

MORE THAN HALF OF CAPACITY EMISSION FREE

IBERDROLA's efforts to achieve a clean generation fleet, in line with its commitment on fighting climate change, have led to it now having 53.2% of its installed capacity free of emissions, a level that rises to 65.5% in Spain.

At the end of September 2009, the Company had 23,549 megawatts of installed capacity around the world that was emissions-free, against 21,552 MW at the same time the year before, an increase of 9%.

In Spain IBERDROLA ended the period with 17,393 MW of emissions free capacity, against 16,983 MW in September 2008. In the rest of the world, the figure came to 6,156 MW against the 4,569 MW previously.

Throughout 2009, the company has started up wind farms around Spain, including Castilla y Leon with 180 MW, Andalucia with 98 MW and Galicia with 2 MW. Outside Spain, it has installed 583 MW in the United States, 10 MW in France, 18 MW in Poland and 14 MW in Hungary.

IBERDROLA has also started up two major renewable energy plants in Spain: the Puertollano solar thermal plant (50 MW) and a 2 MW biomass plant at Corduente.

Total Group installed capacity at the end of September came to 44,242 MW, of which combined cycle gas accounted for 30.7%, hydroelectricity for 23%, renewable energy for 20%, thermal for 11.2%, nuclear for 8%, fuel oil for 4.3% and cogeneration for 2.8%.

IBERDROLA has consolidated its world leadership in renewable energy with its nearly 10,500 MW in capacity. Through its IBERDROLA Renovables subsidiary it expects to reach 10,750 MW in capacity at the end of this year and 12,500 MW at the end of 2010.

WIND POWER

Onshore

IBERDROLA Renovables, world leader in this sector, had an installed capacity at the end of September 2009 of more than 10,000 MW in wind power, of which more than 4,800 MW was in Spain, over 3,400 MW in the United States, nearly 800 MW in the United Kingdom and more than 1,000 MW in the rest of the world (France, Greece, Poland, Germany, Portugal, Italy, Hungary, Mexico and Brazil).

Offshore

The Company is developing offshore wind projects in the UK, Germany, France and Spain.

In Spain, it has applied for blocks to carry out preliminary studies prior to seeking approval for six new offshore wind projects off the Spanish coast near Cadiz, Castellón and Huelva for a total capacity of 3,000 MW.

Its UK subsidiary, SCOTTISHPOWER Renewables, has one offshore windfarm project, West of Duddon Sands with 500MW, and is working with Vattenfall on future offshore developments.

SOLAR ENERGY

Solar thermal energy

In 2009, IBERDROLA RENOVABLES started operations at its first 50 MW plant at Puertollano (Ciudad Real). The Company owns 90% of the plant and the rest is owned by the Institute for Energy Diversification and Savings (IDAE).

Annual production is estimated at more than 100 million kilowatt hours (kWh), equivalent to the consumption of a town of around 100,000 inhabitants, and will avoid 90,000 tonnes of CO₂ emissions. It is also developing 12 similar solar thermal projects with parabolic cylinder collector technology, with a capacity of 50 MW each.

Meteorological stations have been installed to measure solar power resources at projects in Seville, Ciudad Real, Badajoz, Albacete and Teruel. We are also participating in an R&D project for a 3 MW direct vapor generation (dvg) at the Almería solar platform.

This portfolio of 13 projects amounts to a total of 600 MW in capacity located in Extremadura, Castilla-León, Andalusia, Castilla-La Mancha, Murcia and Aragón.

MINI-HYDROELECTRICITY

IBERDROLA Renovables had a total installed mini hydroelectricity capacity of 340 MW at the end of the first half of 2009.

The Company has a project portfolio of 172 MW in Spain and 88 MW in Greece.

Of the 342 MW installed capacity, 211 MW fall under the Ordinary Production regime for electricity and the rest under the Special Regime.

BIOMASS ENERGY

IBERDROLA Renovables in 2009 commissioned a 2 MW biomass plant at Corduente in Guadalajaras, the company's first in Spain, using forest waste (26,000 tonnes) to generate electricity. Located in the Alto Tajo regional park, its main function is to avoid fires and plagues.

The company is also developing three forest waste plants in Spain with a total capacity of 25 MW. Development will take place selectively, where long term raw material supply is guaranteed.

MARINE ENERGY

IBERDROLA Renovables is pioneering development of marine energy.

Wave energy

The company installed a first 40 KW buoy at a pilot wave energy project in Santoña, Cantabria, in 2008, the first of its kind in Europe. The company running the project, IBERDROLA Energías Marinas de Cantabria SA, is 60% owned by Iberdrola, and 10% each by Total, OPT, the (IDAE) and the Cantabria Development Company (SODERCAN). The budget for the first phase, including marine electricity infrastructure, comes to €3 million. A second phase will involve another 9 buoys for a total capacity of 1.35 MW.

In addition, ScottishPower is developing a project off the Orkney Islands in Scotland, using Pelamis turbines, which will become the world's largest wave energy plant with 3 MW capacity.

Tidal energy

SCOTTISHPOWER Renewables, subsidiary of IBERDROLA Renovables, is studying three coastal sites in Scotland and Northern Ireland to develop the largest tidal energy projects in the world. Last year discussions were initiated with the Scottish government and the autonomous assembly of Northern Ireland for three coastal sites, two in Scotland (Pentland Firth and the Sound of Islay), and another in Northern Ireland (North Antrim) with a view to start operations in 2011. In each site, between 5 and 20 tidal energy turbines would be installed with a capacity of 1 MW each, thereby achieving a total capacity of up to 60 MW, enough green energy to supply 40,000 homes.

IBERDROLA Renovables has also won an exclusive contract to research the possible installation of an offshore wind farm on the west of Argyll and the Island of Tiree, both in Scotland. The site is estimated to potentially provide a capacity of between 500 and 1,800 MW and supply electricity to between 270,000 and a million homes.

