ST. GEORGE PV POWER PLANT

Municipality of Silistra, Polkovnik Lambrinovo village, Bulgaria

Preliminary Environmental & Social Impact Assessment (ESIA):

Volume I – Non-Technical Summary (FINAL DRAFT)

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Contents

PREFACE 7

1. INTRODUCTION 8

1.1. Project background 8

1.2. Importance of the Project 8

2. PROJECT DESCRIPTION 9

2.1. Project location 9

2.2. Project description 12

2.3. Project phases 14

2.4. Land ownership 15

2.5. Site conditions and land use 15

2.6. Alternatives 15

2.7. Project Schedule 17

3. ASSESSMENT APPROACH 17

3.1. Legal and policy framework 17

3.2. Assessment methodology 18

3.3. Stakeholder engagement 18

3.4. Grievance mechanism 19

4. SUMMARY OF IMPACTS AND MITIGATION MEASURES 21

4.1. Positive impacts and enhancements 21

4.2. Construction nuisance (noise and air quality) 21

4.3. Solid waste and hazardous materials 21

4.4. Water use and wastewater quality 22

4.5. Traffic and Transportation 22

4.6. Soils 23

4.7. Cultural heritage 23

4.8. Biodiversity 24

4.9. Labour influx Community health and safety 25

4.10. Occupational health and safety 25

4.11. Labour and supply chain 26

4.12. Emergency preparedness and response 26

4.13. Land requirements 26

5. ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING 27
6. CONCLUSION 28

List of Figures

Figure 1: Project Location 9
Figure 2: Project Site relative to surrounding administrative areas 10
Figure 3: Project Site Layout 11
Figure 4: St. George subsites and PV substation and indicative routes of "Pelikan" and "Dorostol" 110kV OHTL interruption points 13
Figure 5: St. George West Site Layout 13
Figure 6: St. George East Site Layout 14
Figure 7: Alternative access options 16
Figure 8. Grievance Mechanism for the Project (Source. Stakeholder analysis) 19

List of tables

Table 1: Plant and subsites total installed DC and Maximum AC Capacity 12
Table 2: Project ESIA Schedule 17
Table 3: Significance of the Impacts 18

List of Acronyms and Abbreviations

Name	Description
AoI	Area of Influence
CBO	Community-Based Organisations
CLO	Community Liaison Officer
EHSS	Environmental, Health & Safety and Social
EIA	Environmental Impact Assessment
EPA	Environment Protection Authority
EPC	Engineering, Procurement and Construction
E&S	Environmental and Social
ESAP	Environmental and Social Action Plan
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
ESP	Environmental and Social Policy
ESDD	Environmental and Social Due Diligence
EU	European Union
HUB	Hub substation
GBVH	Gender-Based Violence and Harassment
GIIP	Good International Industry Practice
GM	Grievance Mechanism
IFC	International Finance Corporation
KPI	Key Performance Indicator
LCOE	Levelized Cost Of Electricity
NTS	Non-technical Summary
O&M	Operations and maintenance
OHSP	Occupational Health and Safety Plan
OESMP	Operational Environmental Management Plan
OESMS	Operational Environmental Social Management System
OHTL	Overhead Line
PR	Performance Requirement

PS	Performance Standard
PV	Photovoltaic
SCBIM AON	Societatea de Cercetare a Biodiversitatii si Ingineria Mediului AON
SEP	Stakeholder Engagement Plan
SPV	Special Purpose Vehicle
SUS	Step-up Substation
TTMP	Temporary Traffic Management Planner

PREFACE

The **St. George PV Project** is a proposed photovoltaic (PV) power plant. The developer is Rezolv Energy (the "Company"), an independent clean energy power producer funded by Actis Eastern Europe Energy S.a.r.l. (https://www.act.is/). Resolv Energy has set up a special project vehicle (the "Project Company") R-Engineering EOOD as the entity responsible for the development of the St. George PV Project (Phase I and Phase II) (hereafter described as the "Project").

This document is the non-technical summary (NTS), which aims to summarise the key information and outcomes from the ESIA process. This NTS aims to present clearly and simply the findings and conclusions of the environmental and social (E&S) impact assessment and public consultation process.

Information disclosure on the draft of ESIA (v 3.0) was conducted in March 2024, and copies of the NTS in English and Bulgarian were placed for viewing in local communities. This updated NTS (v 4.0) incorporates feedback on comments raised during that process. This final draft (v4.0) will be posted online and in local communities. Resolve Energy will also fully disclose this NTS and ESIA documentation version on their website.

Questions or comments can also be addressed via the channels outlined below.

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1. INTRODUCTION

1.1. Project background

The **St. George PV Project** started being developed in 2009 when the American Company Applied Energy Services (AES) planned to build a photovoltaic (PV) power plant with an installed capacity of 80 MW. Development by AES stalled in 2009, and active work for developing the Project (as currently structured and described below) started in 2020.

The current developer is Rezolv Energy (the "Company"), an independent clean energy power producer funded by Actis Eastern Europe Energy S.a.r.l. (https://www.act.is/) . Resolv Energy has set up a special project vehicle (the "Project Company") R-Engineering EOOD as the entity responsible for the development of the St. George PV Project (Phase I and Phase II) (hereafter described as the "Project").

For development purposes, the photovoltaic (PV) power plant (hereafter described as the "Project") has been split into two "phases" or "PV power plants" to be built over relevant parts of the Project Plots:

(i) Phase 1 - PV power plant with a capacity of 99,5 MW_{AC} - "St. George East"
(ii) Phase 2 - PV power plant with a capacity of 99,5 MW_{AC} - "St. George West"

The combined phases will cover an area of 164,20 ha (excluding the overhead line routes) and have an overall installed capacity of approximately 229MWp. Based on international lender categorisation criteria, the Project could qualify as a 'Category B' Project. Category B projects require the assessment of environmental and social impacts. An environmental and social impact assessment (ESIA) has been prepared as follows:

- Volume 1: Non-technical summary (NTS) (this document)
- Volume 2: Environmental and Social Impact Assessment (ESIA) - Main Text, Tables and Figures
- Volume 3:Supporting Appendices (including Environmental and Social Management Plan, Stakeholder Engagement Plan, Biodiversity Baseline Report and noise baseline report)

A formal E&S assessment, according to Bulgarian environmental legislation, was not conducted. The decision of the competent environmental authorities was that an Environmental Impact Assessment (EIA) is not required for the various components of the Project, each component following an individual permitting procedure.

1.2. Importance of the Project

Bulgaria has been significantly exposed to the energy crisis as the country's energy mix relies heavily on fossil fuels, particularly coal, for electricity generation and crude oil products for transportation. With a high dependence on Russian oil and gas imports, Bulgaria saw a staggering increase in gas, power and fuel prices, intensifying social and political instability.

Given the global nature of the processes of climate change, the policy of Bulgaria in the area is determined by the international commitments undertaken by the country's ratification of the UN Framework Convention on Climate Change and the Kyoto Protocol on the one hand and the other – by the European legislation in this area.

Bulgaria actively participates in the global efforts to mitigate climate change and adapt to the changes already occurring. Since 2014, the Climate Change Limitation Act has been active. The Third National Action Plan on Climate Change is being implemented, and a national adaptation strategy is being prepared. Bulgaria participates successfully in the European trading scheme for greenhouse gas emissions with 127 installations nationwide.

Bulgaria is updating its policy to promote investments as part of the ambitious EU target of a 32% share for renewables. In Bulgaria, the photovoltaic installed capacity is targeted to triple by 2030. Solar PV will drive the RES sector, which is projected to grow to 27% of gross energy consumption by 2030. This investment is, therefore, of particular importance for the fulfilment of Bulgaria's RES policy objectives as part of its obligations under Directive 77/2001/EC, part of the EU accession agreement. The growing RES sector and Solar PV attract investors in Bulgaria due to the country's:

- favourable conditions and location
- low tax rates
- low land prices
- favourable policies and legislation.

2. PROJECT DESCRIPTION

2.1. Project location

The Site is located in North–East Bulgaria, in Polkovnik Lambrinovo (P.Lambrinovo), 5 km south of Silistra in the Silistra District.

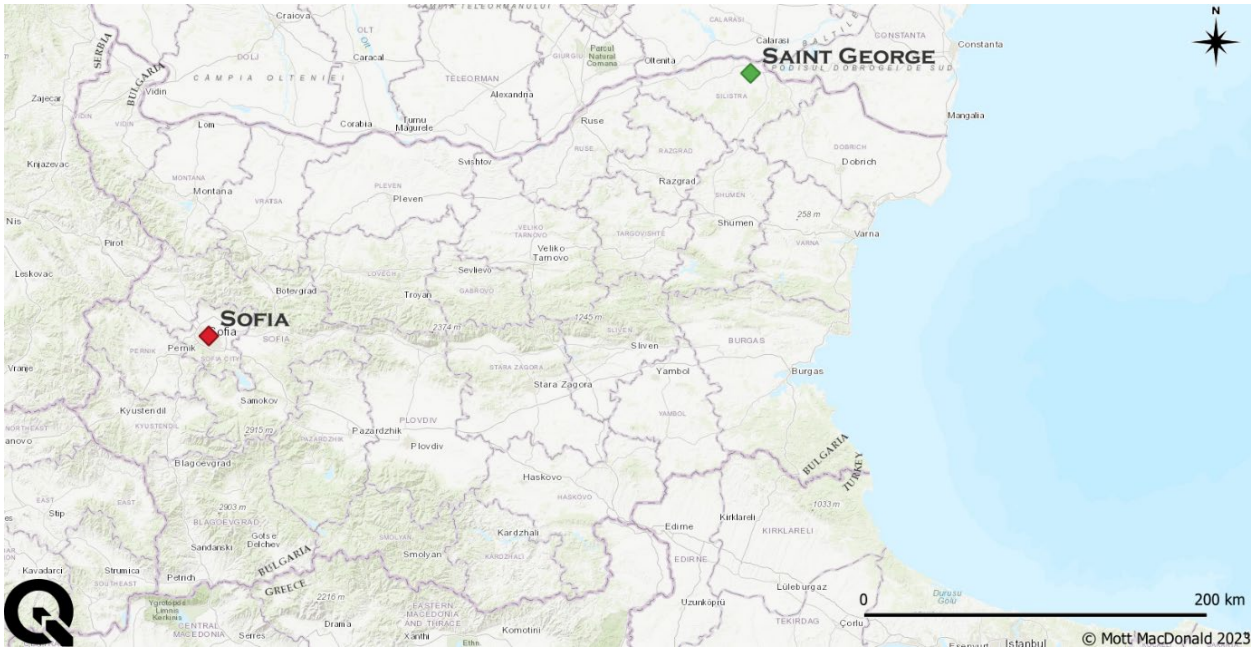

Figure 1: Project Location

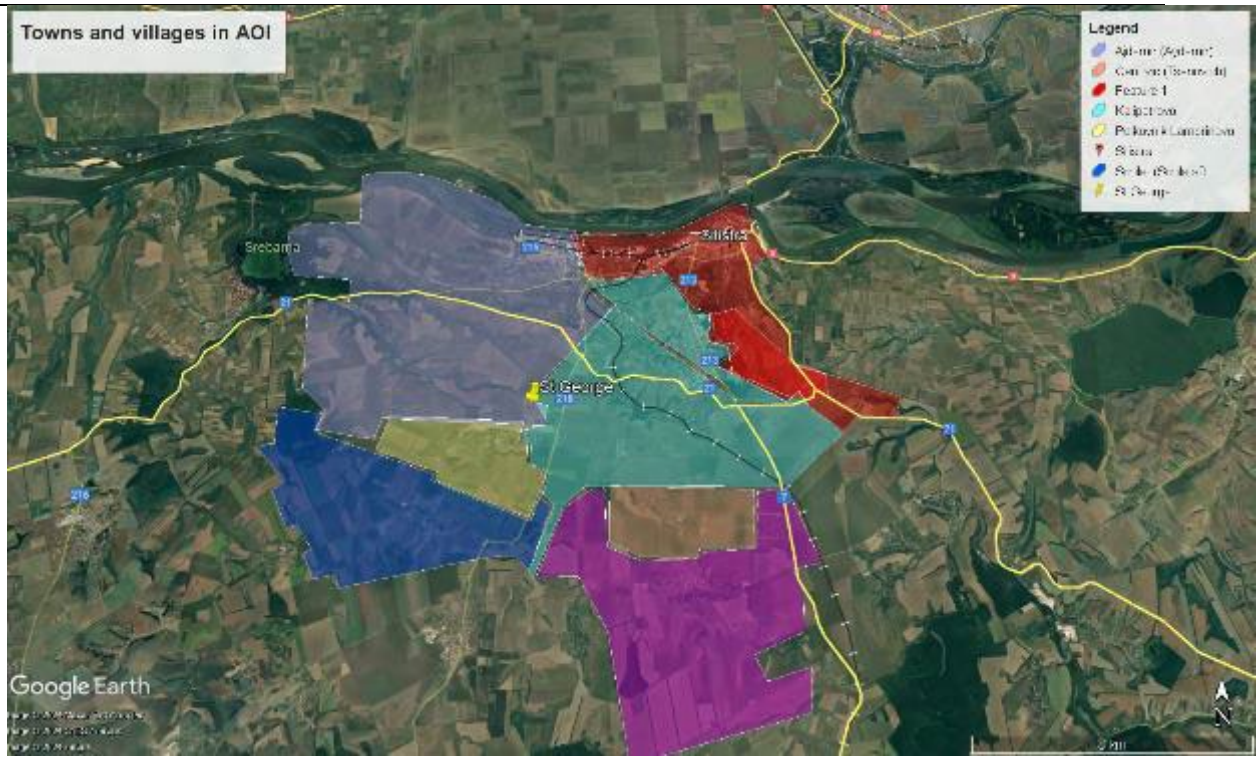

Figure 2: *Project Site relative to surrounding administrative areas*

The Site covers an area that includes an approximately 2.5 km runway, a passenger terminal adjacent infrastructure and a former government owned airfield. The land was used by Silistra Airport, which was closed in 2000. The Site boundary and layout and OHLT routes are illustrated in Figure 3.

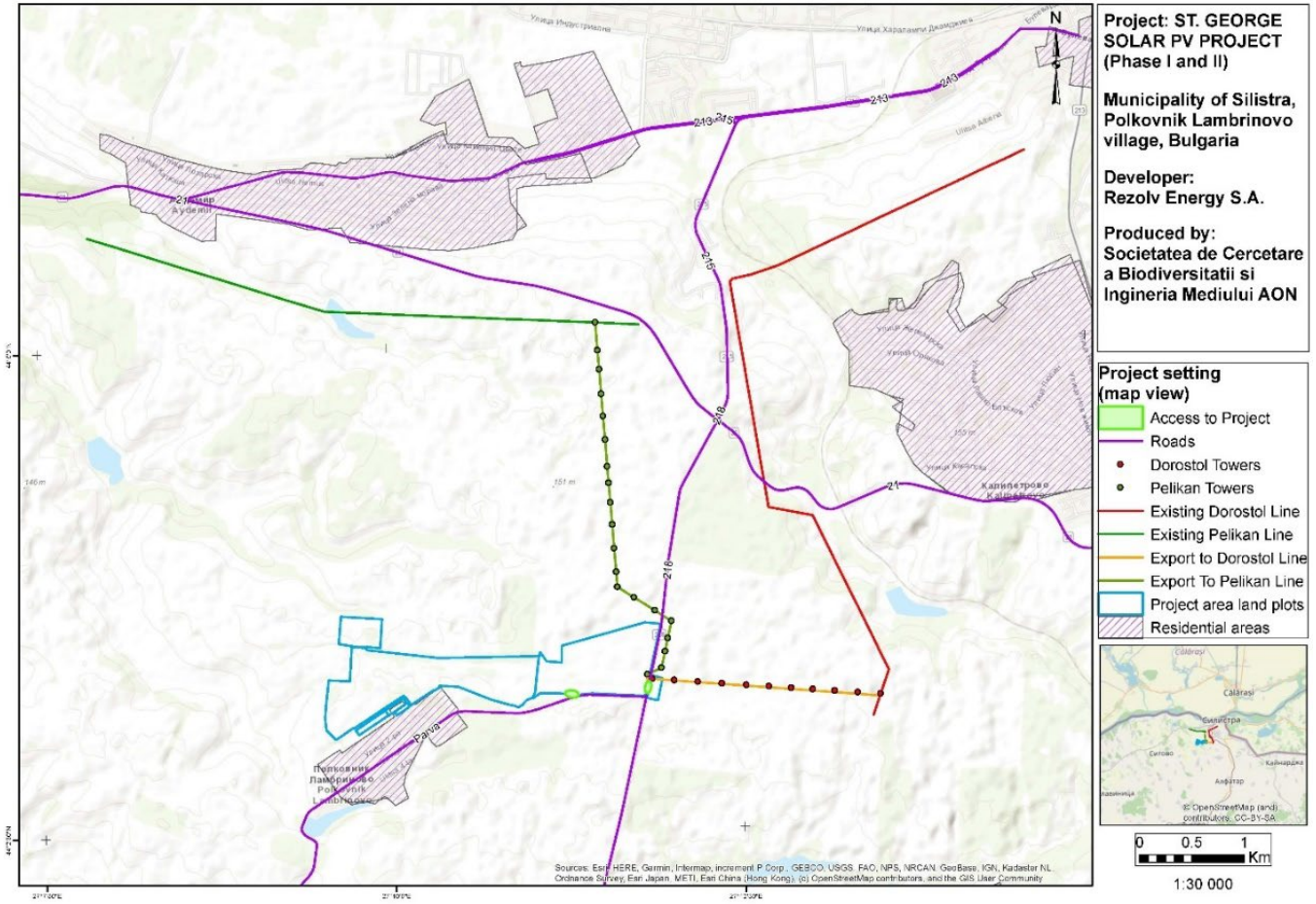

Figure 3: Project Site Layout

Administratively the projects are in the Silistra Region, and project infrastructure affects the districts of Polkovnik Lambrinovo, Smilets, Aydemir and Kalipetrovo communities, which are identified as directly affected communities "AOI communities". There are two other communities in the region that may incur secondary (indirect) positive and negative impacts (Tsenovch and Silistra). The landscape character of the areas is dominated by the airfield apron and agricultural plots in the north and south. There are no residential properties within the PV site area. The majority of the area was closed off to the public while it was operating as an airfield. The character of the landscape is already affected by the presence by man-made constructions, field elevations, etc. and is considered to be modified habitat[1] as per IFC PS6[2]. The topography of the site is characterised as flat.

2.2. Project description

Photovoltaic (PV) power uses solar panels to convert sunlight into electricity by converting solar radiation into DC electricity. PV inverters convert the direct current that will be transformed into alternating current via transformers to raise the voltage from Low Voltage (LV) to Medium Voltage (MV). The Maximum AC Capacity (MW at power factor 1), as per Table 1 below is defined as the sum of the AC power of the inverters as follows.

Table 1: *Plant and subsites total installed DC and Maximum AC Capacity.*

Subsite	Installed Capacity (MWp)	Maximum AC Capacity (MW)
St. George East	114.55	99.5
St. George West	114.55	99.5
Overall Plant	**229.10**	**199.0**

The Project comprises two subprojects, which have been split into St. George East and St. George West. The rationale for splitting the Project into two phases is to enable the Project to use more than one EPC contractor for the construction process if needed and to provide greater flexibility for construction scheduling. The Project includes the following Project elements:

- PV Plant Phase I
- PV Plant Phase II
- Step-up Substation (SUS) - one substation with two step-up transformers
- Hub substation "Smilets" (HUB)
- 110 kV double circuit Overhead Line (OHTL) "Pelikan" connecting to existing 110 kV OHTL "Silistra to Tutrakan" via "loop in loop out" "LILO" connection.
- 110 kV double circuit OHTL "Dorostol" connecting to existing 110 kV OHTL"Silistran to Dorostol" via "LILO connection.
- Supporting infrastructure (e.g. office and welfare facilities, security system, fencing, drainage, internal road network).

[1] Modified habitats are areas that may contain a large proportion of plant and/or animal species of non-native origin, and/or where human activity has substantially modified an area's primary ecological functions and species composition.
[2] Further explanation is provided in the biodiversity impact assessment.

The Project will have a robotic dry-cleaning system (RCS) based on the final selected PV module. The RCS will be fully automated with no requirements for any labour during operation and will be operated by the auxiliary power generation unit. The RCS will not require any water consumption under operation, although there may be water use for cleaning the RCS equipment quarterly; otherwise, plant performance will be degraded. For wet cleaning, small amounts of water per PV module are required. The whole process is not expected to use additives that might alter the water quality. Nevertheless, in case of usage, it must be biodegradable with low environmental impact, contain no volatile organic compounds (VOCs) phosphate and be chlorine-free.

Figure 4 below shows the location of each of the Project components, including the Step-up Substation (shown as *"Step-up Substation"* the Hub Substation "Smilets" and the double circuit lines leading to the interruption points with the existing OHLs "Pelikan" and "Dorostol.

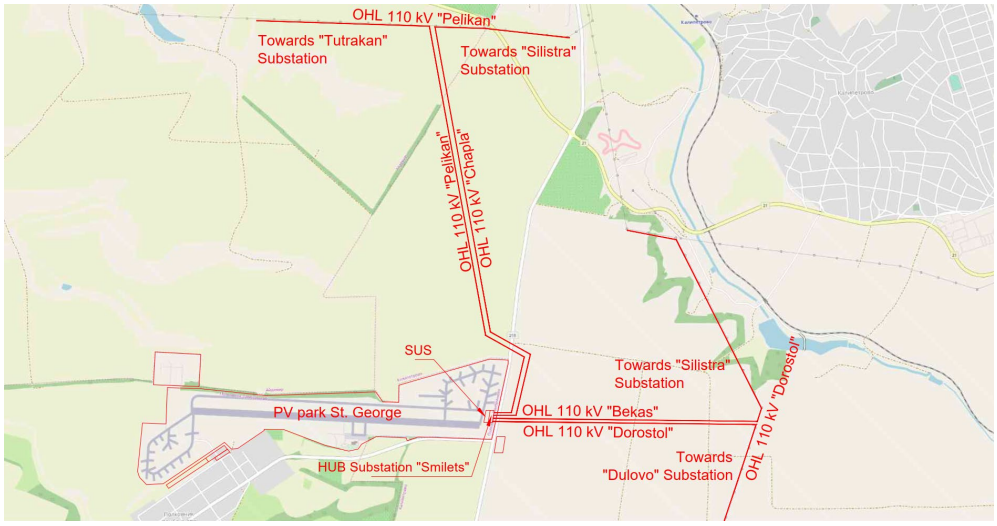

Figure 4: St. George subsites and PV substation and indicative routes of "Pelikan" and "Dorostol" 110kV OHTL interruption points

Figure 5: St. George West Site Layout

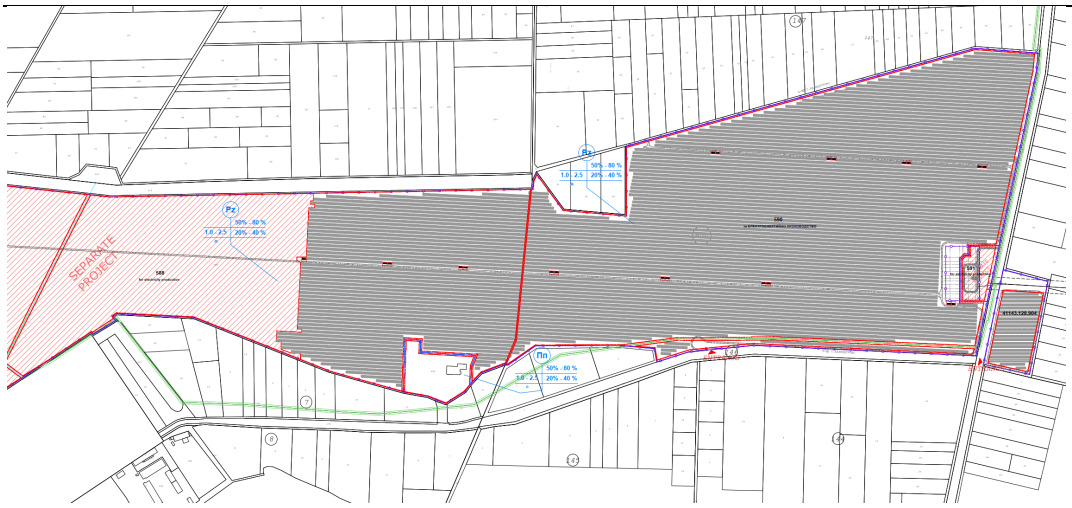

Figure 6: *St. George East Site Layout*

The Solar PV Power Plant 199MW is composed of:

- PV panels (including steel mounting structures, trackers, string inverters and transformers) - the PV modules shall be bifacial crystalline silicon
- Low voltage (LV) cables
- Medium voltage (MV) cables
- Earthing system components

There are no specific setback requirements for the PV Panels to the Site's boundary. Most low-voltage cable routes will run above the ground on the mounting structures, leading to medium-voltage cables running in trenches (directly buried or under a road, depending on the section).

The PV Plant's monitoring and control system will be based on open products on the market and will include the SCADA and the Plant's control system, as well as all the necessary equipment to communicate with the rest of the Facility's systems. Most of the internal roads will utilise the existing asphalt surfaces; however, some new gravel roads will be required. Supporting infrastructure will include:

- New drainage system (Site-wide)
- On-site buildings (operational control centre, office, welfare facilities, and first aid facilities) are within the control room.
- Diesel generator for emergency power supply (located adjacent to the central control room
- Emergency response (fire suppression, hydrants, water storage tanks)

Demolition of existing buildings and site clearance

All existing buildings required to be removed for the Project were removed in the first half of 2023, including their foundations; all debris from demolition was removed from the Site to a temporary unauthorised disposal location. The Project has committed to relocating the demolition waste to a permanent disposal location, and discussions on this topic are ongoing.

2.3. Project phases

The Project is developed in the following phases:

- Development (including assessment of technology and supplier options, contracting strategy, technical feasibility, E&S assessment, permitting and financing) (current phase)

- Mobilisation (including detailed design, project implementation activities, local permit requirements, procurement and contracting).
- Construction (including site setup, clearance and excavations, construction and commissioning).
- Operation
- Decommissioning

2.4. Land ownership

Following privatisation in 2005, land acquisition for the mainland plots for the St. George Phase I and II areas started in 2009. The land plots were purchased from different owners, including private landowners, the state and the municipality. Until 2022, the Company held title over the Project Plots and the Foundation Land Plots. In August 2022 YGY Industries purchased the Project Plots and Foundation Land Plots from the Company and is the current owner thereof. Privately owned land is rented by the Project Company for the Project's lifetime.

The land for Pelikan and "Dorostol" Cable lines were acquired via easement agreements concluded starting 2009 and compensated in 2012 via Decisions from the Municipality of Silistra.

2.5. Site conditions and land use

Most of the PV land plots had the status of urbanised land plots, being part of a former airport owned by the Bulgarian state at the time the state sold them. However, two of the Project Plots (LP 586 and LP 904 with a total area of 41,901 sqm.) had the status of agricultural land. Orchards are present within the boundary of the project area. There are orchards only in the southern direction of the territory between the airport ramp and the western part of the territory and are expected to remain. After clearing the vegetation, 2 strips of trees are available within the boundaries of the territory - northern and southern. They are mainly occupied by acacia, which is mixed with wild plums, walnuts, gledicia.

There were several existing buildings (24 buildings) on the Project Plots at the beginning of the design project. Existing buildings were removed in February 2023 before the Project Company acquired the Project. The airport tower is not currently understood to be earmarked for demolition and will not be part of the PV Project. Two abandoned buildings at the entrance to the site were demolished in May 2023. Demolition included removing building foundations, and all debris from the demolition was removed from the site. Soil mounds around parking lots for planes were cut, and soil was spread within the site and used to backfill lower areas.

Plots along the OHL route are categorised as atgricultural for the Pelikan and Dorostol OHTL routes

2.6. Alternatives

The analysis of alternatives consisted of a systematic comparison of feasible alternatives to the Project in terms of:

- Location
- The technology used in the proposed Project
- Design, in terms of potential environmental Impact.
- Access road entry

Alternatives for the Project have been studied so that the significant effects on the environment disappear or are diminished, and the specific applicable measures reduce their number and significance.

Concerning site access, three possible access points are identified, including:

- Access option 1 - New access directly from R 218 (east of the Site)
- Access option 2 - New access from south
- Access option 3 - New access from Southwest

The final option is not determined at this time; however, the Project company is committed to minimising the use of Access 3 as a backup access point only to minimise impacts to the local village.

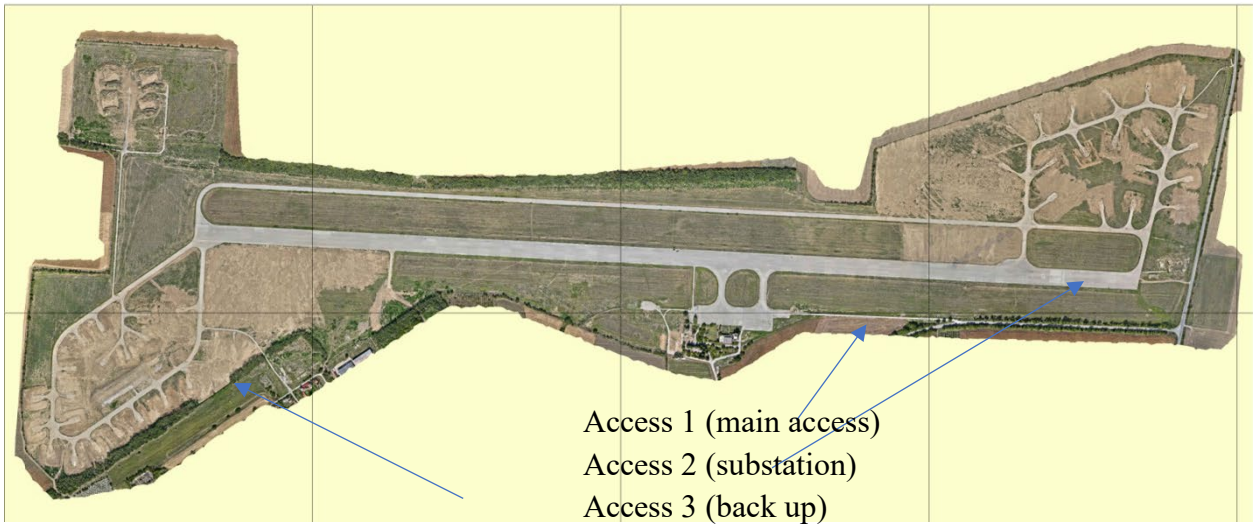

Figure 7: *Alternative access options*

2.7. Project Schedule

Table 2 summarises the key achieved or proposed milestones for the ESIA and the Project.

Table 2: *Project ESIA Schedule*

Activity	Date
Scoping	October 2023
Engagement on requirement for national Environmental Impact Assessment (EIA)	2009 to 2022[3]
Completion of draft Environmental and Social Impact Assessment (ESIA) and disclosure of non-technical summary (NTS) in the Project area	February 2024
Lender disclosure period (NTS, ESIA, ESMP)	April 2024 (duration of 30 days)
Finalise ESIA (including public consultation comments, Lender comments and ongoing studies)	April 2024
Financial close	April/May 2024
Finalise LRP and any outstanding compensation obligations for alignment with IFC PS5 (as applicable)	May 2024
Finalise Project Company and EPC-ESMS (pre-construction)	May 2024
Construction Start	June 2024
Commissioning	January to July 2025
Commercial Operation Date	July 2025
Expected Lifetime	25 years (2025 to 2050)

3. ASSESSMENT APPROACH

3.1. Legal and policy framework

The Project was assessed according to the national regulatory framework and the requirements of International Finance Corporation (IFC) Performance Standards (PSs), international environmental conventions and Good International Industry Practice (GIIP). Reference has also been made to IFC Performance Standards (IFC PSs). Based on international lender categorisation criteria, the Project could qualify as a 'Category B' Project.

[3] Project has acquired statements from the Environment Protection Agency, branch of the Ministry of Ecology and Waters, that the Project does not pose a threat to the wildlife and biodiversity and no EIA study must be conducted. Project must follow the specific measures listed in the statements issued by the Environment protection agency, the general laws and rules for construction and operation of the PV plant and the grid connection facilities - Decision RIEW №РУ-91-ПР-2022 dated 7 September 2022 re lack of EIA for Pelikan.pdf , Decision 102 of the RIEW dated 30 September 2022 re lack of necessity of EIA Dorostol.pdf, Ministry of enviroment and water_Resolution No PY-31-EO-2009 re LP 57251.500.586.pdf

3.2. Assessment methodology

The assessment determined significance by looking at the following criteria and assigning a high, medium/moderate, low and negligible category:

- Adverse and beneficial environmental and social impacts of the Project
- The importance and/or sensitivity of the environmental and social receptor (based on baseline data)
- The size of the Impact (including such parameters as duration, frequency, and reversibility).

Table 3 below demonstrates how these parameters are considered in assessing significance.

Table 3: Significance of the Impacts

Sensitivity of Receiving Parameter/Receptor	Magnitude and Nature of Impact			
	Negligible	Low	Medium	High
Low	Negligible	Negligible	Minor	Moderate
Medium	Negligible	Minor	Moderate	Major
High	Negligible	Moderate	Major	Major

The ESIA defined measures to avoid, reduce, or offset the significant adverse effects of the Project and then considering the effectiveness of the mitigation and management measures, the residual Impact was determined. For each topic the direct and indirect area of impact was defined informed by GIIP, the outcomes of scoping and the ESIA baseline data and ranged from 30m for elctrmagnetic field impacts, 250m for air quality and noise impacts to Silistra Province for socio-economic impacts.

3.3. Stakeholder engagement

The Company is committed to a technically and culturally appropriate approach to consultation and engagement with all stakeholders directly or indirectly affected by the Project. To assist this process, a separate Stakeholder Engagement Plan (SEP) has been prepared as part of the ESIA process, and it will be a live document that is updated and critical stages of the Project implementation. Stakeholder engagement activities will include meetings/communication with regional government bodies, consultation letters with relevant stakeholders, ESIA public meetings to disclose the findings of the draft ESIA (completed), feedback meetings to stakeholders, progress meetings and further consultation on land needs and focus groups and with community members. The key points raised during the ESIA disclosure meeting are summarised below, alongside a summary of how the ESIA addressed the findings.

- Employment opportunities – employment opportunities may be limited; however, any opportunities will be communicated to the local community, and a strategy for facilitating local hiring by the Contractor will be included in the ESMP.
- Loss of agricultural land - Livelihood impact assessment will be performed to assess impacts on livelihood and identify any supplementary restoration measures as necessary (PV site and OHLT) that are not covered by national regulations. The ESIA highlights that the OHTL impacts will be short-term and not extended over one year (maximum). Farmers may return to work under the OHTL in all areas except the permanent footprint of the towers.
- Operational noise – The project company will conduct further studies to model construction and operational noise at the project receptors. A strategy for managing operational noise is defined in section 4.2 below.

- Habitat restoration - a commitment has been added to the ESIA for restoring habitats (biodiversity corridors) around the Site's periphery (subject to health and safety considerations e.g. management of fire risk).
- Fire risk - The ESIA includes a section on fire risk, concluding that the fire risk is extremely low. Nevertheless, fire preparedness and response measures have been identified and will form part of an emergency response plan. The emergency response plan will include measures for interfacing with the community during a fire.
- Electromagnetic fields – the ESIA includes an assessment of risk from ESIA and from the OHLT and PV modules. During construction, no impacts are envisaged; during operation, no significant impacts are envisaged, and the Project company will issue further leaflets on working safety under OHLT and EMF risks to the community to support return to work under the line to minimise secondary livelihood impacts.
- Accommodation of workers - Rezolv committed to communicating with the municipality on the matter and has committed to prohibiting workers' accommodation in P. Lambrinovo. Workers are expected to be housed in the wider Silistra district or further afield. All Project accommodation offsite will be managed following the Project Accommodation Policy that aligns with international standards defined in IFC/EBRD requirements.
- Grievance feedback - Where a specific grievance is raised directly by a stakeholder, the stakeholder will get a direct response. The CLO will also report regularly and provide generation feedback responses via social media or community notifications and meetings. For questions raised during the open day and on the draft ESIA, the responses will be provided in the ESIA, and the CLO will also give feedback on specific responses to the community via a follow-up community meeting; see section 3.4 below.
- Community development -The Project will develop a community development plan in consultation with the local community during the construction phase for implementation during operation.

3.4. Grievance mechanism

Any concerns, issues, or questions ("grievances") any stakeholders may have can be raised to the Project via the "grievance mechanism" (GM). The GM sets out the project commitments to acknowledge, investigate and respond to all concerns. The Grievance mechanism for the Project is structured as follows:

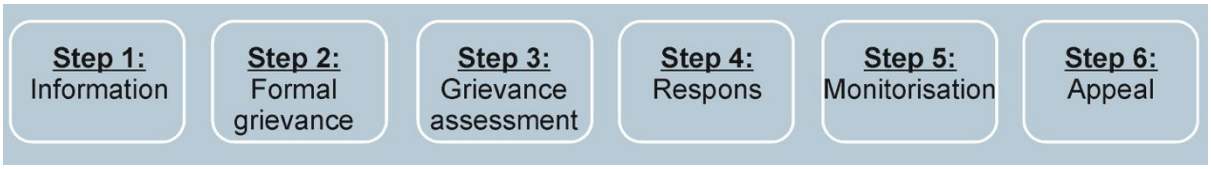

***Figure 8**. Grievance Mechanism for the Project (Source. Stakeholder analysis)*

The grievance mechanism for this Project is thought to be implemented following six main steps:

- **STEP 1:** The stakeholders are informed about the Project using formal and informal methods. During the quantitative survey and field visits, the main stakeholders are informed about the location of the future photovoltaic panels and are encouraged to offer feedback regarding the benefits and risks of the Project for the community. All these are summarised and detailed in Appendix 1 of this document.
- **STEP 2:** Following the field visits and the survey, the stakeholders are encouraged to formulate grievances if they have issues, concerns, or other specific complaints. The Grievance Form for this step

is found in Appendix 2 of this document[4]. This step of the Grievance mechanism for the Project ends with acknowledging the grievances. The team is actively reviewing the commitment to addressing it thoroughly and promptly.

- **STEP 3:** Following the official grievances, the CLO will assess priority and assign responsibility for resolution: significant concerns and incidents will be immediately brought to the attention of the management team; investigate the issues and identify suitable resolution. Tracking and logging each grievance will be recorded in a grievance log[5]. Each grievance will be given a unique identification number, followed by registering details and the timing of its resolution and close-out. Assessment will be made within 14 days.
- **STEP 4:** The CLO will offer a response according to the specific issue, mentioning the proposed solution. Responses will be provided in a language suitable for the complaint. The CLO will follow up with the complaint and close the grievance. The resolution of grievances will be formally communicated to the complaint in written form. If a complaint cannot receive a written response, the complainant will be contacted via phone and informed of the result of their grievances. A response will be offered within seven days.
- **STEP 5:** The CLO monitors and evaluates the grievance procedure. The Grievance mechanism maintains stringent data confidentiality and safeguards all complainants' personal information. While grievances can be reported throughout the ESIA period, any public disclosure will refrain from revealing complainants' names and identifying details. During the grievance receipt/registration stage, complainants will be notified of the option to submit grievances anonymously. It is important to note that specific grievances made anonymously may not be eligible for a response. The grievance will close out within ten days.
- **STEP 6:** Grievance Appeal - Submitting a grievance via the grievance mechanism does not restrict a complaint from pursuing legal recourse through the national legal system. Should the complainant find the response to their grievance unsatisfactory, they can pursue this course of action if they choose to do so.

The SEP has attached a Grievance form and a Grievance Log (template) to record all concerns, issues, or questions (“grievances”) that any stakeholder may have.

[4] E.g. Grievances can be raised during meetings, Project site visits, via phone calls and in written form (via email, written requests). Grievance boxes with grievance forms will be installed at the Town Hall entry.
[5] Appendix 13.3

4. SUMMARY OF IMPACTS AND MITIGATION MEASURES

4.1. Positive impacts and enhancements

The ESIA identified the following potential positive impacts as set out in the ESIA report:

- Positive Impact regarding reduced GHG emissions compared to energy production from fossil hydrocarbons - tons of CO_2 emissions avoided per year
- The direct procurement and supply of materials and services from companies based in Silistra Province and elsewhere in Bulgaria positively influence the regional economy during construction.
- Boost to economic conditions given by the transfer to the Local Councils of a contribution to the local budget.
- The positive effect on the health of the country's population is the reduction of pollutant emissions, which could be emitted from conventional energy processes.
- Positive, low-magnitude impact on the social and economic environment through the involvement of the local population in implementing the Project.
- Reducing the unemployment rate in the area by creating new jobs.

4.2. Construction nuisance (noise and air quality)

The solar PV Project and OHTL projects' construction will lead to noise, elevated dust and fugitive emissions. The ESIA determined that with the adoption of good international industry practice (GIIP) for control of these activities on Site, the impacts from these activities can be considered low or negligible. Specific precautions have been identified in the EISA to protect the S-L Protected Area, specifically to ensure that no storage areas are located within 250m of the boundary of the Protected Area. For operational noise, the Project proposes to install noise protection around seven of the closest inverters at the southernmost section of the Site. This need will be reviewed and updated following the finalisation of the operational noise modelling and extended to other inverters if needed. Noise levels pre-project have been collected and will be used as a baseline for ensuring operational noise meets national and Lender noise standards. Best practice construction techniques will be employed to minimise construction noise, which will be managed through a series of project environmental and social management plans. Metal screening will be placed around the inverters at the Site's southern boundary (seven inverters). Additional noise modelling has also been identified to confirm the need for additional mitigation to the village of P-Lambrinovo during construction and operation. The implementation of GIIP, as defined in the ESIA, will be managed through the Owner and Contractor construction pollution prevention and control plan.

4.3. Solid waste and hazardous materials

Generally, waste generation by the Project will be low and typically non-hazardous and low-level hazardous wastes (e.g., oils, paints, solvents). Inadequate handling, transfer and disposal of hazardous waste may lead to uncontrolled releases to land, air, and groundwater, leading to the degradation and pollution of the receiving environment. The availability of non-hazardous or construction waste disposal facilities in the local area is good. Disposing of hazardous wastes locally requires less capacity, which must be factored into contracting clauses with subcontractors.

A site waste management plan will be required for each phase of the Project to set out the plans for handling and storing waste. For operational and decommissioning phase wastes, e.g., PV panels and batteries, the

Project will seek to require the EPC Contractor to select PV panel producers with take-back and recycling schemes for end-of-life decommissioning (following guidance available at the time). The residual impact of construction phase hazardous material and hazardous waste is minor and neutral for general waste. During operation, the residual risk associated with the additional disposal and recycling of the main electrical components of the PV plant, OHTL and substation is considered minor.

Historical waste (e.g. aggregate and building demolition waste) from building demolition is stored in an unapproved location and is considered a project impact. The Project will devise a demolition waste management plan to remove these wastes from this location to an authotised disposal site that aligns with GIIP.

4.4. Water use and wastewater quality

One of the key activities during the operation phase is regularly cleaning PV modules to prevent dust build-up, which could affect their performance. This has the potential to consume significant quantities of water. To reduce the water demand of the Project, it is planned that the PV modules will be cleaned monthly using dry cleaning techniques, with wet cleaning (using water) only planned every quarter. The whole process is not expected to use additives that might alter the water quality. Nevertheless, in case of usage, it must be biodegradable with low environmental impact, contain no volatile organic compounds (VOCs) or phosphate, and be chlorine-free. An on-site drainage system will be developed to handle surface water runoff and runoff from potentially contaminated areas.

4.5. Traffic and Transportation

Traffic and transportation risks are limited to the construction phase. Based on the assumption of up to 15 trucks per day to and from the Site during cement works and equipment delivery (months 3 to 6), the Project could add up to 30 truck movements per day during these periods. The following figures present below a few examples of vehicles needed for the PV panels:

Traffic volumes would taper off during the PV module installation and even further during commissioning works. These risks may include community health and safety risks from the volume of vehicles and traffic-related accidents along the local roads from Silistra to the Site (R218 and R21) while delivering materials, personnel and equipment. No abnormal loads are expected, but additional traffic volumes for the delivery of solar panels are required. The traffic impact assessment and consultation have identified the need to manage routing traffic between Silistra and the Site, specifically when entering the P. Lambrinovo community. The Project will undertake noise monitoring and employ GIIP to minimise traffic impacts, including a requirement to restrict vehicle movements to daytime hours, restricting project traffic

movements into the P. Lambrinovo village to access 3 (backup access), and developing a Traffic and Transportation Management Plan which will require all drivers to adhere to a driver's code of conduct. All residual impacts are considered to be minor or neutral.

There may be some deterioration /dilapidation of private property and infrastructure (mainly if Access Option 3 is used) and road surfacing on the R218 and the local road to Polkovnik Lambrinovo due to the vibrations from the increased vehicle movements and HGVs. Project contracts will include a requirement to restore existing roads or private property during or at the end of construction activities. Any improvements will leave a positive legacy on the local road conditions, benefiting the local communities. Monthly visual (photographic) inspection of all properties along the vehicle delivery route (local road and R218) to confirm the status of road condition and private property condition (no change) will be performed along with daily monitoring of dust episodes, soiling of vegetation, dust resuspension on the roads and dust clouds at the Project site.

4.6. Soils

The construction of the PV solar plant and OHTL will include earthworks and site clearance, which will result in the removal of the vegetation and topsoil in the project area and potentially impact soil and groundwater quality in the disposal location. The ESIA determined that impacts on soil are considered negative but temporary only during the construction phase, and the scale of the impacts will be at a local level. The overall impact significance before mitigation is considered low with the adoption of good practice techniques for retaining and re-using the topsoil will be implemented.

4.7. Electromagnetic frequency

Electric and magnetic fields (EMF) exist wherever electric current flows, e.g., in power lines, cables, residential wiring, and electrical appliances. Electricity from solar panels and transmission to the power grid emits extremely low-frequency (ELF) electromagnetic fields. The link between ELF and adverse health effects has been studied extensively . A WHO Task Group concluded that scientific evidence supporting an association between ELF magnetic field exposure and adverse health effects is weak in all cases. In some instances (i.e., cardiovascular disease or breast cancer), the evidence suggests that these fields do not cause them[6].

There is no possibility of EMF impacts from the PV site or the OHLT associated with the project's construction phase since the electrical equipment will not be energised at this stage. The EMF impacts during the construction phase have not been considered further in the ESIA.

For solar panels, the nearest residential receptors are approximately 100m for the solar panels and inverters. For OHLT, EMF field values at various distances from the OHTL fall to negligible levels within 25 m from the OHTL centre line (i.e. within the ROW). Overall, the possibility of receiving high-level short-term exposure to EMF in exceedance of ICNIRP 1998 exposure guidelines is negligible.

6 NRPB, 2004. Review of the Scientific Evidence for Limiting Exposure to Electromagnetic Fields (0-300 GHz). Documents of the NRPB: Volume 15, No. 3, 2004.

4.8. Cultural heritage

No protected or identified tangible or non-tangible cultural heritage has been identified in the main Site and OHLT right of way. Further consultation is required to confirm the likelihood of unforeseen or intangible archaeological features. During the excavation, archaeological supervision in the form of a watching brief will be performed to manage any unforeseen impacts.

4.9. Biodiversity

The proposed Project is located outside the boundaries of any natural protected area, the closest natural protected area being BG0000169 Ludogorie - Srebarna – which is approximately 30m from the Site boundary at its closest point. A critical habitat (CH) screening has been undertaken following IFC PS6 to identify any areas of species with high biodiversity value as defined by IFC standards. The CH screening has screened out the possibility of any critical habitat as defined by IFC PS6.

Some species of conservation importance (bats, birds) have been identified that will still require specific mitigation measures to reduce impact to negligible levels as the project progresses. To assist this, the Project will develop a biodiversity management and monitoring plan (BMMP) to manage impacts associated with the works. Some species with priority biodiversity values will require further evaluation to enable specific management plans to be developed following the mitigation hierarchy; this may include an appropriate assessment. Generally, the vegetation at the Site is considered a modified habitat, airfield and fruit orchards on the main Site and agricultural land under the right of way. Consultation with the local community does not indicate that any permanently acquired land provides ecosystem services. The following mitigation has been committed to in the ESMP to manage biodiversity impacts:

- Design, where possible, lighting that is activated to work only during movement and the emitted light should be outside the ultraviolet spectrum.
- Mobilise a team of environmental biodiversity experts to remove amphibians or reptiles from the areas intended for construction.
- Check for the introduction of species included in the list of invasive and potentially invasive alien species.
- Install Raptor-safe" pylon designs for the entire OHTL
- Ensure storage of materials in areas around the airport runway.
- Undertake all activities during the daylight hours to reduce the anxiety of nocturnal animals.
- If a fence is installed - provide access areas/passages through which rabbits, foxes, jackals, land turtles and other small species can pass.
- Reduce the speed limit of equipment and personnel vehicles to 20 km/h within the Lambrinovo airport's runway and road areas.
- Apply a rotation scheme on small areas moving from east to west to remove vegetation around the PV facilities - panels, inverters and others following the instructions of an ecologist/biologist.
- Prohibit the use of herbicides to limit the spread of grass, tree and shrub vegetation in PP areas.
- Prohibit the use of pest control measures (rodenticides) to limit the population of rodents.
- Conduct revegetation as much as possible around the permitter of the PV site and in between the modules, subject to certain height restrictions, to provide temporary and permanent refuges for amphibians, reptiles, mammals and invertebrates and establish foraging routes around the Site.

Construction Monitoring should be carried out to reflect whether the proposed mitigation measures for the identified impacts are implemented and the resultant positive or negative impacts on the elements of

biological diversity, both within the PV territory and in the surrounding territories, including in the nearby protected area. This will be followed by post-commissioning monitoring during at least the first year for an entire field season and include all target groups established in the preliminary studies carried out in 2023 and, if necessary, to propose new measures or make changes to the initially proposed ones.

4.10. Labour influx Community health and safety

Several construction activities could potentially impact the local community, including infrastructure and equipment design and safety; unplanned exposure to hazardous materials; introduction of workers' increasing the possibility of gender-based violence (GBV) between workers and community members; an influx of people causing strains on local infrastructure (such as healthcare facilities and markets)the potential for increased exposure to communicable diseases; and potential risks to the local community arising from the Project security arrangements. Interactions with the local community will be managed sensitively.

The Project has assessed that the security risk has a moderate impact potential during the construction phase, with other minor impacts. The project management plans will place several requirements on the Project Company, Contractor and their sub-contractors to address the potential impacts on the community, including:

- All workers and security personnel must adhere to a worker/security personnel code of conduct.
- To establish and implement a community grievance mechanism for transparently addressing the concerns of community members or other stakeholders (see Box 3).
- Requirement for the Contractor to perform a security risk assessment and develop a Project-specific security management plan before work commences.
- Establish an Emergency Preparedness and Response Plan (EPRP).

For the OHTL, a health protection set back on either side of the outermost wires applies in a direction perpendicular to the OHTL. No permanent structures may be erected within this zone. While work can continue within the setback after construction, specific restrictions regarding using plants and machinery near the wires and the tops of the pylons (known as the exclusion zone) will apply. This Impact will be relevant to landowners and land users. The Project will undertake information awareness campaigns with land rights holders and land users concerning working under OHTL. There will be a Project grievance mechanism that can inform the Project of any Project impacts or concerns that local community members may have as a result of the construction or operation of the Project.

4.11. Occupational health and safety

Because of the assessment presented in ESIA, the impact on the health and safety of the Project workers during construction is considered medium negative. Potential impacts on workers' health and security can be managed through an occupational health and safety management system and supporting health and safety procedures to reduce risks to the extent possible.

If the mitigation measures mentioned in ESIA are applied, the negative impact on the community health, safety and security component is expected to be Negligible – PV Plant and Minor for OHTL.

Generally, the health and safety risks from decommissioning activities will be similar to those during the construction phase. The Project will be designed to reduce potential risks during its decommissioning.

The Impact on health, safety and security is considered minor negative during this phase.

4.12. Employment and supply chain

During the construction phase, the Project will source its labor from specialist third-party nationals, regional workers and, to the extent possible, the unskilled or semi-skilled workforce from the local communities in Silistra Province. During the operation phase, labor numbers on Site are expected to be low, increasing during planned maintenance periods. Rezolv will, through its management plans, outline a transparent employment process, promoting fair labour and working practices throughout the lifecycle of the Project. The Project will develop a workers' code of conduct and a Labour Management Plan (including workers grievance mechanism) to manage this. The employer will also seek to put strategies in place to maximise employment opportunities for local communities and women. Rezolv will implement its supply chain protocol for all key solar and transformer suppliers following its parent company supply chain policy and management system.

4.13. Emergency preparedness and response

Given the nature of the equipment on Site and the proximity to the village of P. Lambrinovo, there is a moderate significance that the Project may pose a risk to the neighbouring community when operating under abnormal operating conditions. The Project will develop an emergency preparedness and response plan (EPRP) and conduct emergency drills throughout the construction and operation phases. Coordination with local emergency services will be undertaken to ensure the needs of the Project are met without compromising local community needs, and medical/first aid kits, trained first aiders, and an on-site doctor/nurse will be provided during construction. Residual significance is determined as minor.

4.14. Land requirements

Resolv is committed to avoiding adverse impacts on communities and people using the land for their livelihoods. The Project has followed the requirements of national law. : Land acquisition and involuntary resettlement[7]. Significant livelihood impacts are not anticipated at the PV site or along the OHTL, and no physical displacement impacts have been identified due to the Project. However, the following Project-affected people have been identified as potentially subject to livelihood impacts.

- PAP under the ROW where significant portions of land may be permanently removed from agricultural productivity.
- Land users not formally recognised under national law (for the OHTL only)
- Farmworkers employed by farm owners who may lose employment as a result of the OHTl construction works (For the OHTL only)

A livelihood restoration plan (LRP) will be prepared based on further socio-economic data collection and a gap analysis to understand how the national process aligns with IFC PS5 for identification of livelhodd restoration measures with any project-affected landowners or users,where relevant. This will be discussed and implemented with land users before the commencement of overhead line construction works. After completing this exercise, all residual impacts are expected to be minor to moderate.

[7] IFC Performance Standard 4: Land acquisition and involuntary resettlement (January 2012)

5. ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING

An environmental and social management plan (ESMP) (ESIA - Annex III) is prepared as part of the ESIA to provide the framework for the ongoing implementation of E&S requirements for the Project. The objectives of the ESMP are to:

- Clearly describe the required components of the Project Company and EPC Contactor and subcontractor environmental and social management systems (ESMSs) for the construction and operation phase.
- Provide an overview of the Project Company structure and project implementation roles and responsibilities.
- Define the supporting management plans required for implementing the requirements of the ESIA.
- Confirm compliance obligations.
- Establish objectives of the ESMP (construction and operation).
- Define roles and responsibilities for implementation of the requirements of the ESMP.
- Set minimum requirements for meetings inspection, audits and reporting.
- Define key performance indicators (KPIs).

A summary of the key commitments outlined in this ESIA is provided in the ESMP. These will be elaborated in the subsequent supporting management plans to provide further information on:

- Outcomes or targets
- Timeframes
- Responsibilities
- Resources required.
- Monitoring activities

The Project Company will adopt a Project E&S Policy H&S Policy and Worker code of conduct under a construction environmental and social management system (cESMS), which is aligned to (but not certified to) ISO 14001 (environmental management) and 45001 (for health and safety). The Project Company/EPC Contractor will adopt a robust human resource policy, local hiring policy and supply chain policy. The following project-specific management plans will be prepared to define to the EPC Contractor the requirements of the Project:

- Construction ESMP (St_GEORGES_ESMP_00)
- Corporate Social Responsibility Plan (St_GEORGES_CSR)
- Emergency preparedness and response plan (St_GEORGES_ESMP_11)
- Occupational health and safety plan (St_GEORGES_ESMP_09a_OHSMP)
- Community health and safety plan (St_GEORGES_ESMP_09b_CHSMP)
- Traffic Management Plan (St_GEORGES_ESMP_10_TMP)
- Waste Management Plan (St_GEORGES_ESMP_05_WMP)
- Pollution Prevention and Control Plan (including noise, dust, hazardous materials, and effluent wastewater) (St_GEORGES_ESMP_03_PPCP)

- Biodiversity Management and Monitoring Plan (St_GEORGES_ESMP_04_BMMP)
- Labour Management Plan (St_GEORGES_ESMP_06_LMP)
- Stakeholder Engagement Plan (St_GEORGES_ESMP_08_SEP)
- Chance finds procedure (St_GEORGES_ESMP_07_CFP)

The E&S provisions and obligations in the main contract between the Project Company and EPC contractor / O&M contractor must be applied back-to-back down the contracting chain. The ESMP requires an emergency preparedness and response plan to be prepared that considers natural hazard risks (e.g., flood risk, seismic risk, weather risk) in project design), climate-related risk, the proximity and availability of adequate medical services, risk management, and training protocols.

6. CONCLUSION

The overall outcome of the ESIA is that the Project is an effective and viable energy infrastructure project that is central to the transition of the country to renewable power. In general, the E&S impact from the Project is well understood. Risk and impacts can be managed to acceptable levels by establishing an Employer and Contractor environment, health and safety, labour, social and security management and mitigation measures implemented through a robust environmental and social management system, health and safety management system and human resources (HR) policy.

The Project is considered suitable for development and able to comply with national and Lender requirements. The measures identified in the ESIA enable the Project to avoid, or where avoidance is not possible, minimise, mitigate or compensate for adverse environmental or social impacts and issues to workers, affected communities, and the environment. All commitments, obligations and statutory requirements will be monitored over the duration of the Project and reported regularly.