



**REVERSIBLE HYDRO POWER-PLANTS "VRLETNA KOSA" AND "USCE" 1 260MW**

<p><b>Project title</b></p>	<p>Construction of reversible hydro power-plants "Vrletna kosa" and "Usce" on the "Ugar"river                  The project represents a strategic infrastructure of pumped-storage hydropower plants for Bosnia and Herzegovina, Southern and Southeastern Europe, enabling:</p> <ul style="list-style-type: none"> <li>• integration of large shares of renewable energy sources,</li> <li>• improved security and reliability of the power system,</li> <li>• provision of ancillary services (FCR, aFRR, mFRR, reserves),</li> <li>• long-term, bankable investments aligned with the EU energy transition goals.</li> </ul>
<p><b>Location</b></p>	<p>Ugar River                  This is a multi-entity project located in the territory of both entities (in The Republic of Srpska entity and The Federation of Bosnia and Herzegovina entity.)</p>
<p><b>Installed net electric power</b></p>	<p>Total installed net electric power (optimized Pre-FEED configuration):                  Turbine mode (generation): approx. 1,260 MW                  Pump mode (absorption): approx. 1,340 MW</p> <p>Breakdown:</p> <ol style="list-style-type: none"> <li>1. Reversible HPP "Ugar-Ušće":                         <ul style="list-style-type: none"> <li>• 8 × 30 MW = 240 MW (turbine)</li> <li>• 8 × 40 MW = 320 MW (pump)</li> </ul> </li> <li>2. Reversible HPP "Vrletna Kosa":                         <ul style="list-style-type: none"> <li>• 6 × 170 MW = 1,020 MW (turbine)</li> <li>• approx. 1,020 MW (pump)</li> </ul> </li> </ol>
<p><b>Electricity generation</b></p>	<p>The project is primarily designed for large-scale energy storage and system services. Total available energy reserve 43GWh.</p> <p>Operational energy storage capacity (Pre-FEED envelope):</p> <ul style="list-style-type: none"> <li>• Reversible HPP "Vrletna Kosa": approx. 6–10.2 GWh per daily cycle</li> <li>• Reversible HPP "Ugar-Ušće": approx. 0.3–1.0 GWh (regulation and buffer role)</li> </ul>



	Return flow efficiency (RTE, Pre-FEED): approx. 0.78.
<b>Investment &amp; Technical documentation status</b>	<ul style="list-style-type: none"> <li>• Pre-FEED / Conceptual Design completed.</li> <li>• Optimized technical concept of the pumped storage hydropower cascade system completed.</li> <li>• Municipal decision on declaring the project of strategic interest.</li> <li>• Next phase: FEED, concession agreement, permitting and preparation of EPC.</li> </ul>
<b>Project schedule</b>	<ul style="list-style-type: none"> <li>• FEED and permitting: 18–24 months</li> <li>• EPC and construction: 5–6 years</li> <li>• Commissioning and commercial operation: after construction completion</li> </ul>
<b>Total investment cost</b>	<ol style="list-style-type: none"> <li>1. Approximate total investment cost (optimized Pre-FEED estimate): <ul style="list-style-type: none"> <li>• Estimated range: EUR 1.8 – 2.4 billion</li> <li>• Mid-scenario estimate: approximately EUR 2.1 billion</li> </ul> </li> <li>2. The estimate includes preparation of appropriate studies, preparation of documentation for obtaining construction concessions, project technical documentation, necessary permits and approvals, civil works, electromechanical equipment, grid connection, engineering, environmental protection measures and contingencies.</li> </ol>
<b>Inputs provided by local partner</b>	<ul style="list-style-type: none"> <li>• Project development and studies completed to date</li> <li>• Local coordination, permits and land-related inputs</li> <li>• Estimated contribution: approx. 10% of total investment value</li> </ul>
<b>Inputs required from foreign partner</b>	90% of total investment cost
<b>Form of cooperation with foreign partner</b>	<ul style="list-style-type: none"> <li>• Financing (equity and/or debt)</li> <li>• EPC execution and technology supply</li> <li>• Participation in ownership and long-term operation</li> </ul>
<b>Supporting information available</b>	For additional information about this project, please contact FIPA either by e-mail: <a href="mailto:fipa@fipa.gov.ba">fipa@fipa.gov.ba</a> or phone number: +387 33 278 080