

Panasonic shows unique solutions to fight climate change

IFA 2022: Panasonic to showcase solutions for CO₂ footprint reduction of individuals and businesses while highlighting technologies & projects for its own carbon neutrality by 2030

Wiesbaden, Germany, 2022/08/31 – At IFA 2022, Panasonic will be presenting not only its latest consumer electronics products, but also the company's comprehensive and concrete solutions to fight one of today's most serious societal issues, climate change. With its GREEN IMPACT Plan (GIP), Panasonic aims to make a fundamental contribution to tackle environmental issues, with a specific focus on massive carbon reductions and circular economy. Panasonic's commitment to sustainability with its two focal points carbon neutrality and circular economy is also evident at the new IFA booth in hall "HUB27", which covers more than 5,000 square meters.

In the "Central Area" of the new booth, Panasonic presents those sustainability pilot projects and energy technologies that support the decarbonisation of society and help to solve additional environmental issues of our planet. With an aim to significantly reduce its carbon footprint, the booth concept and design have all been newly developed resulting in a total reduction of 140 tons of CO₂ emissions in comparison to 2019, or a 71% reduction in emissions. These savings have been made through the careful selection of materials, the way products are presented and the walls decorated. 140 tons of saved and avoided emissions, as calculations according to the GHG (Green House Gas) Protocol show, are equivalent to the CO₂ emissions of a mid-sized combustion car travelling approximately 1 million kilometers.

“Europe is very advanced in acting on sustainability and therefore is a key region to spearhead our environmental agenda. To embed the sustainability mission into our business strategy, the Panasonic Group has launched ‘GREEN IMPACT’, a strategic vision which outlines our commitment and actions to ‘Net Zero’ by 2050”, explains Masahiro Shinada, President and CEO Panasonic Corporation.

At Panasonic's IFA booth, some solutions and pilot projects – which already today make a green impact – will be exhibited.

Carbon neutrality: green and affordable heating

Sustainable and affordable heating and cooling solutions for private homes, offices and diverse commercial spaces are increasingly required. With the new [Aquarea EcoFleX system](#), Panasonic connects an air ducted unit with nanoe™ X technology and an air-to-water Aquarea heat pump – or in other words, it combines air conditioning with air purification. The innovative hybrid system provides energy-efficient space heating, space cooling, cleaner air and hot water heat recovery. Equipped with Panasonic's patented nanoe™ X technology also inhibits five types of pollutants, including certain bacteria and viruses, as well as odours, ensuring a perfectly climatized ambience and cleaner air, all of which contribute to improved spatial wellbeing.

The Aquarea EcoFleX control system is equipped with Wi-Fi as standard with adapters included for instant connectivity via Panasonic's Comfort Cloud App which enables intelligent control and continuous monitoring of energy consumption by the user. A remote maintenance monitoring system, Aquarea Service Cloud, allows the service technician or the installer to look at the heat pump system before any downtime occurs. When operated with green electricity, Aquarea air-to-water heat pumps create virtually no CO₂ emissions during operations, as up to 80% of the required heat energy is taken from ambient air. The Aquarea EcoFleX system is thus one of the highlights of Panasonic's energy solutions for heating and cooling.

Carbon reduction: less dependence on fossil energy and fewer CO₂ emissions

A special highlight from the Energy Products and Solutions section in the Central Area at Panasonic's IFA 2022 booth will be the [Pure Hydrogen Fuel Cell Generator](#). It can be operated by green hydrogen. In general, green hydrogen is generated by separating water (H₂O) molecules into hydrogen (H₂) and oxygen (O₂). To do so, surplus energy from renewables (photovoltaic panels or windmills) is being used.

A single Panasonic pure hydrogen fuel cell unit can generate up to 5 kW of electricity, which is suitable for the demand of small-scale commercial facilities. Moreover, connecting and controlling multiple fuel cell units can increase the power output according to demand. The system is already in commercial use in Japan and is expected to be introduced into Europe once infrastructural conditions and the availability of pure hydrogen are assured.

99 units of such innovative pure hydrogen fuel cell systems are part of the [piloting facility](#) which started in April 2022 at a Panasonic factory in

Japan. 100 percent of the power used for site operations is aimed to be generated from renewable resources. The “RE100” (Renewable Energy 100%) facility is part of a self-sustaining power system that combines generation from both pure hydrogen and photovoltaic panels as well as some battery storage. Such kind of green energy autonomy for manufacturing sites is very unique worldwide. Panasonic has received already lots of inquiries from private industry sectors as well as governments being interested in such a set-up.

Circular economy: new design thinking to extend the life of our products

Panasonic approaches the issue of creating a circular economy from various angles. Particularly important for Panasonic is to change its design thinking to extend the lifetime of its products. One brand new product, which was launched in Europe in July this year, really embodies this thinking: the [MULTISHAPE modular personal grooming device](#). The product is made with a modular design and includes interchangeable heads, enabling five different types of personal grooming by attaching a shaver, trimmer, toothbrush, and other attachments.

The modular design eliminates the need for a motor, rechargeable battery, and adapter for each product, saving about 60% of resources compared to conventional product design. The modular design also means the users themselves can replace individual parts in the unlikely case they break, and the product itself can be used for a long time. Starting with personal care products in Europe, Panasonic will gradually adopt this circular economy-based design philosophy and expand it to other regions and products.

Panasonic GREEN IMPACT: sustainability as a core of Panasonic’s activities

Panasonic Group has made clear commitments to reducing CO₂ emissions from its own operations to zero by 2030, and achieving a total of over 300 million tons¹ in reduced and avoided emissions by 2050 in its value chain and through innovations. These over 300 million tons of CO₂ emissions until 2050 are equivalent to approximately one percent² of the current total global emissions of 33 billion tons per year.

As a milestone on the path to achieving the 2030 and 2050 goals and targets, Panasonic Group’s 2024 (FY2025) milestones of its GREEN IMPACT Plan 2024 establish specific actions to be completed by then. It aims to reduce CO₂ emissions, especially from its own operations. The following table gives a few concrete examples:

		FY2021 results	FY2025 targets
CO₂/ Energy	Own Impact: CO ₂ reductions in our own VC ³	–	16.34 Mt ⁴
	- Scopes 1&2³: Zero-CO ₂ factories	7 factories	37 factories
	- Scopes 1&2³: CO ₂ reductions	–	0.26 Mt ⁴
	- Scope 3³: CO ₂ reductions in the use of our products by customers	–	16.08 Mt ⁴
	Contribution Impact: “Avoided Emissions” for society	23.47 Mt	38.3 Mt ⁴
Resources/ CE⁵	Recycling ratio of factory waste	98.7%	99% or more
	Use of recycled resin (3-year sum ⁶)	43.3 Kt	90 Kt
	CE-based business models/products	5 businesses	13 businesses

¹ 2019 energy-related CO₂ emissions: 33.6 billion tons (source: IEA).

² CO₂ emission factor is based on 2020

³ Classification made based on GHG (Green House Gas) Protocol, the international calculation standard

⁴ Size of CO₂ reduction targets shown above are the differences from those made in FY2021

⁵ CE: Circular Economy

⁶ “3-year sum”: FY2020-FY2022 cumulative results / FY2023-FY2025 cumulative targets

For more information about Panasonic at IFA 2022 please visit www.panasonic.com/IFA2022

About the Panasonic Group

A global leader in developing innovative technologies and solutions for wide-ranging applications in the consumer electronics, housing, automotive, industry, communications, and energy sectors worldwide, the Panasonic Group switched to an operating company system on April 1, 2022 with Panasonic Holdings Corporation serving as a holding company and eight companies positioned under its umbrella. Founded in 1918, the Group is committed to enhancing the well-being of people and society and conducts its businesses based on founding principles applied to generate new value and offer sustainable solutions for today’s world. The Group reported consolidated net sales of Euro 56.40 billion (7,388.8 billion yen) for the year ended March 31, 2022. Devoted to improving the well-being of people, the Panasonic Group is united in providing superior products and services to help you Live Your Best.

To learn more about the Panasonic Group, please visit:

<https://holdings.panasonic/global/>

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