NEW COST-EFFECTIVE TECHNOLOGY – METAL HYDRIDE ENERGY STORAGE

Our system provides a local zero emission, integrated power and heat supply station. Using newly developed metal hydride pellets as a storage medium for locally produced hydrogen, together with clever heat management and use, we are targeting an efficiency of 90%.

Initially, hydrogen storage systems aren’t new and not known for high efficiency either. Using electrolysis to convert electric power to hydrogen and back again through a fuel cell the electric efficiency is only 25%.

Capturing the thermal energy resulting from the two conversion processes for heating and hot-water the overall efficiencies increase up to 90%. The demand for thermal energy accounts for nearly the double of the amount of energy compared to electricity.