


GENERAL INFORMATION	
Building owner	Municipal Karnobat
Address	Village Ognen, Karnobat municipality, Bourgas Region
Number of dwellings	41 before refurbishment 41 after refurbishment
Number of floors	
Average size of the dwellings	
Total heated floor area	1,251 before refurbishment 1,251 after refurbishment
Year of construction	1956
Year of refurbishment	2005
Has the refurbishment been carried out while the dwelling was occupied?	Yes
Has an independent quality assurance been carried out?	No
Total building costs	50,000 €
Building costs concerning energy recovery	50,000 €



INITIAL SITUATION/LOCAL CONDITION	<ul style="list-style-type: none"> • Poor condition of window frames • Individual wood heating appliances were used for heating the premises • Low indoor air temperature which is not in compliance with national ordinances
TYPE OF REFURBISHMENT (MEASURES WHICH HAVE BEEN CARRIED OUT)	<ul style="list-style-type: none"> • Replacement of windows • Replacement of boiler
WHY HAVE THE MENTIONED MEASURES BEEN CARRIED OUT?	Refurbishment measures have been carried out in order to improve living conditions and comfort in the building.

PLANS	Not available at present.
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ENERGY RELATED ACTIVITIES			
	Exterior components		
	Systems engineering		
ENERGY RELATED INDICATORS			
	Initial situation	After refurbishment	Reduction
	Energy performance	127.9 kWh/m ² a	
	Energy consumption	160,003 kWh/a	
	CO ₂ -emission		
	Heating system	Decentralized system	
	DHW-system	solid fuel boiler	
	Monitoring system		
	Regional energy costs		

SUBSIDIES	Refurbishment of the windows and the building was financed by the Japanese government. The project for the new heating system and solid fuel boiler was financed by the Municipal Karnobat!
STATEMENT	Most of the social housing sector has great energy saving potentials due to the fact that most buildings are old and have been built according to old regulations. After applying certain energy saving measures, the energy consumption could be considerably reduced and the general building condition was improved to a large extent.
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