

A closer look at... **Croatia**

In 2013, *Wind Directions* will take a look at a selection of wind energy markets across Europe and beyond.

By Jessica Anania



Whether it is the pristine white beaches of Dubrovnik, the verdant national parks of Sibenik, or the bustling streets of Zagreb, Croatia offers something to every traveller that finds themselves on its shore. But, the country, which has recently grabbed the headlines by joining the European Union on 1 July, also offers Europe something arguably more valuable: a fresh market for wind energy development.

However, despite ideal wind conditions, obstacles remain that may hinder the growth of wind energy. Croatia's awe-inspiring landscape could slow progress as authorities struggle to decide where to actually place wind turbines, and Croatia's dense bureaucratic structure

weighs down the decision making process.

Croatia's current wind energy status is promising. The first wind turbine was constructed on the island of Pag in 2004, and since then, wind energy has experienced solid growth. Installed capacity increased from 6 MW to 131 MW between 2005 and 2011. Over 70% of the installed wind turbines are located along the Southern Adriatic coast, where there are appropriate higher wind speeds. A well-developed local supply chain helps expedite the production and transport of wind turbines nationwide.

Croatia is also poised for further development, with a 14 year guaranteed feed-in tariff of €76.03 for up to 2,250

hours of operation and €67.85 for more than those 2,250 hours. This ensures access to financing and 4.7 GW of wind energy planned. Croatia has set a goal to reach 35% renewables in electricity consumption by 2020, and is currently on track to meeting it. Although wind energy capacity is currently limited to 400 MW by the grid, plans have also been made to upgrade the grid system and increase capacity by 2014. Currently, both the transmission and the distribution systems have insufficient capacity to connect more than 400 MW of wind energy according to grid operators. However, both the landscape and bureaucratic structure could potentially slow growth.

Landscape and tourism

Tourism serves as a sizeable chunk of Croatian industry, with the total contribution of tourism equating to 26.5% of total GDP and 28.3% of total employment in 2012. Both numbers are forecast to rise significantly in 2013. As such, Croatian officials have great stake in protecting the tourism industry and tourist attractions. For tourists, one of the biggest draws is the unique landscapes Croatia offers. Beaches, coral reefs, cave systems, forests and lakes, all remain pristinely preserved within Croatia's borders in part due to the strict laws governing the development of such places.

Currently, Croatia has identified both national parks and nature parks. There are eight national parks and eleven nature parks. National parks, such as Plitvice Lakes National Park, are entirely off limits to any sort of wind energy development. Wind turbines could technically be placed in nature parks. However,

development in such areas is subject to an arduous process as authorities determine whether or not the wind turbines would threaten the parks' essential characteristics.

Moreover, Croatia has identified some sites as Natura 2000 locations. These locations are subject to strict protection, but wind turbines could potentially be constructed there under specific conditions. Currently, 47% of its land and 39% of its waters are designated Natura 2000. These limitations, while crucial to preserve Croatia's landscape, do serve to complicate wind turbine development.

Cumbersome bureaucracy

Additionally, Croatia has a dense bureaucratic structure that could stall further wind energy development. Prior to obtaining a permit, wind farm developers must register with the Ministry of Economy and be listed in the eligibility register. A feasibility study must then be started within the next six months. Upon completion of those requirements, it generally then takes another three to four years to obtain the licensing and permits necessary to begin construction of a wind farm. The Croatian Energy Regulatory Agency (HERA) also holds significant power over licensing. Licenses are valid for between five and thirty years with no absolute limits or terms, leaving discretionary powers to HERA. HERA has the power to contract electricity purchases and distribute incentives, and they are in charge of regulating all energy in Croatia, so they have the power to start and stop projects. According to an EWEA report published earlier this year – ‘Eastern Winds, emerging European wind power markets’, the procedures in Croatia are overly bureaucratic and in need of improvement.

However, such improvement could come now Croatia has become part of the European Union.



As of 1 July, Croatia is the EU's 28th member state

Photo: iStockphoto

“Entering the European Union completely changes the prospects for Croatian wind energy,” explained Pierre Tardieu, Regulatory Affairs Advisor on Stable Legislative Frameworks for EWEA.

Croatia is already a part of the European Energy Community. However, being part of the EU means Croatia must comply with additional, EU guidelines including internal market rules, CO₂ reduction goals, and the renewables directive for a 20% share of renewable energy by 2020. Should Croatia fail to comply, it would be sanctioned by the EU.

As the country follows these rules, opportunities for land and ownership rights for foreign investors will open up. Additionally, joining the EU may jumpstart more decisive action within the wind industry, such as setting and meeting more concrete goals, expanding

the grid system, easing bureaucratic bindings on expansion

“As a new EU Member State, Croatia will need to develop a National Renewable Energy Action Plan to comply with the 2009 Renewables Directive. The plan will address support mechanisms for renewables, grid operation and development and the simplification of administrative procedures, all key enabling factors for the development of onshore wind in Croatia,” said Tardieu.

With its strong wind resource and increased accessibility as a member of the EU, Croatia stands in a prime position to expand its wind industry, despite various obstacles. With plans already made to expand and improve wind energy, Croatia could soon be a destination not only for tourists, but for a burgeoning wind energy market. ■

Croatia – the wind energy facts

CURRENT CAPACITY400 MW (plans to upgrade by 2014)
2020 FORECAST:	1,200 MW
PERCENTAGE OF ELECTRICITY TO BE MET BY RENEWABLES BY 2020:	35% renewables target in electricity consumption