

Environmental and Social Review Summary

SCATEC SOLAR – REIPPP Round 4 Projects

This Environmental and Social Review Summary (ESRS) is prepared by MIGA staff and disclosed prior to the date on which MIGA's Board of Directors considers the proposed issuance of a Contract of Guarantee. Its purpose is to enhance the transparency of MIGA's activities. This document should not be construed as presuming the outcome of the decision by MIGA's Board of Directors. Board dates are estimates only.

Any documentation that is attached to this ESRS has been prepared by the project sponsor, and authorization has been given for public release. MIGA has reviewed the attached documentation as provided by the applicant, and considers it of adequate quality to be released to the public, but does not endorse the content.

Country:	South Africa
Sector:	Energy
Project Enterprise:	Scatec Solar
Environmental Category:	B
Date ESRS Disclosed:	June 25, 2018
Status:	Due Diligence

A. Project Description

Scatec Solar ASA of Norway (Scatec) is seeking MIGA guarantees for its equity and shareholder loan investments in the Dyason's Klip 1, Dyason's Klip 2, and Sirius 1 photovoltaic power plants ("the Project"), located outside Upington in the Northern Cape Province. The Project involves the design, construction and operation of the three power plants, totaling 225 MW of installed capacity.

Scatec is an independent solar power developer and producer with fifteen years of experience and current operations or construction activities in Brazil, Czech Republic, Honduras, Jordan, Egypt, Malaysia, Mozambique and Rwanda, in addition to South Africa. Scatec has a global installation track record of around 1000 MW installed capacity and around 1,400 MW capacity in operation or under construction.

The power plants will be built on three adjacent plots, located within the boundaries of two farms on land currently used for cattle and sheep farming. A land lease for a period of 20 years with options for renewal has been signed with the land owners on willing lessor – willing lessee basis. The total land area occupied by the Project is approximately 600 ha. The location is on gently sloping land between two dry river beds. Arid conditions and poor soil quality limit agriculture potential, and the current vegetation is sparse.

The closest settlement to the Project site is the Dyasons Klip community, at a distance of approximately 6 km. There are no residences or residential areas in the vicinity of the Project. The Project site is adjacent to the site of ESKOM's Khi Solar One project, a concentrating solar power facility.

Each solar power plant will compose of tracking photovoltaic solar panels with an installed capacity of 75 MW, and associated infrastructure including cabling, on-site substation, access roads, and workshop area for maintenance, storage and offices. The Project will also include a 3 km long 132 kV transmission line to connect to the Eskom power grid, and a 5 km gravel road to connect the site to the main road.

The project reached financial close in April 2018 and construction is expected to commence in the fourth quarter of calendar year 2018. Construction is expected to take between 14 and 18 months per plant. During the peak construction period, the Project expects around 700 construction personnel to be present across all three sites. Scatec will provide both construction (EPC) and operations and maintenance (O&M) contractor services for the Project, as well as management services. An Environmental and Social Lenders Advisor (ESLA) has been appointed (OST Energy/RINA Consulting), whose due diligence review was completed in October 2017. RINA Consulting has also been appointed as the Lender's Technical Advisor.

B. Environmental and Social Categorization

According to MIGA's Environmental and Social Sustainability Policy (2013), the Project has been categorized B as the expected risks and impacts are site specific and can be managed through the appropriate application of internationally recognized practices and measures for this type of Project. Key environmental and social (E&S) issues are expected to include implementation of suitable management systems and procedures and impacts typically associated with construction activities such as waste management, water resource use for construction and operational activities, dust emissions due to site preparation, noise and vibrations, influx of construction workers, community and occupational health and safety, and risks associated with the use of security personnel.

C. Applicable Standards

While all Performance Standards are applicable to this Project, current information indicates that the Project will have impacts which must be managed in a manner consistent with the following Performance Standards:

- PS1: Assessment and Management of Environmental and Social Risks and Impacts
- PS2: Labor and Working Conditions
- PS3: Resource Efficiency and Pollution Prevention
- PS4: Community Health, Safety and Security

The land area required for the Project is owned by two landowners, who do not currently reside on the land. Scatec did not have the right to expropriate the land for the Project. The Project signed an agreement with the landowner, under a willing lessor and willing lessee basis. Thus, PS5 Land Acquisition and Involuntary Resettlement does not apply.

The project will be located on an existing farm and will not have significant impacts related to biodiversity, thus PS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources does not apply. There is no indication or evidence of indigenous people residing in or having cultural ties to the Project area, thus PS7 Indigenous Peoples do not apply.

The archaeological surveys conducted in the area have not found any indication of archaeological evidence in the project areas. Four sites of light concentration of stone tools were recorded, of low significance and outside of the Project footprint. PS 8 Cultural Heritage does not apply. Nevertheless, the Project ESIA includes an archaeological/heritage management plan and chance finds procedure, and EPC contractor will prepare and implement a chance finds procedure' during construction.

In addition to the Performance Standards, the World Bank Group (WBG) Environmental, Health and Safety (EHS) General Guidelines; and sector specific guidelines for Electricity Transmission and Distribution apply to this Project.

D. Key Documents and Scope of MIGA Review

The following documents were reviewed by MIGA:

- Lender's Technical Advisor Report, Pre-FC Permits, Environmental and Social Due Diligence Report. Rina Consulting, October 2017.
- Final Environmental Impact Report, Dyasonsklip 434. Cape EAPrac, February 2018.
- Final Environmental Impact Report, Dyasonsklip 454. Cape EAPrac, May 2018.
- Final Environmental Impact Report, Sirius Solar PV Project. Savannah Environmental Pty Ltd, February 2017.
- Scatec Solar Global HR Policy, September 2017.
- Scatec Solar standard HSES and Labor contract requirements for contractors and sub-contractors, last updated in May 2018
- Scatec Solar Health, Safety and Environmental System Manual, February 2016

In addition to the Project-specific documents above, MIGA conducted a site visit to the Project area in June 2018, which included meetings with Scatec, a visit to the project location and a meeting with one of the landowners. As part of the Lender's due diligence, the ESLA also undertook a site visit in 2017.

E. Key Issues and Mitigation

MIGA's due diligence review considered the environmental and social management planning process and documentation for the Project, and identified gaps, if any, between these and MIGA's requirements. Where necessary, corrective measures, intended to close these gaps within a reasonable period, are summarized in the paragraphs that follow and in the Environmental and Social Action Plan (ESAP) attached to this ESRS. Through the implementation of these measures, the Project is expected to be designed and operated in accordance with Performance Standards objectives.

PS1: Assessment and Management of Environmental and Social Risks and Impacts

Scatec has a corporate Health, Safety and Environment Policy which describes the company's commitment to the protection of the environment and people, and the safety of its employees. The policy requires compliance with applicable laws and relevant health, safety and environmental

standards. The corporate policy applies to all aspects of its operations – construction, operation and maintenance; and is communicated to employees and other stakeholders.

Environmental and Social Assessment: Environmental and Social Impact Assessment (ESIA) reports were prepared for each power plant by independent consultants, in line with local requirements. The ESIA's were submitted to the Department of Environmental Affairs, and Environmental Authorizations were issued with conditions related to E&S management and monitoring in 2014. Independent consulting companies, Cape EA Practitioners and Frontline Consulting, deployed by Scatec for the EPC stage will ensure that the ESIA's are updated in line with any possible changes that might have occurred during the last 4 years. Both the ESIA's and authorizations included an analysis of cumulative impacts which were not considered significant. In addition to the ESIA, an ESDD Report was undertaken by an independent consultant as part of the Lender's appraisal of the Project. The ESDD Report benchmarked Project documents against the IFC/MIGA's Performance Standards, identified gaps and developed an ESAP to address the gaps. MIGA also reviewed progress against the Lender's ESAP as part of the due diligence.

Management Programs and monitoring: The ESIA includes a draft Environmental Management Program (EMP), the objectives of which is to ensure that impacts associated with the planning, construction, operation and decommissioning of the Project are avoided or mitigated in accordance with the requirement of MIGA's PSs and applicable national legislation. The draft EMP includes the identification of applicable E&S requirements; identification of environmental aspects and impacts relevant to the Project; an overview of the environmental procedures to ensure compliance with the Project's E&S requirements; and auditing requirements and reporting requirements. The draft EMP also includes an organizational structure for E&S management and statements of responsibility and authority. The Project has contracted an external consultant, Cape EAPrac, to develop the final EMP for the construction phase, in line with both local regulation and MIGA's PSs. The finalized EMP will be submitted to MIGA as per the ESAP.

An Environmental and Social Management Plan (ESMP) for operations will also be developed based on the framework provided in the ESIA.

Organizational Capacity and Training:

Scatec has engaged a third party Environmental Control Officer (ECO) for each site to oversee the implementation of the EMP and the associated procedures for the construction and operations phases. ECO responsibilities include a review of overall compliance with applicable E&S requirements, audits and inspections, training of construction staff and coordination of reporting to both Scatec and authorities. The ECO reports directly to the plant supervisor and Project Manager.

Similarly, a fulltime Health, Safety and Environmental (HSE) Officer will be engaged by the Project for each site during construction. He/She will have oversight over the Subcontractor-appointed HSE personnel and procedures. Monthly audits will be undertaken by this independent HSE Officer inspecting documentation and record keeping on site, as-well-as providing monthly reporting on HSE statistics.

A Community Liaison Officer (CLO) will also be appointed to be responsible for coordinating the interaction with the local communities and other stakeholders.

In addition, and as mentioned above, the Project reports to OST Energy/RINA Consulting acting as Lenders Environmental and Social Advisor from development through to operation.

Emergency Preparedness and Response: Scatec has a corporate emergency preparedness procedure in place as part of the HSE manual, including provisions for the identification, prevention and mitigation of risks. The procedure also requires the development of an Emergency Preparedness Plan for all projects. The Project will establish such procedures as part of the HSE Manual, as per the ESAP. The plan will include procedures for informing stakeholders and responding to emergencies.

Monitoring and review: Reporting activities for the construction phase are described in the EMP. Scatec Construction will prepare monthly construction progress reports (which include a section on environment, health and safety). The Environmental Control Officers will also be reporting monthly to both Scatec and the authorities. Monitoring activities for construction and operation are also described in the ESIA, the monitoring plans are managed via an overarching environmental monitoring program which will be detailed in the EMP.

The Lenders Environmental and Social Advisor will visit the Project site every 6 months during the construction phase, and annually during operations, to review compliance with the Performance Standards and local regulations.

PS2: Labor and Working Conditions

During the construction phase, it is expected that the total workforce will be around 300. Approximately 60% of the employment opportunities will be available to low-skilled workers (construction laborer's, security staff etc.), 15% to semi-skilled workers (drivers, equipment operators etc.) and the remainder will be skilled personnel (engineers, land surveyors, project managers etc.). The operational phase will employ approximately 47 full time staff per site and 13 full time staff in a head office capacity.

The Project is required by local regulation to ensure that a portion of the workforce is recruited from the local municipalities, and Scatec has also made a commitment to supporting the local communities through job creation. Economic development obligations require that over 99% of the job creation must be South African citizens and 73% of African descent. Furthermore, 53% of all employment must be from local communities.

There will be no on-site worker's accommodation as part of the Project, transportation by bus from nearby towns will be made available to construction staff.

Human Resources Policies and Procedures: In South Africa, Scatec follows the SA Basic Conditions of Employment Act 1997, the Employment Equity Act 1998 and SA Labor Relations Act (1995). Scatec has a global Human Resources Policy in place which has been adjusted to reflect the requirements of the SA legislation. It includes the recruitment, dismissal, performance appraisal, equal opportunity and non-discrimination, rights to collective bargaining, commitment to provide accommodation as per international standards, commitment to health & safety at work

and compensation systems. The policy is applied to each project by the establishment of a Project Labor Agreement (PLA), incorporating local HR-regulations as well as the requirements of MIGA's PSs. The PLA will incorporate information such as working hours, standard contracts, minimum wage requirements and security requirements, and will also be applicable to contractors and sub-contractors. Labor management requirements are contractually passed on the contractors by implementing the requirements of the International Federation for Consulting Engineers (FIDIC) Silver Book.

Workers' Organization: A labor committee will be established at each construction site, functioning as a forum for discussing matters related to working conditions between Scatec, contractors and employees.

There is currently no indication as to the number of unionized employees expected to be involved in the construction phase. The PLA will be between the Scatec, the sub-contractors and the relevant unions as may be applicable to the project in accordance with SA Labor Relations Act. During operations, Scatec will allow freedom of association in line with the requirements of MIGA's PSs.

Non-Discrimination and Equal Opportunity: As per the HR policy, Scatec is committed to the principles of employment equity, equal opportunities and empowerment, regardless of gender, race, color or creed. Scatec will develop and implement a formal policy on non-discrimination and equal opportunity for the Project, and such requirement is also contractually passed down to all contractors and sub-contractors.

Grievance Mechanism: Scatec has a grievance mechanism for workers to raise workplace concerns. It allows for anonymous complains to be raised and addressed. Scatec will inform the workers of the grievance mechanism at the time of recruitment and make it easily accessible to them. A staff grievance mechanism for the construction phase of the Project will be established by the EPC contractor, as a condition of the EPC contract. The mechanism shall include an anonymous communication channel, as well as an online grievance repository. The contractors will report to Scatec on reported grievances and progress in terms of resolutions. This procedure will be compliant with the South African Labor Law and the requirements of MIGA's PSs. Scatec also has a grievance mechanism open to both members of public and construction staff, available through its website.

Occupational Health and Safety (OHS): Scatec and the Project will develop appropriate OHS procedures for the construction and operations phase which are consistent with the requirements of MIGA's PSs and local South African Laws such as the Occupational Health and Safety Act (1993), and submit to MIGA as per the ESAP. A third-party consultant (Frontline) has been engaged to develop Health and Safety manuals for each site. Scatec will provide appropriate personal protective equipment (PPE) for all its staff and require the same for workers employed by contractor and subcontractors and provide the required training to ensure that staff and workers work in a safe manner. Scatec will also ensure that sub-contractors provide appropriate PPE, training and comply with the requirements of local South African Laws and MIGA's PSs.

Workers Engaged by Third Parties: It is expected that during the construction and operational phases Scatec will make use of service providers for security and maintenance roles. Scatec will develop and implement a procedure to ensure that contractors' labor and working conditions comply with the requirements of this MIGA's PSs and South African Laws, including consideration for grievance mechanisms for third party workers and fair working conditions. In this respect, FIDIC Silver Book requirements contain a provision that contractors and sub-contractors will

follow the requirements of the South Africa labor legislation and the requirements of the MIGA PS's.

Supply chain. Scatec sets requirements and engages in dialogue with suppliers and sub-contractors on the issues of labor and working conditions and environmental sustainability. To ensure that suppliers meet international standards Scatec visits selected suppliers to monitor performance regarding factors such as quality, health and safety, labor conditions and environmental management. Scatec and the EPC will include a clause in main supplier contracts regarding applicable PS2 requirements on child and forced labor and OHS.

PS3: Resource Efficiency and Pollution Prevention

Potential pollution issues during the project's construction phase will be those typically associated with construction sites such as dust, noise, oil spills and traffic. These impacts are limited and temporary and will be mitigated with standard mitigations measures which are included in the EMP and in accordance with MIGA's PSs. During operations, the main issues relate to water use and waste management.

The highest amount of resources and materials will be consumed during the construction phase. Energy for the construction project will be supplied by diesel/petrol generators. During operations, the energy supply will be drawn from the energy generated by the project.

Greenhouse Gases: As this is a solar project, the greenhouse gas (GHG) emissions associated with the operations phase of the project are minimal as they will be temporary and predominantly associated with the use portable power generators, operations of heavy machinery/equipment, and transportation of workers and materials. Therefore, the project will not be required to quantify and report the CO₂-equivalent emissions as required under MIGA's PSs during construction. There is no data on the exact amount of CO₂ equivalent the project will displace but based on the Scatec 2017 Sustainability Report company's power plants in operation resulted in avoiding more than 700,000 tons of greenhouse gas emissions in 2017. This figure that will more than double when projects currently under construction are connected to the grid.

Water consumption: The three Projects are proposing to source water from a single borehole. A Geohydrological Assessment Report was prepared for the Water Use License application in September 2015 which concluded that there is sufficient groundwater resource for all three projects and Water Use Licenses for all three projects were granted. Scatec will ensure that the hydrological assessment is up to date and the water availability is sufficient during the construction and operations phases and that the water use is sustainable. Water will be sourced from a borehole on site. No effluent will be produced except for the normal sewage from operations staff. The cleaning process will not require any pre-treatment. A water management plan will be developed for each site and will include management actions for sustainable use of water resources and efficiency measures. During the construction phase, water will be required for road construction, dust suppression, drinking water and domestic purposes. As an additional measure, PVC rainwater tanks will also be placed alongside the on-site buildings to collect the rainwater runoff from the roof.

Pollution Prevention: During the construction phase, air emissions from the project will primarily include dust/particulates from land clearing and earth works as well as nitrogen oxides (NO_x), carbon monoxide (CO) and sulfur dioxide (SO₂) from the combustion of fuels, sanitary wastewater

generated by construction personnel; excavation and site leveling spoils management; Measures to minimize these impacts have been identified in the draft EMP. These measures include the use of adequate equipment, vehicle and roads maintenance, timely dust suppression measures, and speed restrictions.

Noise impacts are expected to be associated with the construction phase of the project and are not likely to present a significant intrusion to the local community since there are not settlements in the project surroundings. Therefore, there is no requirement for a noise permit for the project, and noise level are expected to be within the limits of local regulation and the EHS Guidelines.

Solid Waste Management: Construction waste such as domestic waste, inert waste (i.e. rubble, spoil), recyclables (i.e. plastics, paper, metals.) will be sorted on sites and collected by a licensed waste collector for recycling and disposal as required by local regulation. General waste generation during operations is expected to be minimal; the waste will be disposed of by a licensed waste contractor similar to in the constructions phase. A Waste Management Plan will be developed and implemented by Scatec, as part of the EMP.

Hazardous Materials Management: Chemicals to be used during construction and operation of the power plant will include herbicides for weed control, paints, fuels and lubricating oils. These chemicals will be stored in small quantities on site, in designated storage cabinets with secondary containment. Petrol/diesel for generators will be stored in above-ground storage tanks fitted with containment bunds.

PS4: Community Health, Safety and Security

All three sites are located around 20 km southwest of Upington, Northern Cape Province. Sirius is located on the remaining extent of the Tungsten Lodge 638 farm which falls under the Kai! Garib Local Municipality Local Municipality. Dyason's Klip 1 & 2, will be located on the Remainder of Farm 454, Dyason's Klip, which is situated within the jurisdiction of the Kai! Garib Local Municipality.

The closest community is located approximately 6 km from the project site, and there are no settlements affected by the construction of access roads or the transmission line.

Community Health and Safety: Potential impacts on community health and safety are expected to be low, as most of the them will be limited to the construction sites. The draft EMP includes mitigation measures and performance indicators to minimize risks and nuisance to the community from traffic, including dust emissions. A Traffic and Transport Management Plan (TTMP) will be developed to ensure community safety during the movement of project equipment to the construction sites. Daily traffic will include the transport of personnel to and from the sites. The TTMP will provide for continuous mechanism for monitoring of impacts on local livelihoods and community health, among others during construction and operations.

Community Exposure to Disease: Scatec and contractors will implement an HIV/AIDS and substance abuse awareness program for all construction workers at the outset of the construction phase, as well as health education program for communities. They will also implement worker's health programs to screen health of workers. However, such health information will not be used for exclusion from employment or other forms of discrimination. Also, no construction workers will be allowed to stay on the sites overnight with the exception of security personnel.

Security Arrangements: Site security will be managed by a private security firm who will provide trained unarmed security personnel. During the operations phase, the sites will be fenced and public access to the solar plant will be prevented. The Project will be guided by the principles of good international practice in relation to hiring, rules of conduct, training, equipping, and monitoring of security workers, and by applicable law. For construction and operations activities Scatec will develop a Security Management Plan (SMP) in line with the MIGA PSs.

F. Environmental Permitting Process and Community Engagement

The Sirius plant was granted Environmental Authorization by the Department of Environmental Affairs in July 2014, and Sirius in August 2014. The draft Environmental Management Programs (EMP) and Site Layout Plans were also approved in February 2016. Other licenses and permits granted to the Project include: Waste Management Licenses (Kai Garib Municipality, July 2015), and Water Use License (Department of Water Affairs, March 2014).

A Social Economic Development Program will be established and implemented by Scatec, funded by revenue from the Project, in line with the Department of Economic Development's Policy. A needs assessment will be carried out in cooperation and consultation with the local communities, to identify suitable projects or programs to be supported. As mentioned above, a Community Liaison Officer (CLO) will be also appointed for each power plant. On top of providing a link between contractors and communities for questions related to workforce and employment, the CLO will work with the project to review community needs and identify suitable support programs for the Social Economic Development Program.

Scatec has committed itself to supporting national policy initiatives towards black economic empowerment and social upliftment. In this respect the plants are partially owned by local community trusts and Broad Based Black Economic (BBBEE) companies with each owning between 10-15% respectively. In addition, Scatec set up three Broad Based Black Economic (BBBEE) trusts in the Northern Cape. These are the Hanover Community Trust, The De Aar Community Trust and The Phillipstown Community Trust. The purpose of these trusts will be to assist in development initiative within these communities by building much needed infrastructure, including schools and clinics.

MIGA supports its clients (as defined in MIGA Policy on Environmental and Social Sustainability) in addressing environmental and social issues arising from their business activities by requiring them to set up and administer appropriate grievance mechanisms and/or procedures to address complaints from Affected Communities.

In addition, Affected Communities have unrestricted access to the Compliance Advisor/Ombudsman (CAO), the independent accountability mechanism for MIGA. The CAO is mandated to address complaints from people affected by MIGA-guaranteed business activities in a manner that is fair, objective, and constructive, with the goal of improving environmental and social project outcomes and fostering greater public accountability of MIGA.

Independent of MIGA management and reporting directly to the World Bank Group President, the CAO works to resolve complaints using a flexible, problem-solving

approach through its dispute resolution arm and oversees project-level audits of MIGA's environmental and social performance through its compliance arm.

Complaints may relate to any aspect of MIGA-guaranteed business activities that is within the mandate of the CAO. They can be made by any individual, group, community, entity, or other party affected or likely to be affected by the environmental or social impacts of a MIGA-guaranteed business activity. Complaints can be submitted to the CAO in writing to the address below:

*Compliance Advisor/Ombudsman
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Tel: 1 202 458 1973
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G. Availability of Documentation

- Final Environmental Impact Report, Dyasonsklip 434. Cape EAPrac, February 2018.
- Final Environmental Impact Report, Dyasonsklip 454. Cape EAPrac, May 2018.
- Final Environmental Impact Report, Sirius Solar PV Project. Savannah Environmental Pty Ltd, February 2017.

The above listed documentation is available electronically as PDF attachments to this ESRS at www.miga.org.

Scatec REIPP Round 4 Projects – Environmental and Social Action Plan

No.	Action	Timeline
1	Update the Projects' EMP and associated management plans and procedures in line with the requirements of the MIGA PSs and South African regulations, for a) construction phase and b) operations phase.	a) Prior to start of construction; b) 30 days prior to commencement of operations.
2	Develop Health and Safety manuals and for the Projects, in line with the requirements of the MIGA PSs and South African legislation, for a) construction phase and b) operations phase.	a) Prior to start of construction; b) 30 days prior to commencement of operations.
3	Develop a Security Management Plan (SMP) in line with the requirements of the MIGA PSs for a) construction phase and b) operations phase.	a) Prior to start of construction; b) 30 days prior to commencement of operations.