

Press Release

Ministry of Knowledge Economy

Korea Goes for “Green Growth”: Sustainable development in a low carbon society

Korea has announced a long-term strategy that will determine the direction of its national energy policy until 2030. The National Energy Committee mapped out the plan on the basis of the 3Es—Energy Security, Economic Efficiency and Environmental Protection. The National Energy Committee is chaired by President Lee Myung Bak and comprises senior government officials, and leading members of the business community, academia and civic groups.

Korea will reach its long-term energy goals by taking the following steps.

- **Improving energy efficiency and reducing energy consumption.** By 2030, Korea will reduce its energy intensity level to 0.185 TOE/US\$1,000 from the current level of 0.341 TOE/US\$1,000, a difference of 46 percent. It will also cut energy consumption by 42 million TOE.
- **Increasing the supply of clean energy and reducing the use of fossil fuels.** By 2030, fossil fuels will account for only 61 percent of total energy consumption, down from the current 83 percent, while the use of renewable energy will increase to 11 percent from 2.4 percent in 2007.
- **Boosting the green energy industry.** By 2030, Korea’s green energy technologies will be comparable to levels of most advanced countries.
- **Ensuring its citizens have access to an affordable energy.** The government will ensure that energy sources are accessible and affordable to low-income households.

Improving Energy Efficiency and Reducing Energy Consumption

- The government will allow more market mechanisms to determine energy prices, and will promote high energy conservation standards. By 2030 Korea will have moved toward a service-based economy, as opposed to one based on manufacturing which consumes large amounts of energy.

- Specific measures will also be in place to improve energy efficiency and reduce energy consumption in four major sectors.
 - 1. In the industrial sector**, Korea will increase its support for R&D to improve the energy efficiency of industrial equipment and facility upgrades; and will provide financial support for companies that invest in energy efficiency.
 - 2. In the transport sector**, Korea will improve the fuel efficiency of automobiles; establish a low-carbon, highly energy-efficient public transportation system; and implement a plan that will allow Korea to emerge as one of the top four producers of green cars in the world.
 - 3. In the residential and commercial sectors**, Korea's energy-efficiency labeling program, which currently affects only newly built multi-unit residential buildings, will gradually be expanded to cover all buildings. Furthermore, Korea will promote the development and construction of zero-energy, carbon-neutral buildings.
 - 4. In the public sector**, the government will lead by example by conserving energy wherever, whenever possible and promoting the carbon trading scheme to offset CO₂ emissions.

Increasing the Supply of Clean Energy

- Under the Committee resolutions, renewable energy sources and nuclear power will account for 11 percent and 27.8 percent, respectively, of the energy mix by 2030. This represents a sizable increase from the current levels of 2.4 percent for renewable energy and 14.9 percent for nuclear power.
- **In the renewable energy sector**, the government will achieve a 44-fold increase in the use of photovoltaic energy, compared with the levels seen in 2007. The use of wind power will jump 37-fold, biofuels 19-fold, and geothermal power 51-fold. The government intends to achieve these milestones by:
 - Stimulating domestic demand for wind power, tidal power and biofuels. Steps will include introduction of the Renewable Portfolio Standards, and the enforcing increased use of renewable energy in public buildings.
 - Supporting the development of core technologies in the fields of photovoltaic energy, wind power and hydrogen fuel cells. These include thin-film solar cells and large wind turbines.
- **In the nuclear energy sector**, nuclear power plants will account for 41 percent of the nation's power generation facilities from 26 percent in 2007. The government will facilitate and encourage open discussion and a democratic, transparent decision-making process concerning the establishment of new nuclear power plants and the management of spent fuel.

Boosting the Green Energy Industry

- The components of the green energy industry are clean fossil fuel technologies, improved energy efficiency, and the use of energy sources that produce zero greenhouse gas emissions.
- To support the development of the green energy industry, the government will invest 11.5 trillion won (about \$11 billion up to 2030) in research and development into green technologies. It will also establish a large-scale integrated test bed for green technologies and encourage energy-related national corporations to purchase green technologies. It is estimated that the green energy industry will create about 950,000 new jobs.

Ensuring Citizens Have Access to an Affordable Supply of Energy

- Under the new plan, the government will ensure that all Koreans have an adequate supply of energy to maintain an acceptable standard of living. The plan aims to help low-income households so that they do not spend more than 10 percent of their total income on energy needs.
- To this end, the government will assist low-income households in obtaining more energy-efficient facilities and appropriate heating and cooling equipment.

* Released by the Energy & Resources Policy Division

Photovoltaics in Korea

(Key Facts gathered by KEMCO, January 2009)

In 2007, Korea completed significant value-chains of PV industry by succeeding in manufacturing polysilicons and ensuring global competitiveness of Korea's PV industry has been strengthened as many companies have been participating in each photovoltaic sector.

In the case of polysilicons, one company is planning to increase its annual production capacity from 5,000 ton this year to 15,000 ton in 2009.

One of those companies will increase Ingot's annual production capacity from 1,400 ton this year to 5,000 ton 2012 and another one is also planning to scale up annual PV production capacity from current 20MW to 500 MW by 2012.

These various companies' active market participation is boosting domestic PV industry.

in the case of Building Integrated Photovoltaic System, some renewable enterprises have been actively participating in developing BIPV technology so that its technology has been improved gradually.

it is expected that, through the increase of the production capacity of PV-related products, domestic PV industries such as polysilicon, PV cell, module can assure their global competitiveness from 2010.

Deployment of PV systems had been increased significantly as 81 MW had been added more from 2004 to 2007.

In 2008 alone, the cumulative deployment of PVs was more than 350MW since large-scale power generation plants had been constructed to make a profit on Feed-in Tariff system which has come into effect since 2004.