

 Early Warning System

IFC-34050

REDSTONE



---

## Quick Facts

<b>Countries</b>	South Africa
<b>Financial Institutions</b>	International Finance Corporation (IFC)
<b>Status</b>	Proposed
<b>Bank Risk Rating</b>	B
<b>Voting Date</b>	2016-09-01
<b>Borrower</b>	REDSTONE CSP
<b>Sectors</b>	Energy
<b>Potential Rights Impacts</b>	Cultural Rights, Healthy Environment, Labor & Livelihood, Right to Water
<b>Investment Type(s)</b>	Loan
<b>Investment Amount (USD)</b>	\$ 72.00 million
<b>Project Cost (USD)</b>	\$ 833.00 million



---

## Project Description

**Project Summary:** “The Project involves the design, construction, ownership, operation and maintenance of a new 100 MW (net) molten salt tower base Concentrated Solar Power (CSP) plant. The Project is to sell power to Eskom under a 20 year (post construction) PPA. The Project will be structured as a special purpose vehicle and the Project Company is ACWA Power Solar Reserve Redstone Solar Thermal Power Plant Proprietary Limited. Construction is due to commence in August 2015. There are currently two other PV projects on the same farm, the Lesedi and the Jasper PV Power projects.

**Location:** Northern Cape Province, South Africa – in the Kalahari Mountain Bushveld savannah biome

**Resources needed:** Remainder of the Farm 469, District Hay, 30 km from Postmasburg in the Northern Cape Province, South Africa. Large volumes of water via the Vaal Gamagara Water Supply Scheme for the construction of the CSP Plant – approximately 117,500m<sup>3</sup> per annum during the 29 month construction period.



## Early Warning System Project Analysis

**Risk Assessment: Category B.** This is a Category B project according to IFC's Policy and Performance Standards on Environmental and Social Sustainability, because a limited number of specific environmental and social impacts which may result from the project's construction and operation can be avoided or mitigated by adhering to generally recognized performance standards, guidelines or design criteria.

Project type: Solar, renewable energy generation

### APPLICABLE SOCIAL & ENVIRONMENTAL STANDARDS

Based on IFC documents, the following environmental and social safeguard policies are triggered:

PS 1: Assessment and Management of Environmental and Social Risks and Impacts-

PS 2: Labor and Working Conditions- triggered because "construction activities associated with the project will generate short-term direct employment for up to approximately 1400 people (at peak) during the projected 29 month construction period." The CSP plant's operations are expected to employ approximately 73 people as full time staff on a permanent basis. Additional persons will be employed as subcontractors. With this comes a need for Human Resources and Occupational Health and Safety.

PS 3: Resource Efficiency and Pollution Prevention - triggered because "The construction and operation of the Concentrated Solar Power may disrupt local hydrological functioning. The likelihood that a loss of infiltration capacity on site generates excess surface flow requires that mitigation measures be put in place during construction and operation of the CSP." "A significant and diverse waste stream is expected to be generated during the construction phase. Waste streams will include: Construction & Demolition waste, Recyclables, Hazardous waste, and Domestic solid waste. "The noise from the cooling fans will be the loudest and will predominate at areas outside the CSP Plant property. For daytime operations, measurements demonstrated that noise sensitive sites within 2150 meters from the Plant could be significantly impacted by the noise from the Plant....only one site is affected, namely the residence on Farm Humansrus to the north of the development site."

PS 4: Community Health, Safety and Security- triggered because adequate mitigation measures are required to deal with the adverse impacts during both construction and operation phases, particularly with regard to: i) surface water resources; ii) fair, safe and healthy working conditions for both construction and operational work force, which includes worker accommodation camps erected during construction phases; iii) hazardous and solid waste management; iv) impacts of construction and operation on the natural fauna and flora of the project area and human populations surrounding the project area. There will also be a plan to avoid veld fires.

PS 6 - Biodiversity Conservation and Sustainable Management of Living Natural Resources- triggered because "associated power lines may result in electrocution and collision impacts on avifauna, while the development of various infrastructures will also cause habitat destruction and disturbance. "Collision with the heliostats (mirrors) or the tower is likely to impact on birds" "likely that the occasional bird will collide with the tower or be affected by the bright light of the mirrors. Scorching of birds may also be a risk, particularly fast flying species such as doves, swifts, martins and swallows. Collision of large terrestrial birds with overhead power lines is also likely to occur and is anticipated to be the most significant threat posed by associated infrastructure." Other aspects that will be affected include migration patterns and suitable habitat for breeding and foraging purposes. The loss of an area as large, as this property, will affect the migration pattern of a number of species that are present in the immediate region. While larger animals are able to avoid unsuitable habitat, smaller animals might not be able to cross or avoid these areas".

PS 8 - Cultural Heritage - triggered because the Heritage Scoping Report, that forms part of the Heritage Impact Assessment (HIA), has shown that the area between Postmasburg and Daniëlskuil, generally referred to as the Ghaap plateau, has a rich history of occupation from the Stone Age with hunter-gatherers to the Tlaping and Tlale during the Iron Age period. "Field



---

## People Affected By This Project

### OUR RISK ASSESSMENT

Based on the IFC's project documents, this project poses potential risks to the following human rights:

#### The Right to a Healthy Environment

There will be a diverse amount of waste water generated from the tower, primarily much chemical pollution. There is a degree of noise pollution from the active base, which affects a nearby residence. The tower lines also pose an obstacle to large terrestrial birds and other terrestrial species. There will be an impact on the migration of animals in the area. The construction and operation of the CSP may disrupt local hydrological functioning. There is the likelihood that a loss of infiltration capacity on site will generate excess surface flow.

#### Right to Water

Significant volumes of water that are available on site via the Vaal Gamagara Water Supply Scheme for the construction of the CSP Plant – approximately 117,500m<sup>3</sup> per annum during the 29 month construction period, may affect the general water supply in the area. There is also the possibility of the waste streams resulting in a good degree of water pollution generated from the project.

#### Right to Culture

The project document provides that the cemeteries will be closed off and not form part of the project area. Cultural rights will be affected in the event that it becomes necessary to include that portion of the land in the project if the proper customary processes and consultations are not followed in the relocation of the graves. In addition, it is stated that the field work identified a total of 25 heritage sites which were assessed with 14 sites requiring further mitigation.

#### Labor rights

Project documents state in the contractor's agreements that the project will generate short-term direct employment for up to approximately 1400 people (at peak) during the projected 29 month construction period, with a minimum of 15% of the workforce must be drawn from local communities and a minimum of 75% from South Africa. The project documents provide for various steps and mechanisms that will be put in place to deal with the large labor force that will be needed for the project. There may be a need for close monitoring of the process especially in relation to basic working conditions and the proposed policies on employee basic services (minimum space, water supply, adequate sewage and garbage disposal system, appropriate protection against heat, cold, damp, noise, fire and disease carrying animals, storage facilities and natural and artificial lighting, and basic medical services). Given the large number of employees required, one must monitor that there is no exploitation of labor forces from communities or nearby countries who may not insist of the standard basic working conditions.



---

## Investment Description

- International Finance Corporation (IFC)

Bank financing: International Finance Corporation

Borrower/Client: Redstone CSP. The Project's Sponsors are ACWA Power and SolarReserve. ACWA Power is registered and headquartered in the Kingdom of Saudi Arabia. SolarReserve is a Delaware, United States, limited liability company. The shareholders are ACWA Power 50%, the Government Employees Pension Fund which is managed by the Public Investment Corporation 13.5%, Solar Reserve 10%, Old Mutual Life Assurance Company of South Africa (10%), Humansrus Community Trust SPV 6.5% and Pele Green Energy 10%. The US Overseas Private Investment Corporation, the U.S. government's development finance institution, is also a co-financier.

Amount of bank loan or investment: ZAR864 million (circa US\$72 million)

Total project cost: Estimated ZAR10 Billion (US\$833 million)



---

### Private Actors Description

The Project involves the design, construction, ownership, operation and maintenance of a new 100 MW (net) molten salt tower base Concentrated Solar Power (CSP) plant. The Project is to sell power to Eskom under a 20 year (post construction) PPA. The Project will be structured as a special purpose vehicle and the Project Company is ACWA Power SolarReserve Redstone Solar Thermal Power Plant Proprietary Limited.



Private Actor 1	Private Actor 1 Role	Private Actor 1 Sector	Relation	Private Actor 2	Private Actor 2 Role	Private Actor 2 Sector
-	-	-	-	REDSTONE CSP	Client	-





---

## Contact Information

Prabashen Govender, Project Director  
7th Floor, 90 Grayston Drive, Sandton  
South Africa

Phone: +27 11 722 4100

Fax: +27 11 722 4113

ACWA Power

7th Floor, 90 Grayston Drive, Sandton, South Africa

## CONSULTATIONS

The ESIA was conducted within the context of the broader South African environmental legislative framework and in line with the National Environmental Management Act (NEMA) Environmental Impact Assessment (EIA) Regulations. This process has a two phase disclosure and consultation process – the first step consisting of the registration of all Interested and Affected Parties (IAPs) followed by a consultation process to identify the potential impacts of the proposed project, and a second step (once the Scoping Report has been approved by DEA) to compile a draft ESIA with specialist reports, and a continuation of the extensive Public Participation Process initiated during the Scoping Phase. During the ESIA comments and issues raised by key stakeholders, identified during the ESIA Scoping Phase, were addressed and feedback was given. The majority of the concerns and comments received during the consultation process related to community benefit and job creation aspects of the project. Stakeholders were kept informed of the ESIA process via public meetings, notices, pamphlets, newspaper advertisements and emails. All registered IAPs were requested to give inputs on each draft report.

The Draft ESIA Report was available for public review at five localities in close proximity to the study area, which were identified as readily accessible to stakeholders and allowed for review and no objections or opposition has been received. There is ongoing communication with stakeholders over the period of the project. In the event that the cemeteries cannot be excluded from the development, the graves will be relocated after a full grave relocation process that includes comprehensive social consultation.

## ACCOUNTABILITY MECHANISM OF IFC

The Compliance Advisor Ombudsman (CAO) is the independent complaint mechanism and fact-finding body for people who believe they are likely to be, or have been, adversely affected by an IFC or MIGA- financed project. If you submit a complaint to the CAO, they may assist you in resolving a dispute with the company and/or investigate to assess whether the IFC is following its own policies and procedures for preventing harm to people or the environment. If you want to submit a complaint electronically, you can email the CAO at [CAO@worldbankgroup.org](mailto:CAO@worldbankgroup.org). You can learn more about the CAO and how to file a complaint at <http://www.cao-ombudsman.org/>