

EnKH: Energy efficiency in hospitals. Efficiency potential through adiabatic cooling in existing HVAC systems

Project management: Prof. Dr.-Ing. Lars Kühl

Summary: The achievement of the project targets would result in

- the energetic optimisation of the Krankenhaus Diakovere Henriettenstift In Hannover in its existing form, on the basis of the reorganisation, networking, and zoning of the ventilation and/or air-conditioning and refrigeration technology, with
- hydraulic interconnection and technical networking of refrigeration technology controls,
- the integration of renewable energies into the refrigeration system and
- the restructuring of existing ventilation technology with subsequent
- monitoring with optimisation of operations. The experiences and recommendations for implementation are to be set out in
- documentation of the plans to increase efficiency in the current hospitals, based on the energy-related renewal of the ventilation and/or air-conditioning and refrigeration technology.

The project work is derived from the defined goals. The process is to be carried out in five essential steps:

- Recording of current state, and assignment of already-installed systems, with subsequent concept development
- planning and implementation phase of the developed concept, including the integration of comprehensive monitoring hardware
- operations-monitoring after implementation phase
- recording of consumption values for other properties with comparable terms, in comparison with the show-piece
- derivation of recommendations for action

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