

## Environmental and Social Review Summary

### SCATEC SOLAR REIPPP Round 1 & 2 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 an independent solar power developed and producer with fifteen years of experience and current operations in Brazil, Czech Republic, Honduras, Jordan, Malaysia, Mozambique and Rwanda, in addition to South Africa. Scatec has a global installation track record of around 1000 MW installed capacity and around 400 MW capacity under construction.

Scatec Solar ASA of Norway (Scatec) is seeking MIGA guarantees for its equity investments in three photovoltaic power plants ("the Projects") that are already in operation, Kalkbult, Dreunberg and Linde respectively. Dreunberg is located in Eastern Cape Province 6 KM north of Burgersdorp, Kalkbult is located along the R388 road and the rail line north of De Aar and Linde is close to Hanover in the Northern Cape Province. Kalkbult and Dreunberg have 75 MW installed capacity each whereas Linde is a 40 MW plant.

The plant infrastructure includes invertors, transformers, associated cabling, on-site substation, access roads, and area for maintenance, storage and offices. The Projects have a direct connection to the Eskom power grid. The plants are located on existing farmlands and here are no residences or residential areas within the vicinity.

Scatec employs a contractor, Scatec Solar Africa 163 (Pty) Ltd. hereinafter referred to as "O&M Contractor" to undertake the operations and maintenance of the plant.

The Projects are a part of South Africa Renewable Energy Independent Power Producer Procurement program (REIPPP), a program designed to introduce renewables into the country's energy system through a bidding process. Energy consortia in the forms of international developers and funders bid for the right to proceed with executing the 20-year government-

supported power purchasing agreement. Kalkbult was bid for during Round 1 of this program, while Linde and Dreunberg were in Round 2. All plants were commissioned and have been operating since 2014. Post construction, all construction machinery, equipment and materials, as well as temporary structures were removed from the sites.

## **B. Environmental and Social Categorization**

According to MIGA's Environmental and Social Sustainability Policy, 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 environmental and social management system and procedures; appropriate human resources (HR) policies and procedures, and occupational health and safety (OHS) provisions for all workers, including contractor employees.

## **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 areas required for each plant are owned by different individual landowner, Scatec has signed lease agreements with each landowner, under willing seller-willing buyer agreements. Scatec did not have the right to expropriate land for the Projects. Thus, PS5 Land Acquisition and Involuntary Resettlement does not apply.

The projects are located on existing farms and there are no 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 does not apply.

The archaeological surveys were conducted in the area 2011 for Kalkbult and Linde and in 2012 for Dreunberg as a part of the environmental impact assessment studies. No sites of cultural / historical value were identified within the boundaries of the project areas, neither were any resources of heritage value identified. PS 8 Cultural Heritage does therefore not apply.

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:

- Kalkbult PV – Technical Due Diligence Report to Standard Bank. Arup, Sep, 2012
- Linde Solar PV Project – Technical Due Diligence Report to Standard Bank. Issue 2. Arup, May 2013
- Dreunberg Solar PV Project – Technical Due Diligence Report to Standard Bank. Issue 2. Arup, May 2013
- Kalkbult Photovoltaic Solar Energy Facility. Environmental and Social Annual Monitoring Report for the Operational Phase. Prepared for Standard Bank by Arup, March 2017
- Linde PV Project. Environmental and Social Monitoring Operational Phase Report. Prepared for Standard Bank by Arup, March 2017
- Dreunberg PV Project. Environmental and Social Monitoring Operational Phase Report. Prepared for Standard Bank by Arup, March 2017
- Environmental Authorization for Ground Mounted Photovoltaic Solar Power Farm within remainder of the farm Nuwe Kalkbult No. 181, Nov 2011
- Environmental Authorization for Ground Mounted Photovoltaic (Solar Power) facility on the Farm Dreunberg, the remainder and remainder of Portion 1 of the Farm Naaupoort No 97, Eastern Cape Province, Feb 2012
- Environmental Authorization for Ground Mounted Photovoltaic Solar Power Farm within the Emthanjeni Local Municipality, Nov 2011
- Final Environmental Impact Report. Establishment of photovoltaic (solar power) farms in the Northern Cape. Sustainable Development Projects CC. August 2011
- Final Environmental Impact Report. Establishment of photovoltaic (solar power) farm in Dreunberg, Eastern Cape. Sustainable Development Projects CC. January 2012
- Environmental Management Programme. Kalkbult PV Plant. Scatec Solar. July 2017
- Environmental Management Programme. Linde PV Plant. Scatec Solar. July 2017
- Environmental Management Programme. Dreunberg PV Plant. Scatec Solar. July 2017
- Scatec Solar Health, Safety and Environmental Management System Manual. Feb 2016

In addition to the Project-specific documents above, MIGA conducted a site visit to the Project area in June 2018.

#### **E. Key Issues and Mitigation**

MIGA's due diligence review considered the environmental and social management procedures and documentation for the Projects, 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 Solar 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 Management System:* In the Operations and Maintenance (O&M) phase, the O&M Contractor implements an Environmental Management System (ESMS) aligned with ISO 14001 to manage environmental impacts associated with O&M activities at the three plants. The components of the ESMS consist of policy, planning, implementation and operation, checking and review. The ESMS includes an organization structure for environmental and social management and statements of responsibility and authority.

Scatec has developed site-specific Environmental Management Programs (EMPs) for the O&M phase. The EMPs refer to the requirements of South African legislation, the Performance Standards and the EHS Guidelines. The EMP outlines environmental requirements for specific activities that may pose risks on environment and people during the O&M process including vegetation control, module cleaning, routine and non-routine plant equipment maintenance, small-scale construction activities and general plant maintenance. The EMPs cover environmental aspects such as resource efficiency and pollution prevention, energy efficiency strategies, water management, waste management, vegetation maintenance, storm water management, exotic weed control, fauna and birds' management.

*Policy:* Scatec Solar 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 Impact Reports (EIR) were prepared for each of three Scatec plants. They were prepared by independent consultant company named Sustainable Development Projects CC in line with local requirements and MIGA PS1. The EIR documents contains a risk analysis and evaluation of impacts pertinent to the proposed activity including terrain and geotechnical, ecological, cultural heritage, economic development, visual aspects, impacts on agricultural activity, accessibility, soil erosion, land use and property process.

*Organizational Capacity and Training:* Scatec Solar has a Health, Safety and Environmental (HSE) Officer to oversee the implementation of the ESMS, the EMP and the associated procedures for the operations phase. In addition, there is an HSE representative on-site, with whom the HSE officer works directly to provide necessary training. Commitment to training during operations is included in the ESMS. A Community Liaison Officer (CLO) is also in place for each plant, responsible for overseeing interaction with the affected communities and other stakeholders.

*Emergency Preparedness and Response:* Emergency response procedures are a part of the EMS and the EMP at each plant. The procedures and responsibilities for emergency response actions and communication are clearly defined and are available on-site. Emergency response flowcharts with contact numbers are posted on-site. Fire-fighting equipment and fire alarms are up-to-date and are

regularly tested. Scatec has contracted an independent provider for medical evacuation, and medical emergency response plan is available on-site. Scatec has clear communication lines with the landowner and Eskom in case of an emergency.

*Monitoring and review:* The Plant O&M Managers submit standalone HSE reports to the Scatec Cape Town office monthly. Scatec has arranged for annual environmental audits and environmental and social reviews to be conducted by independent companies. Annual Environmental Audits are conducted by SDP Ecological and Environmental services and Environmental and Social Annual Monitoring is conducted by Arup. Periodic site hygiene and ergonomics monitoring is also conducted by an independent consulting company, Nosa. Regional branches of the South Africa Department of Environmental Affairs conduct regular and ad-hoc monitoring activities in line with National Environmental Management Act (NEMA).

### PS2: Labor and Working Conditions

Each plant between 5-7 O&M staff hired by the O&M Contractor. In addition, there are 7 security personnel per plant who work by shifts. There is no on-site worker's accommodation as part of the Projects, all staff reside in the nearby communities.

*Human Resources Policies and Procedures:* Scatec follows the South Africa Basic Conditions of Employment Act (1997), the Employment Equity Act (1998), and SA Labor Relations Act (1995). Scatec Solar 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 health & safety at work and compensation systems. Individual job contracts for Scatec staff incorporate the requirements of local HR-regulations as well as the requirements of this Performance Standard.

*Workers' Organization:* Scatec follows the requirements of the SA Labor Relations Act (1995) that protects employees' rights to freedom of association and collective bargaining in line with the requirements of this Performance Standard. One of the Scatec HR Policy objectives is "to support the right of workers to organize unions". The percentage of full time and short-term employees that are covered by formal collective bargaining agreements has amounted to 11% in 2017.

*Non-Discrimination and Equal Opportunity:* Scatec Solar is committed to the principles of employment equity, equal opportunities and empowerment, regardless of gender, race, color or creed. Based on their HR Policies and Procedures for the operations, Scatec Solar has in place a formal policy on non-discrimination and equal opportunity to cover all aspects of the Project, and such requirement is also contractually passed down to all third-parties, including contractors

*Grievance Mechanism:* A grievance mechanism for operations stage is a part of the Environmental Management System and Health and Safety Management system. This procedure is compliant with the South African labor legislation and the requirements of the Performance Standard 2, Labor and Working Conditions. Scatec also has a grievance redress instrument and reporting form on their website. Serious cases are investigated by an independent company, BDO.

*Occupational Health and Safety:* Scatec has developed a HSE Management System Manual that contains procedures for site-specific risk assessment. The findings of the site visit confirmed

that a permit-to-work system is in place. It includes a permit application and pre-work risk assessment which has to be cleared by the site supervisor. For high-voltage (HV) works permits have to be cleared by the control room in Cape-Town. Scatec ensures that the HSE documentation is available on site and that the site staff are trained on the full range of HSE procedures. As part of the ESAP, Scatec will establish site-specific occupational health and safety procedures for each power plant, based on the HSE Management System Manual and the requirements of the MIGA PSs.

There is a system for reporting incidents and near misses. This goes in line with the requirements of the Occupational Health and Safety Act (1993). Major incidents are reported to the Department of Labor and the Department of Environmental Affairs. There is a procedure for accident/incident investigation. Investigation results are used for learning and training purposes. Target near-miss reporting figures are also a part of the Key Performance Indicators which are regularly monitored and reviewed by the Company Management. Internal reporting includes monthly reporting to Scatec Management in HQ in Oslo, Norway.

Visitors and employees are provided with the HSE induction and induction log is available. Site employees and visitors are provided with an appropriate protective equipment.

HSE responsibility on-site lies with the plant supervisors. A site HSE representative has also been assigned, as previously mentioned who is responsible for coordinating health and safety audits, identify potential hazards and risks, participate in accidents/incidents investigations, make recommendations regarding health and safety, conduct safety inductions, organize health and safety meetings, ensure regular HSE reporting and management of HSE documentation.

*Workers Engaged by Third Parties:* Contractors and third parties involved during the operations include security personnel, sanitation services and sewage removers waste management and collection companies, and vegetation control service who arrive on a regular basis. Scatec has procedures in place as well as standard contractual obligations to ensure that contractors' labor and working conditions comply with the requirements of this Performance Standard and South African laws, including consideration for grievance mechanisms for third party workers and fair working conditions.

*Supply chain.* Scatec sets requirements and engages in dialogue with suppliers and sub-contractors. To ensure that suppliers meet international standards Scatec visits selected suppliers to monitor performance regarding factors such as quality, HSE, labor conditions and environmental management.

*Worker's Accommodation:* There is no housing of workers on the site during operations and maintenance stage. All workers, including the security personnel, live in the nearby settlements and leave for home at the end of their shifts.

### PS3: Resource Efficiency and Pollution Prevention

During operations, the main issues relate to water use and management, waste management, and visual impacts. Mitigation measures are included in the Plant EMP and in accordance with MIGA's PSs.

*Greenhouse Gases:* As this is a solar project, the greenhouse gas (GHG) emissions associated with the operations phase of the project are minimal. The project is not required to quantify and report the CO<sub>2</sub>-equivalent emissions as required under this Performance Standard. Based on the Scatec 2017 Sustainability Report company's power plants in operation globally resulted in avoiding more than 700,000 tons of greenhouse gas emissions in 2017.

*Water consumption:* Each project is sourcing the water from a borehole located within the plant area. The General Authorization (GA) was granted for the amount of 1200 cubic meters for each plant by the Department of Water and Sanitation (DWS). The main condition of the GA is to monitor and ensure compliance with the allowed water usage limit. Each plant has developed a water management plan that includes management actions for sustainable use of water resources and efficiency. The facility installed the water meter to measure its own water consumption. Water is mainly used for panel washing purposes once a year with an average consumption of 0.5 l per panel. No effluent is produced from operations except for the normal sewage from operations staff.

*Pollution Prevention:* A Pollution and Prevention Plan was developed for each plant. The measures indicated in the Plan include the use of proper equipment, vehicle and roads maintenance, timely dust suppression measures, speed restrictions and others. The project has developed a monitoring program which covers all emissions.

*Solid Waste Management:* Site-specific waste management procedure was developed for each plant. The procedure includes: (a) detailed evaluation of available and viable options to manage i) broken/damaged panels during operations, ii) operational and end-of-life panels at the end of the concession/during project decommissioning; (b) quantitative evaluation of amount of waste that will be produced during operations and during decommissioning, and (c) actions for proper management of the wastes. Waste disposal log and permits are also available on-site. Domestic waste, inert waste (rubble, spoil), recyclables (plastics, paper, metals.) are sorted on site and delivered to a licensed waste collector in De Aar for recycling and disposal as required by local regulation.

*Hazardous Materials Management:* The project has developed a Hazardous Materials Policy and a Hazardous Materials Management Procedure for each plant. There is a small amount of hazardous materials located on-site. They include fuel (diesel and petrol), herbicides, oil and lubricants and paints. These materials are stored in a secured cabinet, locked to prevent an unauthorized access. The necessary prohibition and warning signs are posted. The material safety datasheets are available for all materials present on-site.

#### PS4: Community Health, Safety and Security

The three plants are located on existing farms, in each case with no communities or settlements in the vicinity of the plant. Kalkbult is located 60 km north of the town of De Aar, along the R388 road. The closest settlement is Potfontein which is about 3 kilometers away from the plant. Linde is located 35 km northeast of the town of Hanover. Dreunberg plant is located 6 kilometers North of the town of Burgersdorp

*Community Health and Safety:* The project sites are in rural areas with no communities in the immediate vicinity, and the potential impacts on community health and safety are limited. Daily traffic is limited to the transport of personnel to and from the sites but the intensity is low due to a low number of employees. Employees use their own vehicles.

*Hazardous Materials Management and Safety:* As discussed under Performance Standard 3, the quantities of hazardous materials are limited, and the materials are managed in a suitable manner to avoid community exposure to these materials.

*Ecosystem Services:* as the site is located on the land traditionally used for grazing the presence of the solar plant in the area might impact the availability of provisioning services. Nevertheless, the plant has an agreement with the local farmers to provide plant territory for sheep grazing as it is also beneficial for plant operations in terms of vegetation control.

*Community Exposure to Disease:* The community exposure to disease around the three plants is limited as the site is located away from any settlements, the number of employees and contractors on site is small and the nature of operations does not imply potential impacts to areas outside the plant. Scatec implements worker's health programs to screen the health of workers. Such information is not used, however, for exclusion from employment or other form of discrimination. Scatec initiates health programs in the communities on HIV/ AIDS prevention and alcohol abuse.

*Emergency Preparedness and Response:* As indicated under Performance Standard 1, Scatec has developed and implemented an Emergency Preparedness and Response Plan which covers the procedures for informing stakeholders and responding to emergencies.

*Security Arrangements:* Site security is managed by a professional private security firm who provides trained, unarmed security personnel. Scatec ensures that the security contractor operates in a manner which meets the requirements of this Performance Standard. The site territory is fenced and public access to the solar plant is prevented. The Project is guided by the principles good international practice in relation to hiring, rules of conduct, training, equipping, and monitoring of security workers, and by applicable law.

## **F. Environmental Permitting Process and Community Engagement**

The Dreunberg plant was granted Environmental Authorization by the Department of Environmental Affairs in February 2012, and Kalkbult and Linde in November 2011. Other licenses and permits granted to the Projects include Waste Management Licenses and Water Use Licenses.

A Social Economic Development Program is established and implemented by Scatec, funded by revenue from the Project, in line with the Department of Economic Development's Policy. A Community Liaison Officer (CLO) was appointed for each power plant. On top of providing a link between contractors and communities on questions related to workforce and employment, the CLO works 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.

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*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  
International Finance Corporation  
2121 Pennsylvania Avenue NW  
Room F11K-232  
Washington, DC 20433 USA  
Tel: 1 202 458 1973  
Fax: 1 202 522 7400  
E-mail: [cao-compliance@ifc.org](mailto:cao-compliance@ifc.org)*

#### **G. Availability of Documentation**

- Final Environmental Impact Report. Establishment of photovoltaic (solar power) farms in the Northern Cape. Sustainable Development Projects CC. August 2011
- Final Environmental Impact Report. Establishment of photovoltaic (solar power) farm in Dreunberg, Eastern Cape. Sustainable Development Projects CC. January 2012

The above listed documentation is available electronically as PDF attachments to this ESRS at [www.miga.org](http://www.miga.org).

**Scatec REIPP Round 1&2 Projects – Environmental and Social Action Plan**

No.	Action	Timeline
1	Establish site specific occupational health and safety procedures for each power plant, based on the Scatec HSE Management System Manual and the requirements of the MIGA Performance Standards.	30 days following effective date of the MIGA Contract of Guarantee