

ELECTRICITY WHEELING CONFERENCE

29-30 March 2022 CAPE TOWN, SOUTH AFRICA



THEME: ELECTRICITY WHEELING:

THE FUTURE OF SUSTAINABLE ENERGY

PARTICIPATING ORGANISATIONS























INTRODUCTION



Dear Project Professional

This conference brings together local and international perspectives focused on interrogating ideal and successful methodologies in the transmission of electricity. Wheeling, which is the transmission of electricity from the point of production to the end user, has been successfully implemented worldwide in deregulated markets but becomes challenging in the South African context due the increasing production of variable renewable power in an environment that has not yet been developed to support this. South Africa currently has a regulated market, and as is largely the case on the African continent, a state-owned entity monopolizes the generation, transmission and distribution of electricity and this model has proved over many years to be ineffective for a myriad of reasons and the continent remains plagued with an inconsistent and unreliable supply of electricity. For the few independent producers that exist, one of the major challenges that exists, is that they often operate in decentralized locations and issues of inadequate supportive infrastructure and electricity networks in underdeveloped areas come to the fore.

Wheeling presents a viable alternative to enhance efficient electricity delivery to the load centers across the country. Policy in South Africa is currently shifting to allow independent power producers to enter the market although there are still only a handful of projects underway. A good example is seen in George where an alternative source of electricity successfully makes use of the municipality's grid. This project supports the idea that Independent Power Producers (IPP) can exist alongside the mainstream power generation utilities to provide a sustainable electricity supply that works for the country. These initiatives hold potential for collaboration between the public and private sectors to improve infrastructure networks in the underdeveloped rural communities. This event will highlight the policy and technical challenges that exist, bringing together the input of various stakeholders at a level that is intended to make inroads to facilitate the broader uptake of electricity wheeling within the country.

WHY WHEEL?

- Several metros have made commitments to be carbon neutral by 2050 which would almost certainly require them to make use of alternative sources of renewable electricity.
- Given emerging technology disruptions, most utilities recognise the need to move from an energy units-based business model to selling grid services.
- Linked to the above, larger distribution utilities are increasingly seeing their future in effective load and demand management. Wheeling of embedded generation offers an important opportunity here and reduces costly transmissions costs.
- Supply disruptions have been consistent for many years and alternative power supplies could create stability.
- Rural and secondary local municipalities can have wheeled power from local generation sources which may offer a cheaper alternative.

WHO SHOULD ATTEND?

- Municipalities
- Energy utilities
- Energy Regulators
- Ministry of Energy
- Electricity Generators
 & distributors
- Independent Power Producers (IPP)
- Energy Specialist





DEVILLIERS BOTHA

CHIEF OPERATING OFFICER

SOLAREFF (PTY) LTD

DeVilliers Botha, Co-founder and Chief Operating Officer of Solareff (Pty) Ltd since 2010 and Board Member of SAPVIA.He is a former Advocate with the Pretoria and Johannesburg Bars for 13 years, his professional legal background and extensive involvement in development of renewable energy projects has enabled him to develop unique and extensive expertise relating to the legal, compliance and financial aspects of energy projects. DeVilliers is currently championing the drive for enabling regulation regarding the current legislation (ERA Schedule II) and he represents SAPVIA on various regulatory forums.





SEBASTIAN GLAESER

ENERGY ADVISOR: ENERGY POLICY AND REGULATION

GIZ

Sebastian is an advisor specialized in the energy sector for more than 15 years. Until 2015, he worked as an energy lawyer advising a wide range of market participants along the energy value chain in a competitive, deregulated and unbundled market environment. Among other positions at the German Regulatory Authority and the European Commission, Sebastian advised the Albanian Ministry of Energy and Industry on the implementation of European energy regulation into national law, including the unbundling of the state-owned utilities. Since 2018, Sebastian has been supporting South African stakeholders in the implementation of the announced power sector reform.





LIZ MCDAID

ADVISOR

ORGANISATION UNDOING TAX ABUSE (OUTA)

Trained as a scientist with an MSc in Climate and Development from the University of Cape Town, Liz is also a qualified teacher and facilitator. Liz has worked with the World Resource Institute, Electricity Governance Initiative, working with civil society for more than a decade engaging on electricity tariffs, renewable energy implementation and successive IRPs. OUTA's focus has concentrated on the impact for civil society of the electricity restructuring currently underway.







TIAAN HENDRIKS

HEAD OF DEPARTMENT: ENERGY DESIGN, SALES & MARKETING

SEM SOLUTIONS (PTY) LTD

With his interest deeply rooted in renewable energy, Tiaan Hendriks has gained extensive knowledge and experience across the area of energy management with a strong focus that extends beyond the purely technical to include the business, economic and social aspects associated with it. His current role as Head of Department (Energy Design, Sales & Marketing) sees him responsible for several key areas including the management energy design department and overseeing the daily and longer-term strategy of the sales and marketing function. He holds a Master's Degree in Mechanical Engineering – Renewable & Sustainable Energy from Stellenbosch University.





GERJO HOFFMAN

CHIEF EXECUTIVE OFFICER

OPEN ACCESS ENERGY

Gerjo Hoffman has held senior positions at multinationals for more than two decades. He operated in numerous roles and domains, including building entirely new business units from scratch. He has worked in China, South East Asia, the Middle East and Africa and has a great understanding of how to build technology systems for developing markets. He has deep insight into market dynamics and has leveraged this insight across the many domains he experimented within both Tencent and Naspers to great effect. He established Open Access Energy Pty Ltd when he realised that there will be a need to offer traders and brokers of renewable energy a software solution to automate electricity wheeling transactions.





PHILIP VAN NIEKERK

MECHANICAL ENGINEER - ELECTROTECHNICAL SERVICES

GEORGE MUNICIPALITY

Philip van Niekerk studied at Stellenbosch University where he graduated with a master's degree in Mechanical Engineering in 2018. He then joined George Municipality in 2019 under the Infrastructure Skills Development Grant (ISDG) from National treasury where he is employed at the Electrotechnical Services Directorate as an Intern.







DR CHRIS HAW

HEAD OF SOLAR ASSETS

THE SOLA GROUP

Dr Chris Haw is an electrical engineer with a PhD from the University of Oxford. As a co-founder of the SOLA Group and a shareholder and director of two of South Africa's first independent power producing solar facilities, Chris has a multi-layered knowledge of the industry from a technical, regulatory and financial perspective. He also co-founded the South African PV Industry Association, SAPVIA, and was its first Chairperson and spokesperson. He is currently the Head of Solar Assets at the SOLA Group and was closely involved in the first large-scale private wheeling facility in South Africa with Amazon Web Services.





JENNA HARRIS

MANAGING DIRECTOR

APOLLO AFRICA

Jenna is the Co-founder and Managing Director of Apollo Africa, a company developed to assist IPPs retail their renewable generation capacity into the South African C&I sector with the use of smart PPA contracts and wheeling processes. Jenna has a background as a chemical engineer, starting her career with Sasol and moving on to energy advisory work, becoming the lead technical advisor the Australian Federal government on low-carbon and renewable technologies. Jenna has in-depth knowledge and understanding of the South African energy sector and energy procurement, having provided South African energy market analysis to clients on Gas and Electricity, and providing advisory services in private and public sector electricity procurement programs. Jenna has specialist knowledge on energy technologies, electricity product design and pricing.



ED CAMERON: CO-SPEAKER

COMMERCIAL MANAGER

APOLLO AFRICA

Ed Cameron is the Co-founder and Commercial Manager of Apollo Africa. Ed is a seasoned business leader and board director with demonstrated ability to guide diverse teams towards resolving complex strategic issues. He was employed by Sasol for 33 years and, during his tenure, led several major Sasol businesses, major projects, and programs. As Senior Vice President of Sasol International Energy, Ed spearheaded the international energy business from 2010 to 2014. He became Senior Vice President of Sasol Energy in 2014 and was responsible for Sasol's worldwide energy business up to 2017.







STEPHANE BARBEAU

PRACTICE MANAGER FOR POWER SECTOR REFORMS AND PPP **CPCS**

Stephane is the Desk Leader for Power Sector Reform at CPCS. He has over 25 years' experience advising governments on commercial and financial aspects of transactions in conventional and renewable energy. Mr. Barbeau is currently leading energy sector reform programs for the Millennium Challenges Corporation in Burkina Faso, Gambia and Senegal and was previously part of the team the led sector reform and privatization in Albania. Mr. Barbeau is an economist and continues to be involved in mandates that lead to electricity market design, unbundling process recommendations and implementation of new market models. He is currently working on issues related to market reform, wheeling and future IPP auctions in South Africa.





ANDY TANT

EXECUTIVE DIRECTOR

CRESCO

Andy is an Executive Director at Cresco, providing transactional advisory services and leading the financial modelling team. Advisory services recently provided include assistance in developing energy strategies for large power users, considering multi-load and multi-project renewable energy programmes (including cost savings modelling, corporate structuring / optimization and all relevant energy advisory aspects, with wheeling playing a significant role in many of these), designing and running the procurement and adjudication of IPP power bidders for a number of large private offtakers, as well as project finance advisory, due diligence and valuation of assets. Andy has assisted clients in the various national energy procurement programmes energy project, from bid through to Financial Close.





BIANCA FERREIRA

CANDIDATE ENGINEER

ENERGY CENTRE, CSIR

Bianca completed her formal education at the University of Pretoria, where she obtained a BEng (Hons) Computer Engineering. In her studies she particularly focused on embedded object detection and explainable artificial intelligence (XAI). She joined the Energy Centre, Energy Supply and Demand Research Group in 2021, where she is currently working on several projects completing energy feasibility studies for industrial parks in South Africa.



PROGRAMME OUTLINE



DAY 1 - 29TH MARCH 2022

07:00 Registration & Networking

08:30 Opening remarks: Conference Chairperson

08:40 (40mins) DeVilliers Botha | Chief Operating Officer | Solareff (Pty) Ltd

Topic: Unlocking Wheeling Opportunities within the South African Context

- Municipal Revenue Opportunity
- · Geographical Job Retention
- · Debunking the myth of "Grid Weakness"
- Least Cost Energy for Everyone

09:20 (40mins) Tiaan Hendriks | Head of Department: Energy Design, Sales & Marketing | SEM Solutions (Pty) Ltd

Topic: Wheeling and Banking Strategies for Optimal Renewable Energy Deployment

- Defining "Optimal Renewable Energy Deployment"
- What is possible within the current Wheeling and Banking regulations
- · Positives and shortfalls of the current landscape
- Wheeling and Banking Strategies of the future

10:00 (40mins) Dr Chris Haw | Head of Solar Assets | The SOLA Group

Topic: Lessons from South Africa's first large-scale private renewable energy wheeling project

- The wheeling concept and its advantages for the South African context
- Working with clients
- Challenges of the landscape for Wheeling in South Africa
- The Amazon Web Services case study lessons and achievement

10:40 Tea Break

11:00 (40mins) Philip van Niekerk | Mechanical Engineer - Electrotechnical Services | George Municipality

Topic: Wheeling Deployment: Successes & failures (George Municipality Case Study)

11:40 (40mins) Gerjo Hoffman | Chief Executive Officer | Open Access Energy

Topic: How to manage complex wheeling transactions with ease

- The challenge of sharing utility meter data in a secure way
- Automated real time reconciliation of wheeled energy generation and consumption
- Real time visualization of generation and consumption
- Making it easy for all role players including utilities, municipalities, generators, customers, traders and brokers to manage a
 wheeling transaction

12:00 (30mins) Bianca Ferreira | Candidate Engineer | Energy Centre, CSIR

Topic: Energy modelling

- Site/location constraints
- Wheeling vs. other generation options
- Industrial parks

12:30 Panel Session

- DeVilliers Botha | Chief Operating Officer | Solareff (Pty) Ltd
- Tiaan Hendriks | Head of Department: Energy Design, Sales & Marketing | SEM Solutions (Pty) Ltd
- Dr Chris Haw | Head of Solar Assets | The SOLA Group
- Philip van Niekerk | Mechanical Engineer Electrotechnical Services | George Municipality
- Gerjo Hoffman | Chief Executive Officer | Open Access Energy
- Bianca Ferreira | Candidate Engineer | Energy Centre, CSIR

13:10 Closing remarks: Conference Chairperson

Networking Lunch

PROGRAMME OUTLINE



DAY 2 - 30TH MARCH 2022

07:00 Registration & Networking

08:30 Opening remarks: Conference Chairperson

08:40 (40mins) Liz McDaid | Advisor | Organisation Undoing Tax Abuse (OUTA)

Topic: The role of Civil Society in Electricity Restructuring

- The ISMO anticipated the legal framework of Eskom restructuring in 2012 but the bill failed to pass in Parliament.
- · Eskom, independent power producers, local government and NERSA have engaged in discussions to initiate tariff unbundling.
- Wheeling could be an opportunity for citizen lead generation to relieve pressure on Eskom.
- Wheeling could also be used by local govt and energy companies to overcharge electricity consumers.

09:20 (40mins) Sebastian Glaeser | Energy Advisor: Energy Policy and Regulation | GIZ

Topic: Review of International Non-discriminatory Grid Access and Bilateral Trading Models to Develop Suitable Proposals for Improving the Regulatory Framework in South Africa (Wheeling), incl.

- · Presentation of the project and its work packages
- Presentation of the main findings in Wheeling Working Paper 1, including
- Summary of the key challenges for Wheeling in SA and
- Proposed Sector Reforms in South Africa

10:00 (40mins) Stephane Barbeau | Practice Manager for Power Sector Reforms and PPP | CPCS

Topic: Current and future market design

- · Impediments to increasing wheeling in the short-term
- Potential areas to focus for ensuring a more sustainable wheeling framework

10:40 Tea Break

11:00 (40mins) Makole Mupita | Executive Director | Mahlako

Topic :TBC

11:40 (40mins) Jenna Harris | Managing Director | Apollo Africa

Co-speaker: Ed Cameron | Commercial Manager | Apollo Africa

Topic :Using wheeling to access the private sector C&I market

- How wheeling can enable access to new market sectors
- The benefits of multilateral wheeling arrangements
- Who can benefit most from wheeling and by how much a look into pricing and tariffs.
- Biggest risks and challenges to wheeling

12:00 (30mins) Andy Tant | Executive Director | Cresco

Topic: Wheeling and Private Energy Offtakers

- Overview of the private power offtake market
- Typical energy strategies
- Wheeling and private PPAs
- Thoughts on energy trading through wheeling

12:30 Panel Session

- Liz McDaid | Advisor | Organisation Undoing Tax Abuse (OUTA)
- Stephane Barbeau | Practice Manager for Power Sector Reforms and PPP | CPCS
- Sebastian Glaeser | Energy Advisor: Energy Policy and Regulation | GIZ
- Makole Mupita | Executive Director | Mahlako
- Jenna Harris | Managing Director | Apollo Africa
- Ed Cameron | Commercial Manager | Apollo Africa
- Andy Tant | Executive Director | Cresco

13:10 Closing remarks: Conference Chairperson

Networking Lunch

REGISTRATION FORM



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Post Code:	Position:
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VAT Registration Number:	
Contact Person(Invoice):	Delegates Details 2
Position:	Full Name:
Tel:Cell:	Position:
Email:	Tel:Cell:
AUTHORISATION	Email:
Full Name:	
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All PAYMENTS TO REFLECT INVOICE NUMBER

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MLAMBO

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