



Non-Technical Summary

KC ENERGY PIHLAKA SOLAR PV PROJECT, ESTONIA

January 2024



Non-Technical Summary

January 2024

Public

Contact Details:



Name: Ats Kukk, Project Manager

Address: Veskiposti 2, Tallinn, Estonia, 10138

Phone: +372 5682 8705

Email: ats.kukk@kaamos.ee

Name: Mihkel Loorits, E&S Manager

Address: Veskiposti 2, Tallinn, Estonia, 10138

Phone: +372 5565 3326

Email: mihkel.loorits@kaamos.ee

Contents

Abbreviation List.....	3
1. INTRODUCTION.....	4
2. PROJECT DESCRIPTION	4
3. BACKGROUND.....	6
3.1. Rationale for the Project.....	6
3.2. Compliance with Relevant Environmental and Social Laws	7
3.3. Environmental and Social Action Plan.....	8
3.4. Project Design and Regulatory Compliance.....	8
3.5. Land Acquisition.....	8
4. ENGAGEMENT WITH STAKEHOLDERS	9
5. SUMMARY OF ENVIRONMENTAL AND SOCIAL IMPACTS AND MITIGATION MEASURES.....	9
6. COMMUNICATIONS.....	13
6.1. Stakeholder Engagement Plan	13
6.2. Grievance Mechanism.....	14
7. CONTACT INFORMATION	14

Abbreviation List

Abbreviation	Term
CESMP	Construction Environmental and Social Management Plan
EBRD	European Bank for Reconstruction and Development
EHSS	Environmental, Health, Safety and Social
EIA	Environmental Impact Assessment
E&S	Environmental and Social
ESAP	Environmental and Social Action Plan
ESDD	Environmental and Social Due Diligence
EU	European Union
GIP	Good International Practice
HR	Human Resources
NGOs	Non-Governmental Organisations
NTS	Non-Technical Summary
OHS	Occupational Health and Safety
PRs	Performance Requirements
PV	Photovoltaic
SEP	Stakeholder Engagement Plan
SPV	Special Purpose Vehicle
TMP	Traffic Management Plan

1. INTRODUCTION

KC Energy are intending to undertake the construction and operation of two adjacent Solar Photovoltaic (PV) plants, with a total capacity of 52,5 MWp located near Kehra in Estonia (the Project). The European Bank for Reconstruction and Development (EBRD) is considering financing the Project.

The Project will be constructed and operated under a special purpose vehicle (SPV), which at financial closure will be 100% owned by KC Energy OU (KC Energy). KC Energy, which was established in 2020, is a joint venture between Kaamos Group and Combiwood Invest LLC. The Construction Contractor will be selected for Pihlaka 1 & 2 spring 2024.

The EBRD commissioned an Environmental and Social Due Diligence (ESDD) assessment to be undertaken of the Project, which involved a site visit and a desk-based review of Project information in September 2023. The Project has been categorised as category 'B' according to EBRD's Environmental and Social Policy (2019), since the potential adverse environmental and social (E&S) impacts will be site-specific, largely reversible and can be mitigated through readily available and recommended mitigation measures.

This Non-Technical Summary (NTS) provides an overview of the environmental and social impacts and benefits associated with the construction and operation of the Project. It also summarises as to how these impacts will be mitigated and managed through all phases of the Project's development.

2. PROJECT DESCRIPTION

The Project consists of the construction and operation of a single investment with two separate but adjacent solar power plants (Pihlaka 1 with a capacity of 7.5 MW and Pihlaka 2 with a capacity of 45 MW) with an aggregate capacity of 52.5 MW, to be located in the south-eastern part of Harju County in Estonia. The sites are located approximately 27km south-east of the city of Tallinn and 1.2km south-west of the town of Kehra. The size of the prospective land plots are as follows:

- Pihlaka 1 – 7.5 MW across 11.54 hectares.
- Pihlaka 2 – 45 MW across 71.63 hectares.

It is expected that the Project will have a lifespan of at least 20-25 years. The Project components will comprise:

- Two adjacent Solar PV plants;
- Two underground transmission lines approximately 4.2km in length (Pihlaka 1, 10 kV and Pihlaka 2, 33 kV), connecting to an existing substation north of the Project; and
- A substation.

A finalised Project timeline has not yet been established. However, it is anticipated that construction for Pihlaka 1 will start in spring 2024 and be completed in late 2024, while construction for Pihlaka 2 will commence in summer 2024 and be completed in 2025.

Figure 1 - Project Location

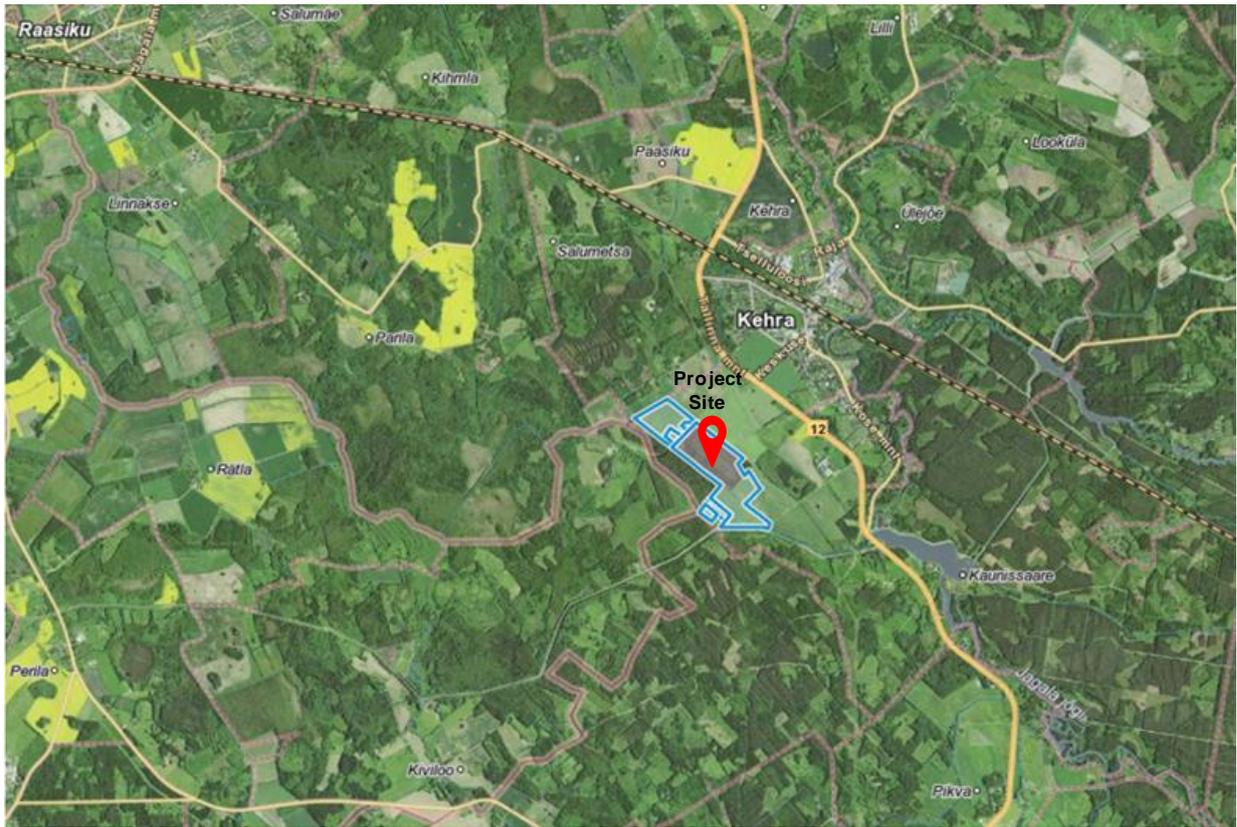
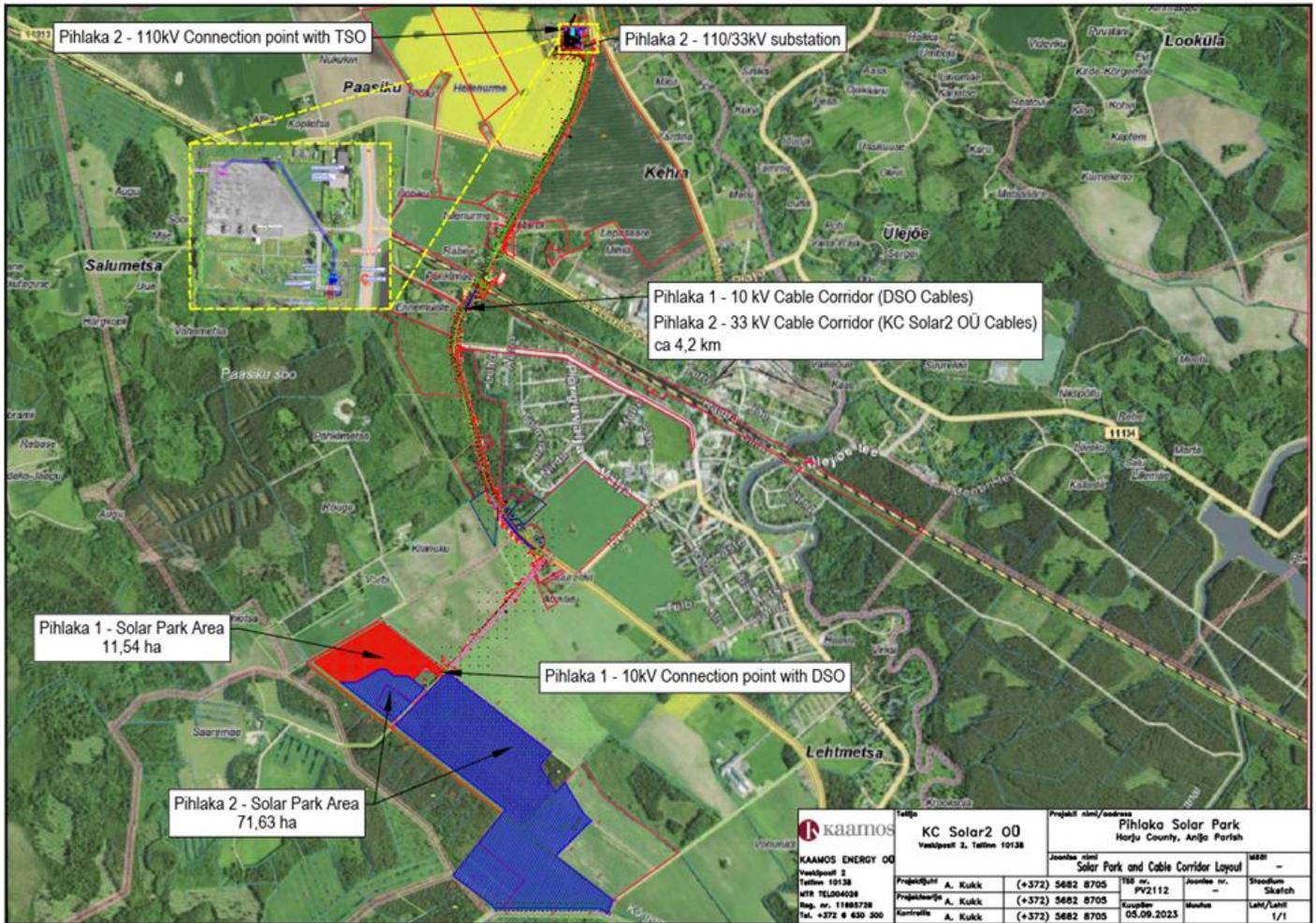


Figure 2 - Map of the Project Components



3. BACKGROUND

3.1. Rationale for the Project

Estonia is in the midst of a significant energy transition that will substantially reduce the role of non-renewable energy sources, such as shale oil, in the country’s future energy mix. However, the country still relies predominantly on domestically mined oil shale for electricity production, followed by natural gas and biofuels. Estonia has set the objectives to cease electricity production from oil shale by 2035, to phase out oil shale in energy production by 2040 and to reach climate neutrality by 2050. In order to achieve this, the country needs to diversify its economic activity away from fossil fuels and transition towards increasing renewable energy sources. As such, there is a requirement for new generation capacity and a positive context for development of solar projects within Estonia.

A number of national energy strategies have been adopted in Estonia to support the country’s transition towards increasing renewable energy sources. In 2017, the Government of Estonia approved the Estonian Energy Policy Development Plan until 2030, which outlines a number of national energy targets, including that electricity

generation from renewable energy sources will account for 50% of final domestic electricity consumption. The Project will support Estonia in reaching its renewable energy targets and contributes to the EU's objective of achieving climate neutrality by 2050.

The overall benefits of the Project are summarised below:

- **Energy Supply** – The Project is expected to benefit electricity users within Estonia, who will have better conditions of use. The Project will sell electricity at the market price in the day-ahead market or the intra-day market via electricity traders on the Nordpool market. Therefore, the Project will increase the reliability of the energy supply by increasing installed capacity and ensuring demand is met in times of elevated pressure.
- **Reduction in Greenhouse Gas Emissions and Improved Air Quality** – The Project contributes to the green transition as it will result in the generation of renewable energy, reducing the country's climate change impacts through the reduction of carbon dioxide emissions. Increasing Estonia's renewable energy supply will reduce emissions of air pollutants such as nitrogen oxides, sulphur dioxide, and greenhouse gas carbon dioxide, which will benefit local public health by improving air quality.

3.2. Compliance with Relevant Environmental and Social Laws

The Project is expected to meet the requirements set down by relevant national, EBRD and EU environmental, social, health and safety legislation and standards. The most stringent regulations and/or requirements (whether national, EBRD or EU) will be applied, in order to ensure environmental protection and community health and safety.

Specific environmental and social requirements are governed by the following legislative acts of the Republic of Estonia:

- Environmental Impact Assessment and Environmental Management System Act;
- Public Information Act;
- Employment Contracts Act;
- Environmental Code Act;
- Occupational Health and Safety Act; and
- Planning Act;

The International lenders involved with the Project require projects that they finance to meet the following international standards:

- EBRD Environmental and Social Policy 2019 and the EBRD Performance Requirements (PRs);
- EU Directives relevant to this Project, i.e., the EIA Directive, the Waste Framework Directive, the Birds and Habitat Directives, the Water Framework and Occupational Health and Safety Directives; and

- Good International Practice (GIP), particularly the IFC EHS General Guidelines, April 2007.

3.3. Environmental and Social Action Plan

An Environmental and Social Due Diligence (ESDD) of the design and construction of the solar PV Project has been undertaken in accordance with EBRD's Performance Requirements, EU standards and international best practice. The gaps identified have been used to develop an Environmental and Social Action Plan (ESAP) for implementation, which contains actions required to be implemented to align the Project delivery with EBRD requirements. KC Energy is committed to ensuring that the ESAP is implemented.

A disclosure pack comprising of this NTS, as well as a Stakeholder Engagement Plan (SEP) have also been developed. The SEP provides a framework for consultation activities and Project disclosure information including the identification of potential stakeholders, methods used for consultation activities and the records to be kept.

3.4. Project Design and Regulatory Compliance

Project design plans and applications have been submitted to Anija Municipality. Official correspondence confirmed that at this stage of the Project, no Environmental Impact Assessment (EIA) is required. The Design Conditions issued by Anija Municipality (20111002/15837), state that the Project meets the requirements according to the Construction Code and that the land has been assessed as not valuable. However, Anija Municipality have prescribed Project design requirements, including vegetation screening around the site to minimise visual disturbances and locating all Project components at least 20m away from public roads.

Construction Permits have already been issued by Anija Municipality for the Pihlaka 1 solar park (2312271/00951) and the Pihlaka 2 solar park (2312271/09537). The relevant permits and approvals that still need to be obtained for the Project are referenced in the ESAP, and will be obtained prior to undertaking activities for which they are required, inclusive of the following:

- Construction Notice for Cable Corridor; and
- Permit on Use.

3.5. Land Acquisition

The solar parks will be located in Anija Municipality across seven cadastres. All of the cadastres are owned by Raudlepa Põllud OÜ, which is a SPV of KC Energy. These land plots were all acquired between 2022 and 2023 through willing buyer-seller agreements. The land impacted by the construction of the cable corridor is owned by five different stakeholders. Four of the land plots are owned by public parties, including Anija County, Republic of Estonia Transport Administration, Estonian Land Board and Estonian Railways. A Personal Rights of Use has been signed in favour of KC Energy for all of these land plots. The final land plot is owned by a private landowner, who willingly gave consent to Anija Municipality to establish a land use agreement for the construction and maintenance of the cable corridor. A notarial deed on land use rights between the private landowner and KC Energy was signed in person on the 14th of April 2023.

4. ENGAGEMENT WITH STAKEHOLDERS

A disclosure period was held for the Pihlaka Solar PV Project, where all the Project information and design conditions were made public on the Anija Municipality website, inviting any comments and questions. Project information was displayed on the Anija Municipality website (<https://anija.ee/>) between the 15th– 29th December 2021. Prior to this, an article was published in the local newspaper advertising the dates and location of where the Project information was going to be displayed and when the public meeting was going to be held. However, no comments or suggestions were received during the period of public display of the draft order.

A public consultation session on the Pihlaka Solar Park was held on the 4th of January 2022 at Anija Municipality council hall. Meeting minutes of the consultation were recorded. The public session was chaired by the assistant village head and was attended by a number of affected landowners and members of the local community. A representative from Kaamos Energy attended the meeting and introduced the proposed Pihlaka Project including the design conditions. During the public session, questions were raised by the attendees about the solar PV technology, the lifespan of the Project and how the land was selected. Kaamos Energy shared the specific details of the Project and confirmed that all valuable agricultural land had to be excluded from the design conditions, meaning that only land classified as low value could be selected for the Project.

A consultation session has also been conducted with the landowners affected by the construction of the cable corridor for the two underground transmission lines required for the Project. This consultation was not a public procedure as only the affected landowners were formally notified and invited to the engagement session. An attendance list with the relevant contact details of the parties who attended this consultation was recorded.

The SEP that has been developed for the Project outlines future stakeholder engagement activities that will be undertaken by the company. Further details of the SEP are provided in Section 6 of this NTS.

5. SUMMARY OF ENVIRONMENTAL AND SOCIAL IMPACTS AND MITIGATION MEASURES

In general, the Project is expected to have minor environmental, health and safety and social impacts, which will be reduced through by the use of simple management controls that will be applied during the construction and operation of the solar plant. The key potential environmental, health and safety and social impacts associated with the development of the solar PV Project, as well as the related mitigation measures to manage these impacts are summarised in the Table below.

Table 1: Project Impact Assessment and Mitigation

Topic	Impact	Mitigation
Traffic and Transport	During construction roads may be busier resulting in minor disruption and a potential increase in emissions affecting local air quality, as a result of	A site-specific Traffic Management Plan (TMP) will be developed and implemented (to include dust control), to be followed by all contractors. The TMP

	<p>the release emissions from vehicle exhausts and maintenance procedures (oil changes, lubrications).</p> <p>Traffic impacts will be limited to the construction phase of the Project, mainly bringing goods and materials such as solar panels and associated equipment, workers, water tanks, switching chemical toilets and any maintenance materials and equipment.</p>	<p>will include adequate measures to mitigate transport-related impacts, including:</p> <ul style="list-style-type: none"> ▪ Avoiding works traffic during peak times; ▪ Limiting the speed of vehicles to minimise dust emissions and prevent road accidents; ▪ Limiting traffic movements in settlement areas to daytime only; ▪ Earmark parking spaces; ▪ Regular maintenance of vehicles to be carried out offsite; ▪ Refuelling of vehicles and machinery to be carried out in designated areas; and ▪ Vehicles and equipment will be switched off when not in use, and not left running to reduce emissions and save fuel use.
Waste	<p>It is not envisaged that there will be a large amount of waste generated by the Project beyond general construction waste material (i.e., packaging, litter). A contractor will be responsible for removal of the rented equipment for heating, toilets etc. on site. Wastewater will also be taken away by the contracted company.</p> <p>One potentially hazardous waste stream generated will be broken solar PV panels.</p>	<p>A Waste Management Plan (inclusive of wastewater) will be developed and implemented. The Waste Management Plan will include additional information with regards to the description of each waste type generated throughout the life of the plant, key personnel and responsibilities for waste management, waste management action for different waste types (reusing, recycling, recovery and disposal) and estimation of the quantity of each different waste type expected to be produced. Waste will be removed from the sites using a legitimate and reputable waste contractor, to an appropriate facility.</p>
Water	<p>It is not expected that the Project will impact water local supply. Water use during the construction phase will mainly be limited to welfare activities. The solar panels will be self-cleaning via wind and rainwater, so will not require water use.</p> <p>Located approximately 150m west of the Project site is one of the main canals which directs additional water to the Ülemiste Water Treatment Plant. There is a small risk that wastewater generated from the construction activities may enter this water body if it is not appropriately managed.</p>	<p>The Construction Contractor will implement run-off management practices during the construction phase to prevent run-off from entering the canal and nearby water bodies.</p>
Soil	<p>The construction activities associated with the Project may result in the loss, erosion or contamination of arable soil.</p>	<p>Mitigation measures to reduce the risk of soil erosion and contamination will be implemented by contractors to prevent the accidental discharge of wastewaters to the local environment and the loss of soil resource. This will include:</p> <ul style="list-style-type: none"> ▪ Soil stockpiling;

		<ul style="list-style-type: none"> ▪ Segregation and storage of topsoil and subsoil retrieved from construction areas; ▪ Reinstating all disturbed areas with topsoil; and ▪ Storing all materials, equipment, fuel and oil in designated and secure storage areas.
Community Health, Safety and Security (Air Quality, Dust, Noise and Vibration)	<p>Air pollution may arise as a result of dust emanating from vehicle movements and other construction activity. Noise and vibration levels may also increase during the execution of construction works, particularly during site clearance procedures.</p> <p>Community impacts also include reduced safety and security of local residents from increased road traffic and labour influx.</p> <p>However, these impacts are limited to the construction phase of the Project.</p>	<p>A Project Construction Environmental and Social Management Plan (C-ESMP) will be developed and implemented to mitigate site specific environmental, health and safety and social impacts. The plan will include measures to reduce emissions, noise, dust, water management, hazardous materials management, traffic, H&S, site security, labour influx and outline environmental inspection, monitoring and auditing tasks and schedule.</p> <p>A Project community grievance mechanism has been developed as part of the SEP to ensure that issues can be raised and mitigated.</p>
Biodiversity	<p>On the Pihlaka 2 site, around 100 trees will need to be cut down to make space for the Project and prevent shading over the panels.</p> <p>The Project sites and associated facilities are not situated within any protected areas. One of the closest nature protection sites to the site is the Jägala river, which is located approximately 1.8km east of the Project site. It is not anticipated that the Project will impact any of the identified protected areas as the site is located far enough away. Additionally, the majority of the land plot has been under regular seasonal agricultural production, so it is unlikely that the site is a key habitat for wildlife.</p> <p>Potential impacts on avifauna are reduced as the transmission lines will be underground.</p>	<p>A pre-construction biodiversity walkover will be undertaken to identify any potential nesting birds and/or fauna that may be disturbed during vegetation clearance. Additionally, all tree felling required for the Pihlaka 2 site will be conducted outside of bird nesting season.</p> <p>To mitigate the risk of destroying, displacing or disturbing local flora and fauna during construction, all contractors and subcontractors will:</p> <ul style="list-style-type: none"> ▪ Fence off storage areas; ▪ Avoid the use of chemical herbicides to prevent run-off into nearby water bodies (e.g., Jägala river & canal); ▪ Safe storage of materials and/or chemicals; ▪ Cover trenches and holes or provision of exit and escape routes; ▪ Site clearance (e.g., removal of vegetation, trees and hardstanding /boulders, etc.) will be undertaken in a sensitive manner so as to not kill or injure animals; ▪ Where possible, mature trees/scrub and rock piles/boulders will be retained; and ▪ During the construction and operational phase, lighting will be kept to a minimum and directed away from retained shrubs and trees. <p>During the operational phase of the Project, specific biodiversity measures will also be in place, including fencing that allows small mammals and fauna to pass safely underneath the area, the use of non-invasive maintenance techniques and avoiding the use of pesticides.</p>

Landscape and Visual	The sensitivity of the site as a landscape receptor is considered to be low. The landscape is not protected and is not considered to be important in a local context. Additionally, the majority of the Project site is already surrounded by trees and vegetation, minimising visual impacts on the residents located nearby.	KC Energy will implement and integrate the Project design requirements prescribed by Anija Municipality, including vegetation screening around the site to minimise visual disturbances and locating all Project components at least 20m away from public roads.
Occupational Health and Safety (OHS)	It is not expected that there will be any major or serious operational OHS risks. However, during the construction period, high-risk activities for the construction workers include exposure to electrical hazards and risks of electrocution; working at height; exposure to physical hazards from use of heavy equipment and machinery; trip and fall hazards; exposure to noise and dust; and exposure to hazardous materials.	An OHS plan will be developed and implemented by the Construction Contractor to minimise the risk of accidents and incidents, ensure a safe working environment and promote the health of workers and safe use of equipment. Additionally, an Emergency Preparedness and Response Plan will be implemented, that takes into account different emergency situations and potential accidents in consultation with all relevant parties such as contractors, sub-contractors, local emergency service providers and control authorities.
Labour and Working Conditions	Poor management of contractor and subcontractor workers pose health, safety and security risks to both workers and members of the community.	KC Energy will adopt a Human Resources (HR) Policy and a Code of Conduct to govern the behaviour of personnel at site. The Code of Conduct will include statements on non-discrimination, gender-based violence and harassment, workers organisations, workers' rights, child/forced labour and non-employee workers. The policies will be applicable to contractors and subcontractors and included in their contract for the Project. A separate Worker Grievance Mechanism will also be available for all Project workers to raise any issues or complaints.
Land Acquisition and Resettlement	No physical or economic displacement is associated with the Project. The Pihlaka 1 site exhibits no signs of formal or informal land-use. Pihlaka 2 is currently being rented by a local farmer under a fixed term rental agreement. There is no current formal or informal land use along the cable route and there will be no displacement of activities, temporary or otherwise. However, the landowners affected by the construction of the cable corridor may experience minor disturbances (noise, traffic, dust etc.) during construction and operation (maintenance).	A SEP has been developed for the Project which details a programme of immediate consultation and engagement activities, including for landowners affected by the construction of the transmission lines, required to address current stakeholder concerns, as well as regular consultation and disclosure activities throughout the Project life cycle. A Project community grievance mechanism has been developed as part of the SEP that will be shared with the affected landowners so that they can easily raise any concerns.
Pressure on Social Infrastructure and Services	Given that the Project does not require large quantities of water or additional resources, no extended pressures will be felt on local social infrastructure or services.	No required mitigation measures.

Cultural Heritage	No significant impact to historical or cultural heritage has been identified. No objects important to cultural heritage are in the boundaries of the site or cable corridor.	A Chance Find Procedure will be developed and implemented to prepare for any chance findings and ensure that no cultural heritage sites or assets are affected.
Supply Chain	There are potential risks that the Project solar panel suppliers use child/forced labour. However, the company has a Supply Chain Director who is responsible for managing all procurement and supply chain risks and a supplier Code of Conduct to ensure that suppliers operate in accordance with internationally recognised minimum standards on human rights, labour and the environment.	EBRD is conducting a supply chain due diligence for PV panel suppliers for both Pihlaka 1 and Pihlaka 2 Projects. Gaps identified as the result of the assessment will be turned into a corrective action plan if needed. The existing company Supply Chain Management System will be implemented to mitigate risks of child/forced labour in the supply chain.

Environmental and social monitoring will be implemented both during construction and operation of the Project. KC Energy will require its construction contractors to monitor relevant environmental issues of their operation (e.g., implementation of suggested mitigation measures required to mitigate dust emission, control noise levels, prevention of spills and leakages, proper traffic management etc.). The KC Energy E&S Manager will monitor and report on contractor’s environmental, health and safety and social performance.

6. COMMUNICATIONS

6.1. Stakeholder Engagement Plan

A SEP has been prepared for the Project, which identifies relevant stakeholders, defines communication channels and future engagement activities to be carried out prior to and throughout the construction of the solar PV Project.

The SEP aims at summarising the methods, procedures, policies and activities that will be implemented by the Client to inform stakeholders, in an inclusive and timely manner, about the potential impacts of the Project.

The SEP contains a stakeholder identification table where all relevant stakeholders are identified, detailing the most appropriate communication channels and strategies, information disclosure requirements and grievance processes that will be adopted. If there are stakeholders who are not included in the SEP, they can get in contact with KC Energy to receive information about the Project and be added to the stakeholder engagement programme.

The SEP includes a programme of immediate consultation and engagement activities required to address current stakeholder concerns, as well as regular consultation and disclosure activities throughout the Project life cycle. In addition, the SEP has a Project-specific grievance mechanism, the details of which are provided in the next section.

6.2. Grievance Mechanism

A grievance mechanism will be implemented to ensure that the Client is responsive to any concerns and complaints particularly from affected stakeholders and communities. Special care will be focused on the training of the designated staff involved in the management of the grievance mechanism. This grievance mechanism covers members of the public, Non-Governmental Organisations (NGOs), local residents and any other relevant stakeholders. A separate worker grievance mechanism is available for all Project workers, including contractors and subcontractors.

The SEP developed specifically for this Project contains the details of the grievance mechanism, which also allows for the submission of anonymous complaints. Any complaints, comments or concerns can be brought to the attention of the company verbally (phone or in-person), or in writing (by post or e-mail), or by filling in a grievance form included in the SEP.

All grievances will be categorised and recorded in a confidential Grievance Log. Each grievance will be recorded in the register with the following information:

- Description of grievance;
- Date of receipt / acknowledgement returned to the complainant;
- Description of actions taken (investigation, corrective measures); and
- Date of resolution and closure / provision of feedback to the complainant.

Receipt of grievances will be acknowledged within 10 working days from their submission and responses will be provided no later than within 30 working days. At all times, complainants are also able to seek legal remedies in accordance with local laws and regulations.

7. CONTACT INFORMATION

Contact information for general enquires and grievances are as follows:

KC Energy E&S Manager	
Name:	Mihkel Loorits
Address:	Veskiposti 2, Tallinn, Estonia, 10138
Phone:	+372 5565 3326
Email:	mihkel.loorits@kaamos.ee
Website:	www.kcenergy.ee