# Microgrids north korea

Microgrids north korea

The central piece of infrastructure necessary to bringing about Korea"s (indeed the world"s) renewable energy revolution is the development of an IT-infused electric power grid (smart grid). Korea is characteristically accelerating

the development of a smart grid through indigenous research and development efforts centred on a modular approach, utilizing microgrids, and promoting competition. However, it was only until a series of announcements mid to late last year that Korea"s greening strategy became a more serious possibility.

In July 2016, the Ministry of Trade, Industry and Energy (MOTIE) announced detailed investment plans (42 trillion won or 36.6 billion by 2020) for the development of renewable energy technologies, involving increasesto Korea"s Renewable Portfolio Standard (RPS) targets.

Perhaps the most significant part of the July announcementwas that the MOTIE"s plans were to be combined with the commitment that the Ministry "would come up with specific plans to allow renewable energy source-based power generators to participate in the energy sector" - with the clear intention that this would "attract more private companies to join the market."

Theplan would allow solar power producers to sell electricity directly to customers via the Korea Power Exchange (KPX).The opening up of the electricity industry to competition represents in our view the most concrete commitment yet in bringing about a greening of Korea"s power systems.

At the 2016 Renewable Energy Business Investment Forum (held in December) the Ministry announced that the Korea Electric Power Corporation"s (KEPCO) six subsidiaries will be investing 3.7 trillion won ($ 3.06 billion) in the construction of renewable energy generating facilitiesin 2017 and 2018. This includes 38.6 percent of the total investment in solar projects, 35 percent in wind, 17.9 percent in fuel cells and the remaining 8.5 percent in other technologies.

We see these developments as the first meaningful steps to breaking the quasi-monopoly held by the state-owned electric power utility, KEPCO, which retains 95% market share over power generation and 100 percent market share over transmission/distribution of the electricity industry deed, liberalizationhas been the missing ingredient in policymakers" attempts to raise the level of renewable power generationin Korea in the past.

In 2015, Korean power production was primarily sourced from non-renewable, conventional sources such as coal (31 percent), natural gas (14 percent), nuclear (13 percent), and petroleum and other liquids (41 percent).

The second hurdle is KEPCO"s maintenance of a virtual monopoly over the generation, distribution and retail

segments of the overall electricity industry (after stalled attempts to introduce full competition in the early 2000s). While private companies are allowed to participate in the generation of electricity and are responsible for the majority of renewable energy generation in Korea, they have a mere 5 percent share of total electricity generation.

In effect, it"s fair to say that KEPCO"s contribution to the generation of renewable energy (compared to other OECD countries as mentioned above) was almost next-to-nothing.

Genuine competition could help accelerate nationally coordinated efforts to promote smart microgrids, which began in 2008 under former President Lee Myung-bak"s "green growth" initiative and since 2013 under former President Park Geun-hye"s "creative economy" initiative. There are three types of microgrids under development in Korea:an urban-based "Smart Grid Station (SGS)," "Energy Block Platforms" suitable for industrial complexes, and remote island-based microgrids.

Korea has now gone furthest in the development and export of remote island-type microgrids. Since October 2015, Gasa Island, a tiny island off Jindo in South Jeolla province, has been home to the world"s first independent microgrid using a Korean-built Energy Management System (EMS) - a key technology in smart grids.

Contact us for free full report

Web: https://hollanddutchtours.nl/contact-us/
Email: energystorage2000@gmail.com
WhatsApp: 8613816583346