

Presstext für die Studie (Press release for the study).

Dachzeile (Kicker).

New baseline study by Dr. Steinmaßl Management Consulting:

Plug-In Refrigeration in Retail. Inventory – Power Requirements – Savings Potentials.

Headline-Varianten (Headline variants).

Refrigeration a Hot Topic for Retailers

Red-hot insights concerning POS refrigeration

Vorspann (Teaser).

The savings potential from energy-optimized plug-in refrigeration appliances in food retail is greater than 400 million kWh per year, according to a new study by Dr. Steinmaszl Management Consulting. The study also shows that food retail stores are frequently home to veritable money eaters.

Text.

For the baseline study „Plug-In Refrigeration Appliances in Food Retail. Inventory – Power Requirements – Savings Potentials” (downloadable free of charge at www.steinmaszl.com), Dr. Steinmaszl Management Consulting measured and analyzed load curves and power requirements for various refrigeration appliances over the past years. Dr. Jürgen Steinmaszl arrives at the following conclusions: „First off, blanket statements like ‘plug-in refrigeration devices have higher power requirements than integrated solutions’, ‘due to their heat generation, plug-in appliances are to be blamed for higher air conditioning requirements in stores’ or ‘plug-in chillers and freezers have no automatic defrosting capabilities’ are no longer tenable even though they are regularly repeated even in technical literature.”

Second: Energy-optimized, highly efficient plug-in refrigeration appliances boast lower – or at worst similar – power requirements compared with newest-generation integrated systems. „We found that energy-efficient freezer chests – even when used in large numbers – are only responsible for 12 % of heat generation in stores at most, and that operation of energy-optimized plug-in appliances does not necessitate the installation of in-store air conditioning,” says Dr. Steinmaßl.

Third: The power requirements of plug-in chillers and freezers depend on a multitude of factors, some of which the producers of these appliances have no influence on. This includes environmental conditions at the store location, proper maintenance, rate of use, age of the appliance and temperature settings, to name only a few. These factors can quickly add up to double the actual power requirements.

Dr. Steinmaszl sums up his results: „We were surprised by the large spread of power requirements within individual groups of appliances. Keeping an eye on energy efficiency is absolutely worth the trouble, for comparatively small numbers can add up to gigantic amounts. For example, while one beverage chiller with a nominal volume of ~900 liters might cost around 3,100 EUR over 10 years, a different model with a nominal volume 360 liters smaller could cost as much as 11,500 EUR over the same

period. The decision to add another beverage cooler is often made in a split second, but may end up costing the store owner 8,400 EUR more than necessary.”

The issue is much the same with freezer chests. A chest with ~645 liters of nominal volume might cost 5,700 EUR over 10 years, while a different model with a volume of 395 liters (an almost 40 % smaller nominal volume) could cost 21,000 EUR over the same period, resulting in additional costs of 15,000 EUR. This is obviously an excellent reason to compare the pros and cons of various freezer models before buying.

„Our new study”, Dr. Steinmaszl says, „shows that a change of perspective in food retail with regard to energy controlling seems urgently necessary. For here we are truly faced with misjudgments resulting in a drain on financial capacity which accumulates over time with the potential to seriously affect the competitiveness of a store.”

The results are astonishing from an ecological point of view as well, he concludes: “If only 25% of the abovementioned 400 million kWh were achieved, the reduction in power consumption of 100 million kWh in Germany would amount to 60,000 metric tons of CO₂ per year. Assuming an average power consumption of 1,800 kWh per person per year, this potential equates to the power requirements of 55,000 people – comparable to the entire population of Ulm or Schweinfurt.”

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