

News Release

Vantage Towers uses hydrogen to power mobile cell sites

- New EnergyContainer with hydrogen engine reduces emissions as well as maintenance and supply intervals
- Ideal for use in remote regions and crisis areas
- Joint development with Kohler/SDMO, IMT and htw saar

Düsseldorf, 29 June 2022 – Tower infrastructure operator Vantage Towers presented the second generation of the EnergyContainer this week. Instead of using LPG like the previous model or even diesel, the new model works with hydrogen as well as a solar PV system on the roof. In this way, mobile radio stations that are not connected to the power grid can be supplied with electricity in an even more environmentally friendly way in the future. Whether in a vineyard or when deployed in crisis regions that are difficult to access, such as during the flood disaster in western Germany last year: Using the EnergyContainer, mobile cell sites can be operated quickly, autonomously, and safely. The container was developed jointly by Vantage Towers with Kohler/SDMO from Zweibrücken, IMT Innovative Metalltechnologien GmbH from Landsberg am Lech and htw saar.

"The development of the new EnergyContainer with hydrogen engine was based primarily on our experience during the flood disaster in the Ahr valley," explains Peter Gramm, development engineer at Vantage Towers. "Especially in crisis areas with difficult-to-access locations, it is important not to additionally burden the still existing infrastructure with maintenance and supply runs. While diesel engines have to be refuelled once a week, the new generation of the EnergyContainer manages up to three months of operation. In addition, we produce fewer emissions and groundwater and rivers are not polluted."

The core of the plant is a hydrogen combustion engine from Toyota with an output of 14 kW. The car manufacturer from Japan, a leader in the development of hydrogen drive systems, is one of only two companies in Germany that offer similar technologies. Compared to other alternative drive technologies, such as the fuel cell, hydrogen engines have a higher power output and a significantly longer lifespan, which is particularly advantageous in operating locations with difficult access. For example, the new EnergyContainer generates enough energy to supply the antennas of several mobile network operators with electricity, thus enabling comprehensive mobile phone coverage.

In addition, a solar PV system on the roof ensures permanent operational readiness, for example by charging the operating and starter batteries or supplying the lighting with electricity. The solar panels can be aligned according to the position of the sun. The 6-metre-long and 2.6-metre-high container is directly connected to the mobile transmitter via power cables. The hydrogen drive and solar panels are supplemented by a LPG engine, also from Toyota, with an output of 20 kW. This engine keeps the system running when a supply of hydrogen or solar cannot be guaranteed without interruption. In this way, hybrid operation of up to several weeks is possible, flexibly adapting to the fuel supply available on site.

Contact:

[Dr. Sarah Rötzer](mailto:media@vantagetowers.com)
[+49 172 2000038](tel:+491722000038)
media@vantagetowers.com

Resource and emission savings were achieved in the production of the EnergyContainer through the use of aluminium and standardised system components.

About Vantage Towers

Vantage Towers is a leading tower company in Europe with around 83,000 sites in ten countries, connecting people, businesses and devices in cities and rural areas.

The company was founded in 2020 and is headquartered in Düsseldorf. Vantage Towers has been listed on the Deutsche Börse's Prime Standard in Frankfurt since 18 March 2021. The shares are included in the MDAX, TecDAX, STOXX Europe 600 and FTSE Global Midcap Indices.

Vantage Towers' portfolio includes towers, masts, rooftop sites, distributed antenna systems (DAS) and small cells. By building, operating and leasing this infrastructure to MNOs or other network providers such as IoT companies or utilities, Vantage Towers is making a significant contribution to a better connected Europe.

While already 100% of the electricity that Vantage Towers uses to operate its infrastructure is obtained from renewable energy sources, green energy is increasingly being generated directly on site with the help of solar panels, micro wind turbines and in future also hydrogen solutions. This fits well into the overall strategy of the company to drive a sustainable digitalisation in Europe and to support partners through technological innovation in decarbonisation and achieving their climate goals.

For more information, please visit our website at www.vantagetowers.com, follow us on Twitter at @VantageTowers or connect with us on LinkedIn at www.linkedin.com/company/vantagetowers.

Contact:

Dr. Sarah Rötzer
+49 172 2000038
media@vantagetowers.com

Registered office: Vantage Towers AG, Prinzenallee 11-13, D-40549, Düsseldorf, Germany. Amtsgericht Düsseldorf, HRB 92244.