

# Tainan · Low-carbon and sustainable city



**Dr. Yuan-Chung Lin**

Director-general, Environmental Protection  
Bureau of Tainan City Government, Taiwan

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# TAINAN

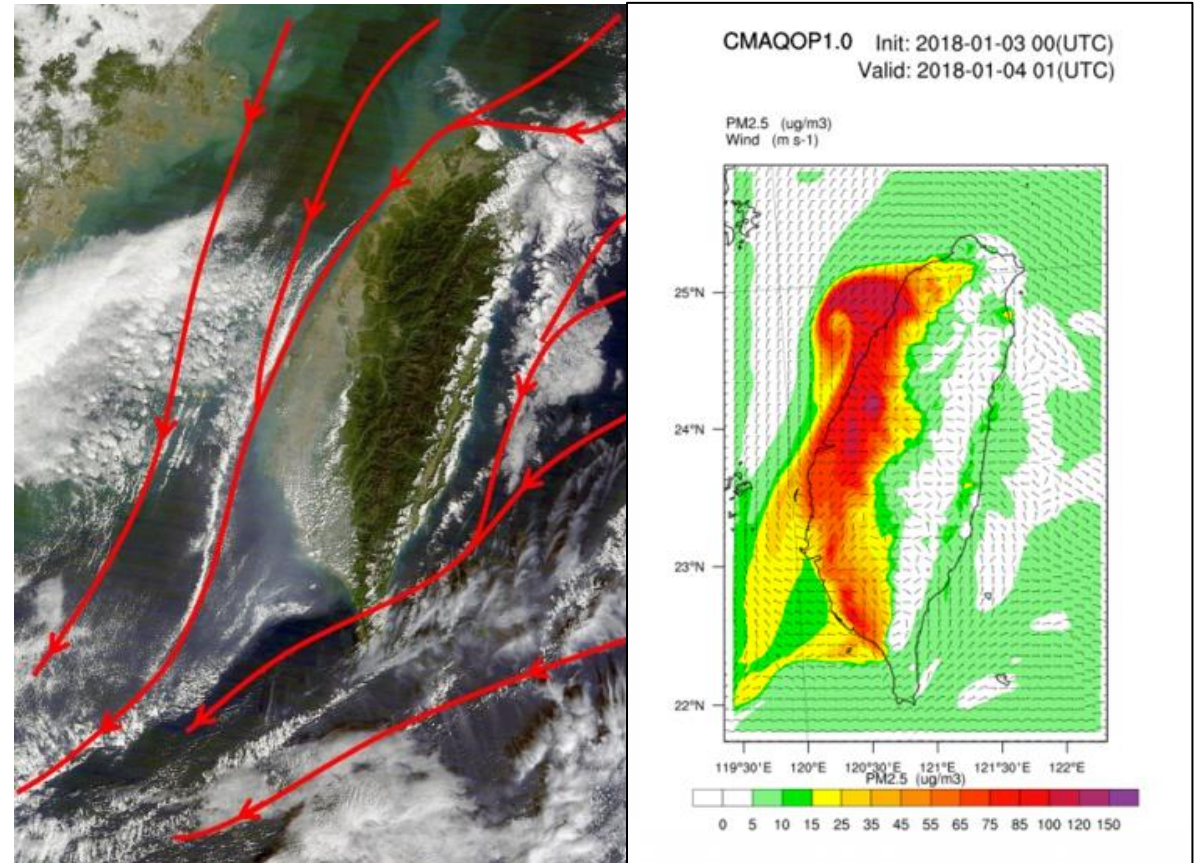
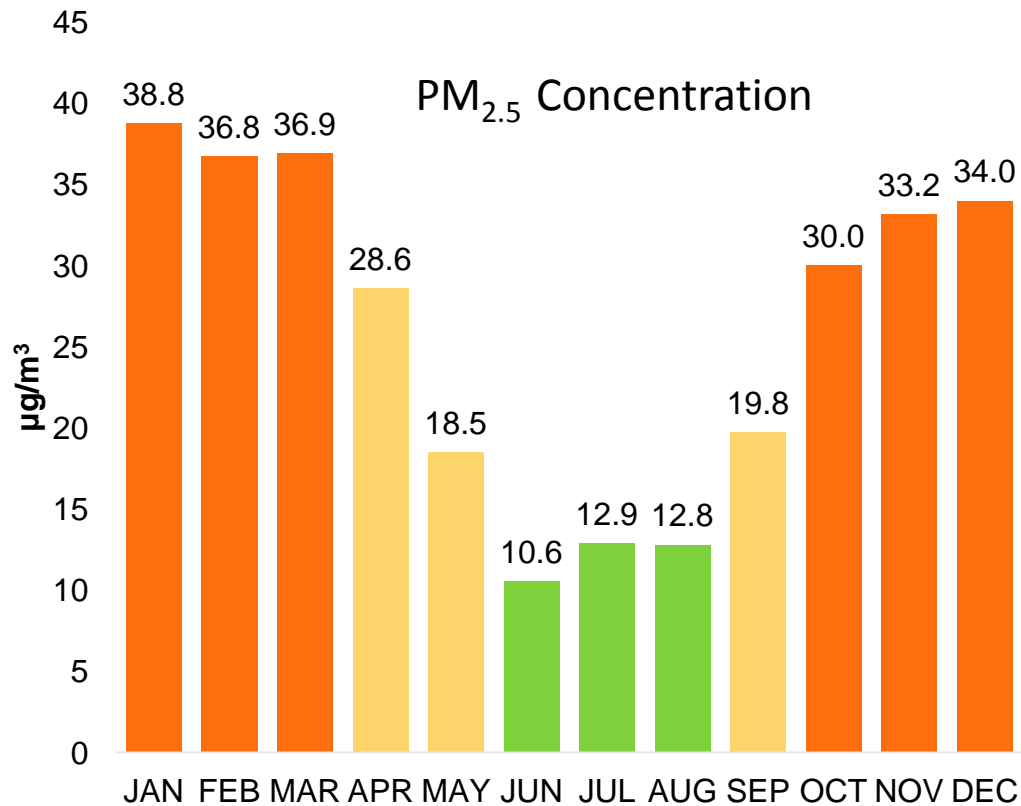
TAINAN

- Area 2,100 km<sup>2</sup> · Population 1.88 million.
- Southwest part of Taiwan, center of Chianan Plains, the largest plain.
- The former capital of Taiwan, founded in 1624 with historic Cultural heart of Taiwan.



# Challenge of Air pollution PM<sub>2.5</sub> - Transboundary

## Seasonal factor + Geography factor



# Challenge of Air pollution PM<sub>2.5</sub> - Domestic


TAINAN



 581,809

 1,302,538

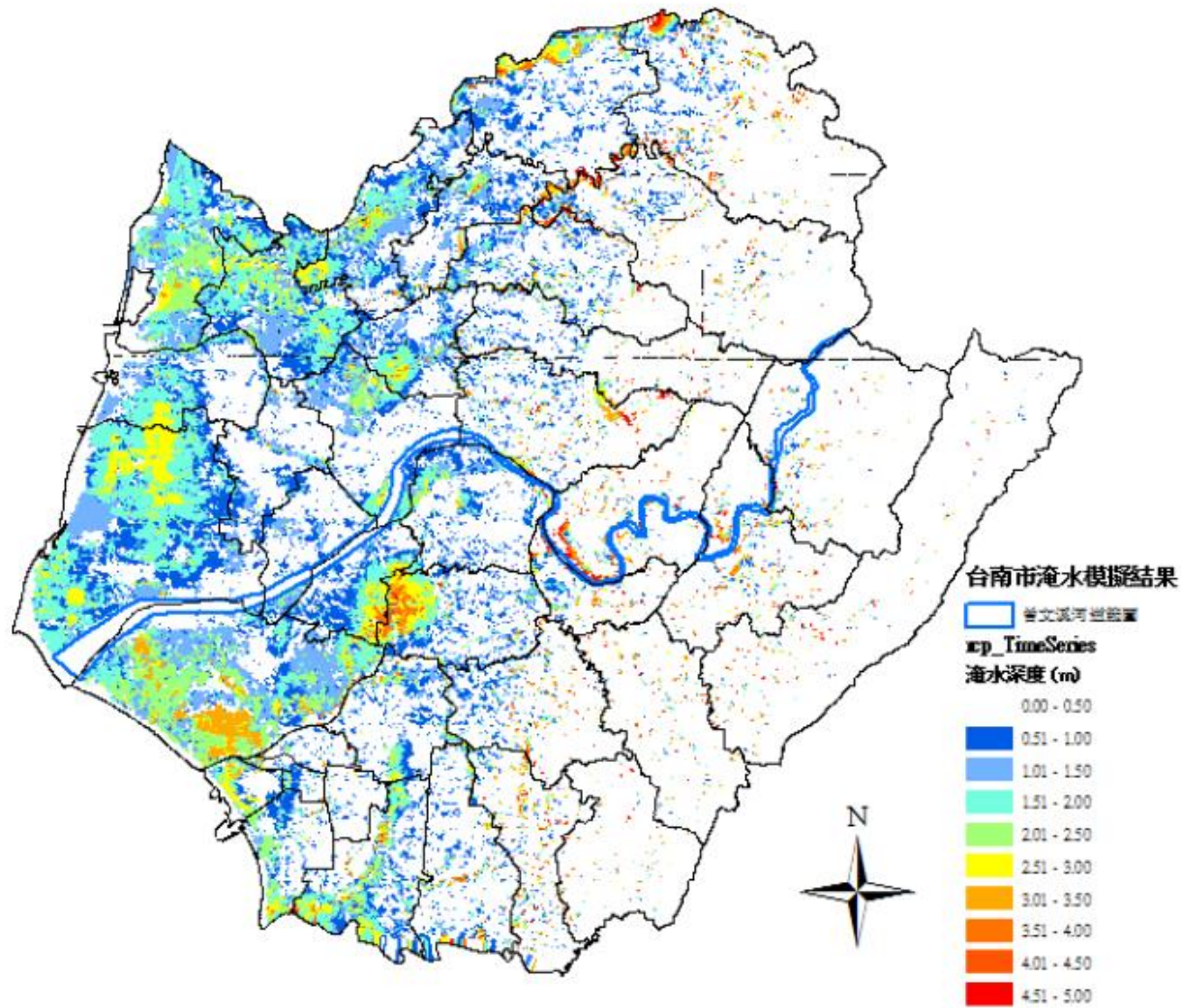
 100,958

 1.05 vehicles  
/per person

PM<sub>2.5</sub> | 1,622 tons    NOx | 17,338 tons

# Challenge of extreme climate and flooding TAINAN

- Tainan's potential flooding area is about 450 square kilometers, accounts for one third among the nation.



# Action Strategies

**I**

**Coal Phase-out and  
Air quality control**

**GHG  
reduction**

**II**

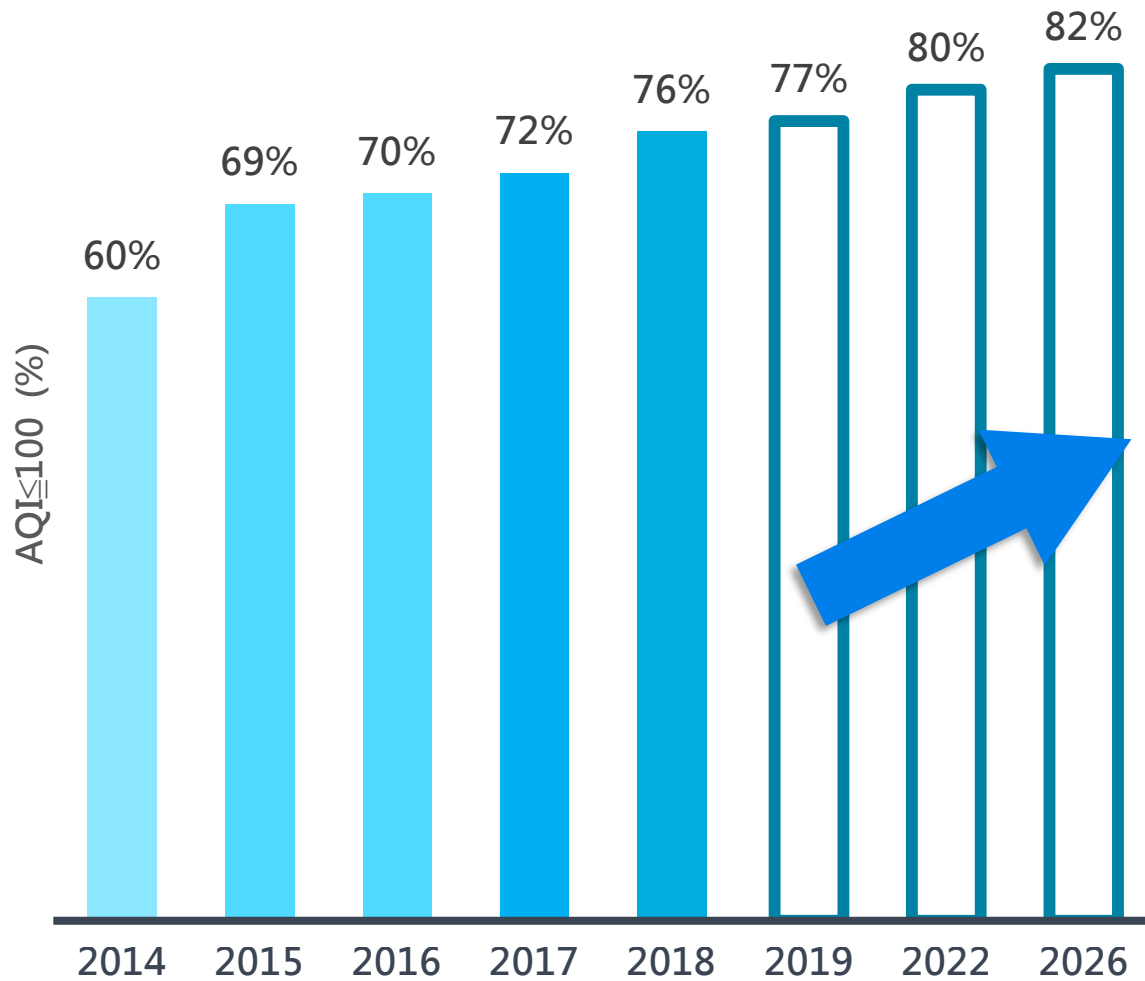
**III**

**Develop green  
energy—Solar Power**

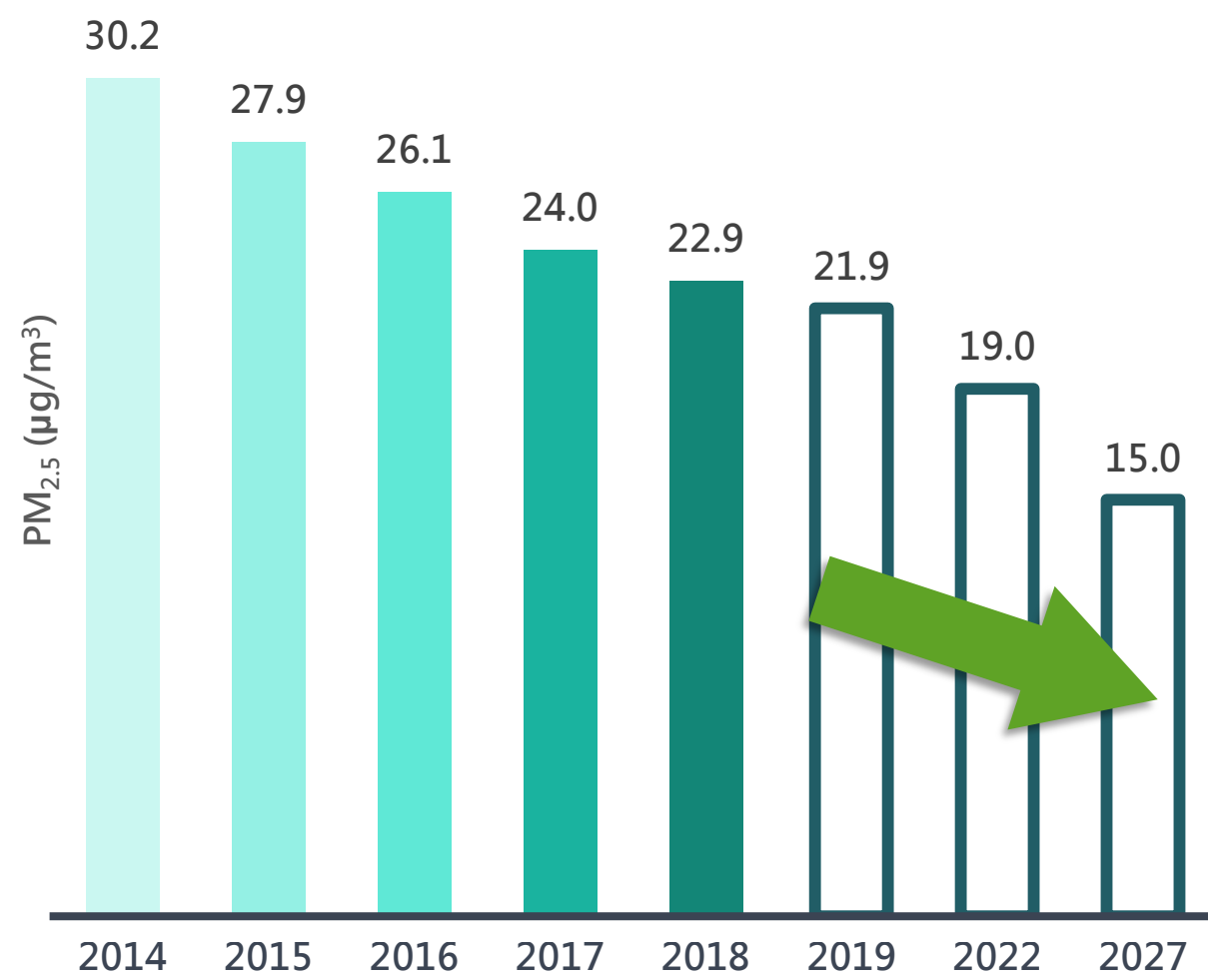
**Create the Resilient  
Sponge City**

**IV**

# Air quality control target



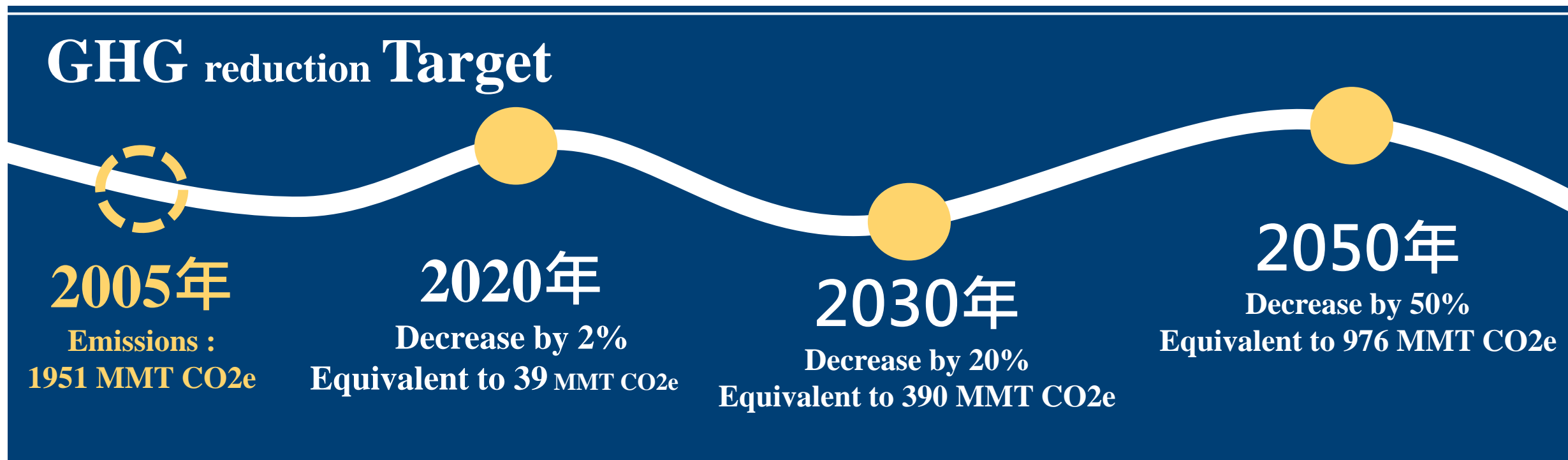
**Increase the day of blue sky  
(AQI ≤ 100) 82% in 2026.**



**Reach to air quality standard  
15 µg/m<sup>3</sup> in 2027.**

# GHG reduction strategy

## GHG reduction Target



Solar City

Resource Sustainability

Energy Saving in residential and commercial sector

Energy Transition

Eco-Friendly Farming

Green Transportation

**6 Sectors · 20 Strategies · 125 Implementation plans**



# Coal Phase-out and Air quality control

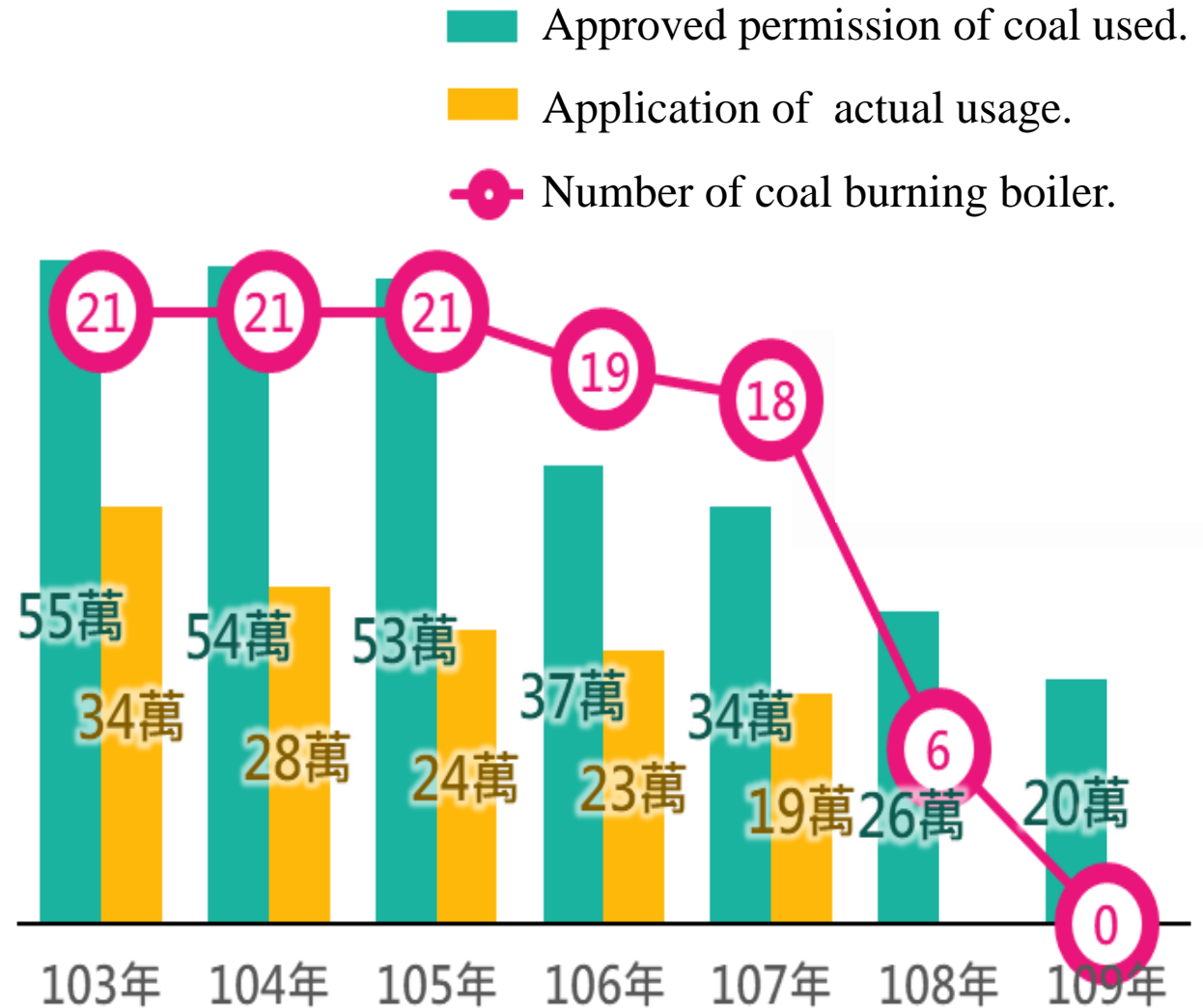
Analysis and testing the efficiency of control devices.

Approve the permit until emission decreased.

Decrease the permission of coal used.

Decrease the valid time period of coal from 5 years to 2 years.

Target : Coal burning boiler phase out in 2020.



# GHG reduction action

## Energy users management



## GHG emissions accounting and disclosure



# Develop green energy –Solar Power



## Five Roof Type

**Solar Roofs**

**Solar Dormitories**

**Solar Communities**

**Green Factories**

**Agricultural Tunnels**



## Five Ground-based Type

**Water Space**

**Salt Field**

**Green Energy Land-use**

**Green Energy Facilities**

**Landfill**



# Develop green energy –Solar Power



**For Now, Installed capacity 1.051GW**

## OUR GOAL



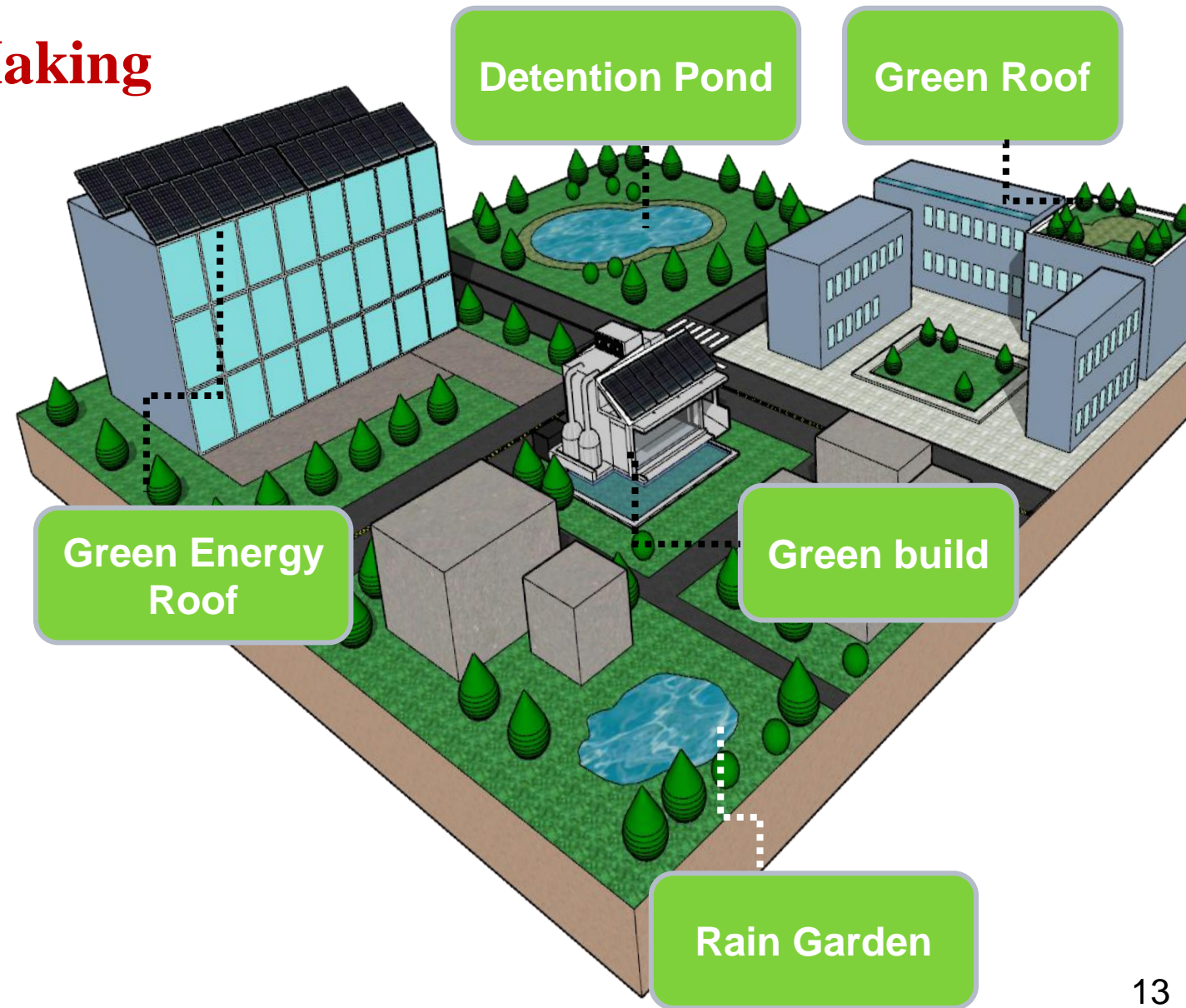
**Installed capacity  
2022 - 2GW**

**Equivalent to 2 nuclear  
power plants.**

# Create the Resilient Sponge City

## Self-Government Rules for Making Tainan a Low Carbon City

- ▶ **Require to obtain green buildings Label**
  - Qualified level for private.
  - Silver level or higher for public.
- ▶ **Set renewable generating system or Green roof.**
- ▶ **Flood prevention facility for designated land development**
- ▶ **Confirm the soil water content**



# Build the Resilient Sponge City **TAINAN**

**During 2013 to 2018, rainwater retention facility or flood detention pond have increased to 290,000 cubic meters.**



**Detention Pond**



**Green Roof**

# Contribute to building a global sustainable environment



**2009**  
Join ICLEI



**2015**  
Earn the Compact of  
Mayors



**2017**  
Join WCCD ISO37120  
Platinum Certification for  
2 years



**2018**  
Top 7 global smart  
cities by ICF

**2030**



**Sustainable  
Cities**

**CARBON CLUB**  
CAPTURE • CONTROL • CUT



We are Breathing  
the Same Air,  
Standing on the Same Land.  
We Only Have One Earth.