

# Veolia Energy Recovery Facility Łódź

Environmental and Social Action Plan (ESAP)

Reference:

Final | August 2024



This report takes into account the particular instructions and requirements of our client. It is not intended for and not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 298576-00

Arup Polska Sp. z o.o. Inflancka 4 00-189 Warszawa

arup.com

©

#### OFFICIAL USE

#### **Contents**

Preface		1
1.	Environmental and Social Action Plan	1

### **Preface**

Veolia Nowa Energia sp. z o.o. ("Veolia Nowa Energia" / "Developer" / "the SPV") is a special purpose company (SPV) established to implement the investment Project. This Project involves construction and operation of an Energy Recovery Facility plant ("ERF") with a capacity of 57 MWth and 20,09 MWe¹ to be constructed in Łódź, Poland ("the Project").

The European Bank for Reconstruction and Development (EBRD) and other funding institutions, most likely signatories of the Equator Principles (referred collectively as Lenders) are considering providing finance to Veolia Nowa Energia for debt financing of the Project.

In preparation for financing and recognising that the potential Lenders adhere to good international industry practice in environmental and social risk management as set out in their policies, Arup was appointed by Veolia Group. As a consultant Arup provides independent Environmental and Social Advisory services, and advice on the environmental and social preparedness and performance of the Project in relation to its compliance with Lenders' standards.

The SPV will report under CSRD either as standalone or consolidated under Veolia Group as required by National and EU regulations. The Company will include the SPV in the undertaking of its materiality assessment and undertake assurance of the operations.

Based on these findings, this document, an Environmental and Social Action Plan (ESAP) comprises actions that will need to be undertaken to close compliance gaps and to ensure the Project's ongoing compliance with the EBRD and EP signatory Banks requirements.

Project performance in delivering the ESAP will need to be monitored and reported to Lenders on a regular basis.

The ESAP will form part of the loan documentation.

Overall accountability for discharging the ESAP will lie with the SPV.

For the purpose of assigning responsibilities for the actions during operation, it is assumed that Veolia Nowa Energia Sp. z o.o. will operate the plant once constructed.

The structure of the Project financing has not been confirmed yet. However, it is assumed that SPV will appoint their Lenders Technical Advisor (LTA) hence for 'Target and Evaluation Criteria for Successful Implementation': the tasks shall be signed off as accepted by the LTA on behalf of Lenders or directly by Lenders prior to the stipulated milestone.

-

<sup>&</sup>lt;sup>1</sup> The initial thermal and electric power assumptions at the bidding stage differed from the updated technical conditions. The tender required a minimum of 50 MWth, while the maximum net value assumed in full condensation was 27 MWe.

# 1. Environmental and Social Action Plan

The following environmental and social actions are required to fulfil Environmental and Social requirements of the European Bank for Reconstruction and Development (EBRD) and the Equator Principles signatory Financial Institutions within the timescale indicated.

Table 1: Environmental & Social Action Plan

No.	Action	Environmental & Social Risks (Liability / Benefits)	Requirement (Legislative, EBRD PR, Equator Principles IV, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
PR1	Assessment and Management of Environmental and Socia	Il Impacts and Issues					
1.1	Appoint Lenders Technical Advisor to review the project implementation against EBRD performance requirements and this ESAP.  LTA will review specific projects documentation, project preparation and implementation activities undertaken by the SPV, Veolia corporate and Project Contractors and Subcontractors against EBRD PRs, legal requirements, GIP and this ESAP.  LTA will work to TOR developed jointly with lenders, will have suitable qualified E&S team, will undertake site visits and produce monitoring reports at 6 monthly intervals during construction first 2 years of operations.	Risk of non-compliance with EBRD requirements	EBRD PR 1 EP Principle 4	SPV – Veolia Nowa Energia in cooperation with General Contractor - Doosan	CP to first disbursement	Lenders Technical Advisor with suitably qualified E&S specialist appointed. 6 monthly and annual site visits undertaken, and monitoring reports submitted to Lenders. Relevant project documentation reviewed.	
1.2	Annual Environmental and Social Report on the EHSS performance and implementation of the ESMS, ESMP and ESAP shall be prepared by the SPV and regularly submitted to EBRD.  The SPV will report under CSRD either as standalone or consolidated under Veolia Group as required by National and EU regulations. The Company will undertake a materiality assessment of the SPV and undertake assurance of the data related to operations.	Plans for monitoring should follow logically from the commitments included in the ESMS and ESMP. Monitoring should be considered early in the ESMS development process.  CSRD reporting requirements implementing ESRS and undertaking double materiality.	EBRD PR 1 EP Principle 4 CSRD and EU regulations	SPV – Veolia Nowa Energia in cooperation with General Contractor – Doosan Veolia Energia Polska	Throughout the Project duration – construction and operation phase	Annual Environmental and Social Report on the EHSS performance and implementation of the ESMS, ESMPs and ESAP shall be prepared by the SPV Lenders  Yearly operational required action monitoring reports done by Operator of ERF shared for approval by Lender's Advisor.  Annual CSRD report and assurance of data, with as a minimum limited assurance from the first year of operations onwards, unless reasonable assurance is mandatory at the time of start of operations. In this case reasonable assurance will be undertaken.	

No.	Action	Environmental & Social Risks (Liability / Benefits)	Requirement (Legislative, EBRD PR, Equator Principles IV, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
1.3	Regular monitoring of administrative process and changes in environmental regulations that may affect the implementation of the Project.  Compliance with CSRD.	Despite the rigor of immediate enforceability of the Environmental Decision (ED) proceedings pending before the Supreme Court regarding the second extension of the "validity" of the ED may pose a certain risk.  In extreme case, the decision on development conditions and the Building Permit may be withdrawn from legal circulation.	EBRD PR 1 EP Principle 4 Polish legal regulations BREF 2019 Requirements	SPV – Veolia Nowa Energia	Prior to commencement of the construction works and throughout the Project duration	Regular (half-yearly) information to Lenders on the status of legal proceeding.	
1.4	Veolia to include in the contracts for the Engineering Procurement and Construction (EPC) Contractors a requirement to undertake (and cause their sub- contractors to undertake) the project in line with EBRD performance requirements and the findings of the national EIA, Environmental Decision and Supplementary Information Package as disclosed by Veolia and EBRD.	Risk of non-compliance with EBRD requirements	EBRD PR 1 EP Principle 4	SPV – Veolia Nowa Energia in cooperation with General Contractor - Doosan	Before the start of any works related to the Project (before the pre- construction phase)	The annex to Contract as the basis for the obligation to meet the requirements by the EPC to submit by LTA/IESC.	
1.5	Development and implementation of Environmental, Health, Safety and Social Management System (EHSSMS) based on identified environmental, H&S and social impacts for the entire Project cycle and in line with national and BREEAM's requirements for both the SPV and the General Contractor.  The Environmental, Health, Safety, and Social Management System (EHSSMS) will be developed based on the existing policies and systems adopted by the Veolia Group.	Lack of Project level EHSSMS.  Inconsistent level of EHSS performance.  Missing out on identification of risks and opportunities for improvement during construction and operation phases of the Project.	EBRD PR1  EP Principle 4  BREF 2019 Requirements  BREEAM New Construction 2016 Guidelines	SPV – Veolia Nowa Energia	Before the start of any works related to the Project (before the preconstruction phase) and to be implemented and monitored throughout the Project duration.	Efficient system and positive implementation of EHSS policy.  EHSSMS developed and well implemented, i.e. personnel structure enabling process control evidenced by organization chart, description of roles and responsibilities, CVs of personnel assigned to roles, etc.  Compliance with the ESMPs a condition of contractors' / subcontractors' appointment.  EHSSMS shall be approved by Lenders prior to the start of the pre-construction phase of the Project.	
1.6	Development and implementation of Project EHSS policy, which shall be integrated as part of the formal management system(s).	Lack of Project EHSS Policy.  Inconsistent level of EHSS performance.	EBRD PR 1 EP Principle 4	SPV – Veolia Nowa Energia	Before the start of any works related to the Project (before the pre- construction phase) and to be implemented and	Efficient system and positive implementation of EHSS policy.  EHSS policy developed and well implemented, i.e. an appropriate personnel	

OFFICIAL USE

Veolia Energia Polska S.A.

Document Reference | Final | 02 August 2024 | Arup Polska Sp. z o.o.

Veolia Energy Recovery Facility Łódź

No.	Action	Environmental & Social Risks (Liability / Benefits)	Requirement (Legislative, EBRD PR, Equator Principles IV, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
	The policy shall be clearly communicated with all employees and its active implementation on the Project ensured on both sides the SPV and the General Contractor.  The Policy shall be compliant with the Lenders standards and national requirements and indicate who, within the SPV organization, is responsible for its execution.	Project personnel unaware of EHSS policy and its principles.	BREF 2019 Requirements  BREEAM New Construction 2016 Guidelines		monitored throughout the Project duration.	structure enabling process control evidenced by organization chart, description of roles and responsibilities, CVs of personnel assigned to roles, etc.  EHSS policy shall be approved by Lenders prior to the start of the pre-construction phase of the Project.	
1.7	Inclusion of all relevant EHSS requirements (national, Lenders, BREEAM, EU) in a (framework) Environmental and Social Management Plan (ESMP) which shall be provided for the General Contractor to be used as a basis to develop, implement, and maintain Project Specific Construction E&S Management Plans, i.e.:  - Supply Chain Management Plan, - Occupational Health and Safety Management Plan, - Community Health, Safety and Security Management Plan, - Hazardous Materials Safety Management Plan, - Traffic and Road Safety Management Plan - Air and Noise emission management plan.  The SPV shall ensure that documentation provided for the General Contractor includes clear requirements (i.e. framework E&S Management Plan as stated above) to develop Project Specific Construction E&S Management Plan(s) (CESMPs) in line with the EIA, ED, ESAP, national requirements, EBRD PRs, BREEAM, EU and good international practice.  The SPV and the General Contractor to ensure that relevant biodiversity mitigation and compensation measures are included in the CESMP. CESMP shall be ready before starting field preparatory works (e.g. cutting trees and bushes) and construction works of the Project. The plan shall also include the overall organization of the construction site and construction works to meets all requirements. CESMP shall provide an adequate mitigation and compensation monitoring plan to check the effectiveness of implemented biodiversity actions.  In a case of chance finds during construction or earth works, provisions of Act on Monuments should be applied. The SPV and the General Contractor is obliged by Polish law to notify the relevant authorities. The Act of July 23, 2003, on the Protection of Monuments and the Care of Monuments specifies the responsibilities of an investor who encounters an object during construction or earthworks that is suspected to be a historical monument. Art. 32 of the Act mandates halting any work that could damage or destroy the discovered object, securing it with available means, and promptly not	Management Plans for the Project construction phase have not been developed yet.  EHSS risks and impacts associated with the construction phase of the Project may not be properly managed.  Financial resources and qualified personnel must be secured within the ESMP to ensure that adequate mitigation measures can be implemented.  Monitoring of the effectiveness of measures must also be part of the ESMP to ensure the possibility to react quickly if any corrective / replacement actions are needed.	EBRD PR 1 EP Principle 4 Polish regulation BREEAM New Construction 2016 Guidelines	SPV – Veolia Nowa Energia in cooperation with General Contractor - Doosan	Prior to commencement of the construction works	Efficient EHSS management and positive implementation of EHSS policy.  (Framework) Construction Environmental and Social Management Plan developed and implemented, i.e. ensuring efficient management by an appropriate personnel structure enabling process control evidenced by organization chart, description of roles and responsibilities, CVs of personnel assigned to roles, etc.  All above mentioned Plans shall be approved by LTA prior to commencement of construction works and regularly revised by the Contractor(s) to reflect ongoing course of works.	

Veolia Energia Polska S.A.

Document Reference | Final | 02 August 2024 | Arup Polska Sp. z o.o.

No.	Action	Environmental & Social Risks (Liability / Benefits)	Requirement (Legislative, EBRD PR, Equator Principles IV, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
	not possible, the village mayor or city president. The CESMP shall include procedures for dealing with the discovery of cultural heritage in accordance Polish regulation.						
1.8	Inclusion of all relevant EHSS requirements (national, Lenders, GIP) in an Operational Environmental and Social Management Plan (OESMP) prior to beginning of operational phase of the Project.  OESMP shall also include Monitoring Plan(s) in line with the EIA, ED, ESAP and identified impacts. The OESMP is to include the BAT, BREF requirements for pollution monitoring thresholds.  The SPV and the main Contractor to ensure that relevant biodiversity mitigation and compensation measures are included in the OESMP, and that appropriate monitoring is in place.	Management Plans for operational phase have not been developed yet.  EHSS risks and impacts associated with the operation phase of the Project may not be properly managed.  In regard to air emissions, an inadequate Monitoring Plan could lead to exceedances of permissible levels.  Financial resources and qualified personnel must be secured within the ESMP to ensure that adequate mitigation measures can be implemented.  Monitoring of the effectiveness of measures must also be part of the ESMP to ensure the possibility to react quickly if any corrective / replacement actions are needed.	EBRD PR1 EP Principle 4 Polish legal regulations BREF 2019 Requirements	SPV – Veolia Nowa Energia	Before the start of the Project operation phase; to be implemented and monitored throughout the Project operation phase duration.	Efficient system and positive implementation of EHSS policy.  Operation Environmental and Social Management Plan developed and implemented, i.e. ensuring efficient management by an appropriate personnel structure enabling process control evidenced by organization chart, description of roles and responsibilities, CVs of personnel assigned to roles, etc.  Compliance with the ESMPs a condition of contractors' / subcontractors' appointment.  Plan(s) shall be approved by approved by LTA prior to the start of pre-construction phase of the Project.	
1.9	Ensuring relevant environmental (including biodiversity specific), health and safety and social specialists to guarantee proper oversight and reporting of the on-site activities and implementation of the adopted mitigation measures to combat EHSS risks during the construction and operation phases of the Project. The team shall have adequate knowledge of both national and Lender's requirements. Planning the number of H&S Managers shall be done in accordance with Lender's requirements and GIIP.  The ESHH team shall be appointed before the construction phase to ensure proper implementation of ESMS and relevant ESMPs and to review and verify the fulfilment of EHSS requirements by the Contractors.	Organisational capacity – EHSS personnel yet to be assigned for the Project.  The EHSS personnel/department are yet to be assigned. There is a risk of inadequate EHSS management during the entire Project cycle if insufficient resources are assigned for the Project.	EBRD E&S Policy EBRD PR1 Equator Principle 4	SPV – Veolia Nowa Energia	Prior to the Project construction phase.	Efficient management system and implementation of EHSS policy.  Employment of appropriate personnel to operate the EHSS department, proven by documented experience in the field of Environmental / Health & Safety / Social Due Diligence regarding Lenders requirements.  Documents confirming the employment of appropriate personnel to handle the Project EHSS risks are to be presented to LTA for their review and acceptance.	

No.	Action	Environmental & Social Risks (Liability / Benefits)	Requirement (Legislative, EBRD PR, Equator Principles IV, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
1.10	Development and implementation of the <b>Supply Chain Management Plan</b> . It shall ensure that all relevant Project EHSS requirements (national, Lenders, BREEAM) are cascaded down the supply chain by ensuring that the same level of requirements is included in construction contracts (as for General Contactor), any future subcontract or supply contract.  The plan shall obligate the General contractor at construction phase and the Operator of ERF at operation phase to control the supply chain regarding the delivery of building materials and processed raw materials RDF. The implementation of the Supply Chain Management Plan shall be strictly monitored by the SPV and General Contractor.	Project level Supply Chain Management through construction and operation phases.  Possible employment of suppliers who do not comply with the principles of sustainable development and EU best practices in the field of EHSS standards.  Management of EHSS risks and impacts. Potential lack of information flow between responsible units leading to deficiencies in monitoring.	EBRD E&S Policy EBRD PR1	SPV – Veolia Nowa Energia in cooperation with General Contractor - Doosan	Prior to commencement of the construction works	Ensuring supplies from sources that comply with EHSS standards at the SPV and General Contactor level.  EHSS polices and the scope of the subject matter of the contract with suppliers employed by SPV and General Contractor for review by LTA. in order to obtain their approval.  All documents confirming compliance with the principles of sustainable development and national, EU and BREEAM in terms of EHSS requirements made available for review by LTA	
1.11	Ensuring regular monitoring of the implementation of the relevant EHSS requirements by the General Contractor and other Subcontractors and its environmental supervision during the construction phase.  The scope of monitoring shall be based on the requirements set forth in the environmental decision and the agreement with the Regional Director for Environmental Protection (RDOS) for the construction phase. It is necessary to monitor the general contractor's activities in the following areas, including but not limited to:  - the location of the construction site facilities and the material and equipment base  - the condition of heavy vehicles  - the measures for preventing contamination in the event of an accident  - the hours of work conducted during the daytime  - the transportation of construction materials and aggregates and their securement  - the oversight of tree removal operations  - construction stage noise and air quality (PM 2,5 and PM10) measurements in the vicinity of the Elektron Allotments against the GIP  and other actions to monitor in accordance ED requirements;	Project monitoring during construction phase.  Risk of inadequate EHSS monitoring and reporting during the Project implementation.	EBRD E&S Policy EBRD PR1 Equator Principle 4 BREF 2019 Requirements	SPV – Veolia Nowa Energia in cooperation with General Contractor - Doosan	Throughout the entire construction phase of the Project	Monthly EHSS monitoring reports done by General contractor or its Subcontractors shared for approval by LTA.	

No.	Action	Environmental & Social Risks (Liability / Benefits)	Requirement (Legislative, EBRD PR, Equator Principles IV, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
1.12	Environmental monitoring program for operation phase shall be prepared to address all activities identified to have potentially significant impacts on the environment during operation activities. It shall be integrated into the existing ESMS. Monitoring shall be conducted in accordance with the requirements of the Environmental Decision, RDOS Agreements, and Best Available Techniques (BAT) standards.  Monitoring shall be conducted in accordance with the requirements of the Environmental Decision, RDOS Agreements, and Best Available Techniques (BAT) standards in regard:  install combustion process monitoring for at least the following parameters: temperature in the combustion chamber in the zone after the last air supply, near the outer walls of the combustion chamber as specified in the construction permit; oxygen content and water vapor (steam) content in the flue gases; temperature and pressure of flue gas streams.  continuous monitoring of air emission parameters: total dust; NOx; CO; HCI; HF; organic substances in the form of gases and vapours expressed as total organic carbon; Hg; NH3; PM at the outlet of the bottom ash valorisation emitter; O2; flue gas flow velocity or dynamic pressure of flue gases; temperature of flue gases; humidity coefficient.  periodic monitoring of air emission at least every 6 months: Pb, Cr, Cu, Mn, Ni, As, Cd, Hg (also continuous monitoring), Co, W, Sb, dioxins and furans, are also required at least once every 6 months.  automatic monitoring of treated technological wastewater at the point of discharge into the municipal sewer system.  and other relevant monitoring requirements.  The CEMS system will be equipped with analysers in accordance with BAT requirements.  Additionally, in accordance with Polish law, the company is obligated to fulfil the requirements for regular reporting to relevant authority related to air emissions.  Monitoring data shall be analysed and reviewed at regular intervals and compared with the set standards so that any necessary corrective actions can be	Project Monitoring during operation phase.  Delay in implementation of ESAP, timely identification of Project EHSS risks, confirmation of effectiveness of mitigation measures, plans and other actions defined.	EBRD E&S Policy  Equator Principle 4  Environmental Decision of Mayor of the City of Łódź, 28th June 2010, ref. no. OŚR.III.7626/25/10 EU  Agreement of Environmental Conditions of Regional Directorate for Environmental Protection in Łódź, 27th August, 2021, ref. no. WOOŚ.4222.7.2020.DKr.13  Polish regulation  BREF 2019 Requirements	SPV – Veolia Nowa Energia	Prior start of the operation of the Project  Annual Monitoring Report prepared for Lender's Advisor	Yearly operational EHSS monitoring reports done by Operator of ERF shared for approval by Lender's Advisor	

No.	Action	Environmental & Social Risks (Liability / Benefits)	Requirement (Legislative, EBRD PR, Equator Principles IV, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
1.13	Monitor of Labour, Waste and Health & Safety Management in regard to Associated Facilities. Monitor process of decommissioning of coal block EC4.  Monitoring shall be conducted during decommissioning of the coal block of EC4. The Operator of EC4 closure is obliged to undertake Waste and Health & Safety Management Plan. Develop adequate documentation in accordance with EBRD requirements. This process shall be verified and monitored on a best-efforts basis by Veolia Nowa Energia as it is expected that the process will be under the corporate requirements of the Veolia Group.  The SPV shall cooperate with the Investor of the potential future associated facilities and monitor the Environmental Impact Assessment with regards to cumulative impacts such as air emissions, noise, GHG emissions, social impact, etc.	Risk of accidents during demolition. Risk of soil contamination in case of improper waste management. Labour risks	EBRD E&S Policy Equator Principle 4 EU regulations	Operator of EC4 – Veolia Energia Łódź monitored by SPV – Veolia Nowa Energia	Before the decommissioning works.  Before the start of decommissioning of coal blocks and administrative E&S process for any future investments	Waste Management Plan and Health & Safety Management Plan accepted by LTA.  Monitoring report in regard to action to review by the LTA.	
PR2	Labour and Working Conditions						
2.1	Develop a <b>Gender-Based Violence and Harassment</b> ( <b>GBVH</b> ) <b>Policy</b> applicable for all Project phases. The Policy to include provisions aimed at preventing discrimination and Gender-Based Violence and Harassment of women, migrant workers and other vulnerable groups.	While the existing ethics and human rights policies appropriately prohibit discrimination and harassment, there is a notable absence of specific provisions addressing the discrimination of vulnerable groups, especially potential cases of Gender-Based Violence and Harassment (GBVH).  Failure to explicitly address GBVH in the policies can negatively impact the company's commitment to fostering a safe and inclusive workplace.	EBRD E&S Policy EBRD PR2 Equator Principle 4	SPV – Veolia Nowa Energia	Prior commencement of the construction works and implemented throughout construction and operation.	GBVH Policy accepted by IESC.  All Project workers are informed about the Policy and aware of the complaint mechanism.	
2.2	Develop and implement a comprehensive Worker  Accommodation Policy that ensures:  - Worker accommodation is in alignment with national and international standards, with regard to location, cleanliness, safety and meeting the specific worker's needs;  - Freedom of movement is articulated and committed to, so as not to restrict worker's movements to and from the accommodation unless in cases where reasonable security measures or logistical restrictions are necessary.  - Commitment to providing accommodation in a manner consistent with the principles of non-discrimination and equal opportunity.  - Specific measures to safeguard against sexual harassment and other forms of Gender-Based Violence.	The absence of a policy on worker accommodation poses a significant concern, particularly in the context of providing non-discriminatory, safe, and secure living conditions for project workers. Lack of specific guidelines increases the risk of non-compliance with national and international standards, potentially impacting worker well-being and safety.	EBRD PR 2  IFC and EBRD Guidance Notes on Workers' accommodation: processes and standards.	Contractor – Doosan Enerbility and Doosan Lentjes GmbH monitored by SPV – Veolia Nowa Energia	(Develop) – Prior commencement of the construction works  (Implement) – throughout construction	Worker Accommodation Policy accepted by LTA.  Monitoring of Policy implementation conducted by LTA.	

No.	Action	Environmental & Social Risks (Liability / Benefits)	Requirement (Legislative, EBRD PR, Equator Principles IV, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
		Failure to provide clear guidelines can lead to substandard living conditions, discriminatory practices, and challenges in ensuring the well-being of workers, especially in cases involving migrant workers or women.					
2.3	Develop and implement a Collective Dismissal Policy, which shall include:  - Clear guidelines for analysis, alternatives exploration, and the creation of a collective dismissal plan that assesses, reduces, and mitigates adverse effects on workers.  - Incorporates a fair selection criterion, a transparent grievance mechanism, and full compliance with legal and collective agreement requirements	The absence of a defined policy for collective dismissals may leave employees uncertain about their job security and fairness in the process. The lack of clear communication on reasons for dismissals and uncertainties about compensation can contribute to apprehension among the workforces. Additionally, a perceived lack of involvement in decision-making processes can impact employees' confidence in their role within the organization.	EBRD E&S Policy Equator Principle 4	SPV - Veolia Nowa Energia in cooperation with Contractor - Doosan Enerbility and Doosan Lentjes GmbH	6 months prior to any planned collective dismissal	Collective Dismissal Policy accepted by LTA.  Monitoring of Policy implementation conducted by LTA.	
2.4	Develop Internal Grievance Mechanism for workers.  Maintain a grievance register to track trends and effectiveness of mitigation measures.	Lack of internal Grievance Mechanism developed for the SPV.  The absence of an anonymous reporting mechanism poses a potential risk to the effectiveness of the grievance reporting process. Employees may be hesitant to report grievances openly, fearing repercussions, leading to underreporting of critical issues. This can result in a lack of visibility into potential workplace concerns and increased risk of unresolved issues.	EBRD E&S Policy Equator Principle 4	SPV – Veolia Nowa Energia	Prior to commencement of the construction works. To be implemented for the construction and for operational phase.	Internal Grievance Mechanism is developed, signed off by the Company management and communicated to all employees.	
2.5	Develop the <b>Due Diligence of Material Third Parties Policy.</b> The company shall develop and implement a comprehensive Due Diligence procedure. This ensures transparency, facilitates the assessment of third parties' alignment with ethical standards, and mitigates the potential risk associated with inadequate due diligence. Regular	The Code of Ethics refers to Due Diligence of Material Third Parties documentation, which is currently unavailable for review.  The absence of accessible Due Diligence documentation	EBRD E&S Policy Equator Principle 4	SPV – Veolia Nowa Energia  For construction phase: in cooperation with General	Throughout construction and operation phases of the Project	Due Diligence of Material Third Parties Policy accepted by LTA. Monitoring of Policy implementation conducted by LTA.  Efficient management of risks associated with its primary suppliers, particularly concerning child labour, forced labour.	

Veolia Energy Recovery Facility Łódź Environmental and Social Action Plan (ESAP)

No.	Action	Environmental & Social Risks (Liability / Benefits)	Requirement (Legislative, EBRD PR, Equator Principles IV, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
	updates and reviews of this documentation shall be conducted to maintain its relevance and effectiveness.  Within the Policy a comprehensive policy managing risks associated with its primary suppliers, particularly concerning child labour, forced labour shall be developed. The policy will be applied particularly to verify the activities of future RDF suppliers.	raises concerns about transparency and the ability to assess whether third parties align with the ethical standards outlined in the Code of Ethics. This poses a potential risk of inadequate due diligence on third parties, which may lead to ethical, legal, or reputational issues for the company.  The company lacks a clear policy and framework for managing risks associated with its primary suppliers, particularly concerning child labour, forced labour.  The absence of a structured approach to identify and manage these risks within the supply chain can lead to potential ethical and legal issues. It may expose the company to risks of child and forced labour, occupational hazards, and gender-based violence within primary supplier workplaces.		Contractor - Doosan Enerbility and Doosan Lentjes GmbH		Evidence of measures implemented, in case of exceedances.	
PR3	Resource Efficiency and Pollution Prevention and Control						
3.1	Develop Air Quality Management Plan including pollution prevention measures and continuous monitoring in line with relevant BREF standards.  It must detail national and local legal requirements regarding hazardous materials, their management, temporary storage, transportation, wastewater management, and procedures for pollution-related incidents. Additionally, the plan should outline identified environmental and social impacts, mitigation measures, defined responsibilities, a training program, a monitoring program compliant with BREF, and reporting protocols.  Monitoring arrangements must be reviewed for competency. Both continuous and periodic monitoring should be in accordance with the relevant standard, in accordance with generic EN standards and EN 13284-1 and EN 13284-2.  Due to the high levels of PM2.5 pollution in the city's background, it is necessary to carefully monitor the emission levels of these pollutants from the WtE installation. The SPV has obliged to implement continuous monitoring and measures to minimize emissions. The relevant personnel responsible for overseeing environmental duties shall carefully control the measurement and monitoring results.	AQMP for operational phase have not been developed yet. Implementing the Air Quality Management Plan is particularly important due to the high background levels of air pollution.  Additional emissions from the project could significantly worsen the air quality. Implementing an effective air quality management plan will help prevent further deterioration of environmental quality.  Monitoring Plan could lead to exceedances of permissible levels.	EBRD E&S Policy Equator Principle 4  Environmental Decision of Mayor of the City of Łódź, 28th June 2010, ref. no. OŚR.III.7626/25/10 EU  Agreement of Environmental Conditions of Regional Directorate for Environmental Protection in Łódź, 27th August, 2021, ref. no. WOOŚ.4222.7.2020.DKr.13  Polish regulation  BREF 2019 Requirements	SPV – Veolia Nowa Energia	Before the start of the Project operation phase To be implemented and monitored throughout the Project operation phase duration.	Air Quality Management Plan accepted by LTA.  Monitoring of Plan implementation conducted by LTA on semi-annual basis for first two years of operation and annually by EBRD thereafter	

No.	Action	Environmental & Social Risks (Liability / Benefits)	Requirement (Legislative, EBRD PR, Equator Principles IV, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
		Monitoring of the effectiveness of measures must also be part of the ESMP to ensure the possibility to react quickly if any corrective / replacement actions are needed.					
3.2	Develop Site Waste Management Plan for construction phase. The Plan should include information on national and local legal requirements for waste management, the types of waste generated during the project, and the waste management hierarchy (prevention, reduction, reuse, recycling, and disposal). It must detail waste management operations, segregation procedures, hazardous waste handling, temporary storage, transportation, recycling, disposal, and guidelines for managing different types of waste (communal, construction, hazardous, etc.). Additionally, the plan should outline identified environmental and social impacts, mitigation measures, defined responsibilities, a training program, a monitoring program, and reporting protocols.	Improper waste management can lead to soil, groundwater, and surface water contamination.	EBRD E&S Policy Equator Principle 4 BREF 2019 Requirements BREEAM New Construction 2016 Guidelines	Contractor – Doosan Enerbility and Doosan Lentjes GmbH monitored by SPV – Veolia Nowa Energia	(Develop) – Prior commencement of the construction works (Implement) – throughout construction	Site Waste Management Plan accepted by LTA.  Monitoring of Plan implementation conducted by LTA on semi-annual basis for first two years of operation and annually by EBRD thereafter.	
3.3	Develop Noise Management Plan for operation phase.  Besides of EBRD requirements, the plan is also required due to the necessity of BAT Conclusion. The plan should include an assessment of baseline noise levels and identification of potential noise sources where a noise nuisance at sensitive receptors is expected and/or has been substantiated. It must outline noise control measures and monitoring protocols to minimize noise impact on the environment and community. Additionally, it shall specify procedures for handling noise complaints and ensuring compliance with relevant regulations and standards. The plan must comply with the requirements of the environmental decision, other issued decision and agreements, and other applicable European and Polish legal acts.  The organisation of operation stage in ERF in regard noise emission shall be based on the implementation of the following actions:  - Proper location of devices and buildings as far as possible from acoustically protected areas.  - Operational measures: improved inspection and maintenance of equipment; closing of doors and windows of enclosed areas, if possible; operation of equipment by experienced staff; avoidance of noisy activities at night, if possible; provisions for noise control during maintenance activities – all preventive actions shall be included in eligible management system plans.  - Use of low-noise equipment  - Noise-control equipment, including: noise-reducers, equipment insulation, enclosure of noisy equipment, soundproofing of buildings.	The risk of causing noise disturbances due to improper organization.	EBRD E&S Policy Equator Principle 4  EU regulation Polish regulation  BREF 2019 Requirements	SPV – Veolia Nowa Energia	Before the start of the Project operation phase  To be implemented and monitored throughout the Project operation phase duration.	Noise Management Plan accepted by LTA.  Monitoring of Plan implementation conducted by LTA on semi-annual basis for first two years of operation and annually by EBRD thereafter.	

No.	Action	Environmental & Social Risks (Liability / Benefits)	Requirement (Legislative, EBRD PR, Equator Principles IV, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
	Infrastructure to limit noise emissions.						
3.4	Monitor the <b>Greenhouse Gas (GHG) Emission.</b> In line with the EBRD's ESP, projects with a net change in annual emissions of 25 kt CO2e per year or with gross emissions of more than 100,000 tonnes of CO2-equivalent per annum are required to report such emissions annually to the Bank. The scope of this report will typically be limited to the boundaries of the EBRD-financed project and will align with the scope of the GHG assessment carried out during project appraisal. Annual reporting of GHG emissions shall form part of the project's normal environmental and social reporting to the EBRD.	Risk of increased GHG emissions and climate changes.  Possibility of higher greenhouse gas emissions then actually expected.	EBRD E&S Policy Equator Principle 4	SPV – Veolia Nowa Energia	To be monitored throughout the Project operation phase duration.	Annual GHG Emission Report accepted by LTA and EBRD.	
3.5	Demonstrate that the <b>detailed design of the reinforced bunker hall</b> has adopted the highest class of tightness (according to standard PN-EN 1992-3 Eurocode 2 - Design of concrete structures - Part 3: Liquid retaining and containment structures).	Leakage and non-compliant construction.  Verification of detailed design of the bunker hall.	EBRD PR 3 EU regulation Polish regulations	SPV – Veolia Nowa Energia	During the process of preparation of detailed design project. Upon construction completion of the bunker hall.	Design Drawings / Reports accepted by LTA.  Testing reports accepted yearly by LTA in the first 2 years of operation.	
3.6	Conduct <b>tightness tests of the bunker hall</b> after its construction. (according to standards PN-EN 1992-3 Design of concrete structures).	Controlling of the tightness of the bunker after construction.  Soil contamination prior and during operation.	EBRD PR 3  EU regulation  Polish regulations	SPV – Veolia Nowa Energia	Prior commencement of the construction works	Testing reports accepted yearly by LTA in the first 2 years of operation.	
3.7	Achieving BREEAM certification at the Very Good level as the project aims. In connection with this, it is essential to meet all BREEAM requirements at every stage of the project implementation.	Risk of non-compliance with environmental standards required by BREEAM certification	EBRD PR3  BREEAM New  Construction 2016  Guidelines	SPV – Veolia Nowa Energia in cooperation with General Contractor – Doosan Enerbility and Doosan Lentjes GmbH	Before the start of the Project operation phase	Post-construction stage (PCS) of BREEAM certification at the Very Good level to review by the LTA.	
3.8	Through independent audit at the commissioning stage verify the compliance of the project with <b>Best Available</b> Techniques (BAT) criteria - BAT conclusions no.  C(2019)7987 in accordance with the European Parliament and Council directive 2010/75/UE regarding waste incineration.  Share the results of the independent audit with LTA and EBRD.  Any failure to meet or any deviation from national legislation or BAT-AELs will require further measures to be taken in the form of an upgrade or improvement plan, which will need to be fully corrective, reviewed and confirmed as a condition of the ESAP.	The project is prepared to meet relevant BAT criteria, but on-going verification of the project meeting this criteria is required to ensure it is developed and operate – as designed.	EBRD PR3  EU Directive 2010/75/UE  Environmental Decision of Mayor of the City of Łódź, 28th June 2010, ref. no. OŚR.III.7626/25/10 EU  Agreement of Environmental Conditions of Regional Directorate for Environmental Protection in	SPV – Veolia Nowa Energia in cooperation with General Contractor – Doosan Enerbility and Doosan Lentjes GmbH	Verification conducted prior to facility operation start  Half year LTA & LIESC reviews of compliance if changes occur (as design progress).	Independent audit required of as-built facility to ensure compliance.  Verification report of compliance with BAT requirements to review by LTA and EBRD.	

Veolia Energy Recovery Facility Łódź Environmental and Social Action Plan (ESAP)

No.	Action	Environmental & Social Risks (Liability / Benefits)	Requirement (Legislative, EBRD PR, Equator Principles IV, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
	To demonstrate that emission limits are achieved in line with both national legislation and the BAT-AELs, it is necessary to assess the mass release for each emission point in tonnes per annum, as well as the instantaneous emission concentration release for each pollutant in mg/Nm³ or μg/Nm³.  The emissions shall be assessed against the reference emission standards in accordance with BREF relevant to that project:  - HCL < 2-6 mg/Nm³ daily average  - HF < 1 mg/Nm³ daily average or over the sampling period  - SO₂ 5-30 mg/Nm³ daily average  - NOx 50-120 mg/Nm³ daily average  - CO 10-50 mg/Nm³ daily average  - NH₃ 2-10 mg/Nm³ daily average  - Hg < 5-20 μg/Nm³ daily average  - Hg < 5-20 μg/Nm³ daily average or over the sampling period.  Emissions data not in reference conditions will need to be adjusted accordingly. Some key oxygen reference conditions are detailed below, while the reference conditions for each IED sector are included in the BATc for waste incineration  - 6 per cent O₂.		Łódź, 27th August, 2021, ref. no. WOOŚ.4222.7.2020.DKr.13 Polish regulations				
3.9	Conduct regular independent audit of technical and environmental compliance with BREF requirements on operation phase.  An independent audit shall take place at least every five years. A report should be prepared for submit to the LTA on each inspection carried out. The audit shall be commissioned to an independent expert.	The project is prepared to meet relevant BAT criteria, but on-going verification of the project meeting this criteria is required to ensure it is developed and operate – as designed.	EBRD E&S Policy BREF 2019 Requirements	SPV – Veolia Nowa Energia	To be monitored throughout the Project operation phase duration.	Audit findings to be shared with EBRD to confirmed by LTA.	
	Obtain an <b>Integrated Permit</b> for the facility operation.  An integrated permit defines the conditions for emissions to the environment concerning air pollution, noise, waste, and other aspects resulting from the operation of a single installation. Integrated permit are required for the operation of industrial installations listed in the annex to the regulation of the Minister of Environment regarding the types of installations that may cause significant pollution to individual environmental components or the environment as a whole. Integrated permits are issued by the Voivode Marshal (polish: Marszalek Województwa).  Installations subject to integrated permits must ensure a high level of environmental protection, taking into account the requirements of Best Available Techniques, as published in BAT Reference Documents (BREF), and particularly in the Commission's Implementing Decisions.  In an integrated permit, the scope and method of monitoring emission levels are specified in accordance with the	The project falls into the Integrated Permit threshold, which is required for operation of the installation.  Obtaining an integrated permit confirms the appropriate application of BAT and guarantees compliance with the required permissible emission levels.	EU regulation Polish regulation	SPV – Veolia Nowa Energia	Obtain before start of operation. Start procedure as soon as all technology details are confirmed.	Permit for operation of the installation.  Publish permit and every 5 years undertake an independent audit of performance.	

Veolia Energia Polska S.A.

Document Reference | Final | 02 August 2024 | Arup Polska Sp. z o.o.

Veolia Energy Recovery Facility Łódź Environmental and Social Action Plan (ESAP)

No.	Action	Environmental & Social Risks (Liability / Benefits)	Requirement (Legislative, EBRD PR, Equator Principles IV, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
	monitoring requirements set out in the BAT Conclusions, if such conclusions have been established. The integrated permit may also define the scope and method of monitoring emissions beyond the requirements specified in the BAT Conclusions if there are particular environmental protection considerations that justify it.						
PR4	Health and Safety						
4.1	Develop and implement Occupational Health and Safety Management Plan for (i) construction phase and for (ii) operational phase which will define control and mitigation measures, as a separate document.  The Plan shall include, among others:  - appropriate mitigation to address Project specific occupational health and safety risks.  - Robust reporting procedure on rates of injury, occupational diseases, lost days, absenteeism and number of work-related fatalities  - Training programs for workers on occupational health and safety	Missing out on Occupational Health and Safety specific risks.  Exposure to dust, noise, vibrations. Inadequate handling of working equipment, lack or inadequate use of PPE, procedure in case of identification of unexploded ordinance, failure to follow working procedures / methodologies. Risk to worker safety, unsafe work practices that could lead to serious injury or fatality.	EBRD E&S Policy Equator Principle 4	General Contractor – Doosan Enerbility and Doosan Lentjes GmbH on behalf and monitored by SPV – Veolia Nowa Energia	(i) In accordance with the Contract, it will be prepared within 4 weeks from the commencement date of the construction works.  Implement throughout construction of the Project (ii) Prepared by SPV and accept by LIESC & LTA before operation.	Occupational Health and Safety Management Plan accepted by LTA.  Evidence of implementation: training record, inspection record, risk assessments, etc. to be verified in regular LTA monitoring.	
4.2	Develop Community Health, Safety and Security  Management Plan that will reflect Project's risks and mitigation measures, standalone document for construction phase.  The plan shall include:  Traffic management for construction phase that reflects associated with transportation activities and routes to be used during construction, ensuring compliance with the national traffic and road safety regulation.  Assessment of risks and relevant procedure to deal with voiding/minimising exposure of the communities	Community members encroaching onto the construction site, exposing themselves to a range of potential risks.  Lack of planning of vehicle movement and organization of construction areas may lead to works encroaching outside of immediate construction site, endangering community members.	EBRD E&S Policy Equator Principle 4	General Contractor – Doosan Enerbility and Doosan Lentjes GmbH on behalf and monitored by SPV – Veolia Nowa Energia	(Develop) - Prior to commencement of the construction works (Implement) - Throughout construction of the Project	Community Health, Safety and Security Management Plan accepted by LTA.	
4.3	Develop and implement the Traffic and Road Safety Management Plan for operation phase.  The plan shall include detailed routes, as well as waiting spots if needed, and outline the monitoring methods for implementing these routes for RDF deliveries and other materials processed in the ERF during the operational phase.  The plan shall include:  - Analysis of transport route variants with regards to traffic intensity (road map with city infrastructure and buildings background);  - Indication of preferred and recommended routes;  - Indication of alternative routes.	Lack of Traffic and Road Safety Management Plan containing an analysis of transport route variants.	EBRD E&S Policy Equator Principle 4	SPV – Veolia Nowa Energia	(Develop) - Prior to Financial Close (Implement) - Throughout operation of the Project	Traffic Management Plan accepted by LTA. Evidence of implementation.	

No.	Action	Environmental & Social Risks (Liability / Benefits)	Requirement (Legislative, EBRD PR, Equator Principles IV, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
	Monitoring and reporting programme if needed.						
4.4	The SPV shall develop and implement the Emergency Response Plans for all areas of work taking into account different stages of the works and ensuring that all Contractor's / Subcontractor's Personnel on Site, including visitors, are properly instructed in the emergency response procedures and such training is recorded and available for inspection.	Lack of Emergency Response Plan for the ERF for construction and operation period.  Inadequate reactions in the event of situations threatening the life and health of people, including ERF employees, as well as the quality and further functioning of environmental elements.	EBRD E&S Policy	SPV – Veolia Nowa Energia	(Develop) - Prior to commencement of the construction works (Implement) - Throughout operation of the Project	Emergency response plan for construction phase including all foreseen risks and events and for operational phase. To be revised by LTA and IESC.	
PR 10	Information Disclosure and Stakeholder Engagement						
10.1	Implementation of Stakeholder Engagement Plan (SEP) and Grievance Mechanism by SPV.  It shall be noted that Stakeholder Engagement Plan shall be provided on ongoing basis through the Project cycle and documented.  SEP shall include also grievance mechanism and contact information for those interested. Grievance mechanism shall be developed to receive and facilitate resolution of stakeholders' concerns and grievances, in particular, about the SPV environmental and social performance.  The company to ensure that the grievance mechanism is easily accessible, understandable and communicated to all Project stakeholders.  Handling of grievances shall be done in an appropriate manner and be discreet, objective, sensitive, and responsive to the stakeholders' needs and concerns. The mechanism will also allow for anonymous complaints to be raised and addressed.  Stakeholders shall be informed about the mechanism in the course of its engagement activities and report regularly to the public on its implementation. Monitoring of the implementation of the grievance mechanism and analysis of trends shall be undertaken regularly.  It is important to publish emissions and imissions data regularly. Daily emissions along with the daily average should be published on the Internet, and imissions should be reported according to EI and authorities' requirements, but at least twice a year.  Key Stakeholders shall be defined and described in the scope about the profile of the organisation, local presence etc.	Without implementation of Stakeholder Engagement Plan there is a risk that transparent and meaningful consultations with people affected by the Project and other stakeholders will not be organised in line with EBRD PR10 requirements.	EBRD E&S Policy Equator Principle 4	SPV – Veolia Nowa Energia	Prior to commencement of the construction works Implement throughout operation of the Project	Stakeholder Management Plan and Grievance Mechanism in place and accepted by LTA.  External grievance mechanism to be accepted by LTA and communicated to local community.  Evaluation of successful implementation – as per monitoring programme developed as a part of EHSSMS.	