



Estimation of maximum contribution of renewable energies in Spain 2050

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Spain is one of the leader countries worldwide in terms of development and deployment of Renewable Energy Technologies (RET). This favourable situation is related to the support given by the Spanish government under several promotion plans. It is also related to the availability and potentiality of renewable energy resources, mainly solar and wind. However, there are some barriers which prevent RET from reaching a prominent role in the national energy system.

In order to overcome these barriers, prospective studies of RET can make it easier to defend a higher renewable share in the future. SIGER Project (Technical analysis of high percentage introduction of renewable energies into Spanish Electricity Generation System) is an example of this type of studies, aiming to estimate the ceilings for the potential and generation of renewable technologies in Spain. The study was commissioned by Greenpeace and developed within a collaboration framework: Technology Research Institute was in charge of the definition of RET; and CIEMAT (Centre for Energy, Environmental, and Technological Research) performed GIS (geographical information system) analysis.

The results obtained encourage us to think about the future of RET with optimism. There are no limiting factors in meeting the whole demand projected in 2050, with an appropriate renewable electricity mix. In fact, renewable energy sources (RES) could comprise much more than the targets set by long term Spanish policies.

In conclusion, it can be said that increasing renewable energy production and renewable electricity production is not only possible but necessary in order to protect the environment and to support RET industry in Spain.