

MEDIA RELATIONS

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ENEL: AT FUSINA (VENICE), INAUGURATION OF SITE FOR FIRST INDUSTRIAL-SCALE HYDROGEN PLANT IN THE WORLD

- *Fulvio Conti, Giancarlo Galan, Massimo Cacciari, Davide Zoggia and Antonio Favrin lay the cornerstone of the new plant: it will generate sufficient clean electricity to meet the annual needs of 20,000 households, avoiding more than 17,000 metric tons of CO₂ emissions a year.*
- *The investment amounts to about 47 million euros: it is part of Enel's "Environment and Innovation Project", which envisages investments in new renewables and environmentally friendly technologies totalling 7.4 billion by 2012.*

Venice, 8 April 2008 - Enel CEO and General Manager Fulvio Conti, the President of the Veneto Region Giancarlo Galan, the Mayor of Venice Massimo Cacciari, the President of the Province of Venice Davide Zoggia and the President of Unindustria Venezia Antonio Favrin today inaugurated the work site for the construction of an innovative hydrogen fuelled combined cycle power plant.

The project will involve the construction of a plant with a capacity of 12 MW, plus 4 MW generated through the re-use of the heated gas produced by the hydrogen-fuelled turbine in the existing coal-fired plant, with an overall efficiency of 43%. The initiative provides for an investment of 47 million euros. The plant is expected to enter service in 2009. The electricity generated, equal to about 60 million kWh a year, will be sufficient to meet the needs of 20,000 households, avoiding more than 17,000 metric tons of CO₂ emissions a year.

The plant is the first of its kind in the world: it will be built on the site of Enel's "Andrea Palladio" plant at Fusina, next to the petrochemical facility of Porto Marghera (Venice), from which it will receive the hydrogen produced as a by-product in the manufacturing process. The very high efficiency experimental plant is one of the projects of Hydrogen Park, the consortium formed in 2003 at the initiative of the Venice Industrial Union with about 4 million euros in support from the Region of Veneto and the Ministry for the Environment. The consortium seeks to promote the development and application of hydrogen technologies in transportation and electricity generation in the Porto Marghera area. In the future, the hydrogen needed to fuel the plant could also be obtained from the gasification of coal associated with CO₂ capture.

"The Fusina plant", noted Fulvio Conti, "is the best suited to host this world-beating initiative. It has a long tradition of environmentally sensitive research and innovation, thanks to Enel's technology skills and the support of local and regional institutions. The new facility, which places Enel and Italy at the forefront of technological innovation for

environmentally compatible development, is part of the “Environment and Innovation Project”, which envisages investments of 7.4 billion euros by 2012. This effort underscores Enel’s determination to meet the challenge of generating abundant electricity at competitive costs while respecting the environment”.

In 1997 Fusina was the first generation plant in Italy to be equipped with desulphurisation and denitrification systems, while in 1999 it was fitted with sleeve filters to reduce particulate emissions. Since last year, it has been upgraded with new environmental systems.

In addition, Fusina is a leader in one of the most serious problems facing Italy: waste disposal. After extensive testing, agreed with the Region of Veneto and the Province and City of Venice, the plant is now able to make safe use of 35,000 metric tons of CDR, a fuel derived from separated solid waste. That is the equivalent of the waste produced by 150,000 people. Using CDR in place of coal to fuel the plant’s boilers, the energy contained in the waste is recovered and it does not occupy space in waste disposal facilities, avoiding more than 27,000 metric tons of CO₂ emissions a year. In 2008, Enel, in cooperation with Veritas/Ecoprogetto, aims to obtain environmental authorization to double the amount of CDR used at Fusina.