

The proposed activity is subject to legislative and policy requirements at a national and provincial level. A detailed description of relevant legislation pertaining to the EIA process for the proposed solar power plant project and the permitting thereof, is contained in *Annex A*. The relevance of this legislation and policy is summarised below.

2.1 ENERGY RELATED POLICY, PLANNING, STRATEGIES AND GUIDELINES

National Policy regarding the need for expansion of electricity generation capacity in South Africa are informed by ongoing strategic planning by the Department of Energy (DoE), the National Energy Regulator of South Africa (NERSA) and Eskom.

The following are of particular relevance to the proposed solar power plant project:

- **The Electricity Regulations on New Generation Capacity Government Notice R721 (August 2009)**, provides for the establishment and regulation of power purchase agreements with independent power producers (IPPs), guidelines governing procurement and renewable feed-in tariff (REFIT) programme. The proposed renewable energy facility will provide an additional electricity supply through renewable energy sources. AES, as the IPP, will be required to comply with guidelines governing the bid programme and REFIT.
- **Electricity Regulation Act and Regulations (Act 4 of 2006) and amendments:** The aims of the Electricity Regulation Act is to achieve efficient, effective and sustainable electricity supply, development and operation to ensure the needs of electricity users in South Africa are met and their interests safeguarded. This will be achieved through the facilitation of investment in the supply industry, access to electricity, promotion of use of diverse energy sources, promotion of competitiveness and a fair balance between the players in the industry and end users.
- **National Integrated Resource Plan (NIRP), 2003/ 2004/ 2010:** The NIRP provides a long term (2003-2022), cost effective resource plan for meeting electricity demand, which is consistent with reliable electricity supply and environmental, social and economic policies.
- **Integrated Energy Plan (IEP), 2003:** The IEP provides a framework in which specific energy policies, development decisions and energy supply trade-offs can be made on a project-by-project basis. Although the IEP recognises that South Africa is likely to be reliant on coal for at least the next 20 years as the predominant source of energy, it also recognises the potential and need to diversify energy supply.

- **White Paper on the Energy Policy of the Republic of South Africa, 1998:** identifies key objectives for energy supply within South Africa, such as increasing access to affordable energy services, managing energy-related environmental impacts and securing energy supply through diversity. The White Paper supports investment in renewable energy initiatives.
- **Renewable Energy Policy in South Africa, 1998:** This policy supplements the Energy Policy and sets out Government's vision, policy principles, strategic goals and objectives for promoting and implementing renewable energy in SA. Government has set the following 10-year target for renewable energy: *"10 000 GWh renewable energy contribution to final energy consumption by 2013 to be produced mainly from biomass, wind, solar and small scale hydro. This is approximately 4% (1 667 MW) of the estimated electricity demand (41 539 MW) by 2013"* The White Paper on Renewable Energy also states that *"It is imperative for SA to supplement its existing energy supply with renewable energies to combat Global Climate Change which is having profound impacts on our planet"*.

In addition, the Department of Energy (DoE) has embarked on a renewable energy Independent Power Producer Procurement Programme (IPP Procurement Programme) with an initiation to submit proposals for the finance, construction, operation and maintenance of renewable energy generation facilities. For further details see the DOE's website: <http://www.ipp-renewables.co.za/>

2.2 NATIONAL ENVIRONMENTAL POLICY, REGULATIONS AND GUIDELINES

The relevant legislation pertaining to the Environmental Authorisation for development projects is the National Environmental Management Act (NEMA) (Act No. 107 of 1998) as amended and the Environmental Impact Assessment (EIA) Regulations of 2010 promulgated under NEMA. The relevance of this legislation is summarised below.

2.2.1 National Environmental Management Act (NEMA)

NEMA requires that activities be investigated that may have a potential impact on the environment, socio-economic conditions, and cultural heritage. The results of such investigation must be reported to the relevant authority. Procedures for the investigation and communication of the potential impact of activities are contained in Section 24 (7) of the Act.

Section 24(C) of the Act defines the competent decision-making authority which is normally the provincial environmental department. However, as set out in Section 4.1 of the 'Guideline on Environmental Impact Assessments for Facilities to be Included in the Electricity Response Plan', Government Notice (GN) 162 of 2010, all EIA applications from Independent Power Producers (IPPs) or those involving co-generation, where these are included in the

Integrated Resource Plan (IRP), the National Department of Environmental Affairs (DEA) shall be the competent authority.

2.2.2 *EIA Regulations*

The EIA Regulations, June 2010 (Government Notice R544, R545 and R546) identify activities which may have a detrimental effect on the environment and the listed activities which may be triggered by the proposed solar power plant include:

GN 544:

Activity 11: *'The construction of (xi) infrastructure or structures covering 50 square metres or more where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line'.*

Activity 24: *'The transformation of land bigger than 1000 square metres in size, to residential, retail, commercial, industrial or institutional use, where, at the time of the coming into effect of this Schedule or thereafter such land was zoned open space, conservation or had an equivalent zoning'.*

GN 545:

Activity 1: *The construction of facilities or infrastructure for the generation of electricity where the electricity output is 20 megawatts or more.*

Activity 8: *'The construction of facilities or infrastructure for the transmission and distribution of electricity with a capacity of 275 kilovolts or more, outside an urban area or industrial complex'.*

Activity 15: *'Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed is 20 hectares or more; except where such physical alteration takes place for: (i) linear development activities; or (ii) agriculture or afforestation where activity 16 in this Schedule will apply'.*

GN R546:

Activity 14: *'The clearance of an area of 5 hectares or more of vegetation where 75% of the vegetative cover constitutes indigenous vegetation.*

- (a) *In the Northern Cape*
 - (i) *All areas outside urban areas.'*

Activity 16(iv): *'The construction of infrastructure covering 10 square meters of more where such construction occurs within a watercourse of within 32 metres of a watercourse measured from the edge of the watercourse, excluding where such construction will occur behind the development setback line'.*

It is important to note that the above thresholds and activities also apply to phased developments “where any phase of the activity may be below a threshold but where a combination of the phases, including expansions or extensions, will exceed a specified threshold.”

Government Notice R543 sets out the procedures that need to be complied with and the documentation required for the Scoping and EIA processes.

2.2.3 *Other Applicable Legislation and Guidelines*

National Level

- National Environmental Management: Protected Areas Act (NEMPAA) (Act 57 of 2003);
- Environmental Conservation Act (No 73 of 1989 Amendment Notice No. R1183 of 1997);
- Conservation of Agricultural Resources Act (Act 43 of 1983);
- National Water Act (Act No. 36 of 1998);
- Mineral and Petroleum Resources Development Act (Act No 28 of 2002)
- National Environmental Management: Biodiversity Act (Act No. 10 of 2004);
- Development Facilitation Act (Act No 67 of 1995);
- National Heritage Resources Act (Act No. 25 of 1999);
- Occupational Health and Safety Act (Act No. 85 of 1993);
- Subdivision of Agricultural Land Act (Act No. 70 of 1970); and
- Noise Control Regulations promulgated in terms of the Environment Conservation Act (Act No. 73 of 1989).

Provincial Level

- Northern Cape Planning and Development Act (Act 7 of 1998); and
- Northern Cape Nature Conservation (Act 9 of 2009).

Local Level

- Municipal Systems Act (Act No 32 of 2000).

2.3 **RELEVANT GOVERNMENT DEPARTMENTS AND REGULATORS**

There are a number of Ministries and Departments that have an interest in and will take responsibility for ensuring that the proposed solar power plant project is implemented in an environmentally responsible manner. The regulatory framework governing energy generation projects such as the proposed solar power plant project is as follows:

2.3.1 *National Level*

Department of Environmental Affairs (DEA): Responsible for Environmental Policy and controlling authority in terms of NEMA and EIA Regulations

promulgated in terms of NEMA. As Eskom is a statutory body DEA is the competent authority for this project and charged with the responsibility of considering whether or not to grant environmental authorisation and under what conditions.

Department of Energy: Responsible for policy relating to all energy forms, including renewable energy. Also the controlling authority in terms of the Electricity Act (Act No. 41 of 1987)

Department of Water Affairs: The department promotes effective and efficient water resources management to ensure sustainable economic and social development.

National Energy Regulator of South Africa (NERSA): Responsible for regulating all aspects of electricity sector and will ultimately issue licences for solar powered developments.

South African Heritage Resources Agency (SAHRA): Regulating enforcement of the National Heritage Resources Act (Act No 25 of 1999) and associated provincial regulations which provides legislative protection for listed or proclaimed sites, nature reserves and proclaimed scenic routes.

Department of Transport and Public Works: Responsible for roads and granting of exemption permits for the conveyance of abnormal loads on public roads.

2.3.2

Provincial Level

Northern Cape Department of Environment and Nature Conservation (DENC) is the provincial department responsible for tourism, environmental affairs and conservation in the Northern Cape.

With regard to the EIA for the Olyven Kolk Solar Power Farm project, DENC are regarded as an important commenting authority and will provide comment on the EIA and input to the national Department's decision-making process.

Northern Cape Department of Transport, Safety and Liaison: Responsible for the granting of exemption permits for the conveyance of abnormal loads on public roads.

Department of Agriculture and Land Reform and Rural Development: Responsible for land and agrarian transformation, promoting and facilitating increased production and providing expertise for improved livelihoods, sustainable rural development and food security for all.

2.3.3

Local Level

Certain Departments, such as the Planning and Roads Departments, from the Siyanda District Municipalities will also be involved as commenting authorities for the EIA. External to the EIA but also relevant to the project are land-use planning applications which are dealt with by the planning departments at a local government level.

In terms of the Municipal Systems Act (Act No 32 of 2000), it is compulsory for all municipalities to conduct an Integrated Development Planning (IDP) process to prepare a five-year strategic plan for the area under their control. Bioregional Planning involves the identification of priority areas for conservation and their placement within a planning framework of core, buffer and transition areas. These could include reference to visual and scenic resources and the identification of areas of special significance.

2.4

PERMITTING REQUIREMENTS

Activities undertaken during site preparation, construction and operation may require additional permits, over and above the Environmental Authorisation. AES is responsible for ensuring that the necessary permits are in place in order to comply with national and local regulations. Additional permit requirements are described below.

2.4.1

Heritage

The protection and management of South Africa's heritage resources is controlled by the National Heritage Resources Act (NHRA). The objective of the NHRA is to introduce an integrated system for the management of national heritage resources.

The protection of archaeological and palaeontological resources is the responsibility of a provincial heritage resources authority and all archaeological objects, palaeontological material and meteorites are the property of the State. Section 35 states that "*Any person who discovers archaeological or palaeontological objects or material or a meteorite in the course of development must immediately report the find to the responsible heritage resources authority, or to the nearest local authority offices or museum, which must immediately notify such heritage resources authority*".

Section 38 (8) of the National Heritage Resources Act which states that any person who intends to undertake a development categorised as-

- (a) *the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;*
- (c) *any development or other activity which will change the character of a site -*
 - (i) *exceeding 5 000 m² in extent;*

must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

Given that the proposed solar plant project may exceed 5 000m² in extent and will change the character of the site the proposed development comment will be requested from the South African Heritage Resources Agency (SAHRA) and Heritage Northern Cape (Ngwao Boswa Kapa Bokoni) serving as a commenting authority. Heritage issues have been assessed as part of the EIA process with the assistance of specialist heritage practitioners.

2.4.2 *Water Use*

In terms of the National Water Act (Act 36 of 1998) and associated regulations, there are licensing procedures that need to be followed for particular “water uses”. Water uses that may be of relevance to the development of solar power plants and associated road construction include the following:

- taking of water from a water resource, including a water course, surface water, estuary or aquifer (i.e. borehole);
- altering the bed, banks, course or characteristics of a water course; and/or
- impeding or diverting of a flow in a water course.

Given the minimal volumes of water required for the plants operations, it is unlikely that a water use licence will be required. The Department of Water Affairs (DWA) have stipulated that projects of this nature take necessary measures to ensure that water needs are adequately catered for by a usage assessment. In the event that a water usage licence is required, this will be processed only once the Power Purchase Agreement has been awarded.

2.4.3 *Abnormal Vehicle Loads*

The components for the solar power plant will be delivered to site using road transport and due to the size of the components, the vehicles used to deliver components will be considered abnormal loads in terms of the Road Traffic Act (Act No 29 of 1989). A permit for a vehicle carrying an abnormal load must be obtained from the relevant Provincial Authority. The vehicle must comply with the Administrative Guidelines for Granting of Exemption Permits for the Conveyance of Abnormal Loads, issued by the Department of Transport, 2009.

2.4.4 *Plant Species*

Two plant species observed on site require a permit obtainable from DENC should the development require the removal or cause destruction or disturbance of these species, *Hoodia gordonii* and *Aloe claviflora*. Any individuals of these species falling within areas that will need to be cleared for the development, should be located, marked and translocated within the site to an area outside the development footprint. Prior to commencement of construction activities, AES should apply with the consent of the landowner for such a permit and the translocation of plants should take place under the supervision of an ecologist or someone else with experience in this regard.