

Lowering the amount of energy that REWE Group consumes is a key contribution that the company makes towards protecting the environment and conserving resources. A simple comparison helps to illustrate the point: At nearly four terawatt hours annually, the electricity used by the stores, logistics centres and other buildings of the entire REWE Group is roughly twice the amount consumed each year by households in Cologne, the location of the company's headquarters. Realising this, the company committed itself in 2013 to accomplishing one major goal: By 2022, it intends to cut electricity consumption per square metre of sales area by 7.5 percent compared with the base year of 2012.

As part of the effort to achieve this goal, each strategic business unit and holding area in Germany and Austria has been given a specific and binding target to reach. With the help of a systematic energy management programme and the continuous optimisation of power-intensive processes like product refrigeration and lighting, electricity consumption per square metre of sales area had been lowered by 4.0 per cent by 2014. One broad principle applies to this effort: Steps that prove themselves in tests are systematically rolled out in the company. One excellent example of this approach is the refrigeration and lighting equipment that was developed specifically for the energy-efficient Green Buildings programme (the standard of the German Sustainable Building Council) and is now being used in a number of stores (See [the special Green Building](#)).

7.5%
less specific power
consumption by 2022

Systematic Energy Management Established

The foundation of REWE Group's systematic energy-efficiency activities is the group-wide energy management system that the company has been applying with the help of the Hamburg-based Energie-Handels-Gesellschaft (EHA).

The energy service provider – which became a wholly owned subsidiary of REWE Group in 2013 – installs measuring devices in the company's stores and warehouses that facilitate central, up-to-the-minute monitoring of energy usage. In addition, a monitoring platform called FRIGODATA keeps close watch on temperature and energy data.

Energy managers in the strategic business units look for deviations in the data and optimisation potential. They then develop the appropriate measures and introduce them step by step. The impact of these activities can be continuously evaluated with the help of store-specific monitoring. During the reporting period, this systematic approach was buttressed by the hiring of 10 additional energy managers – a step that nearly doubled this team of company employees. As a further energy-efficiency incentive, REWE Markt GmbH presents an award each year to the most successful REWE Region.

10

additional energy
managers have been
hired

Concepts for Energy-Efficient Lighting

Interior lighting in stores affects customers' moods and product presentations. As a result, pleasing lighting becomes an essential part of the shopping experience. At the same, lighting is responsible for about one-third of electricity consumption in food stores and around two-thirds in toom Baumarkt DIY stores. To reduce this total, energy management is devising efficient lighting concepts that address the lighting needs of the sales lines. In one reflection of this work, the REWE Green Building concept is being used in 1,200 additional stores – and is reducing the amount of electricity used by lighting by 30 per cent.

During the reporting period, the strategic business units also forcefully moved forward with the transition to LED lighting systems. This work will make it possible to cut the power consumption of lighting by between 30 per cent and 45 per cent. But this step comes with its own special set of challenges. LED lamps are expensive. In addition, the new quality of the light, lamps and lighting systems must be considered just as altered installation and warranty terms. The outcome of this process can be the possible modification of a store's general lighting concept. For these reasons, usage options were initially tested during a dialogue with manufacturers and experts. The outcome: LED technology will be increasingly used in years to come:

- › In 2013, toom Baumarkt DIY stores began to replace their shelf lighting systems with LED technology. And since September 2014, they have been making the same changes to the ceiling lights in stores undergoing remodelling.
- › In 2013, REWE International AG began to completely equip all new and renovated BILLA stores with LED technology used as spotlights in retailing.
- › REWE Markt GmbH also plans to equip all new and renovated stores with LED technology beginning at the end of 2015.
- › Since mid-2014, PENNY-Markt GmbH has been using LED technology in all new and expanded stores. It is also in the process of planning to add LED technology to all stores.

LEDs save

30–45%

of power used by
lighting

For Refrigerating Equipment, Operation is What counts

Refrigerating systems consume the most power in grocery stores. For this reason, they are a focal point of efforts to lower energy consumption. Optimised refrigerated display cases use 20 per cent to 40 per cent less electricity for cooling purposes. Glass doors installed on refrigerated display cases are a visible, highly effective way to cut energy consumption. They have already become a standard for meat displays. In the next step, glass-door refrigerated display cases are now being used for dairy products as well.

The transition began at REWE stores in 2010 with the displays being initially installed in all new stores. Since 2011, newly remodelled large stores have been receiving such equipment as well. At PENNY, such display cases are now being added to all new stores and newly remodelled large stores.

One other key factor is regular maintenance and professional management of refrigerating systems. These systems can be energy efficient only if the refrigeration equipment is optimally operated. As the range of fresh and convenience products grows in stores and as refrigerating needs rise with them, energy-efficient refrigerated display cases will become increasingly important in future.



Glass-door
refrigerated display
cases cut power
consumption

20-40%

Each year, REWE invites representatives of refrigerating companies and system suppliers to a refrigerating forum that gives participants an opportunity to discuss their experiences. During presentations and workshops, the participants delve into such topics as energy optimisation and operational and temperature reliability. REWE Group also uses the occasion to recognise those companies that played a major role in energy conservation over the past year.

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