

Energy Efficiency: Armenia

New greenhouse (p. 1)

State-of-the art heating system for a greenhouse

Kaga Group LLC built a new greenhouse in the Armenian village Dzoraghbyur. The construction started in summer 2013 and the company put the greenhouse into operation in December 2013.

Kaga Group invested 520,000 USD and utilized international best practices in the construction of the greenhouse: Energy saving screens, an energy efficient boiler and an automated control system for the whole operation cycle were installed. With this, the company saves 3,864 MWh energy or 87,000 USD per year.

On a total area of 1 ha, the new greenhouse produces annually 500 t of vegetables. The majority of the production is supplied to the local market.



Savings of 87.000 USD every year: With its new greenhouse, Kaga Group LLC increased its production and its efficiency. 40% less energy consumption results in greenhouse gas emissions reductions.



European Bank
for Reconstruction and Development



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**FEDERAL MINISTRY OF FINANCE
OF THE REPUBLIC OF AUSTRIA**

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State-of-the art heating system for a greenhouse

Main Investment	New gas boiler, energy saving screens, automation system	
Size of Investment	520,000 USD	
Date of Implementation	12/2013	
Operational Results	<p>Total Natural Gas Savings:</p> <ul style="list-style-type: none">• Measure 1 (gas boiler): 3,864 MWh/y• Measure 2 (energy saving screens): 1,590 MWh/y• Measure 2 (energy saving screens): 2,274 MWh/y	
Investment Profitability	<ul style="list-style-type: none">• Annual savings of 87,000 USD• Payback period of 6 years• IRR 11.2%	3,864 MWh or 40% of energy saved p.a.