

District cooling – A sustainable and innovative solution for Viennese schools

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Rising temperatures that are caused by climate change pose an increasing problem in everyday school life. Concentrating in overheated classrooms is a difficulty and the necessity to regulate the temperature in a sustainable way is undeniable.

District cooling is a possible solution that is already installed in public buildings such as hospitals, train stations and recently the University of Vienna. For that purpose, water cooled down using sustainable energy or cold water directly from the Danube is used. Therefore, it is a suitable alternative to air-conditioning systems, especially for listed buildings of historic interest, such as the school building investigated in this paper.

This study examines the implementation of district cooling, its energy consumption, price efficiency and the carbon footprint. Interviews with local experts, school principals and officials involved in the implementation of district cooling inform the research project.

Our goal is to investigate the advantages and feasibility of district cooling, using the example of our school. Ideally, this paper provides first steps to establish district cooling at our school and serves as an example for other schools in Vienna.