# European Energy Forum dinner debate
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## "Renewables and gas – the perfect partners in heating"

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## - Check against delivery -

Ladies and gentlemen,

Thank you for inviting me to contribute to a debate which is crucial for the future of our energy management. Europe is currently facing a number of important choices that will determine whether its citizens can continue to count on a reliable and eco-friendly energy supply, both now and in the longer term.

I would like to start by making a plea. Representatives of the conventional energy sector and advocates of renewables should both acknowledge that they need each other if they are going to resolve one of the biggest challenges of our time. I can well imagine that some of you won't find this a welcome message, but renewable energy cannot for the time being do without fossil fuels. And when I say 'for the time being' I mean decades, not years. However, the converse is also true: if they do not already do so, conventional energy companies will need to accept that making our energy supply more sustainable is not just necessary, it's absolutely vital. In the years ahead we will see a steady growth in the number of wind farms being built. Roofs covered with solar panels will start to dominate our skylines. And the proportion of biofuels, biomass and green gas in the energy supply will rapidly increase.

Just in case anyone is unsure about it, let me be clear: I welcome these developments. Although NGOs, politicians and the sector itself may disagree about the method used, we are in one mind about the ultimate goal: to achieve a climate-neutral energy supply. We won't achieve that goal without the help of energy from renewable sources. But … and here let me add a qualifier, if we put all our eggs in this one basket, we won't make enough progress in the first 10 or 20 years. Emissions of greenhouse gases won't be sufficiently reduced, energy costs will be higher than necessary and energy security will be put at risk.

The theme of today's debate – '**Renewables and gas: perfect partners in heating**' – gives a perfect illustration of what I mean.

As much as a third of Europe's energy consumption is used for heating. An average household expends 70% of its total energy requirements on ambient heating, while heating tap water accounts for a further 15%. The biggest share of the heat requirement, 43%, is produced by gas-fired appliances. A further 20% comes from oil-fired equipment. 17% is generated by electricity. The rest is based on coal, biomass and local heat networks. It's important in this regard to realise that the vast majority of the equipment used is technologically outdated and is also usually located in old, poorly insulated buildings.

You'll appreciate that there's a world to gain here in terms of energy conservation and, consequently, climate policy. By comparison, over 90% of households in the Netherlands, where I come from, run on gas. Since 1980, gas consumption in Dutch buildings has become at least 50% more efficient. Apart from insulation measures, 25% of this saving is due to the large-scale replacement of traditional heating by modern condensing boilers. If we were to make similar improvements in Europe by switching from domestic heating oil to more climate-friendly gas, by replacing traditional boilers with high-efficiency ones and by installing insulation measures, then the yield in terms of reduced $CO_2$ emissions would be huge. And not only in that regard: by cutting demand for energy in the building environment, security of supply would also be indirectly strengthened. And that's before I even mention the use of recent technological

innovations that can further increase the efficiency of heat production: micro-combined heat and power, fuel cells, gas-fired heat pumps and hybrid systems.

I can hear you thinking: but where are the renewables you say you're so keen on? Do you even think they're necessary? Aren't you keeping sustainability out in the cold by expecting all your salvation to come from efficiency improvements, innovations to gas boilers and installation of gas in homes and other buildings?

I can assure you this isn't the case. Very recently, Eurogas teamed up with specialists from Marcogaz and GERG to study how gas could work in conjunction with renewable energy sources in the built environment. The results left us in no doubt. To begin with, all the gas appliances I have mentioned can also operate on biogas or a mixture of natural gas, biogas and sustainably produced hydrogen. Moreover, gas can be combined with renewables in an extremely cost-efficient way. For example, if you combine a high efficiency condensing boiler with photovoltaic panels, you can achieve an almost completely climate-neutral energy production. This is in keeping with the requirements laid down in the EU Energy Performance of Buildings Directive. Another example is gas heat pumps which allow us to extract heat from the outside environment.

Ladies and gentlemen,

I said just now that the proportion of renewables in the energy supply is likely to rise dramatically. The growth of wind and solar power will mainly affect traditional forms of electricity generation. We're already seeing this happen. The base load function of conventional power stations is already under pressure from the steady rise of solar and wind power. My view is that it would not be rational to use this extra, sustainably produced electricity as a heat source. The existing gas network can transport far more energy than the electricity network and has been designed to accommodate fluctuating demand for heat. Huge investments would be needed to give the electricity network the same capacity and level of flexibility. The study I referred to just now features a case study on the situation in Germany. It concluded that electricity consumption would rise by a factor of up to 10 for a household if it switched from gas to direct electric heating. After all, you'd need to build many more high tension masts, to say nothing of the benefits of a gas network running entirely below ground. In short, it would be unwise, and above all unnecessary.

As you know, more and more power generation is being decentralised in the form of renewable energy, electricity from photovoltaic cells and, to a lesser extent, locally produced biogas. Solar power in particular has made great strides in recent years, thanks to lower prices and higher yields. This trend will continue in the years ahead and will gradually make our economy more sustainable. However, the rate at which this is taking place is by no means fast enough to reach the medium-term climate targets set by the EU. This, then, brings us back to the beginning of my speech: what we really need is smart solutions which reduce emissions at the lowest costs. To which I would reply: gas is a perfect – not to say indispensable - partner for renewable energy sources.

Thank you.