WINGAS GmbH & Co. KG

Press Release

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Natural gas comes out on top again in eco-efficiency analysis

Environmentally friendly and low-cost – in a comparison of different heating systems the natural gas condensing boiler came out on top again

Kassel. WINGAS has taken a critical look at modern heating systems for the fourth time since 2002 in a BASF eco-efficiency analysis. The company DEKRA Umwelt GmbH carried out a peer review based on the DIN (German Institute for Standardization) standard DIN EN ISO 14040 ff for ecological assessments. In the results of this year's eco-efficiency analysis heating systems powered by natural gas came out on top again. Alongside local heating supply systems with cogeneration units (natural gas cogeneration units), the natural gas condensing boiler together with solar collectors to heat drinking water supplies emerged as the winner of the certified study.

WINGAS analyzed ten different heating systems in the setting of a detached single-family home with a heated surface area of 150 square meters. The eco-efficiency analysis examines the heating systems and the manufacturing processes involved from both economic and ecological perspectives. Key factors include the energy consumption of the system, but also the raw materials used in manufacture, emissions of harmful substances and the resulting risks for people and the environment. The economic analysis included criteria such as efficiency during energy conversion, the initial investments costs as well as the costs for service and maintenance.

The requirements of energy-efficient construction have changed considerably since previous analyses, owing primarily to new legal requirements. The Renewable Energies Heat Act (EEWärmeG), for instance, which has been in force since January 2009, stipulates that renewable energies or alternative measures have to be considered when planning heating systems for new buildings.

In addition to the natural gas condensing boiler and the local heating supply, the eco-efficiency analysis also examined three micro cogeneration

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plants with Stirling engine or fuel cell technology, two heat pumps, two biomass power plants and a heating oil boiler.

Micro cogeneration units based on fuel cell technology can rank highly in terms of both ecological soundness and economic feasibility in future.

The results for the two biomass power plants, however, the firewood boiler and the wood pellet boiler, were not so positive. The pellet boiler in particular was not rated as highly owing to the high initial investment costs. The heat pumps fared as well as the natural gas boilers in terms of environmental friendliness, but lost out to the fossil fuel on the costs factor. The heating oil boiler is no alternative to a natural gas powered system because of its detrimental effect on the environment as well. Thus, natural gas is the most attractive form of energy in more ways than one: for it protects homeowners' wallets as well as the environment.

The brochure on the eco-efficiency analysis is available to download as pdf files at www.wingas.de

European energy provider **WINGAS GmbH & Co. KG** is active in natural gas trading and distribution in Germany, Belgium, France, Great Britain, Austria, the Czech Republic and Denmark. Its customers include municipal utilities, regional gas suppliers, industrial firms and power plants. Since 1990 WINGAS has invested more than 3 billion Euros in the development of a natural gas transport and storage infrastructure. WINGAS TRANSPORT pipeline network, which is over 2,000 kilometers long, connects the major gas reserves in Siberia and in the North Sea to the growing markets in Western Europe. In Rehden in North Germany, WINGAS has the largest natural gas storage facility in Western Europe – with a working gas volume of over four billion cubic meters, and the company also participates in Central Europe's second largest storage facility in Haidach, Austria. Additional natural gas storage facilities are currently being built in Great Britain and Germany in order to secure the supply of natural gas in Europe.

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