



# POWERNET

## INVERTERS CHALLENGE UPS IN AC BACK UP POWER SOLUTIONS POWERNET OY BELIEVES THE INVERTER MARKET HAS STRONG GROWTH POTENTIAL

*While the inverter market is only a fraction of the size of the UPS market, it is widely believed to have a strong growth potential, especially for devices, which requires long autonomy time and n+1 redundant secured AC supply.*

The most widely used power backup solution for servers, routers, switches and other telecommunications equipment with high requirements for protection is the UPS. However, the UPS has a downside, which lies in its battery life. This means that a UPS backup that originally had sufficient capacity may become insufficient as the system that it serves grows and because there is a limit to the extent to which a UPS can be expanded. At the same time, the continuous increase of the number of users depending on the UPS systems puts them under further strain.

In this market situation, Powernet challenges the power supply market with modular inverters that provide a swift, flexible and cost-efficient way to meet new requirements. Energy production and transmission and many industrial processes typically depend on critical devices and control circuitry that are backed up by 110 VDC systems. In addition to DC input power, these devices require an AC backup power supply. In the long term, it is considerably more cost-effective and flexible to use an inverter to convert the AC electricity from existing batteries than to use a UPS.

In energy production and transmission, critical and widely used applications include electrical grid substations, power plants and gas and oil pump stations. In the process industry, protection and control circuitry require a power input with a backup system to ensure the circuitry's smooth operation. The greatest growth potential is seen in the redundant, modular solutions that are gradually emerging in the energy and industrial sectors.

Powernet believes that there is significant growth potential in the energy and industrial sectors. 'As we see it, these sectors have long depended on UPS-based solutions, but the steady increase in electricity consumption and a sharper focus on product life-cycle cost-efficiency are steering decision-makers toward alternative and more sustainable solutions, such as inverters', declares Business Unit Manager Tuomo Räsänen, of Powernet Oy.

Inverters have a solid track record in the telecommunications business. 'Inverters are ideally suited to AC power input for telecommunications equipment. Systems can be constructed, moved and expanded as the needs change. Inverters have a long life span - as long as that of the telecommunication equipment to which they supply power. They have no components that deteriorate over time, unlike the batteries in a UPS system. Inverters utilise the existing batteries of a DC system, which is expandable through the addition of more batteries to the existing capacity', Räsänen says to sum up the concept.

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**Powernet Oy:** Founded in 1992, Powernet Oy is a Finnish company that designs and manufactures power supplies and inverters and invests in R&D. Powernet's major customer sectors include renewable energy, transportation and special industrial applications. The company is committed to energy-efficiency and to supplying bespoke power supply solutions for demanding applications.

The company is headquartered in Äänekoski, where Powernet's production, maintenance, finance and administration are located, and there are operations also in Petikko, Vantaa, where Powernet marketing and R&D are carried out. In addition to the Äänekoski factory, Powernet utilises the resources of contract manufacturers outside Finland for volume products. Powernet's operations are rooted in strong expertise in power supplies, comprehensive quality assurance, competitiveness and profitability. Powernet is a partner of choice for demanding customers and demanding applications.