Basic Assessment for the Proposed Development of four 175 MW Solar Photovoltaic Facilities and associated Infrastructure (i.e. Hoek Doornen PV 1, Hoek Doornen PV 2, Hoek Doornen PV 3, and Hoek Doornen PV 4), near Touws River, Western Cape

APPENDIX E

EAP Details, Expertise and Declaration of Interest

Appendix E: EAP Details, Expertise and Declaration of Interest

CV OF PAUL LOCHNER

Employer: Council for Scientific and Industrial Research (CSIR) PO Box 320, Stellenbosch, 7600, South Africa Phone: +27 21 888 2486 (w), +27 84 442 3646 (cell) Email: <u>plochner@csir.co.za</u> Date of Birth: 13 June 1969 Nationality: South African

BIOSKETCH

Paul Lochner is an environmental assessment practitioner at the CSIR in Stellenbosch, with 28 years of experience in a wide range of environmental assessment and management studies. His particular experience is in environmental planning and assessment for renewable energy, electricity grid infrastructure, desalination, oil & gas, wetlands & coastal zone management, and industrial & port development. He has been closely involvement in the research and application of Strategic Environmental Assessment in South Africa, and also has wide experience in Environmental & Social Impact Assessment, Environmental Management Programs and Environmental Screening Studies.

PERSONAL SKILLS AND CAPABILITIES

- Holistic understanding of environmental and social aspects at policy, program and project levels
- Ability to lead, inspire and motivate a team of environmental scientists in a consulting business
- Coordination of experts from diverse disciplines to support evidence-based decision-making
- Ability to integrate of environmental, social and economic aspects within a systems model
- Design of innovative processes to respond effectively to proposals and meet needs of clients
- Review and quality assurance for environmental assessment processes and reports
- Project management, financial management, report writing and communication skills.

EDUCATION

- BSc (Civil Engineering) awarded with Honours, University of Cape Town, 1990
- MPhil (Environmental Science), University of Cape Town, 1992

EMPLOYMENT

- Environmental scientist at CSIR (Stellenbosch) from October 1992 to present.
- Group Leader of CSIR Environmental Management Services since August 2008.

DRAFT BASIC ASSESSMENT REPORT: Basic Assessment for the Proposed Development four 175 MW Solar Photovoltaic Facilities and associated Infrastructure (i.e. Hoek Doornen PV 1, Hoek Doornen PV 2, Hoek Doornen PV 3, and Hoek Doornen PV 4), near Touws River, Western Cape

PROFESSIONAL REGISTRATION

 Environmental Assessment Practitioners Association of South Africa (EAPASA), Registration Number 2019/745

PROFESSIONAL MEMBERSHIP AND POSITIONS HELD

- Member of the International Association for Impact Assessment (IAIA)
- 1996 to present: Chairperson of Blouvlei Intaka Island Environmental Committee at Century City, Cape Town, which oversees management of the Intaka Island Nature Reserve
- 2010 to present: Chairperson of Intaka Island Environmental Trust, that oversees the operation of the Eco-centre and education program at the Intaka Island Nature Reserve
- 2017: Conference Organising Committee member and Program Director for IAIA South Africa national conference, August 2017, Goudini.

LANGUAGE CAPABILITY

	Speaking	Reading	Writing
English	Excellent	Excellent	Excellent
Afrikaans	Average	Average	Average

TRACK RECORD OF PROFESSIONAL EXPERIENCE

This is an abbreviated record of experience. A full record is available on request. Projects are located in South Africa unless otherwise stipulated.

Duration	Project description	Role	Client
2019 (in progress)	Basic Assessments for proposed PV and EGI Developments near Ceres	Project leader	Veroniva (PTY) Ltd
2019 (in progress)	Environmental scoping for a Desalination Plant and Water Carriage System for water supply to Windhoek and the central coastal area of Namibia	Project author	NamWater (Namibia) and KfW Development Bank (Germany)
2019 (in progress)	EnvironmentalPerformanceComplianceStudy for Foundries in South Africa	Project reviewer	National Foundries Technology Network
2019	Independent Expert review of the ecology study as part of the EIA and EMPR for diamond prospecting at Bloemhof Dam Nature Reserve, North West province	Independent reviewer	DEA Appeals Office
2018-2019	Greater Saldanha Bay Strategic Environmental Assessment (SEA): Phase 1 Monitoring and Decision Support System	Project leader	Western Cape provincial government
2018-2019	Environmental Screening Study for a proposed 100 to 150 megalitre/day desalination facility for City of Cape Town, Phase 1: Pre-feasibility study	Project co-leader	City of Cape Town and iX Engineers
2018-2019	EIA for 150 MW wind power project in Ghana	Proposal and EIA Quality Assurance	Volta River Authority and Seljen Consult Ltd
2019	Environmental Assessment for the Kenhardt solar PV facility and electrical infrastructure (100 MW x 3), Northern Cape	Project leader	Scatec Solar Africa (Pty) Ltd
2017-2019	SEA for Wind & Solar Photovoltaic Energy development in South Africa (Phase 2)	Project reviewer	DEA & national Dept of Energy (DOE)

DRAFT BASIC ASSESSMENT REPORT: Basic Assessment for the Proposed Development four 175 MW Solar Photovoltaic Facilities and associated Infrastructure (i.e. Hoek Doornen PV 1, Hoek Doornen PV 2, Hoek Doornen PV 3, and Hoek Doornen PV 4), near Touws River, Western Cape

Duration	Project description	Role	Client
2017-2019	SEA for the Expansion of EGI Corridors in South Africa	Project reviewer	DEA, DOE, iGas, Eskom (national electricity utility)
2017-2019	SEA for Energy Corridors and development of a gas pipeline network for South Africa	Project reviewer	DEA, DOE, iGas, Eskom (national electricity utility)
2017-2019	SEA for Aquaculture Development in South Africa (marine and freshwater)	Project leader	DEA and national Dept of Agriculture Forestry and Fisheries (DAFF)
2018	Environmental Assessments for the Vryburg Solar project (115 MW x 3) in the Vryburg Renewable Energy Development Zone (REDZ)	Co-project manager and co-author	Veroniva & Scatec
2018	EIA for West Bank Waste Water Treatment works marine outfall pipeline , East London	Independent reviewer	WSP and Buffalo City Municipality
2017-2018	Site selection and environmental screening for a proposed 120 – 150 ML/day desalination plant for the City of Cape Town	Project leader	City of Cape Town and iX Engineers
2017-2018	EIA and EMP for Icyari Coltan Mine, Rwanda	Project reviewer	Mawarid Mining Rwanda Ltd (MMRL), UAE
2016-2017	SEA for the Square Kilometre Array radio- telescope in the Karoo, South Africa	Project leader	DEA and DST
2016-2017	SEA for Shale Gas Development in the Karoo region of South Africa	Project co-leader	DEA and other government departments
2015-2016	SEA for the development of Electrical Grid Infrastructure for South Africa	Project leader	DEA and Eskom (national electricity utility)
2017	EIA for the 75 MW x 12 solar photovoltaic energy projects near Dealesville, Free State	Project leader	Mainstream Renewable Power SA
2014-2015	EIA for Ishwati Emoyeni 140 MW wind energy project and supporting electrical infrastructure at Murraysburg, Western Cape	Project leader	Windlab South Africa
2012-2015	SEA for identification of renewable energy zones for wind and solar photovoltaic projects in South Africa	Project leader	DEA and other national government departments
2012-2013	Environmental Screening Study (ESS) for a desalination plant for the City of Cape Town	Project leader	City of Cape Town & WorleyParsons
2012-2013	EIA for the desalination plant for the Saldanha area	Project leader	West Coast District Municipality & WorleyParsons
2012-2013	EIA for the manganese export terminal at the Port of Ngqura and Coega Industrial Development Zone (IDZ)	Project leader	Transnet
2011 - 2012	EIA (x2) for 100 MW solar photovoltaic project at Blocuso and 100 MW solar PV project at Roode Kop in the Northern Cape	Project leader	Mainstream Renewable Power
2011 – 2012	EIA (x2) for 75 MW solar photovoltaic project at GlenThorne and 75 MW project at Valleydora, in the Free State	Project leader	Solaire Direct
2010-2011	More than 10 Basic Environmental Assessments (BAs) for solar photovoltaic projects in the Western Cape, Northern Cape, Eastern Cape and Free State	Project leader	Conducted for Dutch, German, French and South African companies
2010/2011	EIA for a 100 MW wind project at Zuurbron and a 50 MW wind project Broadlands in the Eastern Cape	Project leader	WindCurrent SA (German based company)
2010-2011	EIAs (x4) for the proposed InnoWind wind energy projects near Swellendam, Heidelberg,	Project leader	InnoWind South Africa (Pty) Ltd

DRAFT BASIC ASSESSMENT REPORT: Basic Assessment for the Proposed Development four 175 MW Solar Photovoltaic Facilities and associated Infrastructure (i.e. Hoek Doornen PV 1, Hoek Doornen PV 2, Hoek Doornen PV 3, and Hoek Doornen PV 4), near Touws River, Western Cape

Duration	Project description	Role	Client
	Albertinia and Mossel Bay (totalling approx 210 MW), Western Cape, South Africa		
2009-2010	EIA for the proposed Electrawinds wind energy facility of 45-75 MW capacity in the Coega IDZ, Eastern Cape	Project leader	Electrawinds N.V. (Belgium)
2009-2010	EIA for proposed 180 MW Jeffreys Bay wind energy project, Eastern Cape	Project Leader and co-author	Mainstream Renewable Power South Africa
2009-2010	EIA for the proposed 70 megalitre/day desalination plant at Mile 6 near Swakopmund, Namibia	Project leader	NamWater, Namibia
2009	ESS for a proposed Deepwater Port, Container Hub and Industrial Development Zone, Ghana	Project Manager	Project Management International Pty Ltd
2009	EMP for the Operational Phase of the Berg River Dam, Franschoek, South Africa	Project leader and report co-author	TCTA (national water supply utility), South Africa
2006	Environmental Impact Assessment (EIA) for extension of Port of Ngqura, Eastern Cape	Project Leader and co-author	Transnet National Port Authority
2004-2005	Environmental and Social Impact Assessment (ESIA) report for the proposed alumina refinery near Sosnogorsk, Komi Republic, Russia	Project manager and co-author	Komi Aluminium Russia, IFC, European Bank for Reconstruction & Development (EBRD)
2005	Guideline for Environmental Management Plans (EMPs) for the Western Cape province	Author	Dept of Environmental Affairs & Development Planning, Western Cape
2003	Environmental Management Plan for the Operational Phase of the wetlands and canals at Century City, Cape Town	Project leader and lead author	Century City Property Owners' Association
2002	Environmental Impact Assessment for the proposed Pechiney aluminium smelter at Coega, South Africa	Project Manager and lead author	Pechiney, France
1999-2000	Cape Action Plan for the Environment : a biodiversity Strategy and Action Plan for the Cape Floral Kingdom - legal, institutional, policy, financial and socio-economic component	Project manager and contributing writer	World Wide Fund for Nature (WWF): South Africa and Global Environment Facility (GEF)
1999	Management Plan for the coastal zone between the Eerste and Lourens River, False Bay, South Africa	Project manager and lead author	Heartland Properties and Somchem (a Division of Denel)
1998	Environmental Assessment of the Mozal Matola Terminal Development proposed for the Port of Matola, Maputo, Mozambique	Project manager and author	SNC-Lavalin-EMS
1996-1997	Strategic Environmental Assessment (SEA) for the proposed Industrial Development Zone and Harbour at Coega, Port Elizabeth, South Africa	SEA project manager and report writer	Coega IDZ Initiative Section 21 Company
1995-1996	Environmental Impact Assessment and EMP for Development Scenarios for Thesen Island, Knysna, South Africa	Project manager and report writer	Thesen and Co.
1996	Environmental Impact Assessment for the Blouvlei wetlands at Century City, Cape Town	Project manager and report writer	Ilco Homes Ltd (now Monex Ltd)
1995	Environmental Impact Assessment for the Saldanha Steel Project, South Africa	Report author and project manager	Saldanha Steel Project

DRAFT BASIC ASSESSMENT REPORT: Basic Assessment for the Proposed Development four 175 MW Solar Photovoltaic Facilities and associated Infrastructure (i.e. Hoek Doornen PV 1, Hoek Doornen PV 2, Hoek Doornen PV 3, and Hoek Doornen PV 4), near Touws River, Western Cape

Duration	Project description	Role	Client
1994	Environmental Impact Assessment for the upgrading of resort facilities on Frégate Island, Seychelles	Project management, co-author, process facilitator	Schneid Israelite and Partners
1994	Environmental Impact Assessment for exploration drilling in offshore Area 2815, Namibia	Project manager and lead author	Chevron Overseas (Namibia) Limited
1994	Management Plan for the Rietvlei Wetland Reserve, Cape Town	Project manager and lead author	Southern African Nature Foundation (now WWF- SA)

RECENT JOURNAL PUBLICATIONS AND PEER REVIEWED PAPERS

A comprehensive list of publications is available on request, with a summary provided below of recent journal publications, book chapters and peer reviewed conference papers:

Fischer D, Lochner P and Annergarn H, 2019. Evaluating the effectiveness of Strategic Environmental Assessment to facilitate renewable energy planning and improved decision-making: a South African case study, *Impact Assessment and Project Appraisal* - article ID: IAPA 1619389.

Cape L., Retief F., Lochner P., Fischer T., and Bond A., 2018. Exploring pluralism: Different stakeholder views of the expected and realised value of strategic environmental assessment (SEA). *Environmental Impact Assessment Review*, Volume 69, March 2018, Pages 32-41.

Cape L., Lochner P. and Fischer D., 2017. SEAs for major infrastructure programmes in SA. *IAIA17 Conference Proceedings* - 37th Annual Conference of the International Association for Impact Assessment, 4-7 April 2017 | Le Centre Sheraton Montreal | Montreal | Canada | www.iaia.org

Schreiner, G.O., Scholes, R.J., Snyman-Van der Walt, L., De Jager, M., S, Esterhuyse., Dludla, A., Lochner, P.A., Wright, J., Atkinson, D., Hardcastle, P., Kotze, H. 2017. Advancing a participatory and science-based approach to policy formulation for shale gas development in South Africa. *In:* Eds Whitton, J., Cotton, M., Brasier, K. 2017. *Citizen and other stakeholder participation in unconventional fossil fuel land use decision-making, policy formation, regulatory practice or other governance mechanisms*. London: Routledge.

Lochner P, Mabin M & Cape L, 2015, Recent Strategic Environmental Assessment experience in South Africa and national principles, in *IAIA16 (Japan) Conference Proceedings*.

DRAFT BASIC ASSESSMENT REPORT: Basic Assessment for the Proposed Development four 175 MW Solar Photovoltaic Facilities and associated Infrastructure (i.e. Hoek Doornen PV 1, Hoek Doornen PV 2, Hoek Doornen PV 3, and Hoek Doornen PV 4), near Touws River, Western Cape

CV OF ROHAIDA ABED

Name of firm	CSIR
Name of staff	Rohaida Abed
Profession	Environmental Assessment Practitioner
Position in firm	Environmental Assessment Practitioner
Nationality	South African

Biographical Sketch

Rohaida Abed is an Environmental Assessment Practitioner in the CSIR Environmental Management Services team based in Durban. She has 10 years of experience in the Environmental Management field, and has been involved in various transport infrastructure related projects as an Environmental Control Officer, which included monitoring compliance with Environmental Authorizations and Environmental Management Plans. She has also been conducting Environmental Assessments relating to Port infrastructure, Bulk Liquid Storage facilities and renewable energy in the capacity of Project Manager.

She has been involved in Screening Studies, Applications for Amendments to Environmental Authorisations, Environmental Management Programmes, Legislative Reviews and reviewing Specialist Studies. She is also the Project Manager for the Gas Pipeline and Electricity Grid Infrastructure Expansion Strategic Environmental Assessment (SEA) for the National DEA, DOE, DPE, iGas, Transnet and Eskom.

Tertiary Education

Year	Degree	Institution
2003 - 2005	Bachelor of Science (Environmental Science)	University of KwaZulu-Natal
2006 - 2006	Bachelor of Science Honours (Environmental Science)	University of KwaZulu-Natal
2007 - 2009	Master of Science (Environmental Science)	University of KwaZulu-Natal

Professional Registration

- Registered Professional Natural Scientist (Pr.Sci.Nat.) in Environmental Science (Registration Number: 400247/14) with the South African Council of Natural Scientific Professions (SACNASP) in July 2014.
- Member of the International Association for Impact Assessment South Africa (IAIAsa) Membership number: 5840

Employment Record

Period	Employer	Position
2006 – 2008	University of KwaZulu-Natal	Academic Demonstrator
March 2010 – April 2010	EnAq Consulting	Environmental Officer
May 2010 – September 2011	Henwood & Nxumalo Consulting Engineers	Environmental Scientist
October 2011 – to present	CSIR	Environmental Assessment Practitioner

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Short Courses, Seminars and Conferences

Year	Course, Seminar, Conference	Institution	
May 2009 (5 days)	Management of Estuaries in South Africa	Marine and Estuarine Research, FET Water, and Water Research Commission	
October 2010 (5 days)	Environmental Impact Assessment: A Practical Approach	North West University (Potchefstroom Campus), Centre for Environmental Management	
October 2017 (3 days)	International Gas Cooperation Summit in Durban	EnergyNet Africa	
June 2018 (1 day)	Training on the National Web-based Environmental Screening Tool, Pietermaritzburg, KZN	National Department of Environmental Affairs	
March 2019 (2 days)	African Conference for Linear Infrastructure and Ecology, Skukuza Camp, Kruger National Park	Endangered Wildlife Trust	
September 2019 (2 days)	EIA Seminar, Empangeni, KZN	National Department of Environmenta Affairs	

List of Key Project Experience

Date	Project Description	Role	Client
2010 – 2011	The Repair and Rehabilitation of the Umzinto River Bridge Number 823 on the South Coast of KwaZulu-Natal	Environmental Control Officer	KwaZulu-Natal Department of Transport
2010 – 2011	The Construction of the Kwahlongwa Bridge Number 3257 over the Kwa-Malukaka River on D297 near Umzumbe, South Coast of KwaZulu-Natal	Environmental Control Officer	KwaZulu-Natal Department of Transport
2010 – 2011	The Construction of a bridge and approach roads across the Indaka River at Eludimbi, within the Msinga Local Municipality, KwaZulu-Natal	Environmental Control Officer	KwaZulu-Natal Department of Transport
2010 – 2011	The Extension of the Lion Park Pipeline along the P566 and D2173 in the Manyavu area, KwaZulu-Natal	Environmental Control Officer	Umgeni Water
2010 – 2011	The Construction of a bridge and approach roads across the Tugela River at Thulwane, within the Nkandla Local Municipality, KwaZulu-Natal	Environmental Control Officer	KwaZulu-Natal Department of Transport
2010 – 2011	The Construction of a bridge and approach roads across the Mona River at Nqolotshe, within the Hlabisa and Nongoma Local Municipalities, KwaZulu-Natal	Environmental Control Officer	KwaZulu-Natal Department of Transport
2010 – 2011	The Construction of the Mdloti River Bridge (Northbound) on the R102, within the eThekwini Municipality, KwaZulu-Natal.	Environmental Control Officer	KwaZulu-Natal Department of Transport
2010 – 2011	The Upgrade of the R102 from the Duffs Road Interchange to King Shaka International Airport, within the eThekwini Municipality, KwaZulu-Natal.	Environmental Control Officer	KwaZulu-Natal Department of Transport
2010 – 2011	The Construction of the P701 Provincial Road from Ulundi to Empangeni, KwaZulu-Natal	Environmental Control Officer	KwaZulu-Natal Department of Transport
2010	Environmental Impact Assessment for the construction of a bridge and approach roads across the Mona River at Nqolotshe, within the Hlabisa and Nongoma Local Municipalities, KwaZulu-Natal	Project Assistant	KwaZulu-Natal Department of Transport
2011 - 2014	Environmental Impact Assessment for the proposed Bulk Liquid Storage and Handling Facility in Zone 8 of the Coega IDZ, Port of Nggura	Project Manager	Oiltanking Grindrod Calulo (PTY) Ltd
2012 - 2014	Environmental Impact Assessment for the proposed Manganese Export Terminal in Zones 8, 9 and 11 of the Coega IDZ, including the Port of Ngqura, and surrounding area	Project Assistant	Hatch Africa (PTY) Ltd c/o Transnet
2012 - 2014	Basic Assessment for the Provision of Landside Structures and Infrastructure to the Bulk Liquid Storage and Handling Facility in the Port of Ngqura	Project Manager	Eastern Cape Infrastructure Joint Venture c/o Transnet Capital Projects

DRAFT BASIC ASSESSMENT REPORT: Basic Assessment for the Proposed Development four 175 MW Solar Photovoltaic Facilities and associated Infrastructure (i.e. Hoek Doornen PV 1, Hoek Doornen PV 2, Hoek Doornen PV 3, and Hoek Doornen PV 4), near Touws River, Western Cape

Date	Project Description	Role	Client
2013 – 2014	Environmental Impact Assessment for the Provision of Marine Infrastructure, including a General Cargo Berth and Liquid Bulk Berths at the Port of Nggura	Project Manager	Transnet Capital Projects
2013 – 2016	Basic Assessment for the decommissioning of unused infrastructure at the Port of Nggura	Project Manager	Transnet Capital Projects
2015	Public Participation Process for the Application for non- substantive Amendment to the Environmental Authorisation for the proposed Landside Structures and Infrastructure to the Bulk Liquid Storage and Handling Facility in the Port of Nggura	Project Manager	Transnet Capital Projects
2014 – 2016	Basic Assessment for the Proposed Decommissioning and Upgrade of a Bulk Liquid Storage and Handling Facility at Maydon Wharf, Port of Durban, KwaZulu-Natal	Project Manager	Oiltanking Grindrod Calulo Terminals (PTY) Ltd
2015 – ongoing	Environmental Management Plan for the Proposed Construction of a Bulk Liquid Storage and Handling Facility in the Port of Cape Town, Western Cape	Project Manager	Oiltanking Grindrod Calulo Terminals (PTY) Ltd
2015 – 2016	Basic Assessment Process for the Proposed development of three Transmission Lines and electrical infrastructure to connect to the proposed 75 MW Solar PV Facilities (Kenhardt PV 1, PV 2, and PV 3) on the remaining extent of Onder Rugzeer Farm 168, and the remaining extent of Portion 3 of Gemsbok Bult Farm 120, north-east of Kenhardt, Northern Cape.	Project Manager	Scatec Solar SA 163 (PTY) Ltd
2015 – 2016	Scoping and EIA Process for the Proposed development of three 75 MW Solar PV Facilities (Kenhardt PV 1, PV 2, and PV 3) on the remaining extent of Onder Rugzeer Farm 168, north-east of Kenhardt, Northern Cape.	Project Manager	Scatec Solar SA 163 (PTY) Ltd
2015 - 2016	Environmental Impact Assessment Process for the Proposed Construction, Operation and Decommissioning of a Seawater Reverse Osmosis Plant and Associated Infrastructure at Tongaat and Lovu on the KwaZulu-Natal North Coast and South Coast	Project Assistant	Umgeni Water Amanzi
2015 – 2016	EIA for a Gas-To-Power project and associated infrastructure, forming part of the proposed Uyekraal Gas-to- Power Development, Saldanha Bay, Western Cape	Project Manager	Mulilo Thermal Developments
2016	Application for the non-substantive Amendment to the Environmental Authorisation for the proposed Bulk Liquid Storage and Handling Facility in Zone 8 of the Coega IDZ, Port of Nggura	Project Manager	Oiltanking Grindrod Calulo (PTY) Ltd
2016	Application for the non-substantive Amendment to the Environmental Authorisation for the proposed Victoria West Renewable Energy Facility, Northern Cape	Project Manager	South Africa Mainstream Renewable Power Developments (Pty) Ltd
2016	Scoping and EIA Process: Proposed Development of the Teekloof WEF, near Victoria West, Northern Cape.	Project Assistant	South Africa Mainstream Renewable Power Developments (Pty) Ltd
2016	Scoping and EIA Process: Proposed Development of the Platberg WEF, near Victoria West, Northern Cape.	Project Assistant	South Africa Mainstream Renewable Power Developments (Pty) Ltd
2016	Appeal Processes for the three 75 MW Solar PV Facilities (Kenhardt PV 1, PV 2, and PV 3) and three transmission Lines and electrical infrastructure (i.e. Kenhardt PV 1 – Transmission Line, Kenhardt PV 2 – Transmission Line, and Kenhardt PV 3 – Transmission Line), north-east of Kenhardt, Northern Cape.	Project Consultant	Scatec Solar SA 163 (PTY) Ltd
2016 - 2017	Screening Assessment for the proposed storage of Dangerous Goods at an existing Storage Terminal at Maydon Wharf, Port of Durban, KwaZulu-Natal	Project Manager	Oiltanking Grindrod Calulo Terminals (PTY) Ltd
2016 – 2017	Basic Assessment Processes: Proposed development of three Distribution Lines and electrical grid infrastructure to connect to the proposed Sutherland WEF, Sutherland 2 WEF and Rietrug WEF to the National Grid, near Sutherland in the Northern and Western Cape	Project Manager	South Africa Mainstream Renewable Power Developments (Pty) Ltd
2017	Application for the non-substantive Amendment to the Environmental Authorisation for the proposed Bulk Liquid Storage and Handling Facility at Maydon Wharf, Port of Durban, KwaZulu-Natal	Project Manager	Oiltanking Grindrod Calulo (PTY) Ltd
2017	Notification of the outcome of the Appeal Processes and Re- Issued EAs for the three 75 MW Solar PV Facilities (Kenhardt PV 1, PV 2, and PV 3) and three transmission	Project Manager	Scatec Solar SA 163 (PTY) Ltd

DRAFT BASIC ASSESSMENT REPORT: Basic Assessment for the Proposed Development four 175 MW Solar Photovoltaic Facilities and associated Infrastructure (i.e. Hoek Doornen PV 1, Hoek Doornen PV 2, Hoek Doornen PV 3, and Hoek Doornen PV 4), near Touws River, Western Cape

Date	Project Description	Role	Client
	Lines and electrical infrastructure (i.e. Kenhardt PV 1 – Transmission Line, Kenhardt PV 2 – Transmission Line, and Kenhardt PV 3 – Transmission Line), north-east of Kenhardt, Northern Cape.		
2017 – 2019	Strategic Environmental Assessment (SEA) for a Phased Gas Pipeline Network for South Africa	Project Manager	National DEA, DOE, DPE, Transnet, iGas and Eskom
2017 – 2019	Strategic Environmental Assessment (SEA) for the expansion of Electricity Grid Infrastructure (EGI) for South Africa	Project Manager	National DEA, DOE, DPE, Transnet, iGas and Eskom
2018	Three Basic Assessment Processes for the proposed development of three transmission Lines and three 115 MW Solar PV Facilities (Vryburg PV 1, PV 2, and PV 3) near Vryburg, North-West.	Project Advisor and Mentor	Veroniva (Pty) Ltd - Energy Property; and ABO Wind
2019	Equator Principles Review of the Final EIA Report for the proposed Bulk Liquid Storage and Handling Facility in Zone 8 of the Coega IDZ, Port of Nggura	Project Manager	Oiltanking Grindrod Calulo (PTY) Ltd
2019	Three Basic Assessment Processes: Proposed development of three Distribution Lines and electrical grid infrastructure to connect to the proposed Sutherland WEF, Sutherland 2 WEF and Rietrug WEF to the National Grid, near Sutherland in the Northern and Western Cape	Co-Project Manager	South Africa Mainstream Renewable Power Developments (Pty) Ltd
2019	Three Applications for Substantive Amendment to the Environmental Authorisations for the proposed Sutherland WEF, Sutherland 2 WEF and Rietrug WEF, near Sutherland in the Northern and Western Cape	Project Team Member	South Africa Mainstream Renewable Power Developments (Pty) Ltd
2019	Three Basic Assessment Processes for the proposed development of three 100 MW Solar PV Facilities (Kenhardt PV 4, PV 5, and PV 6) and associated Electricity Grid Infrastructure on the remaining extent of Onder Rugzeer Farm 168, north-east of Kenhardt, Northern Cape.	Project Advisor and Reviewer	Scatec Solar SA 163 (PTY) Ltd
2019 – ongoing	Environmental Compliance And Performance Improvement For Foundries	Project Team Member	NFTN and NCPC
2019	Notification of Environmental Authorisation Process for the Proposed Construction, Operation and Decommissioning of a Seawater Reverse Osmosis Plant and Associated Infrastructure at Tongaat on the KwaZulu-Natal North Coast.	Project Manager	Umgeni Water Amanzi
2020	Amendment to the Environmental Authorisations for the Development of the Kenhardt PV 1, PV 2 and PV 3 Solar Energy Facilities near Kenhardt, Northern Cape Province	Project Manager	Scatec Solar SA 163 (PTY) Ltd
2020	Four Basic Assessment Processes for the Proposed Development of nine 175 MW Solar Photovoltaic Facilities, associated Infrastructure, and Electrical Grid Infrastructure (i.e. Witte Wall PV 1, Witte Wall PV 2, Grootfontein PV 1, Grootfontein PV 2, Grootfontein PV 3, Hoek Doornen PV 1, Hoek Doornen PV 2, Hoek Doornen PV 3, and Hoek Doornen PV 4), near Touws River, Western Cape	Project Manager	Veroniva (PTY) Ltd
2020	Independent review of an EIA Project (Confidential)	Project Manager	National DEFF
2020	Four Basic Assessments for the Proposed Gromis and Komas Wind Energy Facilities and Power Lines in the Northern Cape	Project Team Member	Enertrag

Language Capabilities

	Speaking	Reading	Writing
English	Excellent	Excellent	Excellent

DRAFT BASIC ASSESSMENT REPORT: Basic Assessment for the Proposed Development four 175 MW Solar Photovoltaic Facilities and associated Infrastructure (i.e. Hoek Doornen PV 1, Hoek Doornen PV 2, Hoek Doornen PV 3, and Hoek Doornen PV 4), near Touws River, Western Cape

CV OF DHIVESHNI MOODLEY

Full Name:	Moodley, Dhiveshni
Professional Registration:	Candidate Natural Scientist – Reg No:
	1472997/19
Nationality:	South Africa
Current employer:	CSIR Environmental Management Services
Position in Firm:	Environmental Scientist and Assessment
	Practitioner (Intern)
Specialisation and Research	Geographic Information Systems; Spatial
interest:	Analysis; Mapping; Environmental
	Assessment and Management; Strategic
	Environmental Assessment; Food security;
	Flood Vulnerability Assessment,
	Hydropedological Assessment.

BIOSKETCH

Dhiveshni has recently graduated with her MSc. in Environmental Science from the University of Kwa-Zulu Natal. She has recently entered the workspace, with just over a years' worth of industry and research experience in; flood risk assessment, hydropedological and wetland functional assessment specialist studies.

Her focus lies in the integration of Geographic Information System (GIS) analyses into projects, to facilitate the formation of accurate, feasible solutions, to complex environmental challenges. She is registered as Candidate Natural Scientist with the South African Council for Natural Scientific Professions (Reg. no. 1472997/19).

Completion	Description	Role	Client
In progress	Scoping and Environmental Impact Assessment Processes for the Proposed Development of three Wind Energy Facilities; Kwagga 1 (279 MW), Kwagga 2 (341 MW) and Kwagga 3 (204.6 MW), near Beaufort West in the Western Cape Province	Project Manager	ABO Wind renewable energies (Pty) Ltd
In progress	Basic Assessment Processes for the Proposed Development of seven Solar Photovoltaic (PV) Energy Facilities; namely Rinkhals 1 (30 MW), Rinkhals 2 (30 MW), Rinkhals 3 (150 MW), Rinkhals 4 (150 MW), Rinkhals 5 (150 MW), Rinkhals 6 (150 MW) and Rinkhals 7 (150 MW), near Kimberley in the Free State and Northern Cape Provinces	Project Officer	ABO Wind renewable energies (Pty) Ltd
December 2019	The KwaDukuza Mall and Mixed-Use Precinct Wetland Functional Update Assessment, iLembe District Municipality, KwaZulu-Natal	Project member-Wetland delineation and assessment inputs	Wallace & Green Consulting (Pty) Ltd
July 2019	Specialist desktop hydropedology assessment for the Ballito Hills Development, eThekwini Municipality, KwaZulu-Natal	Project member-Hydropedological assessment	Triplo4 Sustainable Solutions (Pty) Ltd
July 2019	Specialist desktop hydropedology assessment for the Umhlali Development, eThekwini Municipality, KwaZulu-Natal	Project member- Hydropedological assessment	Triplo4 Sustainable Solutions (Pty) Ltd
June 2019	Specialist desktop hydropedology assessment for the Sheffield Waste Water Treatment Works, eThekwini Municipality, KwaZulu-Natal	Project member- Hydropedological assessment	Triplo4 Sustainable Solutions (Pty) Ltd

PROJECT TRACK RECORD

PAST EMPLOYMENT RECORD

2020 – current Environmental Scientist and Assessment Practitioner (Intern), Council for Scientific and Industrial Research – Environmental Management Services (EMS), Implementation Unit (IU) - Stellenbosch.

DRAFT BASIC ASSESSMENT REPORT: Basic Assessment for the Proposed Development four 175 MW Solar Photovoltaic Facilities and associated Infrastructure (i.e. Hoek Doornen PV 1, Hoek Doornen PV 2, Hoek Doornen PV 3, and Hoek Doornen PV 4), near Touws River, Western Cape

	2020 - 2020Agronomy and GIS Research Intern. South African Sugar Research Institute – Agronomy - Durban.2019-2020Junior Environmental Consultant. Aeon Nexus (Pty) Ltd - Durban					
QUALIF	ICATIONS					
2019	MSc. Environmental Science (Cum Laude)	University Kwa-Zulu Natal, Durban, South Africa				
2017	BSc. Hons. Environmental Science (Cum Laude)	University Kwa-Zulu Natal, Durban, South Africa				
2016	BSc. Environmental Science	University Kwa-Zulu Natal, Durban, South Africa				
SOFTW	ARE SKILLS					
٠	ESRI Arcmap	QGIS				
•	Microsoft Office (Word, Excel, Powerpoint)	ERDAS IMAGINE				

Google Earth

- ERDAS IMAGINE
- Pix4Dmapper

RELEVANT COURSES

 2020 • CiLLA Conflict Reso 	lution course
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- Groundwater, Boreholes, and Water use Licenses-E-learning lecture, Ground Water Division of the Geological Society of South Africa.
- 2019 • Flood Determination Workshop, Acute Training Management, Johannesburg.
- 2019 • The Department of Water and Sanitation Hydropedology-Course 1, Digital Soils South Africa, Centre for Wildlife Management, University of Pretoria.

PROFESSIONAL AFFILIATIONS/REGISTRATIONS

2019-current South African Council for Natural Scientific Professions (SACNASP), Candidate Professional Natural • Scientist (Reg. no. 1472997/19).

HONOURS AND AWARDS

2016-current	 Golden Key International Academic Honours Association
2017	Allan Gray Achievement Award nominee

LANGUAGE CAPABILITY

	Speaking	Reading	Writing
English	Excellent	Excellent	Excellent

DRAFT BASIC ASSESSMENT REPORT: Basic Assessment for the Proposed Development four 175 MW Solar Photovoltaic Facilities and associated Infrastructure (i.e. Hoek Doornen PV 1, Hoek Doornen PV 2, Hoek Doornen PV 3, and Hoek Doornen PV 4), near Touws River, Western Cape

EAP DECLARATION OF INTEREST AND UNDERTAKING UNDER OATH



environmental affairs Department: Environmental Affairs

Environmental Affairs REPUBLIC OF SOUTH AFRICA

DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER, DECLARATION OF INTEREST AND UNDERTAKING UNDER OATH

File Reference Number: NEAS Reference Number: Date Received:

(For official use only)	
DEA/EIA/	
DEMERV	

Application for authorisation in terms of the National Environmental Management Act, Act No. 107 of 1998, as amended and the Environmental Impact Assessment (EIA) Regulations, 2014, as amended (the Regulations)

PROJECT TITLE

Basic Assessment for the Proposed Development of four 175 MW Solar Photovoltaic Facilities and associated Infrastructure (i.e. Hoek Doornen PV 1, Hoek Doornen PV 2, Hoek Doornen PV 3, and Hoek Doornen PV 4), near Touws River, Western Cape

Kindly note the following:

- This form must always be used for applications that must be subjected to Basic Assessment or Scoping & Environmental Impact Reporting where this Department is the Competent Authority.
- This form is current as of 01 September 2018. It is the responsibility of the Applicant / Environmental Assessment Practitioner (EAP) to ascertain whether subsequent versions of the form have been published or produced by the Competent Authority. The latest available Departmental templates are available at https://www.environment.gov.za/documents/forms.
- A copy of this form containing original signatures must be appended to all Draft and Final Reports submitted to the department for consideration.
- All documentation delivered to the physical address contained in this form must be delivered during the official Departmental Officer Hours which is visible on the Departmental gate.
- All EIA related documents (includes application forms, reports or any EIA related submissions) that are faxed; emailed; delivered to Security or placed in the Departmental Tender Box will not be accepted, only hardcopy submissions are accepted.

Departmental Details
Postal address:
Department of Environmental Affairs
Attention: Chief Director: Integrated Environmental Authorisations
Private Bag X447
Pretoria
0001
Physical address:
Department of Environmental Affairs
Attention: Chief Director: Integrated Environmental Authorisations
Environment House
473 Steve Biko Road
Arcadia
Queries must be directed to the Directorate: Coordination, Strategic Planning and Support at: Email: EIAAdmin@environment.gov.za

Details of EAP, Declaration and Undertaking Under Oath

Page 1 of 3

DRAFT BASIC ASSESSMENT REPORT: Basic Assessment for the Proposed Development four 175 MW Solar Photovoltaic Facilities and associated Infrastructure (i.e. Hoek Doornen PV 1, Hoek Doornen PV 2, Hoek Doornen PV 3, and Hoek Doornen PV 4), near Touws River, Western Cape

1. ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP) INFORMATION

EAP Company Name:	Council for Scientific and Industrial Research (CSIR)			
B-BBEE	Contribution level (indicate 1	2	Percentage	125 %
	to 8 or non-compliant)		Procurement	
			recognition	
EAP name:	Paul Lochner			
EAP Qualifications:	- B.Sc. Civil Engineering (awarded with Honours), University of Cape Town			
	- M. Phil. Environmental Science, University of Cape Town			
Professional	Registered EAP (2019/745) with the	Environmental	Assessment Practitioners
affiliation/registration:	Association of South Africa (EAPASA)			
Physical address:	11 Jan Celliers Street, Stellenbosch, 7599			
Postal address:	PO Box 320, Stellenbosch			
Postal code:	7599	Cell:	084	442 3646
Telephone:	021 888 2486	Fax:	021	888 2693
E-mail:	il: PLochner@csir.co.za			
RAbed@csir.co.za				

The appointed EAP must meet the requirements of Regulation 13 of GN R982 of 04 December 2014, as amended.

2. DECLARATION BY THE EAP

I, _____PAUL LOCHNER_____, declare that --

- I act as the independent environmental assessment practitioner in this application;
- I have expertise in conducting environmental impact assessments, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, Regulations and all other applicable legislation;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings
 that are not favourable to the applicant;
- I will take into account, to the extent possible, the matters listed in Regulation 13 of the Regulations when preparing the application and any report relating to the application;
- I undertake to disclose to the applicant and the Competent Authority all material information in my possession that
 reasonably has or may have the potential of influencing any decision to be taken with respect to the application by
 the Competent Authority; and the objectivity of any report, plan or document to be prepared by myself for
 submission to the Competent Authority, unless access to that information is protected by law, in which case it will be
 indicated that such information exists and will be provided to the Competent Authority;
- I will perform all obligations as expected from an environmental assessment practitioner in terms of the Regulations; and
- I am aware of what constitutes an offence in terms of Regulation 48 and that a person convicted of an offence in terms of Regulation 48(1) is liable to the penalties as contemplated in Section 49B of the Act.

Details of EAP, Declaration and Undertaking Under Oath

DRAFT BASIC ASSESSMENT REPORT: Basic Assessment for the Proposed Development four 175 MW Solar Photovoltaic Facilities and associated Infrastructure (i.e. Hoek Doornen PV 1, Hoek Doornen PV 2, Hoek Doornen PV 3, and Hoek Doornen PV 4), near Touws River, Western Cape

Disclosure of Vested Interest (delete whichever is not applicable)

- I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed
 activity proceeding other than remuneration for work performed in terms of the Regulations;
- I have a vested interest in the proposed activity proceeding, such vested interest being:

Poline

Signature of the Environmental Assessment Practitioner

CSIR

Name of Company:

27 NOVEMBER 2020

Date

3. UNDERTAKING UNDER OATH/ AFFIRMATION

I, _____PAUL LOCHNER______, swear under oath / affirm that all the information submitted or to be submitted for the purposes of this application is true and correct.

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Signature of the Environmental Assessment Practitioner

CSI

Name of Company

2020 02

Date Treuni VOr Signature of the Commissioner of Oaths HESTER VAN GREUNING Commissioner of Oaths Chartered HR Professional (CHRP) 2020 Member number 42865591 11 Jan Celliers Road Stellenbosch 7600 0 SABPP Date

Details of EAP, Declaration and Undertaking Under Oath

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