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TECHNICAL ASSOCIATION
OF THE EUROPEAN NATURAL GAS INDUSTRY

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MARCOGAZ Standing Committee Gas Utilisation

Newsletter 03 – December 2016

Gas boiler is still one of the most cost effective technology for domestic space heating

Despite an increasing focus on other heating technologies like electric heat pumps, district heating … and a not very favorable treatment in the EU labelling system, **Gas boilers are doing well**.

They are less expensive than e.g. electric heat pumps; and combined with the low gas price; this gas technology for heating is very attractive and competitive in most of EU Countries /3/.

High efficient appliances

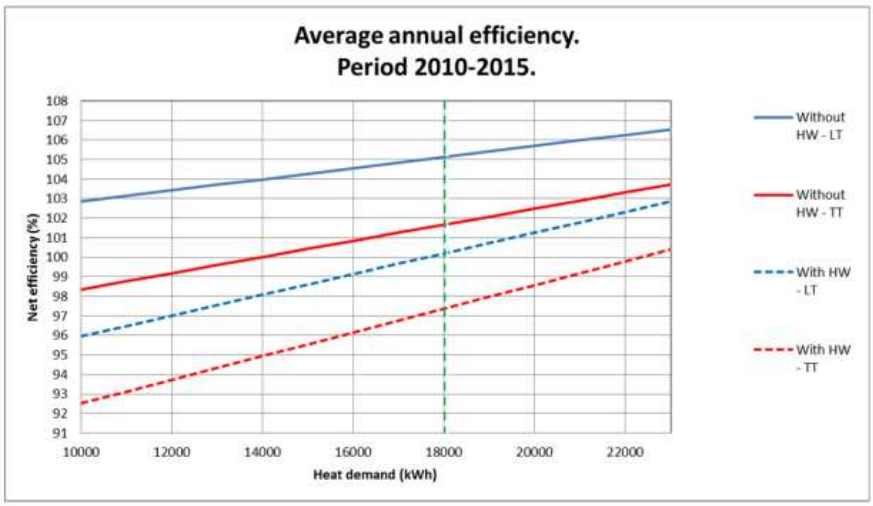
The energy labelling measures have created a competition to achieve the best efficiency of the appliances on the market. Condensing boilers have today the biggest market share and a recent study /1/ has shown that **annual efficiency of a new condensing boiler is between 101 and 105%.** This for a house with a yearly heat demand of 18.000 kWh, which is close to the average in most of the EU Countries.

Sanitary hot tap water

Hot water production slightly reduces the annual efficiency, depending on an instantaneous production or on the usage of a storage tank.

Gas boilers have a long life!

The lifetime of gas boilers has been studied analyzing more than 50.000 individual data from HMN gas Distribution Company in Denmark. **The actual average lifetime of gas boilers is about 20 years also for the condensing boilers** /2/. The long lifetime makes the competitivity of gas boiler even better compared to more complex technologies having higher failure rates and lower lifetime expectations!



Variation of the average annual efficiency for condensing boilers (sold in Denmark period 2010-2015) with the heat demand. With and without hot water (HW) production (storage tank) and for two different heat distribution systems: Traditional (TT)l & Low temperature (LT). The green vertical line indicates the average customer heat demand /1/

Gas boilers in hybrid solutions

A gas boiler can be combined with a small electrical heat pump which is an attractive option for both the end-user and the society. The technology brings the flexibility needed for the power grid balancing, addressing also the seasonality of heating demand and power production.

/1/ Facts and figures about domestic gas boilers. A compilation of results covering 25 years of testing at DGC's laboratory. Report February 2016

/2/ Life time of gas boilers. Study. DGC 2016

/3/ Portal of the Austrian energy agency: https://www.energyagency.at/fakten-service/heizkosten/thermisch-saniertes-gebaeude.html

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Short news From Marcogaz SCGU Committee

Gas quality

In order to make the technical discussion on gas quality harmonization easier MARCOGAZ has gathered almost 200 'technical references' dealing with gas quality impact. These 'technical references' are articles, reports, studies …; and are covering a wide range of topics in domestic and industrial use, in transport, in power production…

Each reference will be analyzed and tableted with a resume of the main information of each document. We are also gathering information on solutions to gas quality variations. This includes sensors, combustion controllers etc., that can be used to mitigate efficiently variations of gas quality.

The work will be made available to the "CEN Sector Forum Gas WG Pre-normative study of H-gas quality parameters"

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GAR

The new Gas Appliances Regulation (EU) 2016/426 (GAR) was published earlier this year (on 2016-03-09). The GAR will become applicable on 21 April 2018 and as from this date the current Gas Appliances Directive 2009/142/EC will be repealed.

In June 2016, CEN and CENELEC received a letter from the European Commission on the implications of the adoption of the Gas Appliances Regulation (EU) 2016/426 for standardization work.

Through this demand, CEN and CENELEC have been asked to offer by 2017-12-21 the references of standards to be harmonized and included in the first list to be published in the OJEU under the new Gas Appliances Regulation (EU) 2016/426.

One of the important issues is the fact that EN 437 (Test gases - Test pressures - Appliance categories) will be covered by the standardization request.

One of the Annex of the GAR list the main characteristics of the gas(es) which Members states are asked to declare as used on their territory.

The European Commission envisages to submit the final 'Standardisation Requests (SR)' to the ES0's in 2017.

MARCOGAZ was at the origin of the information requested to the Members States and listed now into the Annex II of the GAR. Further work proposed by MARCOGAZ will deal with a Guide to implement these new requirements.

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