
Special City for
Renewable Energy
Wonderful
Samcheok

SAMCHEOK CITY

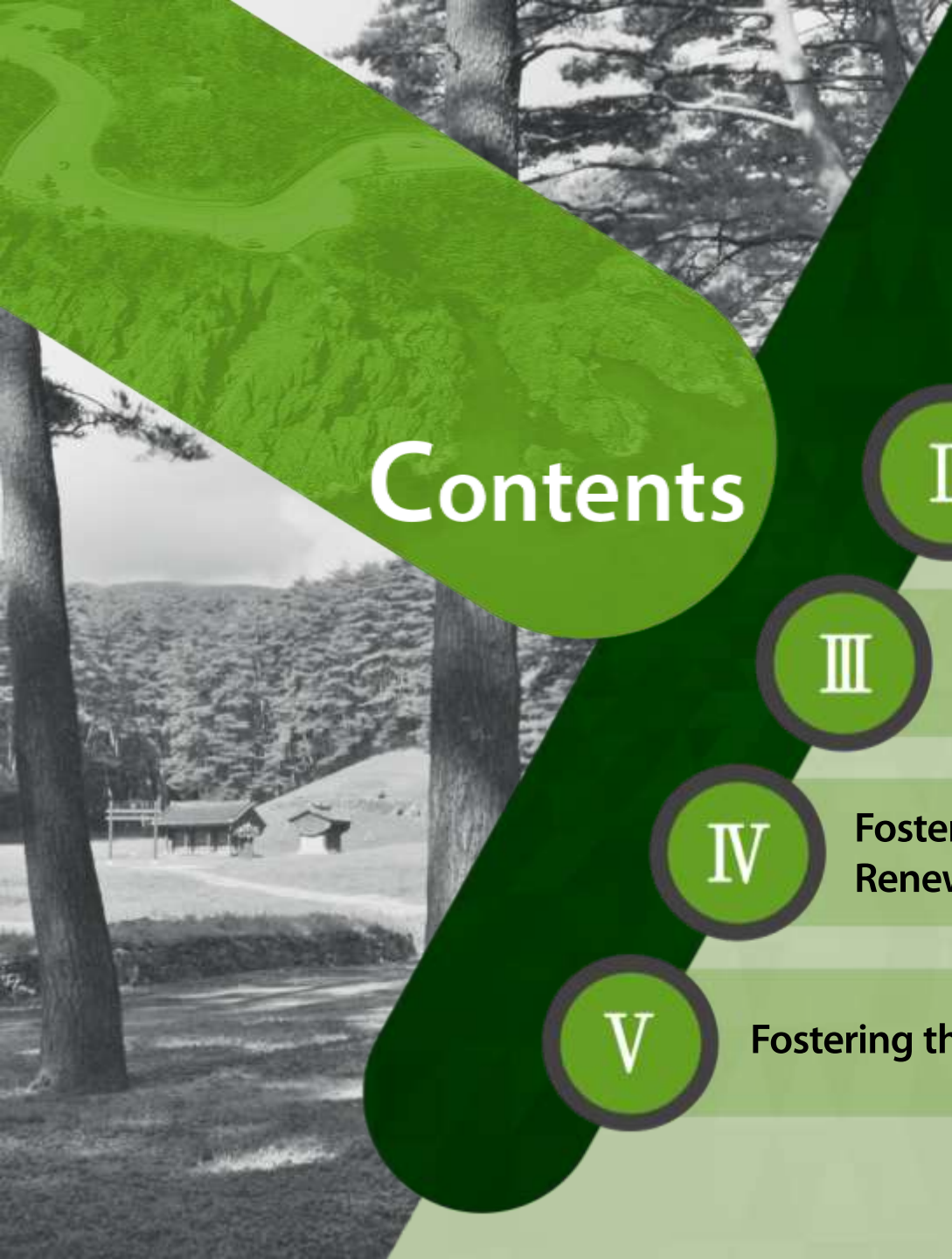
Special City for Renewable Energy WOnderful Samcheok

Moving Towards an Eco-Friendly City instead of nuclear power plants

Fueled by renewable energy



Lee Song-mo,
Director-General, Administrative Management
The City of Samcheok



Special City for Renewable Energy Wonderful Samcheok

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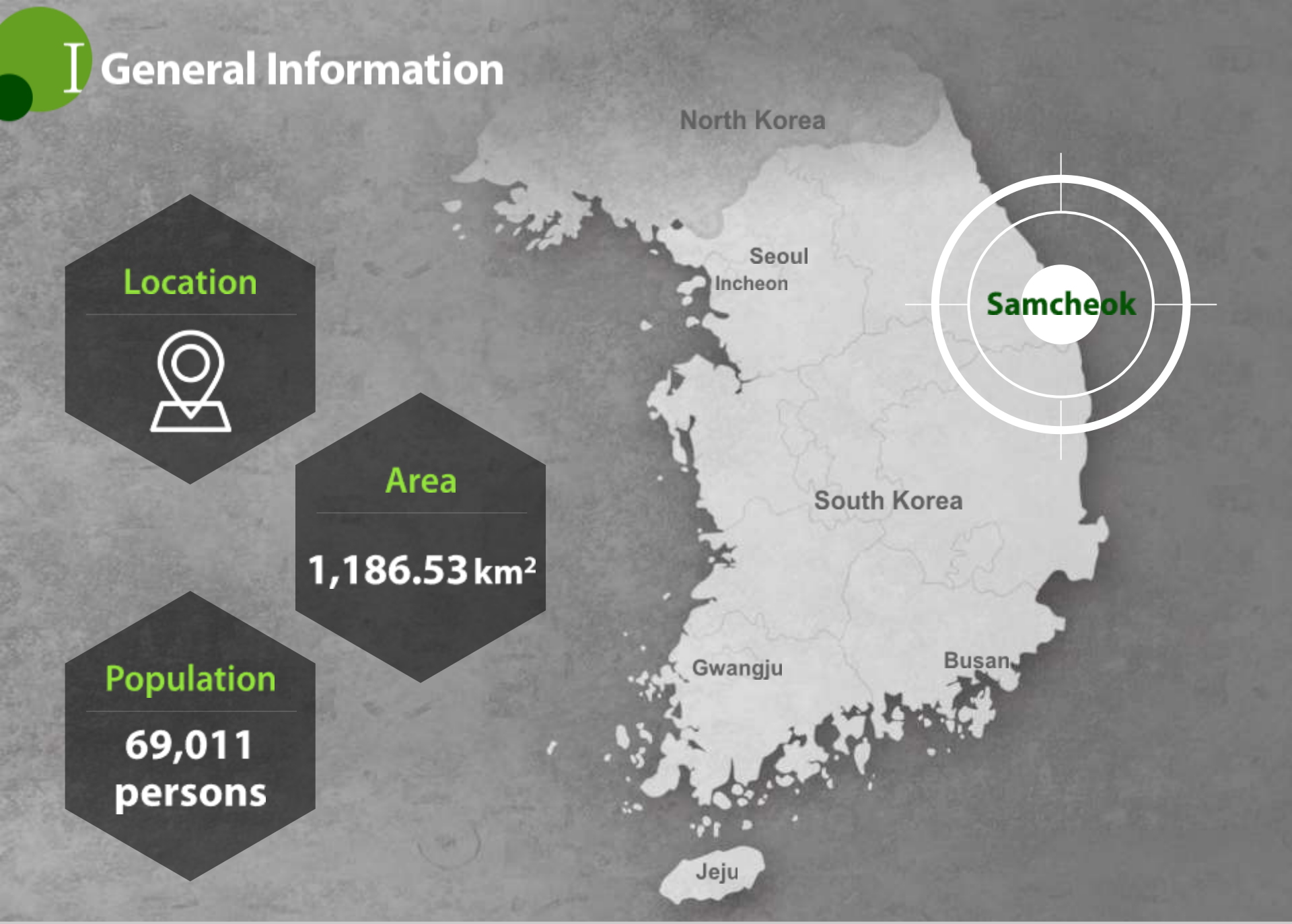
SAMCHEOK CITY

I

General Information



I General Information



Location

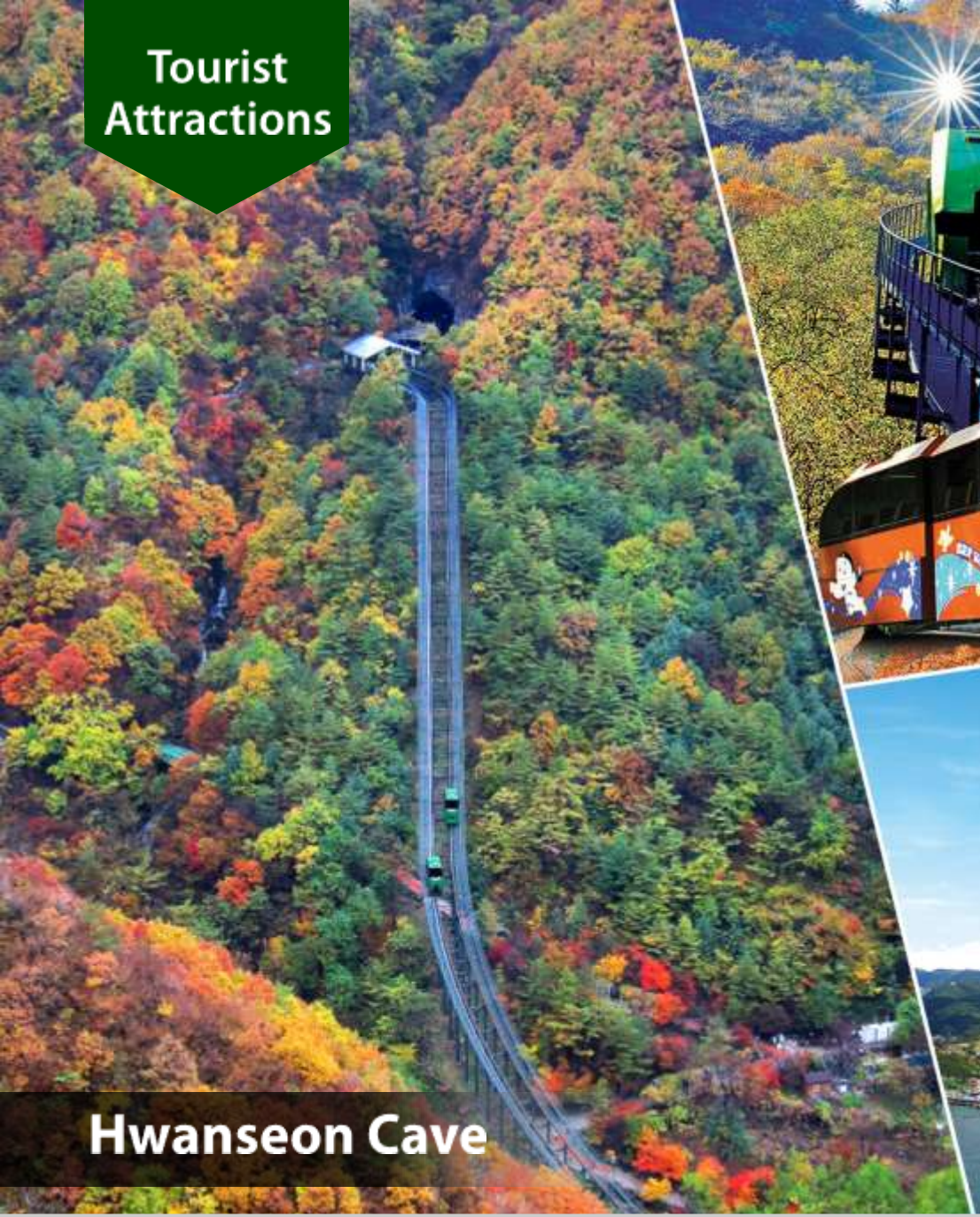
Area

1,186.53 km²

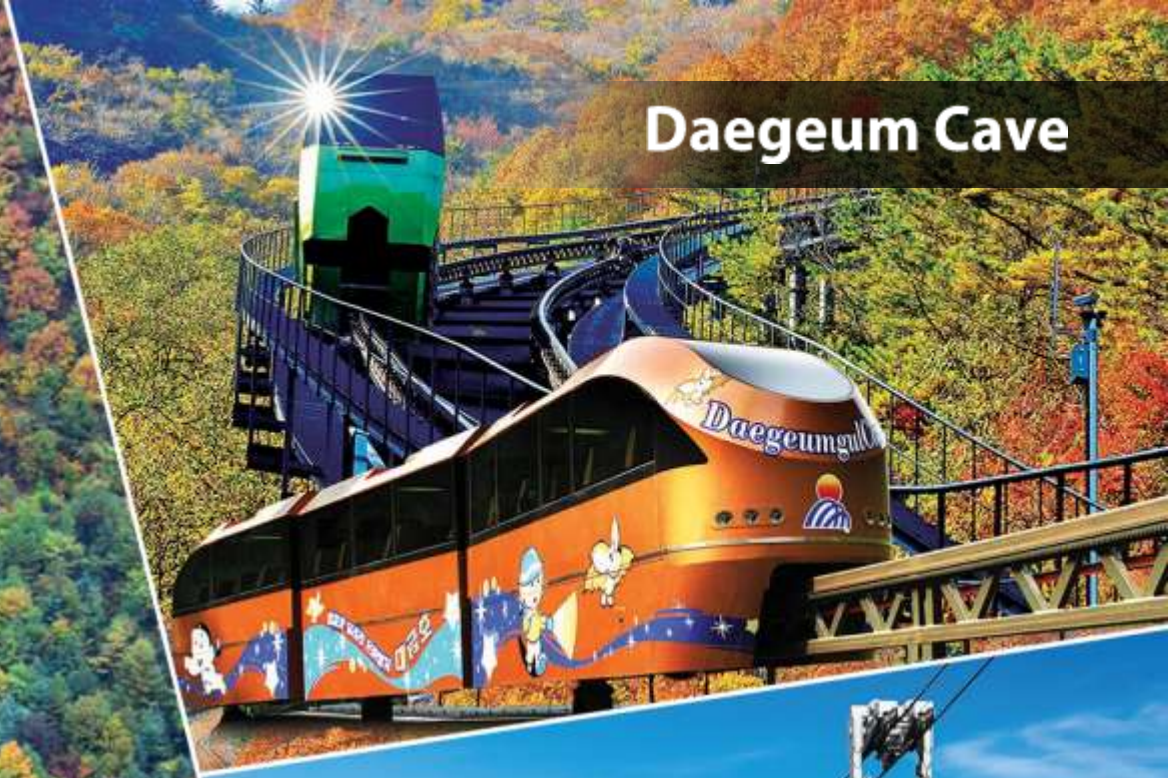
Population

69,011 persons

Tourist Attractions



Hwanseon Cave



Daegeum Cave



Marine Cable Car

Tourist Attractions



13 Beaches



Ocean Rail Bike



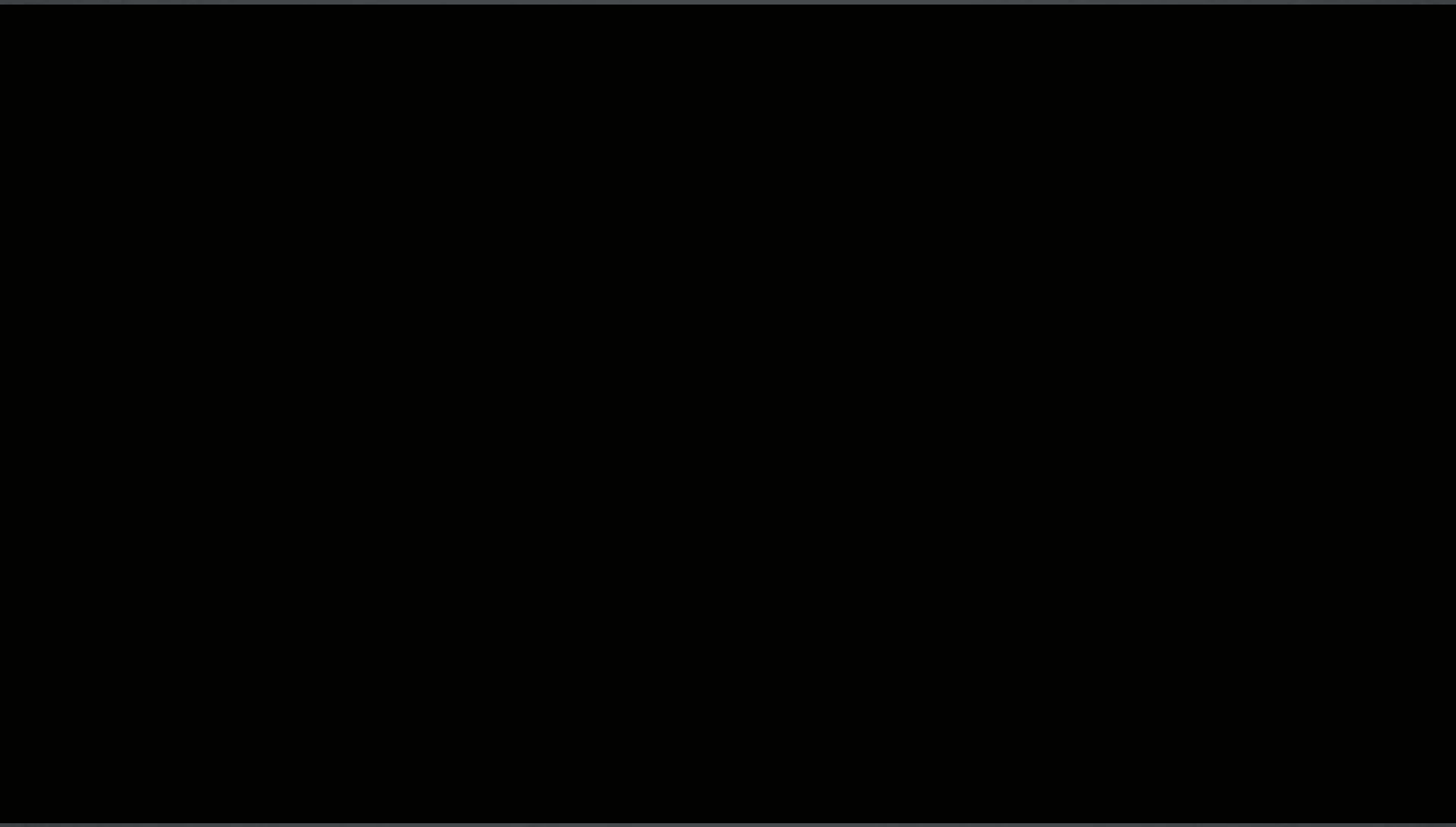
Haesindang Park

Ⅱ

Anti-nuclear Fight



Ⅱ-1 Anti-nuclear Fight



Ⅱ Anti-nuclear Fight

First Part

A. Part of Geundeok-myeon area was designated as potential nuclear power plant by the central government

- Designated Date : 8 January 1981
  Designated Area : 2,842,975m²

- Anti-nuclear demonstration by residents

  [29 August 1993]





Anti-nuclear demonstration in 1993

Ⅱ Anti-nuclear Fight

First Part

A. The result of potential nuclear power plant site

- Cancellation of the designation as nuclear power plant sites by the central government because of a huge resistance of citizens

[30 December 1998]



Epitaph on the monument



Monument Construction

Ⅱ Anti-nuclear Fight

Second Part

B. Again part of Geundeok-myeon area was designated as potential nuclear power plant site

- Designated Date : 26 November 2010

- A large-scale rally by citizens commemorating the 1st anniversary of Fukushima Nuclear Accident

  [11 March 2012]

No-nuclear Fight by the citizens in 2012



Ⅱ Anti-nuclear Fight

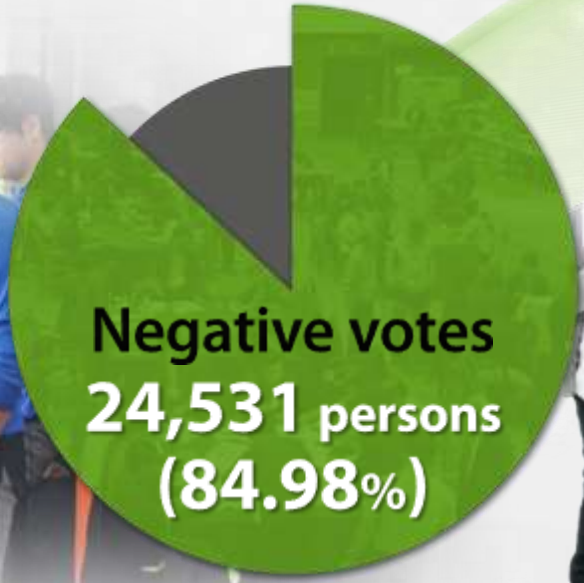
Second Part

B. Again part of Geundeok-myeon area was designated as potential nuclear power plant site by the central government

- Preliminary residents' votes for/against a nuclear power plant in Samcheok

[8 to 9 October 2014]







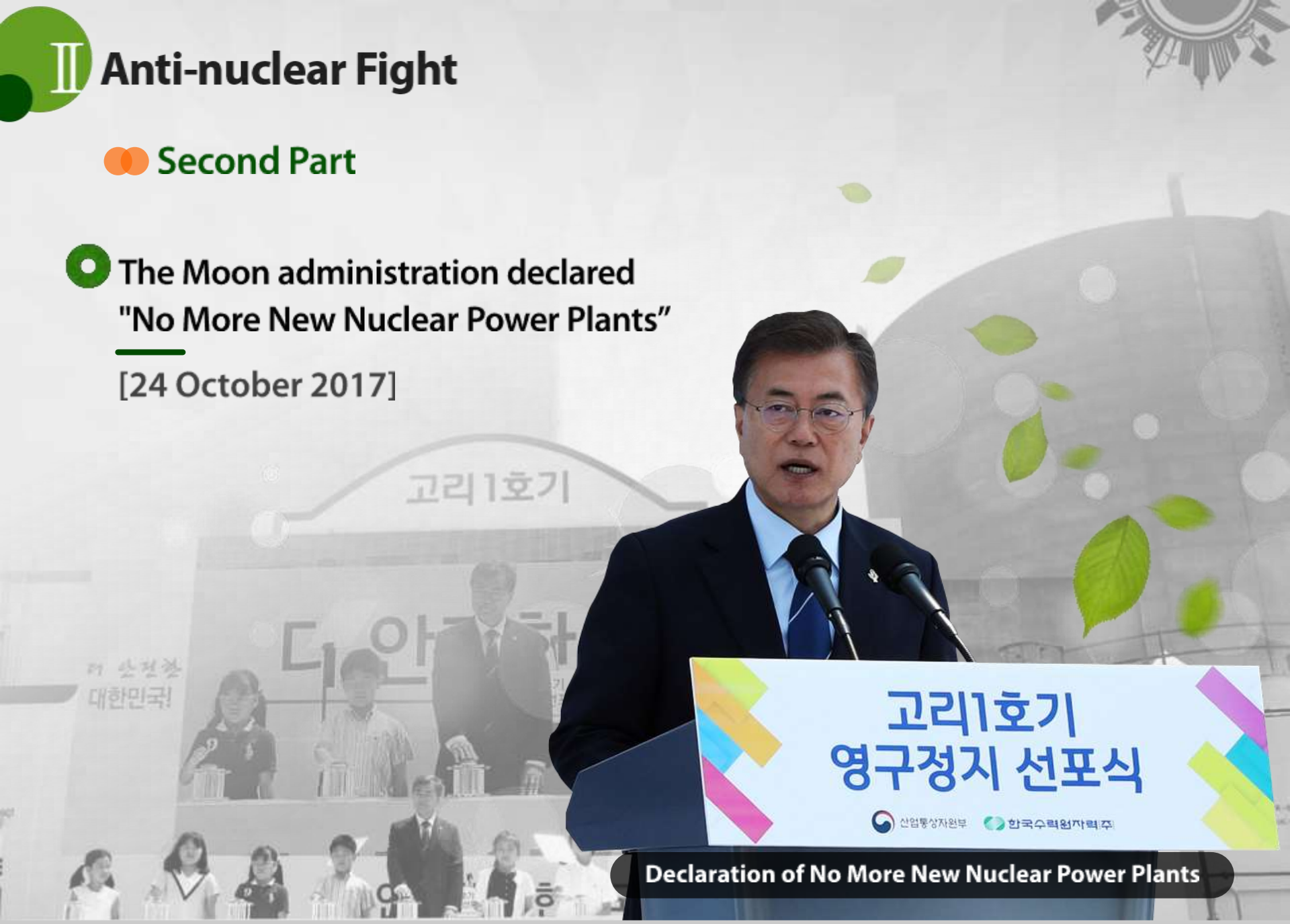
The result of vote for/against nuclear power plants

Ⅱ Anti-nuclear Fight

Second Part

- The Moon administration declared "No More New Nuclear Power Plants"

[24 October 2017]



Declaration of No More New Nuclear Power Plants

III

Basic Direction for Samcheok City's Energy Policy



Ⅲ Basic Direction for Samcheok City's Energy Policy

Vision

Constructing a no nuclear, clean energy-fueled eco-friendly city

Constructing a human-centered, environmentally-sound eco-city



Goal

Building the basis for safe and clean future energy

Key Tasks

1. Supply of Renewable energy based on residents' participation
2. A wider adoption of the future energy, carbon and hydrogen industry

Ⅳ

Fostering and Promotion of Renewable Energy



Ⅳ Fostering and Promotion of Renewable Energy

Construction of energy independence village

Purpose

- Policy support for reduced consumption of fossil fuels led by residents' participation in order to act against global warming and enhance energy self-reliance



View of energy independence village

Ⅳ Fostering and Promotion of Renewable Energy

Construction of energy independence village

Achievements as of the present (3kw per household)

- Installed for 894 households in 18 towns
  - ※ Estimated at 900 households in 18 places by 2019

Policy support

- Installation cost (3kw per household) :
  7,000 USD
  (6,500 USD in grant,
  500 USD Born by a household)



View of energy independence village

Ⅳ Fostering and Promotion of Renewable Energy

Solar Energy for Senior Citizen Centers

Purpose

Reduction of Winter heating costs for senior citizens

+

Improved quality of life through a stable power supply





View of a solar energy
Installed at a senior citizen center

Ⅳ Fostering and Promotion of Renewable Energy

Solar Energy for Senior Citizen Centers



View of a solar energy
Installed at a senior citizen center

Achievements

No. of senior citizen center	73
No. of centers with solar energy installations	53
Future Plan	New senior citizen centers will have solar energy installed.

Policy support

- Installation cost per center 7,000 USD
- The full cost is covered by policy grants.

Solar Energy Power for Village Halls

Purpose

- The installation of solar energy at public buildings
- Save a management fee



View of a village hall with solar energy installed

Ⅳ Fostering and Promotion of Renewable Energy

Solar Energy Power for Village Halls

Achievements

No. of village halls	170
No. of halls with solar energy installations	123
Future Plan	The city of Samcheok is planning to build solar power plant for the newly constructing village hall



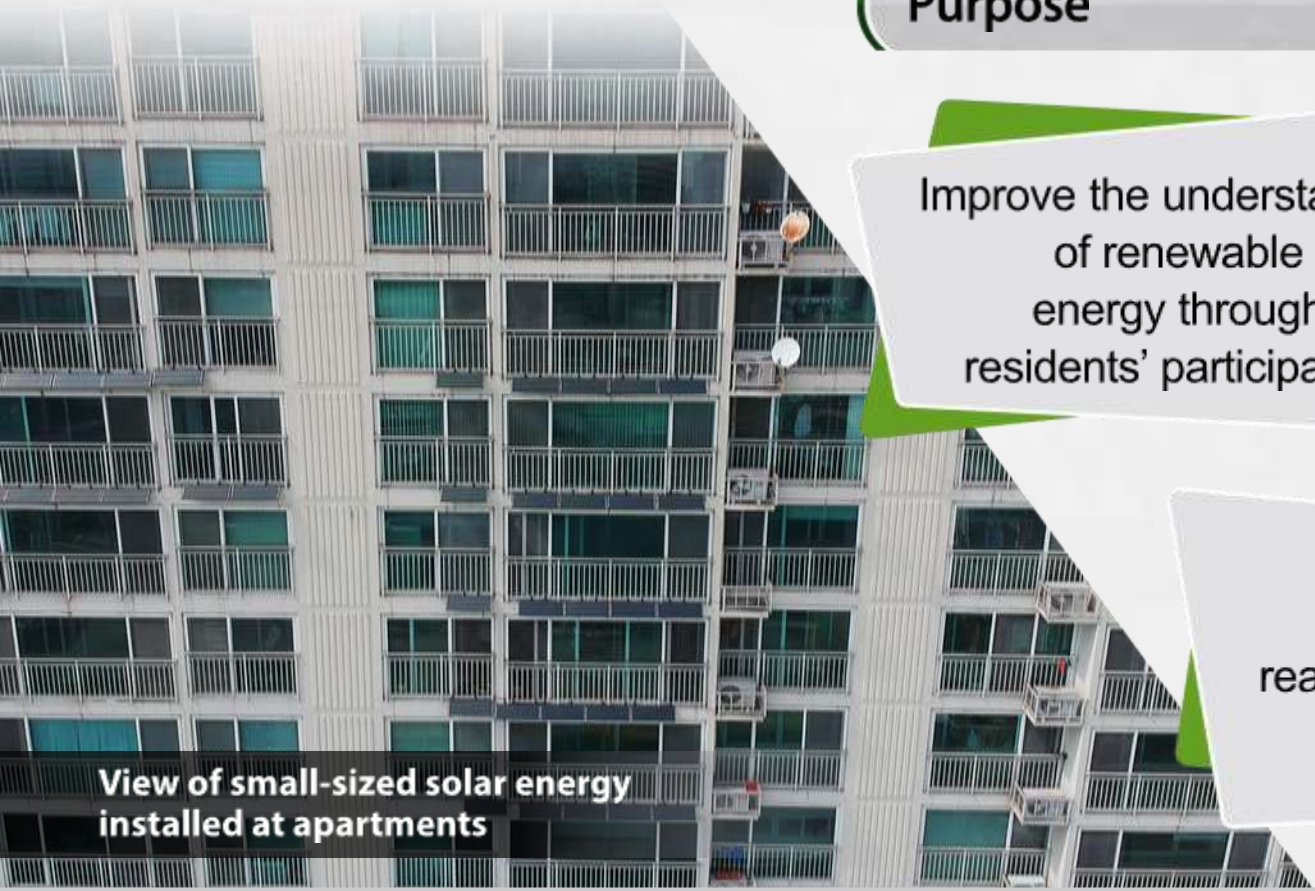
Policy support

- Installation cost (per village hall) : 7,000 USD

※ Full installation costs are covered by policy grants.

Ⅳ Fostering and Promotion of Renewable Energy

Small-sized Solar Energy for Apartment Blocks



View of small-sized solar energy installed at apartments

Purpose

Improve the understanding of renewable energy through residents' participation

+

Financial benefits realized through reduced power bill

Ⅳ Fostering and Promotion of Renewable Energy

Small-sized Solar Energy for Apartment Blocks

Achievements

(300W/household)

No. of households with installation	206
Plan for 2019	200
Comment	Scenery-considered solar energy installation

Policy support

- Installation cost per household 750 USD
- 650 USD in grant
  (100 USD born by a household)



View of small-sized solar energy installed at apartments

Ⅳ Fostering and Promotion of Renewable Energy

City-run Solar Energy Power Plants



View of a city-run solar energy power plant

Deungbong Solar Energy Power Project

- **Capacity :** 353kw
- **Project Budget** 1.16 million USD
- **Annual Revenue** 110,000 USD

※ Cost Recovery Period 8 years

Ⅳ Fostering and Promotion of Renewable Energy

City-run Solar Energy Power Plants



View of a city-run solar energy power plant

Solar Energy Power Project for Sports Complex

- **Capacity :**
  228kw
- **Project Budget**
  827,000 USD
- **Annual Revenue**
  73,000 USD

※ Cost Recovery Period
8 years

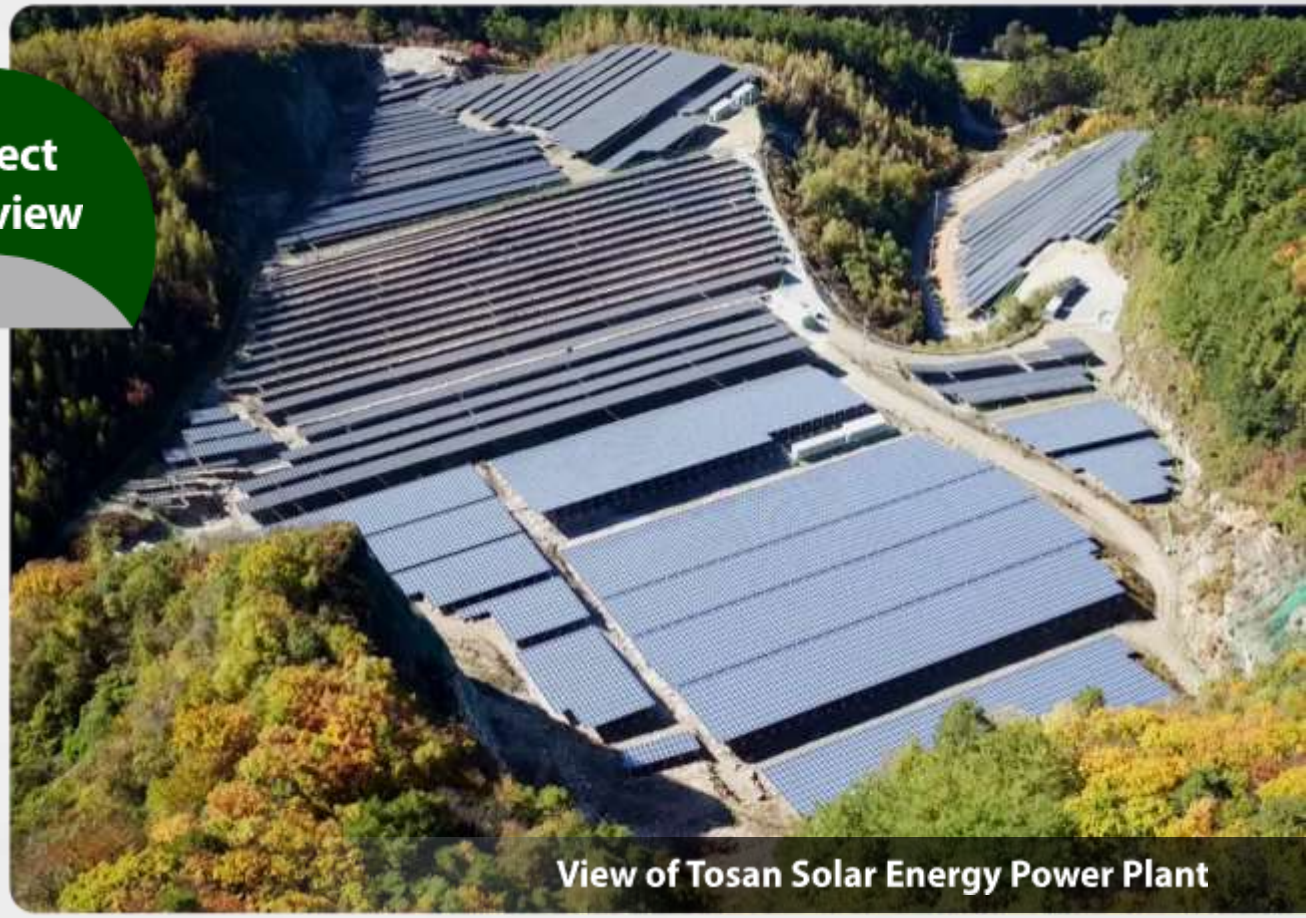
Ⅳ Fostering and Promotion of Renewable Energy

Tosan Solar Energy Power Plant

Project Overview

- **Period :**
  2015 to 2017 (3 years)
- **Budget :**
  15 million USD
- **Capacity :**
  7.019MW

※ Potential to supply 2,400 households



View of Tosan Solar Energy Power Plant

Ⅳ Fostering and Promotion of Renewable Energy

Tosan Solar Energy Power Plant



View of Tosan Solar Energy Power Plant

Project Characteristics

1. City-supervised, private capital used
2. Installed at closed limestone mines
3. No conflict with residents and no environmental destruction

Ⅳ Fostering and Promotion of Renewable Energy

Promotion of Eco-friendly Electric Vehicles

Purpose

- Reduce fossil fuel consumption and promote environmental protection
- Act against global warming

No. of vehicles supplied

- 200
  (Highest No. in Ganweon Province)



View of an EV charging station

Ⅳ Fostering and Promotion of Renewable Energy

Promotion of Eco-friendly Electric Vehicles

EV Charging Infrastructure

No. of EV Charging stations

18 Fast	112 Slow



Policy support

- Vehicle purchase cost : 45,000 USD

※ 24,000 USD in grant
(21,000 USD born by a vehicle purchaser)

V

Fostering the Future of the Energy Industry



V Fostering the Future of the Energy Industry

Fostering of New Energy Hydrogen Industry and Infrastructure Building Plan

Project Period

2018 to 2023

Project Contents

- Building the basis for fostering the hydrogen industry and for hydrogen production
- Undertaking of hydrogen-based projects (charging stations, hydrogen-based town, liquefied hydrogen plant, etc.)
- Inviting the participation of companies with hydrogen business models



V Fostering the Future of the Energy Industry

Fostering of New Energy Hydrogen Industry and Infrastructure Building Plan

Total Project Budget

2.256 billion USD



Project Details

1. Building of hydrogen charging stations and vehicles
2. Construction of IGCC plants : 300 MW / 1.5 billion USD
3. Construction of fuel cell power plants : 100 MW / 500 million USD
4. Hydrogen Town Construction Project : 5,000 m^2 / 10 million USD

V Fostering the Future of the Energy Industry

Bird's-eye view of IGCC plants



Bird's-eye view of a Hydrogen Town





Bird's-eye view of Fuel Cell Plants



View of a Hydrogen Charging Station

V Fostering the Future of the Energy Industry



Reduce carbon emissions to prevent global warming



Bird's-eye view of a CO_2 R&D Center



Bird's-eye view of a CO_2 village



Launch Ceremony for the Industry 4.0 Committee

SAMCHEOK CITY

Special City for Renewable Energy

Wonderful Samcheok

Thank You

