

Technology Fact Sheet

Technology Name	High Power Heat Pumpsⁱ Г.Хайнрих, Х.Найорк, В.Нестлер. Теплонасосные установки для отопления и горячего водоснабжения. Пер.с нем., М.Стройиздат.1985.
Subsector GHG emission (megatons CO ₂ -eq)	5.067 mln.t CO ₂ in thermal power sector in 2010
Background/Notes, Short description of the technology option	High power heat pumps - more than 20 MW, can be implemented in specific locations with availability of a heat source with potentially reduced productivity.
Implementation assumptions. How the technology will be implemented and diffused across the subsector? Explain if the technology could have some improvements in the country environment.	In towns on the banks of the Dniester river the potential source of affordable reduced productivity fuel (RPF) is the river water filtered through the ground to accumulate the warmth of water during summer and autumn. In Balti and Chisinau municipalities such sources could operate in combination with CHPs.
Implementation barriers	- Large investments. - Scarcity of RPF sources
Reduction in GHG emissions (megatons CO ₂ -eq)	Provided by 2030 the installed power is 50 000 kW, it will be possible to reduce 0.17 Mt.CO ₂ eq.
Impact Statements - Impact of this option on the country's development priorities	
Country social development priorities	Increase security of heat supply
Country economic development priorities – economic benefits	Reduce natural gas consumption by 100 mil. m ³ per year by 2030
Country environmental development priorities	Exclude harmful emissions
Other considerations and priorities such as market potential	
Costs	
Capital costs	At 50 MW power – 100 mil. USD
Operational and Maintenance costs	Operational and Maintenance costs –13.1 \$/GJ.
Cost of GHG reduction	600 \$/t
Lifetime	20 years
Other	-

ⁱ This fact sheet has been extracted from TNA Report - Technology Needs Assessment for climate change mitigation - Republic of Moldova. You can access the complete report from the TNA project website <http://tech-action.org/>