

New PACE scheme and MCS certification make Viessmann's fuel cell boiler financially attractive

Big price reduction and feed-in-tariff eligibility for world's first fuel cell heat and power system

Telford, UK - The Viessmann Vitovalor 300-P fuel cell boiler has been reduced in price from £18,000 to £9,990, largely as a result of Viessmann's participation in the new European PACE project. It has also gained MCS certification, entitling owners to claim approximately £6,000 over 10 years from the UK government's feed-in-tariff. The 45 per cent price reduction makes the world's first mass-produced fuel cell boiler as affordable as a heat pump, but it has the additional benefit of producing electricity as well as domestic heat.

To generate heat and electricity within a single household, the Vitovalor 300-P comprises a fuel cell unit, peak load boiler, and hot water tank in a single visual unit which requires just 0.65 square metres of floor space. Combining the production of heat and power makes energy savings of up to 36 percent compared to separate heat and power generation and reduces CO₂ emissions by more than 30 per cent compared to a conventional heating boiler.

The Vitovalor's PEM (polymer electrolyte membrane) fuel cell, which converts gas to hydrogen for its energy source, generates as much power as 30 square metres of photovoltaic cells. Generating up to 15 kWh of electricity per day, it is perfect for owners of plug-in electric cars. Own-generated electricity typically costs about one-third of electricity from the grid, and under the feed-in-tariff users can also claim 13.6 pence for every kWh of power they generate. Its 1 kW per hour thermal output is enough to meet most of the heat demand in modern one- and two-family homes as the unit is designed to run for 20

hours per day, charging the heating water buffer and hot water cylinder. On occasions when more heat is required, for example on particularly cold days or if a lot of hot water is used in a short period, the gas condensing boiler switches on automatically.

The Vitovalor 300-P is as quick and easy to install as any Viessmann wall-mounted gas boiler, with hydraulics, buffer and DHW cylinder integrated into the system. As with any gas condensing boiler, all that's needed is one power supply and one gas supply, with the usual connections for flow and return and for hot and cold water. All components are well-proven, including the Panasonic fuel cell, which is already in use in over 100,000 installations in Japan.

Viessmann marketing director Darren McMahon commented: "The Vitovalor 300-P is one of the most efficient heating systems available today and its future-proof technology offers independence from rising electricity prices. Low carbon emissions make this technology desirable for environmental reasons, and now it makes even better sense for financial reasons too. There is no better time than this to be involved in fuel cell mCHP and we therefore expect to see a natural increase in interest from heating engineers and architects."

Viessmann is a member of a consortium of manufacturers participating in the PACE project (Pathway to a Competitive European Fuel Cell micro-cogeneration), which was announced in October 2017. With €90 million of funding from the EU and European industry, PACE aims to bring fuel cell micro-cogeneration technology closer to mass market affordability and to establish Europe as a global leader in the technology.

PACE is designed to facilitate the installation of at least 2,500 fuel cell micro-cogeneration units in Europe between now and 2021, and to encourage the manufacture of at least 10,000 units per year after 2020. Driving-up manufacturing volumes

should bring economies of scale which further reduce product costs, establishing fuel cell micro-cogeneration as a standard technology. Previous grant schemes have helped encourage the installation of more than 1,500 units in Europe's most advanced market, Germany, and more than 200,000 units in Japan.

Images

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About Viessmann Ltd.

Viessmann Limited is part of the Viessmann Group of companies, The Viessmann Group is one of the leading international manufacturers of heating systems, industrial systems and refrigeration systems. Founded in 1917, Viessmann remains a family-owned business and has over 12,000 employees across the world.

Viessmann has 23 production divisions in 12 countries, subsidiaries and representations in 74 countries and 120 sales offices around the world. The company's commitment to the highest standards of manufacturing has led to its systems being awarded a multitude of awards over the course of its history.

Viessmann's comprehensive product range of domestic and commercial heating systems has an output range of 1.5 to 120,000 kW. It offers oil and gas-fired boilers, solar thermal and photovoltaics, combined heat and power modules (CHP), ground, air and water sourced heat pumps, biomass boilers and fuel cell heating systems.

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