



Global
Green Growth
Institute

GGGI ENERGY FORUM 2018



Tuesday, October 30, 2018

The Plaza Hotel, Seoul

BACKGROUND



The cost of renewable energy is rapidly falling that it should be a consistently cheaper source of electricity generation than traditional fossil fuels within just a few years. This is according to a new report from the International Renewable Energy Agency (IRENA).

The report found that the cost of generating power from onshore wind has fallen by around 23% since 2010 while the cost of solar photovoltaic (PV) electricity has fallen by 73% in that time. With further price falls expected for these and other green energy options, all renewable energy technologies should be competitive on price with fossil fuels by 2020.

Further, new solar photovoltaic (PV) and wind energy plants are more profitable than fossil and nuclear plants in a fast-growing number of regions all around the world. The shares of renewable energy supplies are growing in many countries. An increasing number of countries, regions and cities have set a 100% renewable energy target between 2020 and 2050.

It is a known fact that a significant shift is under way in the energy sector. The cost declines across technologies are unprecedented and representative of the degree to which renewable energy is disrupting the global energy system.

OVERVIEW



After successfully organizing the first GGGI Energy Forum in Seoul in 2017, the Global Green Growth Institute (GGGI) will hold the second energy event in Seoul in 2018 to bring together the GGGI Council Members, leading energy experts, and policy makers from both the private and public sectors to discuss the importance of shifting towards a renewable energy-driven economy and sustainable future.

The GGGI Energy Forum 2018 will serve as a platform for 1) sharing energy transformation experience from different governments, including the GGGI Member and partner countries and 2) discussing the renewable energy potential on the Korean Peninsula.

This year, GGGI will be hosting the GGGI Energy Forum 2018 on October 30, back-to-back with the Seventh Session of the Assembly and Eleventh Session of the Council (Joint Session), slated to be held on October 31.

GGGI would like to invite the GGGI Council Members to present and share approaches, challenges and practices experienced by their respective countries in transitioning to a sustainable future and adopting Sustainable Development Goals (SDGs) and Nationally Determined Contributions (NDCs).

Under the theme of “Renewable Energy Potential on the Korean Peninsula,” the GGGI Energy Forum 2018 will serve as a platform for 1) sharing energy transformation experience from different countries, including GGGI’s Members and partners, 2) discussing the renewable energy potential on the Korean Peninsula and 3) understanding prospects of energy policy transition in the Republic of Korea and Japan.

The clean energy transition is well under way, triggered by market forces and declining costs of renewable and storage technologies. Renewable-energy source technologies, such as wind power and solar are highly likely to surpass traditional fossil fuels in terms of usage. There are several ways to generate power from biomass, hydro, wind, solar, and geothermal sources. These renewable-energy source alternatives to fossil fuels are already becoming a significant part of our power-generation mix.

According to the New Climate Economy’s latest report, around \$280 billion was invested in new renewable energy generation last year, continuing a six-year trend of outpacing global fossil fuel generation investments. As costs have plummeted, investment in renewables has soared, with increased investor interest driven partly by public commitments and rapidly maturing technologies. Government support policies have also played a pivotal role in the global increase of renewable energy investments. Renewable energy support policies have continued to expand across all regions, and nearly all countries now have at least one renewable energy target.

Korea’s neighboring country of Japan halted all its nuclear power generation following the Fukushima nuclear power plant explosion in the wake of an earthquake and subsequent tsunami in 2011. While overall emissions in Japan remain relatively high, new policies have the potential to positively affect the country’s long-term emissions trajectory.



DISCUSSION



Renewable Energy 3020

In Korea, the supply of renewable energy and energy storage systems more than doubled in the first quarter of this year compared to the same period last year due to the easing of regulations. Due to the expansion of incentives for renewable energy investment and the easing of regulations with the aim of reaching the “Renewable Energy 3020” goal, investment in renewable energy in the private sector has significantly increased. The “Renewable Energy 3020” goal was set during a strategy meeting presided over by President Moon Jae-in in November last year. It aims to increase the proportion of generation quantity made up of renewable energy to 20 percent by 2030 from the current 7 percent. Private-sector projects utilizing renewable energy are also under way throughout Korea.

In Korea, renewable energy currently accounts for **just 2 per cent of the country’s electricity production**, with coal-fired and nuclear plants generating 40 per cent and 30 per cent, respectively. However, Korea’s new Moon Jae-in government has increased the target for the share of **renewables in power generation to 20 per cent by 2030**. The Korean government plans to set up a renewable energy coordination center in every region; secure a solar system in each village; adopt projects led by local authorities, including offshore wind turbines; and secure economic feasibility of renewable energy through utility-scale renewable energy projects.

100% Renewable Energy on the Korean Peninsula

The Korean producers of cleantech, storage and e-mobility technologies are leading worldwide. A 100% RE-based system will help North Korea to achieve energy security, to attain an independent political position by not relying on energy imports and to boost economic growth by creating new jobs. Such a plan can turn the Korean peninsula into a flagship region for an ecologic, nuclear-free and green economy worldwide. It will also make a significant contribution to achieving the Paris Agreement targets, which aim to limit the global temperature rise between 1.5 and 2.0 °C.



GGGI Member countries’ experience in transitioning to a sustainable future

Denmark offers the best conditions for utilizing geothermal heat because of the country’s well-developed district heating. In Denmark, boilers provide heat for entire districts through a network of heating pipes – district heating. The cheaper and sustainable district heating is the most economically effective method for a city to reduce carbon emissions. In the UK, the use of coal in the energy mix has rapidly fallen from 50 to 9 per cent in just ten years, replaced by cheap solar and offshore wind energy – while nuclear energy is maintaining a key role. The Australian capital city, Canberra, has rapidly achieved the solar and wind investments to shift to **100 per cent renewable energy by 2020**, and is now moving to zero emissions by 2030, while the national targets are much more modest. Electric cars in Norway are booming. The Norwegian government offers the largest monetary incentives for plug-in electric cars. The trend toward

electric cars is picking up speed all over the world, including in the biggest economies like China. Norway offers an example of what factors drive adoption of electric cars. Norway has the goal to reach 100% of new car sales being zero-emission vehicles starting in 2025.

GGGI's achievements

GGGI has helped mobilize close to 1 billion dollars in green investments in developing countries. GGGI is supporting countries to achieve sustainable development and climate action through new, innovative green industries and jobs. GGGI supports countries to achieve their NDCs by delivering climate action services in the areas of mitigation, transparency and finance.

2017 was an excellent year for GGGI, in which we helped mobilize USD 524 million in green and climate finance to support developing countries achieve their green growth plans. This money will be used by our member countries to, for example, increase climate resilience in agriculture in Ethiopia, install solar energy plus battery storage in 8 islands in Indonesia, build a green housing project in Rwanda, and prevent deforestation in Colombia. GGGI continued to support governments to develop green growth plans and policies, for example, a Green Growth Plan for Sonora State in Mexico, new energy efficiency laws in Mongolia, and an NDC Implementation Plan for Fiji.

GGGI has forged a strong strategic partnership with the Green Climate Fund (GCF). GCF has a huge role to play in delivering the Paris Agreement and taking climate action. As a strategic partner of the Fund, GGGI is strengthening developing countries ability to access and implement climate finance.

GGGI will invite its Council Members to share their respective countries' experience in shifting toward sustainable economies.



TENTATIVE PROGRAM

Date Tuesday, October 30, 2018
Time 3:30 p.m. – 7:30 p.m.
Venue 22nd Floor, Diamond Hall, The Plaza Hotel, Seoul
Theme Renewable Energy Potential on the Korean Peninsula
Organizer GGGI
Sponsor Hanwha Q CELLS

TUESDAY, OCTOBER 30, 2018

Time	Speech	Speaker
15:30 – 16:00	Pre-networking session	22nd Floor, Diamond Hall, The Plaza Hotel, Seoul
16:00 – 16:10	Opening Keynote Speeches	Dr. Frank Rijsberman, Director-General of GGGI and Hanwha Q CELLS
16:10 – 16:40	Session 1: Renewable energy potential on the Korean Peninsula “Global Energy Transition Policies – Issues and Challenges” Discussions on ways to achieve 100% renewable energy on the Korean Peninsula	Hans-Josef Fell, President of the Energy Watch Group
16:40 – 17:00	Session 2: Case Study – Part 1 Energy policy transition in Japan	Kaizuka Izumi, Manager, Research Division, RTS Corporation
17:00 – 17:20	Session 2: Case Study – Part 2 Energy policy transition in the Republic of Korea	Ministry of Trade, Industry and Energy (MOTIE), Republic of Korea (TBC)
17:20 – 18:20	Discussion	
18:20 – 18:40	Q&A Session for Journalists	
18:50 –	Dinner	The Plaza Hotel, Seoul