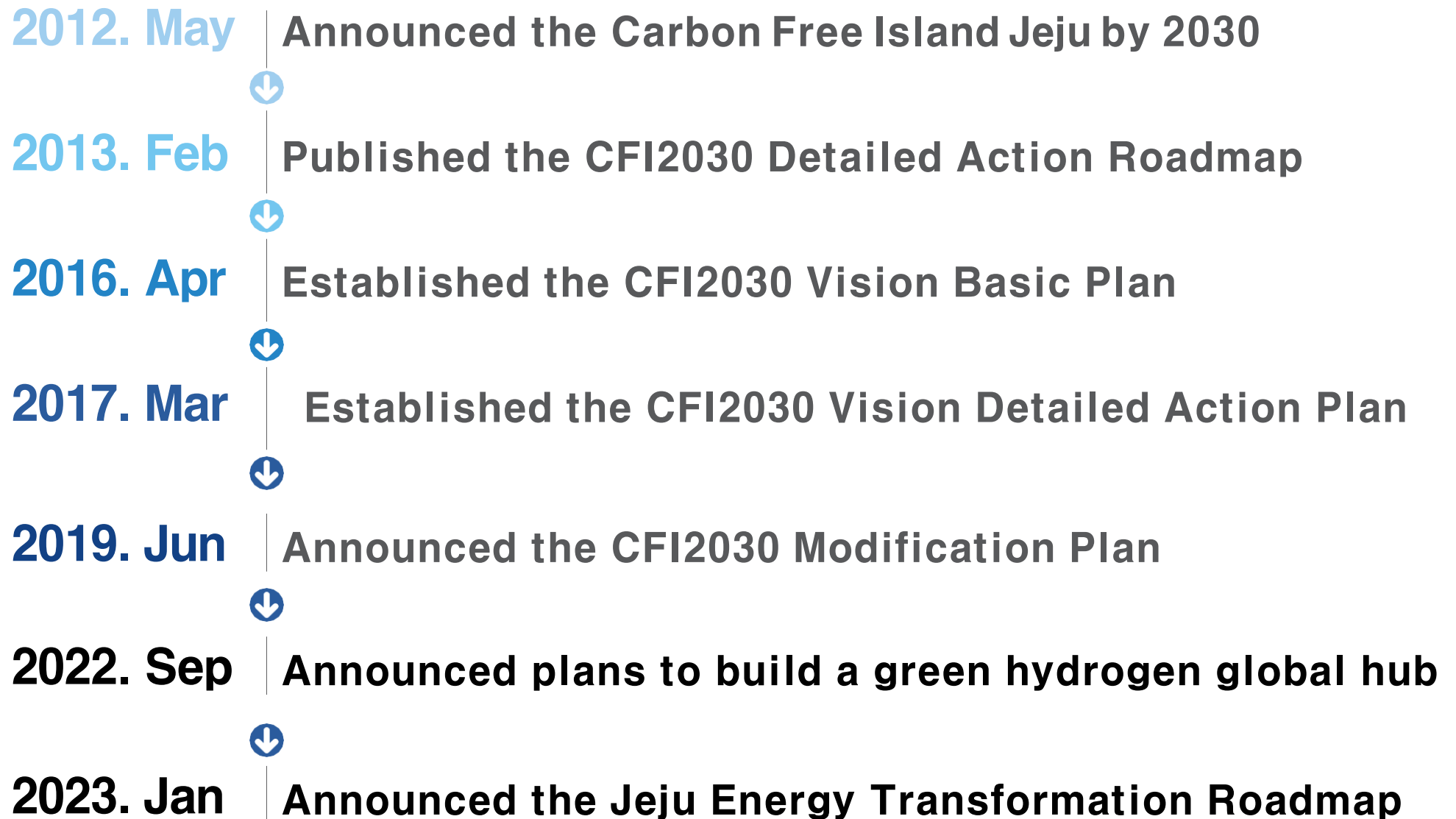
Optimal location for low-carbon green industry

- ✓ **Average wind speed of 6m/s**
 - Installation of ROK's first land wind-farm (1998) and offshore wind farm (2011)
- ✓ **ROK's only special self-governing province / Jeju Free International City**
 - Licensing rights transferred from the Central to the Provincial Government (2011)



“Preserving our nature and securing energy supply with rich wind resource”

II Executing and Planning the CFI 2030

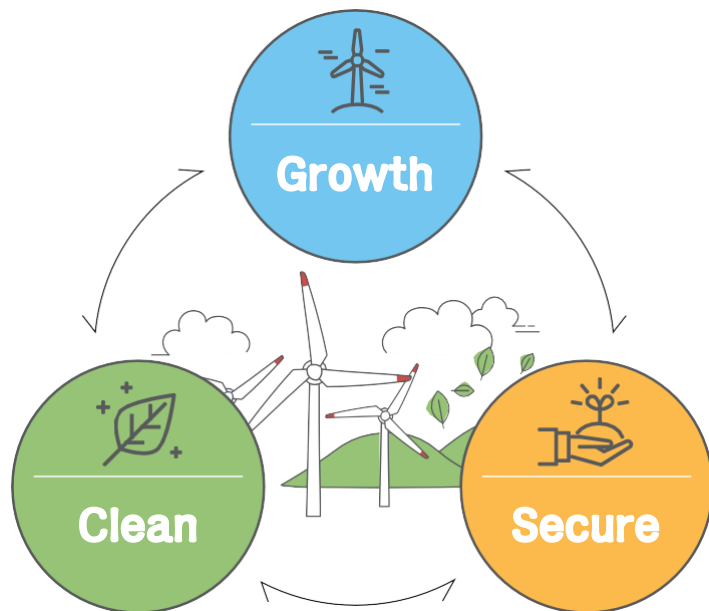


III CFI 2030 Core Values and Goals





Vision

Carbon Free Island JEJU by 2030

Core Value



2030 Policy Targets

- 1** Meeting the island's power demand
Installing RE facilities (4,085MW) 
- 2** Introducing EVs (377,000) 
- 3** Upgrading energy DR
Increasing energy efficiency 
- 4** Creating new energy industries
(Creating 74,000 jobs) 



Relative to 2030 GHG emissions

CO² emission 4,203,000 ton **34% Reduction** CO² emission 2,779,000 ton

IV CFI 2030 Highlights



Highest New & Renewable
energy generation rate in
Korea (19.13% /2022)



34,460 Evs (8.3%)
(Registered Vehicles 411,531
/ 2023)



New registration of ICE
vehicles banned
from 2030



First 8MW floating offshore
wind farm pilot site in Korea (2021)



EV Battery Recycling
Center (2017)

Real-time Renewable Energy Supply and Demand in Jeju

2023.04.27. 15시 | (Source: Korea Power Exchange)



Wind
8.71MWh

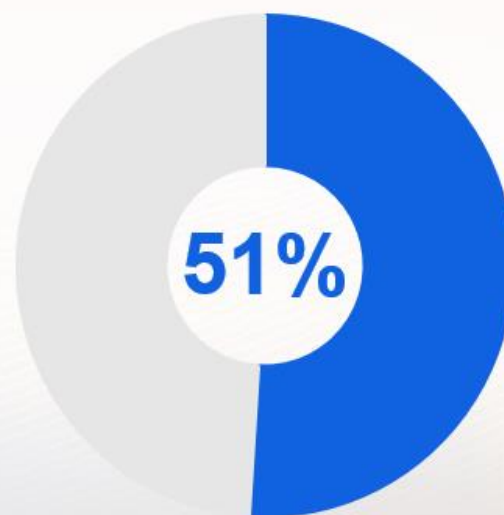


Solar
275.69MWh



Other
12.52MWh

Renewable Energy Generation
296.908MWh



Supplying 51% of
current demand
(586MWh) in Jeju



V Green Hydrogen Vision in Jeju



Production

Energy independence based on renewable energy

3MW → 12.5MW → Expand each hub



Distribution

15 minutes city-connected industries and life sectors

Hydrogen fueling stations by location
(No.1) Hamdeok(2023) → (No.2) '24 → Expand to eup, myeon, and dong districts



Utilization

Stable economic distribution and supply



Bus



Sweepers



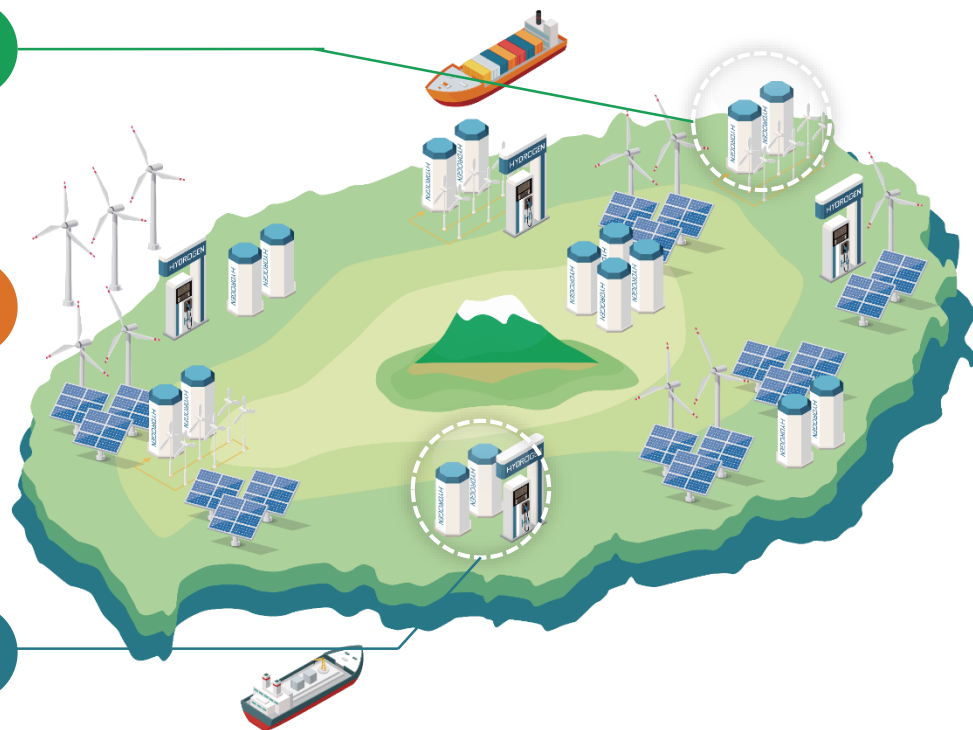
Trucks



Ships



Trams



3MW Green Hydrogen Production Base

VI Strengthening international cooperation for global carbon neutrality



2021 P4G State-of-the-Art Partnership
SECTOR WINNER



17th JEJU FORUM 2022
(Attendance of the P4G Global Director)

