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**Heat pumps use for increasing heat power plant efficiency. A preliminary analysis for district heating in Bălți city of Moldova**

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**Abstract**

*Heat pumps are of major importance for the roadmap of making green heating and cooling. This is a preliminary analysis acting as a concept paper proposing steps for making greener the city heating, as part of a roadmap towards full decarbonization. In principle, for energy efficiency and the reduction of CO<sub>2</sub> emissions, it is proposed to use solutions based on electricity, the most efficient option being represented by adding heat pumps for preheating the water used for district heating. The analysis has been made for the specific case of central district heating in Balti city of Moldova, with uses cases for the contribution of the heat pumps and for the source of its consumed electricity. The opportunity of adding local photovoltaic (PV) production has also been addressed and showed a significant reduction of electricity self-consumption. Conclusions and future work are also presented.*

**Keywords:** *district heating, heat pumps, renewables*

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