

DAY '

RFMS

23.06.14



8:30 **Coffee and Registration** 

8:55 Chair's Opening Remarks

Adrienne Baker, Director, Energy and Mines

9.00 Welcome Address:

TRC

9.10 **Opening Address:** 

The Honourable Ed Fast, Minister of International Trade, Canada

9.20 **Opening Panel: Mining Industry Leaders** 

> This opening session will bring together energy decision-makers from African mines to discuss how they are addressing their energy challenges and assessing the options for renewables as part of the solution towards securing cost-effective and reliable energy for their operations

> Chair: Chris Matthews, New Business Manager, Mainstream Renewable Power Wouter Ferreira, Water & Energy Engineer, Engineering Field Services, AngloGold Ashanti Coenraad Pretorius, Energy Engineer, Anglo American Stanley Maphalala, President, REVINSAMB Mineral Mining Holding (Pty) Ltd

Marius Herselman, Group Electrical Engineer, African Rainbow Minerals

10.10 **Networking Break** 

10:50 Session 2: Structuring the Deal: Financing Considerations and Options

> This session will look at options for structuring deals to finance renewable energy projects for mines that create value and security for both mines and IPPs.

10.50 Case Study: Overcoming Financing Hurdles for Solar PV

Gerhard Wernecke, Energy and Asset Manager, Lonmin

11.15 Panel Discussion: How to Make these Deals Work for Mines and Project Developers

> This session will bring together leading investors in renewable energy projects to discuss how they would assess projects where the offtaker is a mine and to share their views on how to structure these deals to the benefit of both mines and developers.

Chair: Frank Spencer, CEO, Emergent Energy (Pty) Ltd

Omar Vajeth, Vice president, Global Business development and

Commercial, Sembcorp

Jan Henri Dewulf, Senior Investment Officer, IFC Infraventures, sub-Saharan Africa Alastair Campbell, Managing Director, Vantage GreenX

Piet Badenhorst, Senior Account Manager, Industrial Development Corporation

12.10 Luncheon Welcome Remarks:

Fabrice Nicolas, Sales Manager, Siemens AG

**Networking Lunch Sponsored by:** 

SIEMENS





### 13.30 Session 3: Securing Affordable and Reliable Energy for Grid-Tied Mines

Grid-connected mines are under increasing pressure to secure reliable energy at stable prices. Particularly in South Africa where rapidly increasing electricity tariffs combined with grid capacity constraints are pushing mines to consider alternatives like renewables in combination with energy efficiency measures. This session will explore recent case studies from grid-tied operations that have incorporated renewables and will be followed by a discussion on how to accelerate renewable energy solutions for these mines.

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13.30 Joint Case Study: Evaluating Renewables for Gold Fields' Global Operations Duncan Stevens, Vice President, Group Sustainable Development, Gold Fields Martin Sprott, Principal, A.T. Kearney

- 13.55 Case Study: Renewables as Part of the Solution towards Secure and Affordable Energy Antonio Jones, Project Manager, ArcelorMittal South Africa
- 14.15 Case Study: Investing in Groundmount PV to Power Mining Facilities

  Darren Hollander, CEO, SolarPower Africa
- 14.35 Case Study: Exploring Biomass and PV for Grid-Tied Operations
   Gerhard van den Berg, Group Energy Engineer, Anglo Platinum
- 14.55 Q&A with Session Speakers
- 15.10 Networking Break

### Session 4: Licensing, Connecting and Implementing Renewables for Grid-Tied Operations

While the mining sector is clearly interested in the opportunities for incorporating renewables into their energy supply, there are questions around the timelines and processes for getting these projects online. There are several unique technological and permitting considerations when trying to do a project near a mine, for instance. This session will offer the latest updates on licensing, connecting, permitting and constructing these projects for grid-tied operations in South Africa.

15.40 Addressing Mining's Energy Challenge and Connecting Renewables

Seetsele Seetswane, Grid Access Unit -Technical & Engineering Manager, Eskom

16.00 Project Approval Requirements and Timelines

Mokgadi Modise, Chief Director for Renewable Energy, Department of Energy

16.25 Panel Discussion: Connecting, Permitting and Implementing Renewables for Grid-Tied Mines

This panel will bring together experts in renewable energy project development, permitting and implementation to discuss the practical and technical considerations for adding renewables to grid-tied mine sites.

Chair: Gerhard Wernecke, Energy and Asset Manager, Lonmin

Karen Jodas, Director, **Savannah Environmental** 

Mike Levington, Director, **Kabi Solar** Jasandra Nyker, CEO, **BioTherm Energy** Sean Thomas, Managing Director, **Bio2watt** 

Andrea Orzan, Director Business Development Africa, **SunEdison** 

17.15 Networking Drinks Welcome:

Chris Matthews, New Business Manager, Mainstream Renewable Power

17.20 Drinks Reception sponsored by:



18.30 Close of Day One



### 8.00- Breakfast Briefing - What will a Price on Carbon Mean for Mining Operators in South

### 8.25 Africa?

8.55

This presentation will provide details on the potential impacts of carbon pricing for mines and the steps that companies can take now to ensure that current renewable energy initiatives would be counted in future offset programs.

Harmke Immink, Carbon Advisor, **Promethium Carbon** 

### Chair's Morning Welcome

Adrienne Baker, Director, Energy and Mines

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### 9.00 Session 5: Renewables as Part of the Energy Solution for Remote Mines

Energy accounts for around 30% of the operating cost of a mine relying on diesel-fired generators. When you add in the price variability and transportation challenges of diesel, it's clear why mines are seeking to reduce their reliability on this fuel source and integrate renewables. This session will examine how mines are assessing the potential for integrating renewables at remote operations.

### 9.00 Case Study: Operational Insights and Fuel-Savings from a Diesel-PV Hybrid Rollie Armstong, Director, Cronimet Power Solutions

### 9.20 Panel Discussion: Assessing Renewable Energy Options for Remote Sites

This panel will bring together mining energy decision-makers from remote operations across Africa to discuss how they are assessing the options for incorporating renewables as part of fuel-savings goals.

Chair: Mike Levington, Director, Kabi Solar

Rollie Armstong, Director, Cronimet Power Solutions

Armel Florent Djeunang, Continuous Improvement Specialist, IAMGOLD Corporation Stanley Segula, Chief Operating Officer, Zimplats Holdings
Nic Schoeman, General Manager Technical Services, African Barrick Gold

### 10.10 Networking Break

### Session 6: Technological Advances in Diesel-Hybrid Solutions for Mining Operations

This session will offer the latest updates on the technological advances of hybrid solutions to ensure consistent, cost-effective power for remote mining operations. It will offer insight from recent hybrid projects for the mining sector and answer key questions around the performance and affordability of these remote systems.

### 10.50 Case Study: Understanding the Performance Capabilities of Diesel-Hybrid Systems for Mines

Fabrice Nicolas, Sales Manager, **Siemens AG** Jean-Charles Brun, Sales Manager, **Siemens AG** 

### 11.10 Panel Discussion: The Evolution of Diesel-Hybrid Solutions

Chair: Matthew Cullinen, Senior Associate, **Carbon War Room** Fabrice Nicolas, Sales Manager, **Siemens AG** 

Jean-Charles Brun, Sales Manager, Siemens AG

Chris Matthews, New Business Manager, **Mainstream Renewable Power** Daniel Ambros, Technical Manager, **Cronimet Power Solutions** 

12.00 Networking Lunch



- 13.00 Case Study: How do Fuel Cells solve Mining's Energy Challenges? Kleantha Pillay, International Market Development, Anglo American Platinum
- 13.20 Panel Discussion: Evaluating Fuel Cell Options for Remote and Grid-Tied Sites Chair: Kerry-Ann Adamson, Director, 4th Energy Wave Gavin Coetzer, Business Development Executive, Clean Energy Investments Lorenzo Tencati, Director, Africa, Bryanston Resources Andrew Marshall, Product Manager, Primus Power
- 14.10 **Networking Break**

### Session 8: Investing in Renewables as Part of Mine Reclamation Plans 14.40

Another top concern for the mining industry is developing effective mine closure plans. In some cases, these plans can run into the hundreds of millions and mines are beginning to look for alternative means for recouping some of that cost. Investing in renewable energy assets to remediate and rehabilitate a mine is one way to keep it a productive asset. This session will feature case study from mines that have incorporated renewables into mine closure and rehabilitation plans and look at the benefits and challenges of renewables for mine reclamation.

- 14.40 Joint Case Study: Cultivating Energy Crops as Part of Mines Restoration Initiatives Tshilidzi Dlamini, Group Sustainability and Environmental Manager, PPC Ltd Kevin Minkoff, Project Manager, Grassridge Wind Farm, InnoWind
- 15.00 Joint Case Study: Incorporating Renewables into Mine Rehabilitation Strategies Dwight Rosslee, Director, Selectra A Representative, Harmony Gold
- 15.20 Panel Discussion: Analysing the Benefits of Renewables on Vacant Mine Sites

Chair: Dwight Rosslee, Director, Selectra

Lydia Cape-Ducluzeau, Environmental Assessment Practitioner, Council for Scientific and **Industrial Research** 

Dee Fischer, Chief Director for the Integrated Environmental Management Support, National **Department of Environmental Affairs (DEA)** 

Tshilidzi Dlamini, Group Sustainability and Environmental Manager, PPC Ltd Kevin Minkoff, Project Manager - Grassridge Wind Farm, InnoWind

16:10 Conference Close

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