

E&S Eligibility Criteria for Bioenergy Projects

The Environmental and Social (E&S) eligibility criteria herein have been prepared to assist and to support EBRD’s partner Financial Intermediaries (FIs) who are considering the provision of financing to sponsors/developers of bioenergy projects. In the following, the term “Project” refers to the bioenergy project considered for financing, including all of its associated facilities as defined by the EBRD Environmental and Social Policy (ESP) dated 7th May 2014. This includes typically, but is not limited to, access roads, temporary sites, borrow and spoil areas, feedstock storage areas, pipelines and the connection to the grid. Also, the “Project” includes four temporal elements: 1) planning and siting of the facility, 2) construction, 3) operation and maintenance, and 4) decommissioning. All four elements are discussed herein. This is specific to new or “greenfield” projects and extensions to or remodelling of existing facilities.

The eligibility criteria below are organized with reference to EBRD Performance Requirements (PR), as defined in the 2014 ESP. The key issues provided below are inclusive of typical projects and technologies used in constructing a bioenergy project but may not be exhaustive. Projects proposed that use atypical construction or operation methods may require additional evaluation.

EBRD ESP (2014)	Key Issue	Eligibility Criteria	Evidence
PR 1: Assessment and Management of Environmental and Social Impacts and Issues	Regulatory Compliance - National	<p>The Project must comply with all requirements of national environment, health and safety laws.</p> <p>The Project must have obtained all applicable local planning and zoning approvals to allow for the project development.</p>	<ul style="list-style-type: none"> • For new developments, if required by law, the developer has undertaken an Environmental Impact Assessment ("EIA") and the EIA has been disclosed to the public in accordance with national requirements. • The developer/owner has obtained the required national licenses and permits to build (in case of new developments) or operate (in case of existing facilities) the Project. • For new developments the developer has obtained the required local planning and zoning board approvals required to build and operate the Project

<p>PR 1: Assessment and Management of Environmental and Social Impacts and Issues</p>	<p>Compliance with EBRD PR on environment, health, and safety requirements and relevant EU directives.</p>	<p>The Project’s environmental and social impacts have been evaluated appropriately based on EBRD’s project categorization as outlined in the ESP 2014.</p> <ul style="list-style-type: none"> • Category A projects could result in potentially significant adverse future environmental and/or social impacts which cannot readily be identified or assessed and will require the client to carry out a comprehensive Environmental and Social Impact Assessment (ESIA). These are shown as follows: <ul style="list-style-type: none"> ○ Bioenergy projects that include installations for the manufacture on an industrial scale of substances using chemical conversions processes. ○ Bioenergy projects that result in the construction of motorways or lines for long-distance railway traffic. ○ Bioenergy projects that require pipelines, terminals or facilities for the large-scale transport of final products. ○ Bioenergy projects that include the construction of high voltage overhead electrical power lines. ○ Bioenergy projects directly associated with large-scale deforestation or primary agriculture/forestation intensification, land use change or conversion of priority biodiversity features and/or critical habitats. ○ Projects likely to have a perceptible impact on sensitive locations of international, national, or regional importance. ○ Projects that result in significant adverse social impacts to local communities or other project affected parties. ○ Projects which may involve significant involuntary resettlement or economic displacement. ○ Projects that may result in significant cumulative impacts in combination with impacts from other existing facilities, reasonably foreseeable developments and/or unplanned but predictable activities enabled by projects that may occur later or at a different location. 	<ul style="list-style-type: none"> • The sponsor has established and maintained an Environmental and Social Management System (ESMS) appropriate and commensurate with the level of its environmental and social impacts and issues in line with Good International Practice (GIP) • Category A projects must include an ESIA that meets EBRD-applicable PRs. • Category B projects should include an environmental and social assessment that is proportionate to the project’s nature, size and location, as well as the characteristics of the potential impacts and risks. The assessment will characterise potential future adverse impacts associated with the project, identify potential improvement opportunities, and recommend any measures needed to avoid, or where avoidance is not possible, minimise and mitigate adverse impacts. • Category C projects should include monitoring and reporting on the project’s compliance with the PRs.
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PR 1: Assessment and Management of Environmental and Social Impacts and Issues	Feedstock supply chain management	<ul style="list-style-type: none"> • The project sponsor will identify risks associated with its supply chain included but not limited to sustainable feedstock production; emissions from land use, land use change and forestry (LULUCF); and life cycle GreenHouse Gas (GHG) emission performance. 	<ul style="list-style-type: none"> • The project sponsor has assessed environmental and social risks associated with the cultivation, harvesting, transport, storage, pre-processing and transportation of all feedstock materials to be processed at the bioenergy installation. • The project sponsor has evaluated feasibility of seeking internationally recognized industry sustainability certification for its supply chain. • The project sponsor has determined the source (e.g. local production or international import) of the feedstock and assessed risks associated to the production in the source location and transportation to the project site.

<p>PR 3: Resource Efficiency and Pollution Prevention and Control</p>	<p>The project may, both directly and indirectly, increase local and regional economic activity which can generate increased levels of pollution to air, water, and land, and consume finite resources in a manner that may threaten people and the environment at the local, regional, and global levels.</p>	<ul style="list-style-type: none"> • The project sponsor will adopt technically and financially feasible and cost effective measures for minimising its consumption and improving efficiency in its use of energy, water and other resources and material inputs and recovering and re-utilising waste materials. • The project sponsor will identify opportunities and integrate resource efficiency measures and the principles of cleaner production into product design and production processes. 	<ul style="list-style-type: none"> • The project sponsor has conducted an assessment of potential air pollutants (including but not limited to particulates (PM2.5), methane and NOx) in line with relevant legislation and best practice guidance, dependent on the scale of the bioenergy facility. • The project sponsor has conducted an evaluation of consumables and wastes and has developed a strategy to minimize energy and water usage and to minimize all waste materials and promote the waste hierarchy for remaining waste. • The developer has anticipated the volumes of solid and liquid wastes that will have to be managed, and has a strategy to manage wastes through authorised companies or on-site treatment.
<p>PR 3: Resource Efficiency and Pollution Prevention and Control</p>	<p>Bioenergy has the potential to reduce greenhouse gases (GHG) in comparison to comparable fossil fuel activities.</p>	<ul style="list-style-type: none"> • The project sponsor will consider alternatives and implement technically feasible and cost-effective options to avoid or minimise project-related GHG emissions. The project is expected to produce less than 25,000 tCO₂-equivalents annually. If not, the project sponsor must have completed a GHG assessment. 	<ul style="list-style-type: none"> • The project sponsor has conducted an evaluation of emission sources and considered ways to minimize project-related GHGs during the design and operation. • The project sponsor has demonstrated GHG emission reduction in comparison to a conventional fossil fuel installation. • A GHG assessment if the project is expected to produce more than 25,000 tCO₂-equivalents annually.
<p>PR 3: Resource Efficiency and Pollution Prevention and Control</p>	<p>Water use requirements for some biofuel production facilities are high and reliant on local water supplies.</p>	<ul style="list-style-type: none"> • The project sponsor will demonstrate the local conditions and baseline for water availability (quality and quantity). 	<ul style="list-style-type: none"> • The project sponsor has conducted an assessment of water use requirements and established a management plan.

<p>PR 3: Resource Efficiency and Pollution Prevention and Control</p>	<p>Project site preparation and construction will disturb the ground surface and increase likelihood of soil erosion and sedimentation, potentially polluting streams and rivers and adversely impacting aquatic life.</p>	<ul style="list-style-type: none"> • The project will demonstrate that sediments in stormwater will be managed in a manner that avoids or minimizes impacts to streams and rivers. 	<ul style="list-style-type: none"> • The project proposes the use of best management practices (BMPs) for soil erosion and runoff (e.g. sediment settling basins, silt fencing, hay bales, physical barriers, grassed swales, etc.).
<p>PR 4: Health and Safety</p>	<p>Construction activities (and to a lesser extent, operations), increase local noise than can adversely impact nearby residential communities.</p>	<ul style="list-style-type: none"> • The project will address, and when required by national requirements or international standards, include noise abatement measures to eliminate or minimize impacts to nearby communities. 	<ul style="list-style-type: none"> • The selection of the project site has maximized distance from residential communities to the greatest extent possible. • An acoustic study has been conducted to evaluate impacts to nearby communities in accordance with national and international standards. • Where unabated noise from construction and operation of the bioenergy plant has been shown to present an unacceptable risk to nearby residents, abatement and management measures have been included to reduce to acceptable levels. • The site area should be restricted to avoid unauthorised entrance.
<p>PR 4: Health and Safety</p>	<p>Operation of some technologies such as anaerobic digestion can result in odours from the type of feedstocks (e.g. manure) and processing activities. Other projects may require activities to dry and/or store the feedstock onsite, which may generate odour and dust. Odour nuisance can adversely impact nearby residential communities.</p>	<ul style="list-style-type: none"> • The project will address the effects of adverse odours on nearby communities and where adverse, include measures to eliminate and minimize the effects. 	<ul style="list-style-type: none"> • The selection of the project site has maximized distance from residential communities to the greatest extent possible. • Potential odour issues have been assessed to evaluate impact to nearby communities.

PR 4: Health and Safety	Construction and operations present traffic and road safety risks to workers and potentially the affected community.	<ul style="list-style-type: none"> The project must evaluate and monitor related risks throughout the project life cycle. 	<ul style="list-style-type: none"> The project sponsor has evaluated the effects of project-related traffic and safety, during both construction and operations, to the community.
PR 5: Land Acquisition, Involuntary Resettlement and Economic Displacement	A project may result in physical displacement (relocation or loss of shelter) and/or economic displacement (loss of assets or resources, and/or loss of access to assets or resources that leads to loss of income sources or means of livelihood) as a result of project-related land acquisition and/or restrictions on land use.	<ul style="list-style-type: none"> The project sponsor will identify if the project, its components or any associated facilities¹ will require the relocation and/or loss of residences, commercial/industrial establishments, or rights to land of economic value. If the project will result in the relocation and/or loss of residences, commercial/industrial establishments, or land of economic value, a Resettlement Action Plan (RAP) and/or compensation plan would be required. 	<ul style="list-style-type: none"> An alternatives analysis has been conducted to identify alternative sites and transmission routings. If resettlement or economic displacement is unavoidable, the project sponsor has prepared a RAP and/or compensation plan.
PR 5: Land Acquisition, Involuntary Resettlement and Economic Displacement	Local food security	<ul style="list-style-type: none"> The project sponsor will demonstrate that the bioenergy project will not have an adverse impact on local and regional food production patterns. 	<ul style="list-style-type: none"> The project sponsor has determined if its operations are in a region of food insecurity and if so completed a food security assessment to identify how to maintain and enhance food security.
PR 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	The siting and construction of the bioenergy plant and related transmission lines could adversely impact protected species or their habitat.	<ul style="list-style-type: none"> The project must avoid impacts to protected species and their habitats to the greatest extent possible. Project sponsor has identified any potential protected species that may be affected by the proposed development in accordance with national legislation and international treaties. 	<ul style="list-style-type: none"> Project sponsor has relied on work conducted by qualified and experienced specialists to identify protected species that may be affected with reference to at least national regulations and IUCN and CITES Lists An alternatives analysis has been conducted to identify alternative sites and minimize current and future impacts on protected species Where impacts cannot be avoided, the project sponsor has developed a mitigation strategy to limit the effect of the development on protected species.

¹ Facilities and projects developed by separate legal entities whose viability and existence are determined by or depend exclusively on the project and are essential for the successful operation of the project. This may include e.g. powerlines to connect the project to the grid where these are not part of the project.

<p>PR 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources</p>	<p>The siting and construction of the bioenergy plant and related transmission lines could adversely impact designated national or international protected areas.</p> <p>Designated areas (e.g. a national park, a Natura 2000 site – both official and shadow lists) are typically listed as such because they contain threatened, rare, or sensitive fauna and flora and the construction and operation of turbines in such areas may be detrimental to those species.</p> <p>Natura 2000 represents European Union (EU) policy on the conservation of Biodiversity.</p>	<ul style="list-style-type: none"> • The project must avoid impacts to designated national or international protected areas to the greatest extent possible. • Project sponsor has identified any designated national or international protected areas that may be affected by the proposed development in accordance with national legislation and international treaties. 	<ul style="list-style-type: none"> • Project sponsor has identified national or international protected areas that may be affected by the project. • If the site is located in a sensitive area such as a Natura 2000 or near a Natura 2000 area, the developer needs to have or will undertake an additional ecological survey and assessment in line with <i>The Birds Directive (Directive 2009/147/EC)</i>, <i>The Habitats Directive (Directive 92/43/EC)</i> and <i>The Bern Convention (June 1979)</i>. • An alternatives analysis has been conducted to identify alternative sites and minimize current and future impacts on national or international protected areas. • Where impacts cannot be avoided, the project sponsor has developed a mitigation strategy to limit the effect of the development national or international protected areas and a full ESIA has been conducted as per Category A projects (see PR1)
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<p>PR 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources</p>	<p>Bioenergy feedstocks can negatively affect biodiversity and carbon stocks through direct land use change or deforestation and unsustainable agriculture/forestry practices.</p>	<ul style="list-style-type: none"> • The project sponsor will minimize adverse effects on the ecosystems and the biodiversity they support through the use of residues and waste materials as a primary source of biomass, where feasible. • The project sponsor of biofuel production will use feedstocks produced in a sustainable manner that minimizes impacts per unit of energy produced and does not compete with biological roles that some feedstocks play (e.g. recycling of organic matter into the soil, protection of soil surface and structure, nitrogen retention and release). • The project sponsor will meet requirements of relevant standards and legislation, for example EU Renewable Energy Directive (RED), EU Timber Regulation, EU Forest Strategy, Common Agriculture Policy, Rural Development Policy, and Energy Efficiency Directive in relation to CHP plants. 	<ul style="list-style-type: none"> • The project sponsor has assessed ability to meet EU principles and sustainability criteria and sought to certify its operations to such standards where appropriate. • The project sponsor has a land management plan in place. • The project sponsor has evaluated feasibility of seeking internationally recognized industry sustainability certification for its operations and supply chain.
<p>PR 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources</p>	<p>Genetically modified organisms and invasive species</p>	<ul style="list-style-type: none"> • The project sponsor will adopt and implement a sustainable resources procurement policy, management procedure and verification system to evaluate primary suppliers. • Bioenergy feedstocks that contain genetically modified organisms (GMOs) may not be used without a risk assessment in line with all substantive standards. • Bioenergy feedstocks may potentially be invasive species. 	<ul style="list-style-type: none"> • The project sponsor has developed a plan to evaluate the sustainability management practices of primary suppliers and to prioritize procurement of internationally recognized certified feedstocks where feasible. • The project sponsor has determined if any feedstocks with contain GMOs or have potential to be an invasive species.

<p>PR 7: Indigenous Peoples</p>	<p>Project development may negatively impact on or create opportunities for Indigenous Peoples (applicable to projects in certain regions in Russia).</p>	<p>If the project is located in, or its supply chain relies on feedstock from areas inhabited by Indigenous Peoples, the Sponsor is to rely on expert advice to:</p> <ul style="list-style-type: none"> • ascertain whether any population group potentially affected (positively or negatively) is considered Indigenous People, and • establish whether EBRD PR7 is applicable to the Project. 	<ul style="list-style-type: none"> • If EBRD PR7 is triggered, the project Sponsor has demonstrated that all requirements of this PR are met.
<p>PR 8: Cultural Heritage</p>	<p>Project construction may cause damage or disturbance to irreplaceable sites (areas of archaeological or historic interest to local communities) features, or practices of tangible or intangible cultural heritage value.</p>	<ul style="list-style-type: none"> • The project must avoid impacts to cultural heritage assets to the greatest extent possible. • Project sponsor has identified any potential tangible and intangible heritage that may be affected by the proposed development in accordance with national legislation and international treaties and obtained clearance for the project from the relevant authority. • Project sponsor has relied on work (e.g. Archaeological survey as appropriate) conducted by qualified and experienced specialists to identify and assess heritage that may be affected. 	<ul style="list-style-type: none"> • The project avoids impacts to cultural heritage assets wherever possible. • Where impacts cannot be avoided, the project sponsor has developed a mitigation strategy to limit the effect of the development on heritage. • All site-specific cultural studies and mitigation strategies have been implemented by recognized archaeologists or cultural historians in accordance with international standards.

<p>PR 10: Information Disclosure and Stakeholder Engagement</p>	<p>Community acceptance of a project will greatly assist in the implementation of that project.</p>	<ul style="list-style-type: none"> • To achieve community acceptance, it is necessary to identify stakeholders and impacted communities and provide them an opportunity to have input into the decision making process. • Affected stakeholders should participate in the development and implementation of any required mitigation measures. 	<ul style="list-style-type: none"> • The locally affected community has been notified and consulted prior to the development of the Project. • Implement a Stakeholder Engagement Plan (SEP) • A formal grievance mechanism has been developed and implemented by the developer to cover both the construction and operational phases of the project. The mechanism has been publicised on bulletin boards in public venues in local communities and via local media (newspapers/radio) • A communication records procedure has been developed which will log the key information provided to stakeholders
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