

Vaillant EcoPOWER 1.0 (Honda mCHP)

Domestic application

Main mCHP indicators

Electrical capacity (total)	kW _{el}	1
Heat capacity (total)	kW _h	2,5
Technology	Motor engine (ICE)	
No. of units		
Manufacturer	Vaillant / Honda	
Type of Fuel	Natural gas	
Electricity: yearly generation	GWh	
Heat: yearly generation	PJ	
Year of construction	2011	
Total investment costs (system w/o installation)	EUR	16.000
Financing	Own funds Loans Third party financing Contracting Other	
State support	Investment subsidy Soft loans Feed-in tariff Certificates Tax reduction Other	
Location	Town, State, Web page, contact link,	

General description of the case

- The Honda unit is the first micro-CHP with an internal combustion engine to enable an economical use of a micro CHP for single family houses in Germany.
- The new micro-CHP unit features an innovative and compact EXlink engine resulting in a high electrical efficiency of 26.3 % and an overall efficiency of 92 %.
- The micro-CHP system provides decentralised energy which helps to reduce grid losses, contributes to save resources and to reduce CO₂ emissions by about 30 %, it helps customers to reduce their energy bill, and provides independence from rising electricity prices.
- To help assure optimum heating comfort under all conditions the micro-CHP unit is integrated in an advanced Vaillant heating system which is marketed as a package under the name Vaillant ecoPOWER 1.0.

Success factors

Policy maker promoting the “energy revolution” in Germany and CHP is seen as one of the efficient, yet matured technology. Honda provides as 1st a 1kW_{el} module with internal combustion engine for single family homes in Germany. Installation subsidy will stimulate the market from 1 April 2012. 700 certified installers through our partner Vaillant will help to promote the idea of mCHP in a broad sense.

Main barriers

As for the 1kW class, the environmental framework & subsidy scheme is not so relevant. Biggest barrier is the highly “complex” & “administrative” grid connection of a 1kW (el) mCHP in Germany. (= new AN R 4105)

Recommendations

Further stimuli such TAX incentives, VAT free fuel, installation support plus a “lean” and “simple” grid connection process will help to further increase installation volume in Germany.

Picture

