

Technology Fact Sheet

Technology Name	Performant air-conditioningⁱ www.performanceair.biz/
Subsector GHG emission (megatons CO ₂ -eq)	GHG emissions in the buildings sector in 2009 accounted for 2825 Gg, of which 75% (2120 Gg) - from residential buildings.
Background/Notes, Short description of the technology option	Air conditioning installations are increasingly widely implemented in the residential sector. Dual purpose conditioning systems – air conditioning / heating are very popular. There are the largest air conditioners by electrical power - with consumption of more than 1 kW. It is therefore necessary to choose the most performant plants.
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.	If, by 2030, 5% of residential space will be provided with air conditioners, the installed capacity will be over 430 thousand kW cold air. The electrical power required in the network will be over 170 thousand kW. A 10% saving will reduce electricity consumption by more than 5 million kWh per year.
Implementation barriers	- Long (15-20 years) life time of the equipment and relatively high cost per unit. Consumers are reluctant to replace functional plants.
Reduction in GHG emissions (megatons CO ₂ -eq)	Reduction of 0.02 mln.t CO ₂ in between 2010 – 2030
Impact Statements - Impact of this option on the country's development priorities	
Country social development priorities	Reduce consumers spending
Country economic development priorities – economic benefits	By 2030 reduce fuel consumption by more than 175 thousand tone coal equivalent (t.c.e) per year
Country environmental development priorities	Reduce harmful emissions
Other considerations and priorities such as market potential	-
Costs	
Capital costs	Total investment of cca.130 mil.\$, however, with insignificant difference versus energy inefficient installations.
Operational and Maintenance costs	Maintenance costs of cca. 38 \$/GJ cold air, however, not higher than for old installations.
Cost of GHG reduction	
Lifetime.	Lifetime – 15 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/>