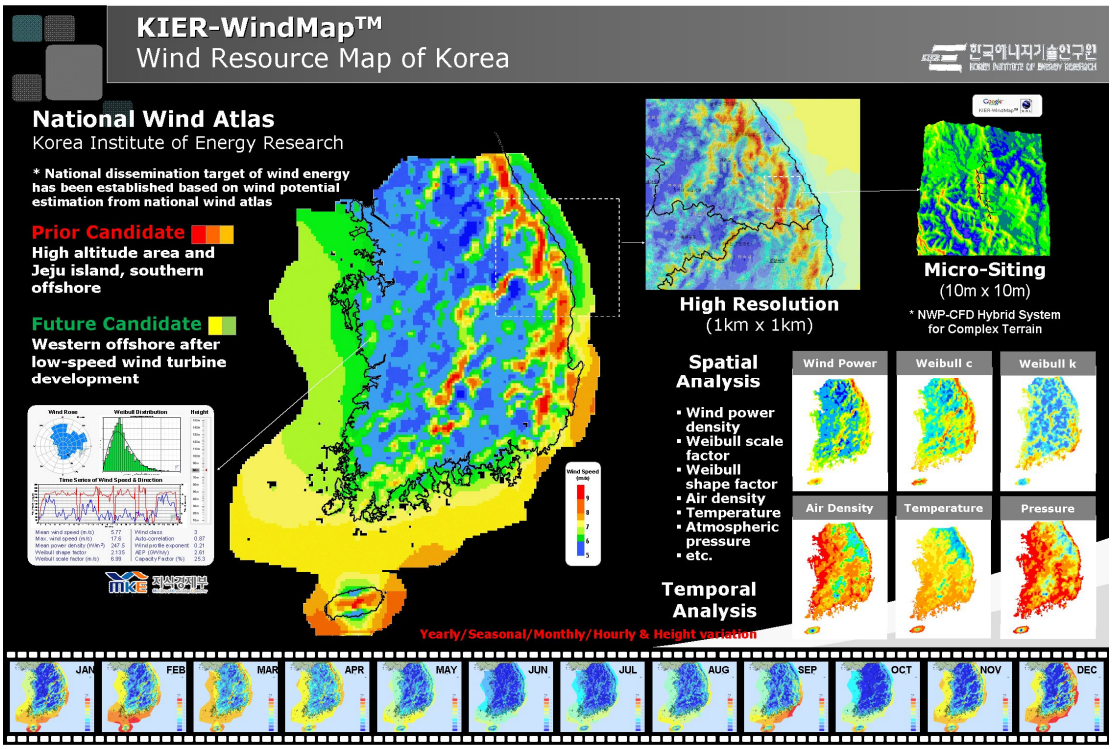
National Wind Atlas of South Korea

Hyun-Goo Kim*
Wind Energy Research Center, Korea Institute of Energy Research, Daejeon, Korea
*corresponding author, E-mail: hyungoo@kier.re.kr

Abstract

National wind atlas of South Korea has been established by numerical wind simulation with 1km x 1km spatial resolution and 1hr temporal resolution for 5 years (2003-2007). This wind atlas is anticipated to be used as core data to setup a national dissemination target of wind power by estimating the wind resource potential in South Korea and the wind energy developers will use the atlas to identify feasible sites to be developed as a wind farm which has not been available so far. The national wind atlas contains essential datasets for preliminary wind resource assessment, geographical exclusion analysis and high-resolution meteorological information such as air temperature and air density distribution all over the country with 10m height-interval above the ground level which are needed to correct wind power density according to the altitude.

Keywords: Wind Atlas, Wind Resource Assessment