



"Green" initiatives in the port area to benefit the entire city

ENEL DELIVERS "COLD IRONING" PROJECT FOR THE MARITTIMA AREA TO THE VENICE PORT AUTHORITY

Presentation of the feasibility study prepared by Enel to supply shore-side electrical power to vessels in their berths, following the agreement between Enel and Venice Port Authority.

Rome - Venice, October 28th, 2011 – Works are underway on Enel's "Green Port" project, the result of an agreement reached in February 2010 by Enel and the Venice Port Authority. The project is aimed at achieving environmental sustainability in the port of Venice, thanks to the wide range of high value-added services planned.

The feasibility study for the project, prepared by Enel, was delivered today fully in line with the deadline set in the agreement, mapping out the innovative low-environmental-impact solutions.

Specifically, the feasibility study included the "cold ironing" plan. Such a plan has been designed to supply shore-side power to the Bacino di Marittima docks in order to fuel moored cruise ships, therefore eliminating the need to keep their on-board generators switched on. This will be made possible by the major infrastructure contribution from the Venice Port Authority, which will be able to power four large cruise ships simultaneously, each of which, according to current international technical standards, can consume up to 16MW. Therefore, with an overall capacity of 64 MW, the project will create the world's largest cold ironing infrastructure.

Compared to onboard generators, the higher energy efficiency of cold-ironing generators together with their emissions reducing systems, allow to reduce CO₂ emissions by over 30% and emissions of nitrogen oxides and particulates by more than 95%, as well as zeroing localised pollution and noise.

Enel has also completed the electric mobility plan to move cruise ship personnel and passengers around the port area, with the installation of the first two public recharging stations. The company is also launching the 'Enel drive' supply contract.

Another part of the plan involves Enel Sole, the Enel company specialising in public and artistic lighting, equipping the entire site of the portside church La Chiesa di Santa Marta with low-consumption lighting.

The flood lighting for the church, that consists of six lighting systems on cylindrical pylons and 15 adjustable LED light projectors, will have a generating capacity of 68W compared to only 43W of consumption, equivalent to 45% energy saving compared with traditional systems.

Following the agreement signed with VTP (Venice Terminal Passengers), Enel Green Power, the Enel Group company devoted to the development and management of power generation from renewable sources, has completed a feasibility study to construct a photovoltaic plant which is set to supply power to all port buildings on land.

The photovoltaic plant, with an installed capacity that will vary between 1.2 and 1.4MW, is set to generate some 2 million KWh per year, thus meeting 80% of the energy needs for the passenger terminal's lighting and air-conditioning, as well as saving the annual atmospheric emission of some 900 tons of CO₂.

Enel's Green Ports project was the result of a thorough needs assessment performed on the entire energy system of the port, taking in both development needs and environmental enhancement and putting forward a wide range of proposals for high value-added, eco-friendly services. As part of the general aim of improving the energy efficiency of all the port's power systems, these proposals include electric mobility systems, developing renewables such as wind and solar power and installation of low-consumption LED lighting systems, with ideas for architectural and decorative lighting.

Maritime traffic is in the firing line of the world's major institutions being urged to adopt policies to reduce environmental impact from climate-changing and polluting emissions.

Shore power systems are already in place in North America, in the ports of Los Angeles, Seattle, Juneau and Vancouver, in Europe, in Gothenburg and Lübeck, and studies are underway in several other major ports of the world.

Enel has already designed the first cold ironing system in the Mediterranean, for the port of Civitavecchia, and the company has signed a memorandum of understanding with the port authorities of La Spezia and Bari, and, in partnership with its subsidiary Endesa, with the port authority of Barcelona in Spain.