Energy systems

Living bodies of water need space. The riparian zones along our rivers, lakes and streams are coveted by many uses and increasingly under pressurein many places. To protect our bodies of water and to ensure long-term flood protection, Swiss federal law requires the cantons to determine the riparian zones along water courses, and to restrict their use through spatial planning processes.

The transformation of our system of energy supply continues apace with the expansion of renewable sources of energy, the increase in energy efficiency and the phasing out of nuclear power. This change is being accelerated by the creation of the EU internal electricity market. The economic viability of conventional power plants and traditional business models are being called into question, while stakeholders in the energy industry are facing new challenges.

In view of these developments, we show our clients how the future energy supply can be efficiently designed within the target triangle of security of supply, economic efficiency and environmental compatibility:

- Sectoral analyses of electromobility as well as both household and commercial demand for heat and power show the future development of the demand side and options for sector coupling.
- Economic analyses show the significance of renewable sources of energy and the impact of a cantonal energy concept.
- Forecasts and scenarios for the electricity system show supply security can be guaranteed in the future and how energy demand in buildings and transport can be made more flexible.

Power grid planning

What impact will the increasing number of heat pumps, electric vehicles and photovoltaic systems have on our power grids? We show our clients how they can make their electricity distribution grids fit for the net-zero target by 2050:

- Developing quantitative bases for target grid planning: capacity scenarios reflecting supply and load development as well as grid flexibility and storage options (from the current state to the year 2050).
- Simulation using a grid model: checking the current distribution grid for requirements and identifying potential bottlenecks.
- Strategic long-term target grid planning.

More information
EBP readies power grids energy transition