

Technology: Smart home appliances

What?

Smart appliances are devices which can communicate with tablets or smartphones that allows users to control these appliances remotely. These devices can also communicate with the smart grid, responding to utility signals that provide consumers with reminders to use these appliances during off-peak periods. The smart appliances market is witnessing rapid growth. In the smart appliances ecosystem, smart home and smart kitchen appliances play a vital role.

The global *smart home appliances market* has been segmented into smart washers, smart dryers, smart air conditioners, smart water heaters, smart lighting devices, smart security devices, and smart vacuum cleaners.

The global *smart kitchen appliances market* has been further segmented into smart refrigerators, smart coffee makers, smart kettles, smart dish washers, smart deep freezers, smart ovens, smart cooktops, and smart cookers.



Why?

Besides that, smart appliances can react on price signals from a smart grid, consuming energy at the moment the electricity price is low - when surplus of (renewable) energy is available on the grid - and save energy at the moment the electricity price is high – when there is shortage of energy.

Smart homes offer enhanced energy-efficiency. Lights can shut off automatically when no one is in a room, and the thermostat can be set to let the indoor temperature drop during the day before returning it to a more comfortable level just before residents arrive in the evening. All of these automated tasks, along with modern, energy-efficient appliances, combine to save on electricity, water and natural gas, thereby reducing the strain on natural resources.

Cost

Smart appliances are in general more expensive than the non-smart appliances. For more details, the websites of the manufacturers can be consulted for a comparison.

Where?

Smart appliances can be used everywhere, to replace the non-smart appliances. They can save the maximum amount of money, when they are connected to a smart grid in which price signals are given.

Manufacturers/companies involved in the development:

- Electrolux AB (Sweden)
- General Electric Co. (U.S.)
- Philips N.V. (Netherlands)
- BSH Hausgerate GmbH (Germany)
- LG Electronics Inc. (South Korea)
- Miele & Cie. KG (Germany)
- Panasonic Corp. (Japan)
- Qingdao Haier Co. Ltd. (China)
- Samsung Electronics Co. Ltd. (South Korea)
- Whirlpool Corp. (U.S.)
- ...

Want to learn more?

The websites of the manufactures contain a lot of useful information on their smart appliances.