

# USD 2.3M ANNUAL SAVINGS DUE TO THE CONSTRUCTION OF A BIOGAS PLANT

*A leading agriculture company engaged in pig-breeding and meat processing requested the RUSEFF experts to assess the renewable energy efficiency opportunities within the plants.*

The RUSEFF experts recommended the construction and operation of a biogas plant using animal manure from their pig farms and the biomass waste from their meat processing plant. The biogas unit is designed to process around 1 500 tons of waste material daily. The electricity produced will be utilized in their own facilities.

In addition, the waste utilization of the occurring bio-fertilizer provides the company with a practical way of recycling and in parallel an additional income of USD 1.77m annually.

The proposed investment of USD 12.35 million will result in annual savings of USD 2.33 million, a payback period of just over 3 years yielding a 26.6% return on investment in terms of energy savings.



## Company

Economic sector	Agriculture pig-breeding and meat processing
Region	Stavropol

## Project Goal and Main Investment

Project goals	<ul style="list-style-type: none"> <li>Generation of electricity and heat at mini biogas CHP</li> <li>Cost savings in electricity purchase</li> <li>Production and sale of organic fertilizer</li> </ul>
Main investments	<ul style="list-style-type: none"> <li>Purchase of equipment</li> <li>Construction of a Biogas unit</li> </ul>
Investment size	USD 12 350 000

## Results

Project Results	<ul style="list-style-type: none"> <li>Energy savings equivalent to <b>17 474 MWh</b> per year</li> <li>Energy savings: <b>82%</b></li> </ul>
Financial viability	<ul style="list-style-type: none"> <li>Annual cost savings: <b>USD 2 330 000</b></li> <li>Payback period: <b>3.2 years</b></li> <li>IRR: <b>26.6%</b></li> </ul>



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