

# 04

## Policies and Incentives

### The Fourth New & Renewable Energy Development Framework (September 2014)

The Korean government plans to increase the share of new & renewable energy in the entire primary energy to 11.0% (13.4% of the total electric power) by 2035.

Goals for Proportion to the Supply by Energy Sources (%)

Category	2014	2025	2035
Solar Thermal	0.5	3.7	7.9
Photovoltaics	4.9	12.9	14.1
Wind Power	2.6	15.6	18.2
Bio	13.3	19.0	18.0
Hydraulic Power	9.7	4.1	2.9
Geothermal	0.9	4.4	8.5
Waste-to-Energy	67.0	38.8	29.2

Source: Ministry of Trade, Industry and Energy

### Action Plan for New/Renewable Energy Industry Development

**01**  
Improve the economic efficiency of new & renewable energy projects.

- Increase long-term fixed contracts on the basis of competition.
- Enhance the economic efficiency of PVs installed in schools and households.

**02**  
Expand the locations for new & renewable energy facilities.

- Loosen regulatory measures on the environment and site selection.
- Engage community members.
- Expand the community-engagement models such as rural PV projects.

**03**  
Establish infrastructure for new & renewable energy.

- Create early connection to power systems.
- Resolve grievances of new & renewable energy business with no less than 1 MW capacity in connecting power systems.

**04**  
Create future-oriented energy systems.

- Reshape the scope of new & renewable energy and the REC system to meet global standards.
- Increase R&D and investment in the new & renewable sector, focusing on solar photovoltaic power and wind power.

Source: Ministry of Trade, Industry and Energy

## Success Case

### Wind power generation complex at Taegi Mountain, Gangwon Province

The complex is located in a 53,000m<sup>2</sup> land around the ridge of Taegi Mountain.

The complex is home to a total of twenty-2MW wind power generators.

The complex is the first investment case in which KRW 42.5 billion (USD 40 million), or half the total investment cost (KRW 85 billion), was induced from foreign investment.

# KOTRA WORLD WIDE

As Korea's Trade-Investment Promotion Agency, KOTRA has 127 overseas offices and 10 headquarters worldwide.

\* Invest Korea(IK), Korea's national investment promotion agency, was established as part of KOTRA to support the foreign businesses in Korea.



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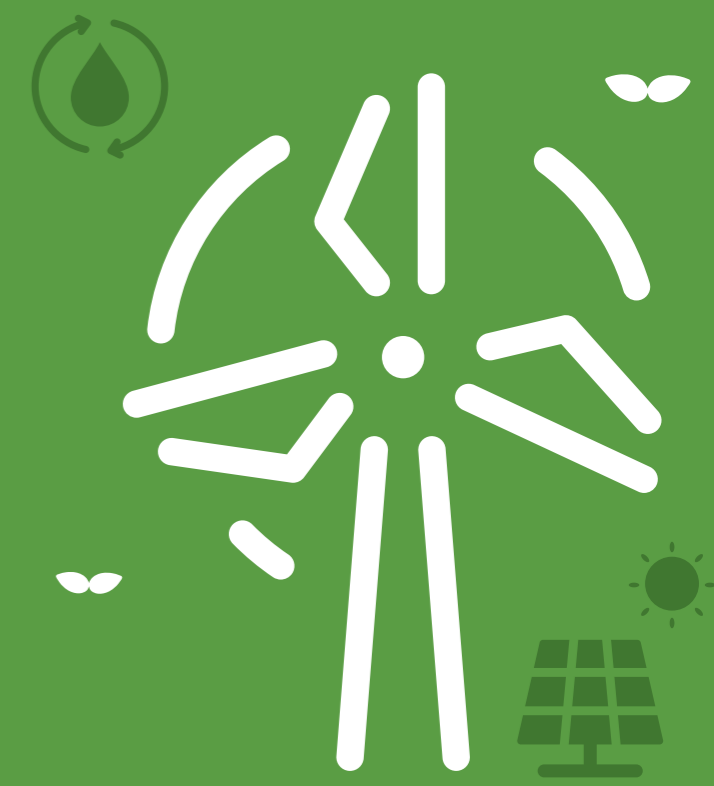
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KOREA'S LEADING INDUSTRIES

# RENEWABLE ENERGY





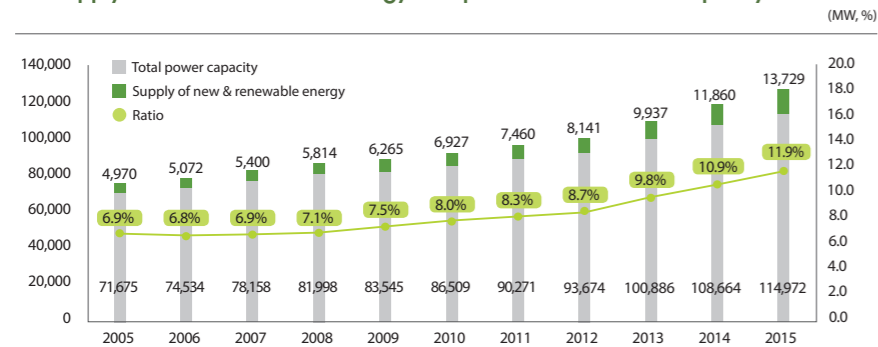
# 01

## Korea's New & Renewable Energy Industry

The total supply of Korea's new and renewable energy recorded 13,729 MW in 2015, showing a 98.2% increase from 6,927 MW in 2010.

The ratio of new & renewable energy's power capacity to the country's entire power generation increased by 3.9%p from 8.0% in 2010 to 11.9% in 2015.

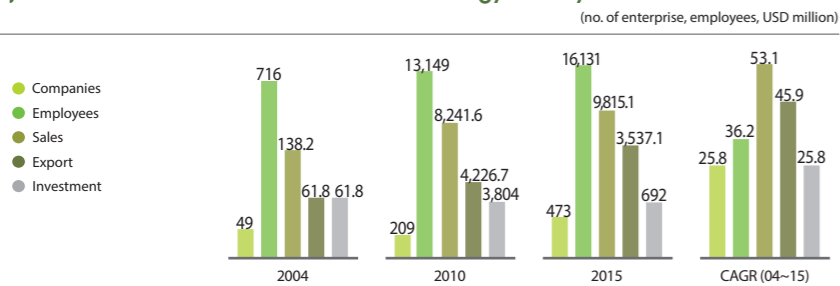
The Supply of New & Renewable Energy Compared to Total Power Capacity



Source: Korea Energy Agency (KEA)

From 2004 to 2015, the number of new & renewable providers in Korea increased by 9.7 times; employment by 22.5 times, sales by 79 times, export by 64 times, and investment by 12.5 times.

Major Indicators of Korea's New & Renewable Energy Industry



Source: New & Renewable Center of Korea Energy Agency (KEA)

# 02

## Competitiveness

### Strong Growth Potential

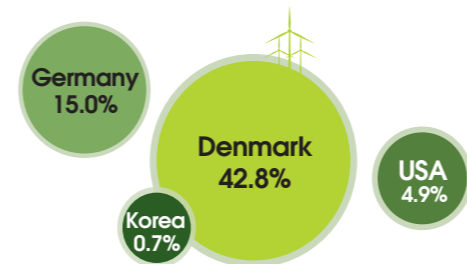
Compared with major countries in the advanced world, the proportion of new & renewable energy to primary energy in Korea stands at only 0.7%, much lower than that of Denmark (42.8%), Germany (15%) and the United States (4.9%).

Korea is still in its infancy in terms of the deployment of renewable energy (e.g. ESS) in manufacturing facilities such as "smart factory," the establishment of infrastructure (e.g. AMI), and the creation of new businesses converged with the ICT industry.

### Technological Prowess

The technological level of Korea's new & renewable energy industry is estimated to be 81.7% on average.

In particular, Korea's technological capabilities regarding solar photovoltaic power, hydraulic power, and bioenergy are on par with many advanced countries.



Total Capacity of New & Renewable Energy by Major Country

Category	US	Japan	Europe	China	Korea
Solar Thermal	92.2	93.1	95.7	81.2	85.1
Photovoltaics	93.1	93.6	96.8	82.1	84.7
Wind Power	92.6	91.9	95.9	80.4	83.9
Hydraulic Power	91.0	90.3	96.1	77.2	80.0
Geothermal	89.9	92.5	96.2	76.9	82.4
Waste-to-Energy	92.0	91.8	95.1	77.8	81.7

Source: Korea Energy Economics Institute

Korea has accumulated experiences in the renewable energy sector with its Jeju Smart Grid Demonstration Project and Gapado Self-Sufficient Energy Island Project.

# 03

## Industry Clusters

In Korea, new & renewable energy clusters have been formed around the capital area, Chungcheong-do (Cheongju-Cheonan-Sejong), Jeollanam-do (Gwangju), Jeollabuk-do (Jeonju), Busan and Gyeongsangnam-do, Gyeongsangbuk-do (Daegu-Ulsan) and Jeju.

### Gyeongsangbuk-do

A test bed has been established where renewable energy-related technologies and parts are tested for exports.

### Chungcheongbuk-do Innovation City

A solar photovoltaic power R&D cluster is the planning stage and will be at the forefront of nurturing the photovoltaics industry.

A 4,900m<sup>2</sup> PV Technological Support Center in the cluster will be in charge of PV-related research, technology development, certification/testing, and education.

### Jeollabuk-do

The Buan New & Renewable Energy Complex and the Saemangeum Wind Power Industry Cluster are located in this region.

As Korea's one and only industrial complex that deals with demonstration research, industrial development and promotion, it will create a hub for the PV, wind and fuel cell sectors.

Major companies located in the region include; OCI, Nexolon, Solar Park Korea, Hyundai Heavy Industries, Quartz Tech and Pro Power.

Distribution of Enterprises in the New & Renewable Energy Industries (2015)

