

InvestEU Scoreboard
(to be published after the signature of the operation)

Presentation of the financing or investment operation :

Implementing Partner: EBRD

Name of the Operation: Giurgiu Solar

Type of approval :

- ☐ Individual financing or investment operation or
- ☐ Framework Operation

Name of the final recipient (for direct operations): The Operation will be an individual transaction with an A/B loan extended for projects ultimately controlled by one Sponsor. However, the proceeds will be allocated to two final recipients as per below:

1. Final Recipient 1 is RTG Solar Energy S.R.L (Iepuresti)
2. Final Recipient 2 is Solis Imperium S.R.L (Ghimpati)

Name of the financial intermediary (for intermediated operations): n/a

For Framework Operations: Type of Final recipients/Financial Intermediaries

Country(-ies) of implementation: Romania

Short description of the financing or investment operation:

EBRD will provide a syndicated A/B loan to limited liability companies established in Romania to finance the development, construction, and operation of two solar PV plants totalling 316.7MW of generation capacity. The addition of 316.7 MW of renewable capacity from solar generation to the Romanian energy system will bring more than 160,000 tonnes of annual emissions savings and generate 386GWh of electricity per annum, thus making a significant contribution to the Romanian and EU renewable energy targets.

The Operation will fully rely on market offtake of produced electricity, without the need for government subsidies, and as such is one of the first in Romania to prove commercial viability of private renewable energy projects to receive construction stage long-term project financing.

Public Statement

Narrative justifying the assessment of Pillars 1-5. The narrative should not contain commercially sensitive or confidential information.

Aligned with EU-wide initiatives such as Fit for 55 and REPowerEU, as well as the Romanian National Energy and Climate Plan, the Operation aims to add approximately 316.7MW of solar capacity, significantly advancing Romania's renewable energy goals. The Operation contributes substantially contribution to Romania's renewable energy share targets of 36.2% by 2030—as it supports 2.7% Romania's additional renewable energy targets. This underscores the Operation's role in driving the country's energy transition agenda.

Beyond its strategic alignment, the Operation holds tangible benefits for sustainability and emissions reduction, with an estimated annual reduction of 160,000 tonnes of GHG emissions and anticipated clean energy production expected to supply over 200,000 households in Romania.

EBRD financing, backed by the InvestEU guarantee, is pivotal in addressing challenges within Romania's energy sector. Fossil fuel-related negative externalities remain uninternalized, allowing fossil-based generation to keep a significant market share despite rising CO2 emissions allowances prices. The previous regulatory deterioration for renewables, exacerbated by the discontinuation of previous support schemes, has heightened investment risks, and kept the sector from realising its full potential.

Furthermore, EBRD financing offers terms and scale unavailable in the market, crucial for projects with fully merchant exposure. InvestEU guarantee leverage will enable extending the loan maturity to 12 years and improving financial terms, thereby facilitating Operation viability and enhancing investor confidence. This comprehensive approach addresses market deficiencies, promoting sustainable energy development and mitigating barriers to renewable energy investment in Romania.

Pillar 3 - Market failure or sub-optimal investment situation addressed by the financing or investment operation (Score) **Very good (=3)**

Pillar 4 - Financial and technical contribution by the Implementing Partner (Total score) **Excellent (4)**

Pillar 5 - Impact of the financing or investment operation (Total score) **Excellent (4)**

Pillar 7 - Complementary indicators

Please provide relevant indicators from Appendix 6 of the InvestEU Scoreboard.

For all financing and investment operations:

(m) Leverage effect: **18.5** and multiplier effect: **43.1**

(n) amount of investment mobilised: **EUR257m**

(o) estimated [number] of targeted final recipients: **2**

(p) investment supporting climate objectives: **Yes, EUR110m**

(q) investment supporting environmental objectives: **Yes, EUR44m**

(r) investment supporting digitalisation: **No**

(s) investment supporting industrial transition: **No**

(t) investment supporting just transition: **No**

(u) investment for the provision of critical infrastructure: **No**

(v) investment in cybersecurity, space and defence: **No**

(w) in case of combination with other Union sources, indication of the non-repayable component or financial instrument component from other Union programmes: **No**

- (x) other operation-specific indicators required by the financial product of the financing or investment operation, if applicable: No

Sustainable infrastructure window

Energy:

- (f) additional renewable and other safe and sustainable zero and low-emission energy generation capacity installed (in megawatts (MW)): n/a
- (g) number of households, number of public buildings and commercial premises with improved energy consumption classification: n/a
- (h) estimated energy savings generated by the project(s) (in kilowatt-hours (kWh)): n/a
- (i) annual green-house gas emissions reduced/avoided in tonnes of CO2 equivalent: -163.700 tCO2/y

volume of investment in the development, smartening and modernisation of sustainable energy infrastructure: n/a

Giurgiu Solar Sustainability Proofing Summary

Identification of the project	
Project total cost (exclusive of VAT):	☐ below EUR 10 million ☒ equal to or higher than EUR 10 million
EIA Directive	
	☐ Annex I projects (EIA required) ☐ Annex II projects (screening) ☐ EIA required (project screened in) ☐ EIA not required (project screened out) 2014 EIA Directive applicable ☐ Yes ☒ No
Sustainability proofing process	☒ Climate ☒ Environmental ☒ Social
Climate Dimension	
<i>Climate dimension (screening)</i>	Adaptation: The vulnerability analysis, which combines the results of both the sensitivity and exposure analysis, indicates that further assessment is needed for heat waves, river floods, droughts, avalanches, landslides, windstorms, wildfires, and hailstorms. Mitigation: Is the project recommended to undergo Carbon footprint as per Chapter 2.2 of the sustainability proofing guidance? ☒ Yes ☐ No If “no”, justify why the Carbon footprint is not necessary. Provide any other considerations to take into account:

<i>Climate adaptation (proofing), as applicable</i>	In accordance with the "Technical Guidance on Climate Proofing of Infrastructure in the Period 2021-2027" for infrastructure projects and the outcomes of the vulnerability analysis, we assessed the identified hazards in the screening section. The conclusions from this assessment are as follows: • Heat waves: The project sites face a moderate risk of heat waves throughout the project's duration. Elevated temperatures may result in heightened internal resistance of the cells, potentially reducing the overall energy output. Additionally, prolonged exposure to high temperatures can expedite the degradation of solar panels. • Droughts: Both project sites are assessed with a moderate risk of drought. Dry periods can lead to increased accumulation of dust and debris on solar panels, diminishing their efficiency. • River floods: Based on Swiss RE data, the two project locations are situated outside of flood zones, indicating a rare likelihood of occurrence (less than 5%). Consequently, the potential impacts from river floods on asset damage, engineering, operational aspects, safety and health, environment, cultural heritage, social aspects, financial considerations, and reputation are deemed insignificant. • Landslides & avalanches: According to data from the Global Facility for Disaster Reduction and Recovery (GFDRR), the occurrence of landslides or avalanches at the two project locations is unlikely, as these locations received the lowest scores for occurrence. This suggests a rare likelihood of such events (less than 5%). As a result, the potential impacts on asset damage, engineering, operational aspects, safety and health, environment, cultural heritage, social aspects, financial considerations, and reputation are considered insignificant. • Hailstorms: Concerning the potential hazard of hailstorms, the project's susceptibility is evaluated with a medium likelihood of future hail events, as indicated by a Moderate score. This data will be considered in the procurement phase of the project when selecting the most suitable solar panels. Solar panels will need to pass hail test and seek to obtain IEC (International Electrotechnical Commission) certification. The standard IEC tests strike modules, at 11 locations, with 25 mm diameter ice balls travelling at 23 m/s, while WINAICO asks for the advanced test of 35 mm diameter at 27.2 m/s (4 times the impact energy of the standard test). • Windstorms: The likelihood of windstorms is low in the two locations based on data from Swiss RE. • Forest fires: the threat of wildfires is minimal in the two locations of the project. In conclusion, the project involves the construction of two solar power parks in two different areas of Romania. The assessment of potential climate hazards reveals a medium risk of hailstorms in the two locations. Additionally, the check for heat waves and droughts suggests a potential medium risk in the regions where the project is situated. This information
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	will be considered during the procurement phase, guiding the selection of the most appropriate solar panels for the project.																
Climate mitigation (proofing), as applicable	The project falls within a Taxonomy-aligned category, specifically listed in the jMDB 'aligned' category. It aligns with the National Energy and Climate Plan of the host country, Romania, which is a part of the EU's joint nationally determined contribution (NDC) to the Paris Agreement. The country's updated NDC, submitted in 2021, commits to a 55% reduction in emissions by 2030 compared to 1990 levels. Table I outlines the anticipated MWh contribution (at a 90% probability) for the two solar parks. The projected total MWh production is calculated at 394,975 MWh, resulting in an emissions reduction of 163,700 tnCO2e/year and no direct GHG emissions.. <u>Table I. GHG emissions reductions (in tn CO2e/y)</u> <table><tr><th>Projects</th><th>SPV</th><th>MWh [90]</th><th>Emissions reduction</th></tr><tr><td>Iepuresti</td><td>RTG Solar Energy S.R.L</td><td>213,547</td><td>75,194</td></tr><tr><td>Ghimpati</td><td>Solis Imperium S.R.L</td><td>181,428</td><td>88,506</td></tr><tr><td>Total</td><td></td><td>394,975</td><td>163,700</td></tr></table> As the proposed investment plan projects relative (negative) emissions of -163,700tn CO2e/year and it does not fall under the category of projects for which a carbon footprint assessment will not be required, as per section 2.2.5.1 of the Technical Guidance on Sustainability Proofing for the InvestEU Fund, a carbon footprint assessment with the inclusion of monetary values of such externalities in the economic appraisal of the investment is required in this scenario. In this approach, monetized greenhouse gas (GHG) emissions, whether generated or avoided by the project, are integrated into the economic appraisal to determine the project's Economic Rate of Return (ERR). For the purpose of the economic appraisal of this Project, a social discount rate of 5% has been used along with the assumptions on the launch of operations in 2026 and 20-years operational period. The results reveal that the monetary value of GHG emissions [in 2016-prices] stands at €676,059,383, underscoring the project's positive impact on CO2 emissions savings compared to the baseline scenario. In the context of a solar project, the risk of carbon lock-in is minimal, given that solar energy is considered a clean and renewable source with low carbon emissions during operation. As the project's lifespan doesn't extend beyond 2050, considerations for climate neutrality in its operation, maintenance, and final decommissioning are not applicable in this case.	Projects	SPV	MWh [90]	Emissions reduction	Iepuresti	RTG Solar Energy S.R.L	213,547	75,194	Ghimpati	Solis Imperium S.R.L	181,428	88,506	Total		394,975	163,700
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Voluntary measures (Positive agenda checklist)	Not applicable.																
Environmental Dimension																	

<i>Legal framework</i>	The operation falls outside the scope of an environmental assessment in accordance with SEA Directive 2001/42/EU. No Environmental Impact Assessment (EIA) is deemed necessary, as per the decision of the local authorities, following the Environmental and Social (E&S) proofing of the operations. Given that the operation does not fall under the annexes of the EIA Directive, construction permits were requisitioned for the project sites currently under consideration. The Iepurești Solar Park will develop in the proximity of a wet area consisting of small water ponds, formerly part of the Bălăria River, that are generally used for fishing and leisure. However, the project site will be separated from the wet area through a vegetation buffer zone. The transmission line will cross the former channel through Horizontal Directional Drilling, in order to avoid negative impacts on the water course.
<i>Environment dimension (screening)</i>	The project is not expected to have significant adverse environmental impacts. The project assures no adverse air, water, or soil impacts, adhering to decommissioning plans and waste management. It avoids designated sites and prioritizes responsible soil and habitat management. The project aims for responsible site restoration, aligning with local legislation.
<i>Environment dimension (proofing), as applicable</i>	The project will have no adverse effects on air quality. Utilizing high-performance machinery during both construction and operation phases, regular maintenance will be conducted, and air pollutants will undergo continuous monitoring in compliance with environmental permit regulations. Importantly, the project is situated outside an Air Quality Zone that fails to meet the targets outlined in the regional/national Air Quality Plan. The project will have no impact on surface waters, groundwaters, or marine waters, whether temporarily or permanently. A comprehensive Project Environmental and Social Management Plan (ESMP)/Construction Management Plan (CMP) will be developed for the construction phase, incorporating best practices to safeguard surface water. Additionally, the project will not involve substances or mixtures that are harmful to the water environment, and the project location is free from existing pollution or environmental damage. Furthermore, the location is not susceptible to erosion, flooding, or drought conditions that could affect the water environment. The project ensures minimal risk of erosion due to the area's flat terrain and low susceptibility to landslides. A geotechnical study was commissioned to secure Construction Authorization. The project also avoids actions that could lead to declines in soil organic matter, such as land use conversion, wetland drainage, or deforestation. Risks of soil contamination are proactively managed through the ESMP/CMP, which emphasizes good practices for soil handling. The project will involve activities that may generate noise and vibration levels potentially causing annoyance or negative health effects during construction. It's important to note that the project site is not situated in

	an urbanized or residential area, minimizing the likelihood of significant increases in noise levels during operation. While construction activities may lead to temporary increases in road traffic, resulting in minor disruption and a potential rise in noise and emissions, existing access roads already serve the site. Although this may contribute to slight congestion, it is not expected to cause significant environmental noise problems.
<i>Voluntary measures (Positive agenda checklist)</i>	The Beneficiary intends to acquire software for production and demand forecasting, as well as optimizing the release of renewable power into the grid. Beyond this, the development of two solar power plants sets the stage for the Beneficiary's expansion into virtual power plants, encompassing wind and battery storage. This strategic move will augment supply and demand flexibility, aiding in balancing energy outputs and managing distributor grids.
Social Dimension	
<i>Legal framework</i>	There are no apparent issues related to compliance with applicable EU and national legislation, as outlined in the legal compliance framework. The project poses no risks related to child labour, forced labour, discrimination, or restrictions on freedom of association. These considerations consider factors such as country context, sector, promoter, contractor, or supply chain. The project is structured to align with EBRD PR2 on labour, with no identified red flags to date. Minor remediation measures will be implemented in the ESAP and incorporated into the CESMP and OESMP to address any minor non-compliances. Additionally, a comprehensive supply chain due diligence has been conducted, including screening of forced labour risks for Solar Panels Tier 5 suppliers, and no red flags have been identified in this regard.
<i>Social dimension (screening)</i>	The project anticipates minimal social risks and adheres to EBRD labour and Occupational Health and Safety standards. The supply chain due diligence, reaching Tier 5 solar panel suppliers, has identified no forced labour risks. Specific measures are in place to prevent adverse impacts on vulnerable groups, including a dedicated grievance mechanism. The project is not expected to have adverse effects on cultural property. Ethical land acquisition processes have been followed, and stakeholder engagement aligns with EBRD policies.
<i>Social dimension (proofing), as applicable</i>	To align with EBRD Performance Requirements concerning occupational and community health and safety, the EPC will be mandated to develop comprehensive plans for occupational health and safety, emergency response, and traffic management. Additionally, the company will be obligated to incorporate specific health and safety provisions into its HR policy and report relevant data on accidents and near misses. A Social and Environmental Plan (SEP) is formulated and implemented at the project level. Grievance issues are addressed through a dedicated project grievance mechanism. The project does not require expropriation or land use change. The Beneficiary has already acquired the necessary land from local developers, and there are no third-party structures on the land plots. Although third-

	party users have been present on some of the acquired land plots, their rental contracts have expired. An agreement has been reached with these users allowing them to cultivate the land until the commencement of construction. The project is not expected to pose significant reputational risks, face opposition from local communities, or result in legacy issues. Minor corrective actions (related to labour conditions, contractor management, supply chain management system, implement a traffic management plan), identified through an Environmental and Social Action Plan (ESAP) prepared during the appraisal phase, will be addressed before the construction phase begins.
<i>Voluntary measures (Positive agenda checklist)</i>	Collaborating with the EPC contractor, the Beneficiary is developing a comprehensive local community engagement plan. Additionally, there is a commitment to prioritize local suppliers whenever feasible, aiming to enhance the positive impact on and support for the local economy. Through these concerted efforts, the Beneficiary aims to maximize the positive outcomes of the solar power plants, not only by providing employment opportunities and supporting local economic development but also by fostering a collaborative and sustainable relationship with the communities in which they operate.
Other sustainability aspects (as applicable)	
	N/A