



Telekom CR-facts

Cogeneration plants reduce CO2 emissions

We are using combined heat and power (CHP) plants in addition to the conventional power grid. In the year 2017, we commissioned a new CHP module at the Berlin site. The majority of our 32 units in total (as of late 2017) power our network nodes. The CHP plants convert the energy supplied by gas into electricity and heat. We use the waste heat produced on site to heat our office buildings, which brings overall energy efficiency to a level of up to 90 percent. As a comparison, electricity generated by conventional sources and fed through the general German power grid has an efficiency level of roughly only 40 percent. This is how we can reduce the carbon emissions of our network operation through the use of CHP plants.

Sustainable urban district concept

A local heating pipeline runs from our CHP unit in Berlin to a neighboring school. With the waste heat of the plant, the heating needs of the school and its gym could be covered entirely in 2017. This helps reduce carbon emissions by up to 700 tons a year.

Updated CHPs save additional resources

In October of 2017, we completed the update of two CHP plants. Absorption chillers in both units now convert waste heat into cold air, which will then be used to cool network nodes. Additionally, environmentally friendly dry coolers have also been installed in order to further reduce water consumption during the cooling process. The consequence is that the use of water and chemicals needed for the operation of the CHPs can be reduced considerably in the future.