

## CURRICULUM VITAE OF KAREN JODAS

<b>Profession:</b>	Environmental Management and Compliance Consultant; Environmental Assessment Practitioner. Professional Natural Scientist: Environmental Science since 1999.
<b>Specialisation:</b>	Strategic environmental assessment and advice; development of plans and guidelines; environmental compliance advise and monitoring; Environmental Impact Assessment; environmental management; project management and co-ordination of environmental projects; peer review; policy, strategy and guideline formulation; renewable energy projects; water resources management.
<b>Years work experience:</b>	25 years (in the field since 1997)

### VOCATIONAL EXPERIENCE

Provide technical input for projects in the environmental management field, specialising in strategic evaluation, Environmental Impact Assessment studies, environmental management plans, programmes and guidelines, integrated environmental management, environmental compliance monitoring; peer review of EIA reports and processes, strategy and guideline development, and public participation. Key focus on overall Project Management, integration of environmental studies and environmental processes into larger engineering-based projects, strategic assessment, and the identification of environmental management solutions and mitigation/risk minimising measures.

Excellent working knowledge of environmental legislation, strategies, guidelines and policies. Compilation of the reports for environmental studies are in accordance with the all relevant environmental legislation under the National Environmental Management Act. Due consideration of Equator Principles and compliance with IFC performance standards is now a part of all projects.

### SKILLS BASE AND CORE COMPETENCIES

Provide technical input for projects in the environmental management field, specialising in strategic evaluation, Environmental Impact Assessment studies, environmental management plans, programmes and guidelines, integrated environmental management, environmental compliance monitoring; peer review of EIA reports and processes, strategy and guideline development, and public participation. Key focus on overall Project Management, integration of environmental studies and environmental processes into larger engineering-based projects, strategic assessment, and the identification of environmental management solutions and mitigation/risk minimising measures.

Excellent working knowledge of environmental legislation, strategies, guidelines and policies. Compilation of the reports for environmental studies are in accordance with the all relevant environmental legislation under the National Environmental Management Act. Due consideration of Equator Principles and compliance with IFC performance standards is now a part of all projects.

### SKILLS BASE AND CORE COMPETENCIES

- Twenty five years (25) of experience in the environmental management, environmental permitting, impact assessment and compliance fields
- Twenty three (23) years of experience in Project Management of large environmental assessment and environmental management projects
- Strategic and compliance advise for all aspects of environmental assessment and management

- Wide range of experience for public and private sector projects
- Key experience in the assessment of impacts associated with renewable energy projects
- Experienced in assessments for both linear developments and nodal developments
- Experienced consultant in projects in Sub-Saharan Africa
- Experienced in environmental compliance advice, monitoring and reporting for construction and operation projects
- Due diligence auditing and reporting
- External and peer review of environmental assessment and compliance reporting as well as EIA processes
- Working knowledge of environmental planning policies, regulatory frameworks and legislation
- Input and review of Environmental Management Plans and Programmes, including Invasive Species Monitoring, Control and Eradication Plans
- Identification and assessment of potential environmental impacts and benefits
- Development of practical and achievable mitigation measures and management plans and evaluation of risk to project execution
- Compilation and review of the reports in accordance with all relevant environmental legislation
- Public participation/involvement and stakeholder consultation
- Environmental strategy, policy and guidelines development.

## EDUCATION AND PROFESSIONAL STATUS

### Degrees:

- B.Sc Earth Sciences, majoring in Geography and Zoology, Rhodes University, Grahamstown, 1993
- B.Sc Honours in Geography (in Environmental Water Management), Rhodes University, Grahamstown, 1994. Major subjects included Water Resources Management, Streams Ecology, Fluvial Geomorphology and Geographic Information Systems.
- M.Sc in Geography (Geomorphology), Rhodes University, Grahamstown, 1996

### Short Courses:

- Environmental and Social Risk Management (ESRM), International Finance Corporation, 2018
- Integrated Water Resource Management, the National Water Act, and Water Use Authorisations, CSBSS, 2017
- WindFarmer Wind Farm Design course, Garrad Hassan, 2009
- Environmental Law Course, Aldo Leopold Institute, 2002
- Water Quality Management, Potchefstroom University, 1998

### Professional Society Affiliations:

- Registered with the South African Council for Natural Scientific Professions as a Professional Natural Scientist: Environmental Science (400106/99)
- Registered with the International Association for Impact Assessment South Africa (IAIASa): 5888

### Other Relevant Skills:

- Xtrack Extreme – Advanced Off-Road Driving Course

## EMPLOYMENT

Date	Company	Roles and Responsibilities
2006 - Current:	Savannah Environmental (Pty) Ltd	Director <i>Independent specialist environmental consultant, Environmental Assessment Practitioner (EAP) and advisor</i> <u>Tasks include:</u> <ul style="list-style-type: none"> <li>• Project management.</li> <li>• Environmental screening assessments, environmental permitting and environmental authorisation applications.</li> </ul>

Date	Company	Roles and Responsibilities
		<ul style="list-style-type: none"> <li>• Due Diligence reporting</li> <li>• Water use authorisation applications on the e-WULAA system.</li> <li>• EA amendment applications.</li> <li>• Environmental compliance audits.</li> <li>• Efficient and quality reporting in line with the requirements of the National Environmental Management Act, EIA Regulations, and other relevant environmental legislation.</li> <li>• Execution of the public participation process.</li> <li>• Professional client liaison.</li> </ul>
1997 – 2005:	Bohlweki Environmental (Pty) Ltd (later known as Royal Haskoning DHV; or RHDHV)	Associate Environmental Management Unit: Manager; Principle Environmental Scientist focussing on Environmental Management and Project Management

## PROJECT EXPERIENCE

Proven track record of successfully consulting on a range of development projects in all nine Provinces of South Africa, as well as in neighbouring southern African countries.

Her experience includes projects in the energy generation and transmission sector, as well as wastewater treatment facilities, mining and prospecting activities, property development, national roads, as well as strategy and guidelines development.

Karen Jodas has played a significant role in the energy sector since 2007, specifically in the roll-out of renewable energy projects throughout southern Africa. She has provided consulting services to over 400 renewable and baseload energy applications submitted by Independent Power Producers (IPPs) to the Department of Forestry, Fisheries and the Environment in South Africa for authorisation, as well as to Eskom on their renewable energy and gas-to-energy projects. In addition, she has concluded the environmental permitting and/or due diligence auditing for the development and implementation of 42 projects selected as preferred bidders by the Department of Energy under the Renewable Energy Independent Power Producers Procurement (REIPPP) Programme (small- and large-scale projects).

## GRID INFRASTRUCTURE PROJECTS

### *Environmental Impact Assessments and Environmental Management Programmes*

Project Name & Location	Client Name	Role
Kyalami/Midrand Substation and 3 Transmission Lines, Gauteng	Eskom Transmission	Project Manager & EAP
Steelpoort Integration Project, Limpopo	Eskom Transmission	Project Manager & EAP

### *Basic Assessments*

Project Name & Location	Client Name	Role
Amakhala Emoyeni Power Line & Kopleegte Substation, Eastern Cape	Cennergi	Project Manager & EAP
Bon Espirange Substation & Overhead Power Line for the Roggeveld Wind Farm, Northern Cape	Building Energy (G7 Renewable Energies)	Project Manager & EAP
Castle WEF Powerline, Northern Cape	Juwi Renewable Energies	Project Manager & EAP
Cuprum-Burchell; Burchell-Mooidraai Power Line, Northern Cape	Eskom	Project Manager & EAP
Expansion of the Komsberg Main Transmission Substation, Northern Cape	Enel Green Power	Project Manager & EAP
Garob-Kronos Power Line, Northern Cape	Juwi Renewable Energies	Project Manager & EAP

Golden Valley Dx-Poseidon Power Line Substation & Golden Valley-Kopleegte Power Line, Eastern Cape	BioTherm Energy	Project Manager & EAP
Gunstfontein Switching Station, Power Line & Ancillary Infrastructure, Northern Cape	African Clean Energy Developments (ACED)	Project Manager & EAP
Ilanga Lethemba-Hydra, Northern Cape	Solar Capital	Project Manager & EAP
Iziduli Emoyeni WEF on-site substation, Power Line & Switching station, Access Roads & Watercourse Crossings, Eastern Cape	Windlab	Project Manager & EAP
Khai-Ma WEF Power Line, Northern Cape	Mainstream Renewable	Project Manager & EAP
Korana WEF Power Line, Northern Cape	Mainstream Renewable	Project Manager & EAP
Korana SEF Power Line, Northern Cape	Mainstream Renewable	Project Manager & EAP
Nobelsfontein WEF Power Line & Substation, Northern Cape	Coria / SARGE	Project Manager & EAP
Nojoli WEF Substation & Power Line Grid Connection, Eastern Cape	African Clean Energy Developments (ACED)	Project Manager & EAP
Olifantshoek Substation & Powerline, Northern Cape	Eskom Holdings	Project Manager & EAP
Poortjies WEF Power Line, Northern Cape	Mainstream Renewable	Project Manager & EAP
Power Line & Substation for the Blackwood WEF, Northern Cape	VentuSA Energy	Project Manager & EAP
Power Line & Substation for the Khobab WEF in Loeriesfontein, Northern Cape	Mainstream Renewable	Project Manager & EAP
Power Line Connecting the Sishen SEF to the Ferrum MTS-UMTU Klip Kop Power Line, Northern Cape	Acciona (Windfall 59 Properties)	Project Manager & EAP
Power Line for the Grid Connection of the 2 SEF's near Kath and Dibeng, Northern Cape	VentuSA Energy	Project Manager & EAP
Power Line for the Rheboksfontein WEF, Western Cape	Moyeng Energy	Project Manager & EAP
Power Line from Aggeney's Solar One to Aggeney's MTS Substation, Northern Cape	BlueWave	Project Manager & EAP
Re-alignment of 3 Eskom Power Line Servitudes within the Hopefield WEF, Western Cape	Umoya Energy	Project Manager & EAP
Re-alignment of the Power Line & Watercourse Crossings for the Loeriesfontein 2 WEF, Northern Cape	Mainstream Renewable	Project Manager & EAP
Re-alignment of the Power Line from Loeriesfontein 1 WEF to the Helios Substation, Northern Cape	Mainstream Renewable	Project Manager & EAP
Re-alignment of the Power Line from Loeriesfontein 3 WEF to the Helios Substation, Northern Cape	Mainstream Renewable	Project Manager & EAP
Substation for the Aggeney's PV SEF, Northern Cape	BioTherm Energy	Project Manager & EAP
Substation, Power Line & Watercourse Crossings for the Springfontein WEF, Free State	Mainstream Renewable	Project Manager & EAP
Wesley-Peddie (Riverbank Phase 2) Power Line for the Uncedo Lwethu WEF, Eastern Cape	Just Energy	Project Manager & EAP

**Environmental Compliance, Auditing and ECO**

Project Name & Location	Client Name	Role
EO for the construction of the Neptune-Vuyani Transmission Line, Western Cape	Trans-Africa Projects on behalf of Eskom	Project Manager

## **RENEWABLE POWER GENERATION PROJECTS: PHOTOVOLTAIC SOLAR ENERGY FACILITIES**

### ***Environmental Impact Assessments and Environmental Management Programmes***

<b>Project Name &amp; Location</b>	<b>Client Name</b>	<b>Role</b>
Aggeneys PV Plant, Northern Cape	Solar Capital	Project Manager & EAP
Blackwood PV SEF, Free State	VentuSA Energy	Project Manager & EAP
Bloemsmond PV 1 & PV 2 SEF's, Northern Cape	Atlantic Energy Partners	Project Manager & EAP
Bosjesmansberg PV SEF, Northern Cape	Networx	Project Manager & EAP
Boundary PV SEF, Northern Cape	VentuSA Energy	Project Manager & EAP
Buffels PV 1 & PV 2 SEF's, North West	Kabi Energy	Project Manager & EAP
De Aar PV SEF, Northern Cape	African Clean Energy Developments (ACED)	Project Manager & EAP
De Aar PV Solar Energy Plant, Northern Cape	Solar Capital	Project Manager & EAP
Gihon& Kison PV SEF's, Limpopo	Networx	Project Manager & EAP
Gunstfontein PV SEF, Northern Cape	Networx / Prana Energy	Project Manager & EAP
Harmony Eland, Nyala & Tshepong PV SEF's, Free State	BEEEntropie Renewable Innovation	Project Manager & EAP
Hibernia SEF, North West	EA Energy	Project Manager & EAP
Iziko PV SEF, Mpumalanga	VentuSA Energy	Project Manager & EAP
Kabi Kimberley PV Facility at DeBeers, Northern Cape	Kabi Solar	Project Manager & EAP
Karoo Renewables PV SEF, Northern Cape	SARGE	Project Manager & EAP
Kheis Phase 1, 2 & 3 PV SEF, Northern Cape	GeStamp Solar	Project Manager & EAP
Klipgat PV SEF, Northern Cape	Terra Solar	Project Manager & EAP
Loeriesfontein/Helios PV SEF, Northern Cape	Solar Capital	Project Manager & EAP
Naauwpoort PV SEF , Northern Cape	Terra Solar	Project Manager & EAP
Orkney PV SEF, North West	Genesis Eco-Energy	Project Manager & EAP
Pofadder SEF, Northern Cape	Mainstream Renewable	Project Manager & EAP
Prieska North PV SEF, Northern Cape	VentuSA Energy	Project Manager & EAP
Prieska PV SEF, Northern Cape	VentuSA Energy	Project Manager & EAP
Ritchie PV SEF, Northern Cape	Solar Capital	Project Manager & EAP
San Solar PV SEF, Northern Cape	VentuSA Energy	Project Manager & EAP
Sirius (Tungston Lodge) PV Solar Plants (x2, Northern Cape	Aurora Power Solutions	Project Manager & EAP
Sol Invictus x4 PV Developments, Northern Cape	Building Energy	Project Manager & EAP
Solar Plant at Kathu (Wincanton), Northern Cape	REISA	Project Manager & EAP
Solar Plant at Sishen (Wincanton), Northern Cape	VentuSA Energy	Project Manager & EAP
<i>Solar Plant at Sishen (Wincanton), Northern Cape</i>	<i>VentuSA Energy</i>	Project Manager & EAP
<i>SolarReserve Kotulo Tsatsi PV1 SEF, Northern Cape</i>	<i>Kotulo Tsatsi Energy and SolarReserve South Africa</i>	Project Manager & EAP
SolarReserve Kotulo Tsatsi PV2 Facility, Northern Cape province	<i>Kotulo Tsatsi Energy and SolarReserve South Africa</i>	Project Manager & EAP
Stormberg Solar PV SEF, Eastern Cape	Networx / Prana Energy	Project Manager & EAP
Tewa Isitha (Grootdrink/Albany) PV SEF, Northern Cape	Africoast Engineers	Project Manager & EAP
Tiger Kloof PV SEF near Vryburg, North West	Kabi Energy	Project Manager & EAP
Tiger Solar PV SEF, Northern Cape	Kabi Energy	Project Manager & EAP
Vaalkop and Witkop PV SEF's, North West	Kabi Solar	Project Manager & EAP
Wagnbietjiespan PV SEF, Free State	VentuSA	Project Manager & EAP
Wolmaransstad Municipality PV SEF, North West	BlueWave	Project Manager & EAP
Woodhouse PV 1 & PV 2 SEFs, North West	Genesis Eco-Energy	Project Manager & EAP
Zuurwater PV SEFs (x4), Northern Cape	Solafrica / BlueWave	Project Manager & EAP

Project Name & Location	Client Name	Role
Lichtenburg 1, 2 & 3 PV Facilities, North West	Atlantic Energy Partners & ABO Wind	Project Manager & EAP
Allepad PV One, Two, Three and Four PV SEFs	ILEnergy Development	Project Manager & EAP

#### Basic Assessments

Project Name & Location	Client Name	Role
Amandla Welanga & Dida PV SEFs near Noupoot, Northern Cape	Terra Solar	Project Manager & EAP
Carolusberg PV SEF, Northern Cape	Ilio Energy (SARGE)	Project Manager & EAP
Gosforth Park and Kynoch Rooftop PV SEF's Northern Cape	Building Energy	Project Manager & EAP
Hennenman PV SEF, Free State	BlueWave	Project Manager & EAP
Hibernia PV SEF near Lichtenburg, North West	EA Energy	Project Manager & EAP
Inkulukelo PV SEF, Northern Cape	Terra Solar	Project Manager & EAP
Kabi Kimberley PV SEF, Northern Cape	Kabi Energy	Project Manager & EAP
Kokerboom & Boobab PV Solar Energy Plants, Northern Cape	Brax Energy	Project Manager & EAP
Middelburg PV SEF, Mpumalanga	African Clean Energy Developments (ACED)	Project Manager & EAP
Nigramoep PV Solar Energy Plant, Northern Cape	SARGE	Project Manager & EAP
Noupoot (Kleinfontein and Toitdale) CPV, Northern Cape	Terra Power	Project Manager & EAP
O'Kiep 1 PV Solar Energy Plant, Northern Cape	Ilio Energy (SARGE)	Project Manager & EAP
O'Kiep 2 PV Solar Energy Plant, Northern Cape	BluePort Trade 118 (SARGE)	Project Manager & EAP
O'Kiep 3 PV Solar Energy Plant, Northern Cape	Ilio Energy (SARGE)	Project Manager & EAP
Rodicon PV SEF, Mpumalanga	VentuSA Energy	
Slurry PV SEF, North West	PPC	Project Manager & EAP
Small projects for PV SEF's, North West	BlueWave	Project Manager & EAP
Son Sitrus Rooftop PV Installation, Eastern Cape	Building Energy	Project Manager & EAP
Tollie PV SEF, Northern Cape	Terra Solar	Project Manager & EAP
x2 Southern Farms PV Solar Energy Plants, Northern Cape	Southern Farms	Project Manager & EAP
Moeding Solar PV Facility (BA in terms of REDZ regs), North West	Kabi Energy	Project Manager & EAP

#### Screening Studies

Project Name & Location	Client Name	Role
Allemans, Wonderheuwel, Damfontein & Dida PV SEF's, Northern Cape	Terra Solar	Project Manager & EAP
Amandla Welang, Gillmer & Inkululeko PV SEF's, Northern Cape	GeoSolar/ TerraSolar	Project Manager & EAP
Blouputs PV, Onseepkans PV, Hoogelegen PV & Boegoeberg PV projects, Northern Cape	Engineering Development Industrial Projects (EDIP)	Project Manager & EAP
Bobididi PV SEF, Limpopo	Root 60Four Energy	Project Manager & EAP
Boshof-Les Marais / Buitenfontein SEF, Free State	Bluewave Capital	Project Manager & EAP
Bosjesmansberg PV SEF, Northern Cape	Networx	Project Manager & EAP
Class 2 & Class 3 Road Networks in the vicinity of the proposed Tambo Springs Freight Hub, Gauteng	SMEC South Africa (on behalf of Gauteng Department of Roads & Transport)	Project Manager & EAP
Hibernia SEF, North West	EA Energy	Project Manager & EAP

<b>Project Name &amp; Location</b>	<b>Client Name</b>	<b>Role</b>
Lephalale PV SEF, Limpopo	Exxaro	Project Manager & EAP
Prieska PV SEF, Northern Cape	Terra Solar	Project Manager & EAP
Solar Project near Vryburg, North West province	ABO Wind	Project Manager & EAP
PV SEF's (x15) for the projects for the REIPP small scale BID, Nationwide	Building Energy	Project Manager & EAP
Senekal 1 & 2, Pongola & Newcastle PV SEF's, Kwa-Zulu-Natal	Building Energy	Project Manager & EAP
Small scale PV SEF project - 2nd Stage One	Bluewave Capital	Project Manager & EAP
Small scale PV SEF project - 2nd Stage One	Building Energy	Project Manager & EAP
Stella Helpmekaar SEF, North West	Bluewave Capital	Project Manager & EAP
Wolmaransstad Municipality SEF, North West	Bluewave Capital	Project Manager & EAP
Solar Project near Beaufort West, Western Cape	ABO Wind	Project Manager & EAP
Solar Project near Lichtenburg, Western Cape	ABO Wind	Project Manager & EAP
Solar Project near Hotazel, Western Cape	ABO Wind	Project Manager & EAP
Small-scale solar PV development site in Ekurhuleni Metropolitan Municipality, Gauteng	Genesis Eco-Energy Developments	Project Manager & EAP

#### **Environmental Compliance, Auditing and ECO**

<b>Project Name &amp; Location</b>	<b>Client Name</b>	<b>Role</b>
ECO for the Contraction of the De Aar & Prieska PV Facilities, Northern Cape	GeStamp	Project Manager
ECO for the Construction of the Kathu PV Facility, Northern Cape	REISA / Building Energy	Project Manager

#### **Compliance Advice and ESAP Reporting**

<b>Project Name &amp; Location</b>	<b>Client Name</b>	<b>Role</b>
ACWA Power SolarReserve Redstone Solar Plant, Northern Cape	SolarReserve	Environmental Advisor
Bokpoort PV SEF, Northern Cape	Solafrica	Environmental Advisor
Boshof PV SEF, Free State	BlueWave	Environmental Advisor
Hennenman PV SEF, Free State	BlueWave	Environmental Advisor
Kathu II SEF, Northern Cape	Building Energy	Environmental Advisor
Kathu PV SEF, Northern Cape	Building Energy / REISA	Environmental Advisor
Prieska PV SEF, Northern Cape	VentuSA	Environmental Advisor
San Solar SEF, Northern Cape	VentuSA / Acciona	Environmental Advisor
Sishen PV SEF Phase 1, Northern Cape	Aveng / Acciona	Environmental Advisor
Wolmaransstad Municipality Solar PV SEF, North West	BlueWave	Environmental Advisor
ESAP reporting for the opertaion phase of the Mulilo Solar PV De Aar and Mililo Solar PV Prieska	Mulilo and X-Elio	Environmental Advisor

#### **Due Diligence Reporting**

<b>Project Name &amp; Location</b>	<b>Client Name</b>	<b>Role</b>
Kabi Kimberley PV Plant, Northern Cape	Enertis Solar	Environmental Advisor
Sishen Solar Farm, Northern Cape	Acciona (Windfall 59 Properties)	Environmental Advisor
Vaal River Solar 1 PV plant, North West	Enertis Solar	Environmental Advisor

#### **Environmental Permitting & Water Use License (WUL) Applications**

<b>Project Name &amp; Location</b>	<b>Client Name</b>	<b>Role</b>
Permitting for the Kathu PV SEF, Northern Cape	Abengoa Solar	Project Manager & EAP

<b>Project Name &amp; Location</b>	<b>Client Name</b>	<b>Role</b>
S53 application for Kabi Kimberley De Beers PV Plant, Northern Cape	Kabi Energy	Project Manager & EAP
S53 application for the Blackwood PV SEF, Free State	VentuSA Energy	Project Manager & EAP
S53 application for the Boundary PV SEF, Northern Cape	VentuSA Energy	Project Manager & EAP
S53 application for Vaalkop & Witkop PV SEF's, North West	Kabi Energy	Project Manager & EAP
S53 applications for various projects (Amandla Welang, Didar, Inkululeko, Kleinfontein, Klip Gat, Naau Poort, Toitdale & Tollie PV SEF's), Northern Cape	Terra Solar	Project Manager & EAP
WUL application for the Woodhouse PV1 & PV2 SEF's, North West	Genesis Eco-Energy	Project Manager & EAP

### **RENEWABLE POWER GENERATION PROJECTS: CONCENTRATED SOLAR FACILITIES (CSP)**

#### ***Environmental Impact Assessments and Environmental Management Programmes***

<b>Project Name &amp; Location</b>	<b>Client Name</b>	<b>Role</b>
De Aar CSP Energy facility, Northern Cape	African Clean Energy Developments (ACED)	Project Manager & EAP
Khi Solar One CSP facility, Northern Cape	Abengoa Solar	Project Manager & EAP
Noupoort CSP facility, Northern Cape	Cresco	Project Manager & EAP
Paulputs CSP facility, Northern Cape	Abengoa Solar	Project Manager & EAP
Pofadder & Upington CSP facilities, Northern Cape	Abengoa Solar	Project Manager & EAP
SolarReserve Kotulo Tsatsi CSP facility, Northern Cape province	SolarReserve	Project Manager & EAP
SolarReserve Kotulo Tsatsi CSP1 facility, Northern Cape	Kotulo Tsatsi Energy and SolarReserve South Africa	Project Manager & EAP
SolarReserve Kotulo Tsatsi CSP2 facility, Northern Cape	Kotulo Tsatsi Energy and SolarReserve South Africa	Project Manager & EAP
SolarReserve Kotulo Tsatsi CSP3 facility, Northern Cape	Kotulo Tsatsi Energy and SolarReserve South Africa	Project Manager & EAP
Upington 2 CSP facility, Northern Cape	Abengoa Solar	Project Manager & EAP
Upington 3 CSP facility, Northern Cape	Abengoa Solar	Project Manager & EAP
Xina Solar One CSP facility, Northern Cape	Abengoa Solar	Project Manager & EAP

#### ***Environmental Compliance, Auditing and ECO***

<b>Project Name &amp; Location</b>	<b>Client Name</b>	<b>Role</b>
KaXu Solar One facility, Northern Cape	Abengoa Solar	Project Manager
Khi Solar One facility, Northern Cape	Abengoa Solar	Project Manager
Xina Solar One facility, Northern Cape	Abengoa Solar	Project Manager

#### ***Screening Studies***

<b>Project Name &amp; Location</b>	<b>Client Name</b>	<b>Role</b>
Site Identification Tool for Proposed CSP Projects, Limpopo	Exxaro	Environmental Advisor



### Compliance Advice and ESAP reporting

Project Name & Location	Client Name	Role
Kaxu Solar One CSP facility, Northern Cape	Abengoa Solar	Environmental Advisor
Khi Solar One CSP facility, Northern Cape	Abengoa Solar	Environmental Advisor
SolarReserve Kotulo Tsatsi CSP facility, Northern Cape province	SolarReserve	Environmental Advisor
Xina One CSP facility, Northern Cape	Abengoa Solar	Environmental Advisor

### RENEWABLE POWER GENERATION PROJECTS: WIND ENERGY FACILITIES

#### Environmental Impact Assessments and Environmental Management Programmes

Project Name & Location	Client Name	Role
ABs WEF near Indwe, Eastern Cape	Rainmaker Energy	Project Manager & EAP
Amakhala Emoyeni WEF, Eastern Cape	Windlab Developments	Project Manager & EAP
Amatole (2 phases) WEF, Eastern Cape	Genesis ECO-Energy	Project Manager & EAP
Boulders Wind Farm, Western Cape	IPD Power	Project Manager & EAP
Britannia Bay WEF, Western Cape	Terra Power Solutions	Project Manager & EAP
Castle WEF in De Aar, Northern Cape	Juwi Renewable Energies	Project Manager & EAP
Cookhouse WEF, Eastern Cape	African Clean Energy Developments (ACED) & Tertia Waters	Project Manager & EAP
Deep River Wind Energy Facility, Eastern Cape	VentuSA Energy	Project Manager & EAP
Dorper Phase 1 WEF, Eastern Cape	Rainmaker Energy	Project Manager & EAP
Elliot WEF, Eastern Cape	Rainmaker Energy	Project Manager & EAP
Garob WEF, Northern Cape	Juwi Renewable Energies	Project Manager & EAP
Gouda WEF, Western Cape	VentuSA Energy	Project Manager & EAP
Great Karoo WEF, Northern Cape	African Clean Energy Developments (ACED)	Project Manager & EAP
Gunstfontein WEF, Northern Cape	African Clean Energy Developments (ACED)	Project Manager & EAP
Happy Valley WEF, Eastern Cape	REISA	Project Manager & EAP
Hidden Valley WEF, Northern Cape	African Clean Energy Developments (ACED)	Project Manager & EAP
Hopefield WEF, Western Cape	Umoya Energy	Project Manager & EAP
Karoo Renewable Energy Facility, Northern & Western Cape	SARGE	Project Manager & EAP
Karreebosch Wind Farm (Roggeveld Phase 2), Northern Cape & Western Cape	G7 Renewable Energies	Project Manager & EAP
Karusa Wind Farm, Northern Cape	African Clean Energy Development	Project Manager & EAP
Klipheuwel / Dassiesfontein WEF, Western Cape	BioTherm Energy	Project Manager & EAP
Nojoli WEF, Eastern Cape	African Clean Energy Developments	Project Manager & EAP
Nxuba WEF, Eastern Cape	African Clean Energy Developments	Project Manager & EAP
Olifants River WEF, Western Cape	SARGE	Project Manager & EAP
Oyster Bay WEF, Eastern Cape	RES	Environmental Advisor
Pofadder x3 WEF's, Northern Cape	Mainstream Renewable	Project Manager & EAP
Project Blue WEF, Northern Cape	Windy World	Project Manager & EAP

<b>Project Name &amp; Location</b>	<b>Client Name</b>	<b>Role</b>
Rheboksfontein WEF, Western Cape	Moyeng Energy	Project Manager & EAP
Riverbank WEF near Wesley, Eastern Cape	Just Energy	Project Manager & EAP
Sere WEF, Western Cape	Eskom Generation	Project Manager & EAP
Soetwater Wind Farm, Northern Cape	African Clean Energy Development	Project Manager & EAP
Springfontein WEF, Northern Cape	Mainstream Renewable	Project Manager & EAP
Stormberg WEF, Eastern Cape	Networx / Prana Energy	Project Manager & EAP
Suurplaat WEF, Western & Northern Cape	Moyeng Energy	Project Manager & EAP
Uiekraal WEF, Western Cape	Crenergol	Project Manager & EAP
West Coast One WEF, Western Cape	Moyeng Energy	Project Manager & EAP
West Coast WEF, Western Cape	Exxaro	Project Manager & EAP
Zen WEF near Gouda, Western Cape	VentuSA Energy	Project Manager & EAP

### **Basic Assessments**

<b>Project Name &amp; Location</b>	<b>Client Name</b>	<b>Role</b>
Britannia Bay Wind Monitoring Mast, Western Cape	Terra Power Solutions	Project Manager & EAP
Caledon, Worcester & Tulbach Wind Monitoring Masts, Western Cape	SAGIT	Project Manager & EAP
Deep River Wind monitoring Mast, Eastern Cape	VentuSA Energy	Project Manager & EAP
Denhami Wind Farm, Western Cape	Richard Young	Project Manager & EAP
Dorper, Abs & Dobos Wind Monitoring Masts, Eastern Cape	Rainmaker Energy	Project Manager & EAP
Hopefield Wind Monitoring Mast, Western Cape	Umoya Energy	Project Manager & EAP
Klawer Wind Energy Facility, Western Cape	Vendiwell	Project Manager & EAP
Klipheuwel / Dassiesfontein Wind Monitoring Mast, Western Cape	BioTherm Energy	Project Manager & EAP
Riverbank Wind Monitoring Mast, Eastern Cape	Just Energy	Project Manager & EAP
Wind Monitoring Masts near Suurplaat, Western Cape	Investec Bank	Project Manager & EAP
Wind Monitoring Masts on the West Coast & Darling, Western Cape	Investec Bank	Project Manager & EAP

### **Screening Studies**

<b>Project Name &amp; Location</b>	<b>Client Name</b>	<b>Role</b>
Cookhouse WEF, Eastern Cape	African Clean Energy Developments (ACED)	Project Manager & EAP
De Aar WEF, Northern Cape	African Clean Energy Developments (ACED)	Project Manager & EAP
Developments within identified areas in the Overberg, Western Cape	BioTherm Energy	Project Manager & EAP
Hopefield WEF, Western Cape	African Clean Energy Developments (ACED)	Project Manager & EAP
Juno WEF, Western Cape	AMDA Developments	Project Manager & EAP
Lambert's Bat WEF, Western Cape	Vaayu Energy SA	Project Manager & EAP
Wind 500 – Eskom's investigation for new sites	Eskom Holdings	Project Manager & EAP
Struisbaai area WEF, Western Cape	Richard Young	Project Manager & EAP
Suurplaat WEF, Western Cape	Investec Bank	Project Manager & EAP
Theewaterskloof Municipality WEF, Western Cape	Theewaterskloof Municipality	Project Manager & EAP
WEF's on x2 site on the West Coast, Western Cape	Investec Bank	Project Manager & EAP

Project Name & Location	Client Name	Role
Various WEF's in the Western Cape	Department of Environmental Affairs & Development Planning (DEA&DP)	Project Manager & EAP
Van Reenens WEF, Kwa-Zulu Natal & Free State	4GREEN Development Africa	Project Manager & EAP
WEF Development within the Sandveld area, Western Cape	Kovacs Investments (Nick Prium)	Project Manager & EAP

#### **Environmental Compliance, Auditing and ECO**

Project Name & Location	Client Name	Role
ECO for the Construction of the Dorper Phase 1 WEF, Eastern Cape	Rainmaker Energy	Project Manager
ECO for the Construction of the Gouda Wind Farm, Western Cape	Blue Falcon Trading	Project Manager
EO for the Construction of the Dassiesklip WEF, Western Cape	Group Five	Project Manager

#### **Compliance Advice & ESAP Reporting**

Project Name & Location	Client Name	Role
Amakhala Emoyeni WEF, Eastern Cape	Windlab Developments	Environmental Advisor
Cookhouse II WEF, Eastern Cape	African Clean Energy Developments	Environmental Advisor
Cookhouse WEF, Eastern Cape	African Clean Energy Developments	Environmental Advisor
Dorper Phase 1 WEF, Eastern Cape	Rainmaker Energy	Environmental Advisor
Garob WEF, Northern Cape	Juwi Renewable Energies	Environmental Advisor
Gouda WEF, Western Cape	Aveng / Acciona	Environmental Advisor
Happy Valley WEF, Eastern Cape	VentuSA Energy / EDPR	Environmental Advisor
Hidden Valley WEF, Northern Cape	African Clean Energy Developments (ACED)	Environmental Advisor
Hopefield WEF, Western Cape	Umoya Energy	Environmental Advisor
Karusa Wind Farm, Northern Cape	African Clean Energy Development	Environmental Advisor
Loperberg WEF, Eastern Cape	Rainmaker Energy	Environmental Advisor
Nobelsfontein WEF, Northern Cape	Coria / SARGE	Environmental Advisor
Nojoli WEF , Eastern Cape	African Clean Energy Developments (ACED)	Environmental Advisor
Nxuba WEF , Eastern Cape	African Clean Energy Developments	Environmental Advisor
Oyster Bay WEF, Eastern Cape	RES	Environmental Advisor
Riverbank Wind WEF, Eastern Cape	InnoWind	Environmental Advisor
Roggeveld Phase 1 WEF, Northern Cape	Building Energy	Environmental Advisor
Soetwater Wind Farm, Northern Cape	African Clean Energy Development	Environmental Advisor
Springfontein WEF, Northern Cape	Mainstream Renewable	Environmental Advisor
Zen WEF, Western Cape	VentuSA Energy	Environmental Advisor

#### **Due Diligence Reporting**

Project Name & Location	Client Name	Role
Gouda WEF, Western Cape	Blue Falcon Trading	Environmental Advisor

Project Name & Location	Client Name	Role
Loeriesfontein, Khobab & Noupoort WEF's, Northern Cape	Actis	Environmental Advisor
Roggeveld Wind Farm, Northern Cape	Building Energy	Environmental Advisor

#### **Environmental Permitting & WUL Applications**

Project Name & Location	Client Name	Role
Permitting for the Cookhouse WEF, Eastern Cape	African Clean Energy Developments (ACED)	Project Manager & EAP
Permitting for the Karusa Wind Farm, Northern Cape	African Clean Energy Development	Project Manager & EAP
Permitting for the Sere WEF, Western Cape	Eskom	Project Manager & EAP
Permitting for the Soetwater Wind Farm, Northern Cape	African Clean Energy Development	Project Manager & EAP
Permitting Riverbank WEF, Eastern Cape	Electrawinds	Project Manager & EAP
S24G for the Klipheuwel / Dassiesfontein WEF, Western Cape		Project Manager & EAP
S53 application for the Nxuba Wind Farm, Eastern Cape	African Clean Energy Developments (ACED)	Project Manager & EAP
S53 Application for the Zen WEF, Western Cape	VentuSA Energy	Project Manager & EAP
WUL application for the Oyster Bay WEF, Eastern Cape	RES	Project Manager & EAP

#### **CONVENTIONAL POWER GENERATION PROJECTS (COAL)**

##### **Environmental Impact Assessments and Environmental Management Programmes**

Project Name & Location	Client Name	Role
H2 Energy Power Station, Mpumalanga	H2 Energy	Project Manager & EAP

##### **Screening Studies**

Project Name & Location	Client Name	Role
Coal fired power station in the Bethal area, Mpumalanga	ISS Global	Project Manager & EAP
Indwe Power Station, Eastern Cape	IPSA	Project Manager & EAP
IPP Base Load Power Station Development in Lephalale, Limpopo	Exxaro	Project Manager & EAP

##### **Environmental Compliance, Auditing and ECO**

Project Name & Location	Client Name	Role
ISO 14001:2015 Audit for the Hendrina Power Station, Mpumalanga	Eskom Holdings	Project Manager

#### **GAS to POWER GENERATION PROJECTS**

##### **Environmental Impact Assessments and Environmental Management Programmes**

Project Name & Location	Client Name	Role
Ankerlig OCGT to CCGT Conversion project & the Transmission Power Line between Ankerlig and the Omega Substation, Western Cape	Eskom Generation	Project Manager & EAP
Gourikwa OCGT to CCGT Conversion project & the Transmission Power Line between Gourikwa and the	Eskom Generation	Project Manager & EAP

Proteus Substation, Western Cape		
Neopak Combined Heat and Power (CHP) Plant, Rosslyn, Gauteng	Neopak	Project Manager & EAP
Richards Bay Combined Cycle Gas Turbine (CCGT) Power Plant, Kwa-Zulu Natal	Eskom	Project Manager & EAP

#### **Screening Studies**

<b>Project Name &amp; Location</b>	<b>Client Name</b>	<b>Role</b>
Environmental Analysis for Gas Transmission Pipelines in the Clayville, Nigel and Wadeville areas, Gauteng	Energy Group	Project Manager

### **INFRASTRUCTURE DEVELOPMENT PROJECTS (BRIDGES, PIPELINES, ROADS, WATER RESOURCES, STORAGE, ETC)**

#### **Environmental Impact Assessments and Environmental Management Programmes**

<b>Project Name &amp; Location</b>	<b>Client Name</b>	<b>Role</b>
Afguns Road Realignment Project, Limpopo	Eskom Holdings	Project Manager & EAP
Expansion of the existing Welgedacht Water Care Works, Gauteng	ERWAT	Project Manager & EAP
Industrial Metals Cluster, Northern Cape	Northern Cape Department of Economic Development and Tourism	Project Manager & EAP
Modification of the existing Hartebeestfontein Water Care Works, Gauteng	ERWAT	Project Manager & EAP

#### **Basic Assessments**

<b>Project Name &amp; Location</b>	<b>Client Name</b>	<b>Role</b>
New Raw Water Reservoir & Pipeline for the Medupi Power Station, Limpopo	Eskom Holdings	Project Manager & EAP
Msenge Emoyeni WEF Watercourse Crossings, Eastern Cape	Windlab	Project Manager & EAP
Dilokong Transport Facility, Limpopo	South African National Roads Agency Limited (SANRAL)	Project Manager & EAP
Neopak Water Treatment Plant, Gauteng	Neopak	Project Manager & EAP
Realignment of MR73 Road for the Construction of the Paulputs CSP Facility, Northern Cape	Abengoa Solar	Project Manager & EAP
Biomass Storage Area in Support of the Mkuze Biomass Power Station, KwaZulu-Natal	Building Energy	Project Manager & EAP
Wastewater Dam & Pipeline in Support of the Mkuze Biomass Power Station, Kwa-Zulu Natal	Building Energy	Project Manager & EAP
Watercourse Crossings for the Klawer Wind Energy Facility, Western Cape	Vendiwell	Project Manager & EAP

#### **Environmental Compliance, Auditing and ECO**

<b>Project Name &amp; Location</b>	<b>Client Name</b>	<b>Role</b>
ECO for the Construction of the Tiffindell Ski Resort, Eastern Cape	Tiffindell Ski	ECO
ECO for the Distribution centre & warehouse at Lords View Industrial Estate, Gauteng	Oliver & Partners	Project Manager
ECO for the Upgrade of the Waterval Wastewater Treatment Works, Gauteng	BCP Palace (on behalf of ERWAT)	Project Manager

### **Compliance Advice and reporting**

<b>Project Name &amp; Location</b>	<b>Client Name</b>	<b>Role</b>
Mkuze Biomass Plant, Kwa-Zulu Natal	Building Energy	Environmental Advisor
Tiffindell Ski, Eastern Cape	Tiffindell Ski	Environmental Advisor

### **Environmental Permitting & WUL Applications**

<b>Project Name &amp; Location</b>	<b>Client Name</b>	<b>Role</b>
Permitting, S53 & WULA for the Mkuze Biomass Plant, Kwa-Zulu Natal	Building Energy	Project Manager & EAP
WULA for the Visserhok Waste Tyre Depot, Western Cape	REDISA	Project Manager & EAP
WULA for the Witbank Waste Tyre Depot, Mpumalanga	REDISA	Project Manager & EAP

## **MINING**

### **Environmental Compliance, Auditing and ECO**

<b>Project Name &amp; Location</b>	<b>Client Name</b>	<b>Role</b>
Compliance Audit for the Palesa Coal Mine WML, Mpumalanga province	HCI Coal	Project Manager
Compliance Audit Waste Use Licene for the Mbali Coal Mine, Mpumalanga province	HCI Coal	Project Manager

## **ENVIRONMENTAL MANAGEMENT TOOLS**

<b>Project Name &amp; Location</b>	<b>Client Name</b>	<b>Role</b>
Review the effectiveness & efficiency of the environmental impact management (EIA) system in South Africa, and formulate an environmental impact management strategy and action plan	National Department of Environmental Affairs	Environmental Advisor
Drafting a Position Paper: Project Financing and Environmental Risk Management (considering IFC Performance Standards & Equator Principles)	Standard Bank Group	Environmental Advisor
EMP for the Phase 1 of the Elitheni Coal Mine Project, Eastern Cape	Elitheni Coal	Environmental Advisor
Gap Analysis of Environmental Management Systems (EMS) with ISO 14001:2004	Venture Diversified Products	Environmental Advisor
Development of Provincial Guidelines for 4x4 routes	Western Cape Department of Environmental Affairs & Development Planning	Environmental Advisor
Permitting Study on the Status of Renewable Energy Projects in South Africa	E.ON	Environmental Advisor
Practical review of EGI SEA	CSIR	Environmental Advisor
Development & Implementation of the Environmental Management Systems (EMS) with ISO 14001:2004 for the UBS Office in Sandton, Gauteng	UBS AG	Environmental Advisor

Resource & Efficiency Plans for the operation phase of the Mulilo Solar PV De Aar and Mililo Solar PV Prieska	Mulilo and X-Elio	Environmental Advisor
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## **TRAINING**

<b>Project Name &amp; Location</b>	<b>Client Name</b>	<b>Role</b>
Hendrina Power Station Environmental Law Training	Eskom Holding	Project Manager
Radar Training for NCC Biologists	EchoTracks	Project Manager