

PROJECT FICHE



Project title	Energy Efficiency Upgrades for Public Schools in Jiu Valley
Sector	Public infrastructure, education, energy efficiency
Location	<i>Jiu Valley, Hunedoara County, Romania</i>
Project purpose	<i>To improve the energy efficiency of public schools in Jiu Valley by upgrading insulation, heating systems, and lighting, thereby reducing energy consumption and costs. This project will contribute to a better learning environment, decrease the schools' carbon footprint, and promote energy efficiency awareness among students and the community.</i>
Beneficiaries of the project	<ul style="list-style-type: none">• <i>Students, teachers, and staff in public schools in Jiu Valley.</i>• <i>Local contractors and energy service companies involved in the implementation.</i>• <i>The broader community, benefiting from reduced energy consumption and emissions.</i>
Project relevance and need	<i>Public schools in Jiu Valley are often old and inefficient, leading to high heating and electricity costs. Poor insulation and outdated heating systems create an uncomfortable learning environment, especially in the cold months. With the transition away from coal and the focus on energy efficiency, upgrading public school buildings will reduce operational costs, lower GHG emissions, and set an example for the community in energy-efficient practices.</i>
Implementing actor	<i>Local authority</i>
Activities	<ol style="list-style-type: none">1. <i>Energy Audits, Feasibility and Technical Assessments:</i><ul style="list-style-type: none">• <i>Conduct energy audits to assess the current state of insulation, heating systems, and lighting in selected schools.</i>• <i>Develop the Feasibility Study and Technical Designs for necessary upgrades, including insulation, windows, heating systems, and energy-efficient lighting.</i>2. <i>Tender documents, Procurement and Contracting:</i><ul style="list-style-type: none">• <i>Open tenders for local contractors to perform energy efficiency upgrades.</i>• <i>Select qualified service providers for insulation, heating, and lighting improvements.</i>3. <i>Implementation of Energy Efficiency Measures:</i>

	<ul style="list-style-type: none"> • <i>Install thermal insulation on walls, roofs, and windows to reduce heat loss.</i> • <i>Replace outdated heating systems with energy-efficient solutions such as roof PV and heat pumps or high-efficiency thermal plants or micro-CHP systems.</i> • <i>Upgrade to smart energy-efficient LED lighting in classrooms, hallways, and other school facilities.</i> 4. <i>Energy Efficiency Education and Awareness:</i> <ul style="list-style-type: none"> • <i>Organize educational programs and campaigns to raise awareness among students and staff about energy-saving behaviours and the importance of energy efficiency.</i> 5. <i>Monitoring and Maintenance:</i> <ul style="list-style-type: none"> • <i>Implement monitoring systems to track energy usage and savings post-upgrade.</i> • <i>Establish maintenance protocols to ensure the longevity and efficiency of the installed systems.</i>
Expected result(s)	<ul style="list-style-type: none"> • <i>Energy savings: Estimated annual reduction of 750 MWh in energy consumption for each upgraded school.</i> • <i>Improved learning environment: Enhanced thermal comfort and better lighting conditions for students and staff.</i> • <i>GHG emission savings: Estimated annual reduction of 232.5 tCO₂ eq., calculated using the EIB methodology (750,000 kWh × 310 g CO₂-eq/kWh).</i> • <i>Cost savings: Reduced energy bills for schools, allowing more resources to be allocated to educational activities.</i>
Expected contribution(s) and impact(s)	<ul style="list-style-type: none"> • <i>Significantly reduced energy consumption and operational costs for public schools in Jiu Valley.</i> • <i>Improved health and learning outcomes for students due to better indoor air quality and more comfortable temperatures.</i> • <i>Increased awareness of energy efficiency among students and the broader community, fostering a culture of sustainability.</i>
Institutional framework	<ul style="list-style-type: none"> • <i>The project will be led by local authorities in Jiu Valley in partnership with regional education departments and energy efficiency experts.</i> • <i>Collaboration with local construction and energy service companies will ensure the timely and effective implementation of upgrades.</i>
Budget	<p><i>Total budget: 400,000 EUR</i></p> <ul style="list-style-type: none"> • <i>Energy audits, FS and technical designs: 50,000 EUR</i> • <i>Insulation and heating system upgrades: 250,000 EUR</i> • <i>LED lighting installation: 50,000 EUR</i>

	<ul style="list-style-type: none"> • <i>Smart metering system: 25,000 EUR</i> • <i>Education and awareness campaigns: 25,000 EUR</i>
Sources of funding or financing	<ul style="list-style-type: none"> • <i>West Regional Programme</i> • <i>Education and Employment Programme</i> • <i>Just Transition Fund</i> • <i>EU Cohesion Policy funds</i> • <i>National and local energy efficiency programs</i> • <i>Contributions from local and regional education authorities</i>
Implementation schedule	<ul style="list-style-type: none"> • <i>Energy audits and technical design: March 2025 - May 2025</i> • <i>Procurement and contractor selection: June 2025 - July 2025</i> • <i>Installation of upgrades: August 2025 - December 2025</i> • <i>Monitoring and education campaigns: January 2026 - March 2026</i> • <i>Project completion: March 2026</i>
Sustainability	<ul style="list-style-type: none"> • <i>The energy efficiency upgrades will lead to long-term energy savings, making the project financially sustainable by reducing operating costs for schools.</i> • <i>Regular maintenance and monitoring will ensure the continued efficiency of the installed systems.</i> • <i>Educational programs will instil energy-saving behaviours in the next generation, contributing to a broader culture of sustainability in the region.</i>
Replication	<p><i>This model of energy efficiency upgrades can be replicated in other public buildings across Jiu Valley and similar regions. The success of this project could encourage further investments in energy efficiency for schools, hospitals, and other public institutions, contributing to a national effort toward energy savings and emission reductions.</i></p>

ABOUT

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