Corporate Social Responsibility October 28, 2019

Major advances in climate protection

More electricity from renewable sources, fewer CO_2 emissions, greater energy efficiency: TDK Electronics has made major strides in recent years in its efforts to protect the climate. These advances have been made possible by a large number of projects and campaigns at the company's facilities worldwide. Only recently, the Nashik factory in India installed a photovoltaic (PV) system that generates up to 1300 MWh of solar power per year – covering roughly 5 percent of demand at the facility.

Compared to 2015, TDK Electronics has significantly improved its key performance indicators (KPIs) for energy. That year is also the reference for "Vision 2035," in which the company aims to cut its CO_2 emissions in half relative to production volume within a 20-year period. Measured against its production volume, the progress at TDK Electronics is impressive. Electricity consumption has been reduced by more than 10 percent in the last four years and CO_2 emissions by about 20 percent.

70 projects to improve energy efficiency

Last fiscal year alone, more than 70 projects improved energy efficiency at our sites around the world. For example, five factories improved their compressed air systems by commissioning new compressors and sealing leaks in their compressed air systems. The savings amounted to 1000 MWh over the course of the year. Eleven facilities have also replaced fluorescent lamps with far more energy-efficient LED systems. This, too, led to an annual savings of 1200 MWh.

Renewable energy for production and administration

The fact that more and more factories today use electricity from renewable sources has been instrumental in reducing carbon emissions. Especially in Europe, many facilities have now moved over to green electricity. Six plants and the headquarters in Munich now use electricity exclusively from renewable sources. The former include the factories in Austria and Brazil, both of which have long since sourced their electricity with hydropower providers, plus all factories in Germany and our contract manufacturer in Croatia.

The Akureyri plant in Iceland likewise derives all its electricity from renewable sources. In Iceland, TDK forms its films for aluminum electrolytic capacitors in special baths – a process that consumes huge amounts of energy: Akureyri alone accounts for more than half of all the electricity used by TDK Electronics. The extremely energy-intensive nature of production was a key reason why this facility was set up in Iceland ten years ago. All electricity in Iceland is generated from renewable energy sources. About 70 percent is derived from hydropower, the rest from geothermal power.

TDK's plant in Iceland needs a very large amount of energy to form the films for aluminum electrolytic capacitors.

Green electricity covers two thirds of energy demand

In total, more than two thirds of all the energy consumed by TDK Electronics comes from renewable sources. And this figure is still rising, because more and more sites are switching to green electricity. The Szombathely plant in Hungary, for example, will follow suit in 2020. Last fiscal year, the proportion of purchased electricity from renewable sources in Europe was above 93 percent.

In countries where energy providers enjoy a monopoly position, our factories are using different approaches to base their production on environment-friendly electricity. The Nashik plant in India, for example, has installed a photovoltaic system on the roof of the approximately 17,000 m² building that was completed in 2017 to expand the production of film capacitors. Around 3000 panels covering a surface area of about 11,000 m² now generate roughly 1300 MWh of solar power per year – roughly 5 percent of the electricity consumed in the last fiscal year. The new solar power installation will let us cut our CO_2 emissions in Nashik by about 1100 tons per year, as well as reduce our energy costs.

Following Nashik's example, the ferrite factory in Kalyani, India, likewise plans to install a photovoltaic system. Construction is scheduled to begin before the end of the current fiscal year. The factory in Hongqi, China, has similar plans for its new facility, while other company sites are examining the available options.