



Entropia

OUR SOFTWARE "ENTROPIA" MAKES THE OPERATION OF DISTRICT HEATING SYSTEMS MORE ECONOMIC.

The digitization of district heating is not keeping pace with the decarbonization of this sector. This leads to an increase in avoidable energy losses. The predictive operation of the entire system with Model Predictive Control (MPC) can face the challenges of the heat transition, at least from a technical perspective.

The only way to fully address these challenges is to offer solutions for systems of all sizes. But until now, MPC has only been economically viable for operators of large district heating systems because the one-time implementation costs are enormous.



AI forecasting → Increasing the plannability by precise forecasts (e.g. heat demand)



Digital twin → Enabling the calculation of different operating states



Optimization → Enabling the calculation of the optimal schedule



Control system of a district heating system

Our ENTROPIA software's innovative digital twin reduces these costs by 80% - with expected even higher savings potential, making the technology affordable for most operators.

Industry

In the past, district heating systems always had a central heat generation plant that supplied all heat consumers in the system. However, the integration of distributed renewables leads to decentralization and variability, as we already know from the electricity market. Unlike the electricity market, which is already well equipped to handle the dynamics of renewable energy, the heating market is lagging behind. The main reason for this is that the heating sector has not yet been digitized, and systems are often operated in a very static manner, leading to increased losses in heat generation and distribution.

Team



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