

Technology Fact Sheet

Technology Name	Micro and Mini CHPs on Fuel Cellsⁱ ЭНЕРГЕТИЧЕСКИЕ УСТАНОВКИ НА БАЗЕ ТОПЛИВНЫХ ЭЛЕМЕНТОВ. http://www.newchemistry.ru/letter.php?n_id=6721
Subsector GHG emission (megatons CO ₂ -eq)	GHG emissions accounted for 5.067 mln.t CO ₂ in thermal energy sector in 2010
Background/Notes, Short description of the technology option	It is expected that fuel cells - electrochemical generators will become increasingly widely spread because of advantages over other electricity and heat generation technologies: lower emissions, more compact, have no moving parts, so they have a longer life (assumably 30 years), produce less noise. Low temperature installations (200 ... 230 0C), which are at piloting stage have electrical efficiency of 30 ... 37% and global efficiency - 80 ... 85%. They are being used in some facilities in the USA, Japan etc.
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.	Is expected that by 2030 the Republic of Moldova will be able to install about 10 MWt.
Implementation barriers	<ul style="list-style-type: none"> - Strict fuel requirements - Lack of service experience of - Lack of commercial proposals.
Reduction in GHG emissions (megatons CO ₂ -eq)	To achieve reduction 0.14 mln.t CO ₂ eq./year by 2030
Impact Statements - Impact of this option on the country's development priorities	
Country social development priorities	Create additional jobs
Country economic development priorities – economic benefits	Reduce fuel consumption by cca 6 thousand tone coal equivalent (t.c.e) per year by 2030
Country environmental development priorities	Reduction of harmful emissions
Other considerations and priorities such as market potential	-
Costs	
Capital costs	Investments in thermal parts will be cca 20 mln.USD
Operational and Maintenance costs	Operational and maintenance costs – 30 USD/GJ
Cost of GHG reduction	46 USD/t CO ₂ eq
Lifetime.	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/>