

8th Mozambique Mining, Oil & Gas and Energy Conference and Exhibition

8TH EDITION

MMEC²⁰²²

2 - 3 JUNE 2022 | MAPUTO, MOZAMBIQUE

JOAQUIM CHISSANO INTERNATIONAL CONFERENCE CENTER

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SUSTAINABLE DEVELOPMENT ACROSS THE ENTIRE MINERAL AND ENERGY VALUE CHAIN, TOWARDS A LOW CARBON FUTURE

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Conference - Day 1 – 2nd June 2022

07:00 – 08:45	Registration
08:45	All participants to be present for the opening ceremony
09:00-10:30	OPENING CEREMONY
	<p>National Anthem</p> <p>Master of Ceremony:</p> <p>Welcome Remarks</p> <ul style="list-style-type: none"> • Representative AME Trade, UK • Estêvão Tomás Rafael Pale, Chairman of the Board of Directors, Empresa Nacional de Hidrocarbonetos (ENH) • Álvaro Massingue, President, Mozambique Chamber of Commerce (CCM) • Eneas Comiche, President of the Maputo Municipal Council* <p>Cultural moment</p> <ul style="list-style-type: none"> • Ministerial Address - H.E. Carlos Zacarias, Minister of Mineral Resources and Energy, Mozambique
10:30 – 11:00	OFFICIAL TOUR OF THE EXHIBITION
11:00 – 11:15	REFRESHMENT AND NETWORKING BREAK AND PARTICIPANT INTRODUCTIONS
11:15 – 12:15	SPECIAL KEYNOTE PRESENTATIONS
	<p>BUILDING THE FUTURE- MOZAMBIQUE – BRASS TACKS OF MOZAMBIQUE’S LATEST STRATEGIC INITIATIVES</p> <p><i>Hear from Mozambique leaders responsible for leading the project pipeline – Panelists will delve deeper into current projects and medium-term priorities</i></p> <ul style="list-style-type: none"> • Market Outlook: National & Regional demand growth • Climate Change Agenda: Sustainable Policy Options and Priorities • Mozambique’s ambitions for low-emissions development • Update on Northern Mozambique – Securing the region • Priorities for 2030: Infrastructure, Human Capital & Local Content • The introduction of off-grid access and SME and entrepreneurship policy • Mozambique project pipeline from transport infrastructure including ports, to mature power, renewables, and cross border • Supporting the next decade, Mozambique’s development curve – development pathways to meet human capital requirements • Opportunities and Challenges: Access to Finance

	<p>Moderator: Quentin Eister, Energy Expert, Chief Executive Officer, iGREENs SA</p> <p>Speakers:</p> <ul style="list-style-type: none"> • Reinaldo Gonçalves, Chairman, AGMM, Mozambique • Ovidio Rodolfo, Managing Director and Vice President, Sasol, Mozambique* • Adriano Silvestre Sênvano, Director General, INAMI* • Chairman, Instituto Nacional de Petroleo (INP) • Senior Representative, MIREME • Orlando Marques, CEO, TML - Thai Mozambique Logistica, Mozambique
12:15 – 13:15	<p>SESSION 1 ENERGY AND MINING POST PANDEMIC: COVID-19 SUPPLY CHAIN STRATEGIC SESSION - KEY INSIGHT INTO MEDIUM TERM IMPACTS</p>
	<p><i>There is no doubt that the COVID19 pandemic adversely disrupted supply chains nationally and globally, this session is devoted to deliberating on its effect on the domestic economy. Mozambique leaders, who are working on building the future of the country, will discuss how the pandemic affected local procurement and supply chain in the energy and mining sectors, particularly the operations of small and medium scale enterprises. Panelists will delve deeper into current emerging trends in cost, labor, consumption, and cost of capital.</i></p> <ul style="list-style-type: none"> • The coronavirus pandemic and its effect on domestic mining and energy supply chains, and the challenges and opportunities for local procurement policies arising from global supply chain disruptions • Medium and long-term priorities - discussing the current gas supply overhang, negative storage withdrawals, and demand loss and the longer-term implications up to 2025 on projects and investment • Assessing current commodity prices, new supply-demand equilibrium, and the longer-term demand recovery up to 2025 on projects and investment • What's new in 2022? Project and operation updates - post pandemic operational capital strategies, challenges, and opportunities • Shifting focus - the acceleration of the low carbon economy, supply chain disruptions, distribution systems • Engaging small and medium-sized enterprises (SMEs) in the low carbon agenda • Formulation of the Chamber of Mines in Mozambique and its impact in the sector <p>Moderator: Geert Klok, General Manager, GK Ancuabe Graphite Mine, SA</p> <p>Speakers:</p> <ul style="list-style-type: none"> • Senior Representative, Ministry of Mineral Resources and Energy (MIREME) • Luís Raimundo Ganje, Market Operator Director, EDM • Dr. Paulo Antonio da Graça, PCA, Electricity Regulatory Authority, Mozambique (ARENE)* • Elsa Alfai, Director of the Mining Registration and Licensing Services, INAMI* • Senior Representative, Natural Resources and Energy Working Group CTA
13:15 – 14:15	LUNCH AND REFRESHMENT FOR ALL DELEGATES AND SPEAKERS

14:15 – 15:15	SESSION 2 OIL & GAS PANEL - FUTURE DEVELOPMENTS, GOALS, CHALLENGES AND EARLY LESSONS - LNG PROJECTS AND INFRASTRUCTURE
	<p><i>The global drive for energy transition is presenting serious challenges to future investments in the exploration and production of oil and gas resources. The LNG sector that has low carbon emission is considered to have a greater importance in the future energy mix. This session is devoted to analyzing future developments and challenges in the LNG sector and the panel will discuss key insight into medium-term infrastructure focus areas, LNG innovations, investment and technology opportunities in the sector.</i></p> <ul style="list-style-type: none"> • FLNG offshore gas fields project updates and infrastructure priorities • Mozambique LNG terminal project updates opportunities and challenges • What lessons do future projects need to incorporate looking at scalable processing, export, transport, and storage infrastructure in a low carbon future • Opportunities and challenges in gas processing and pipeline technology • The role of LNG in the energy sector transition regulatory, pricing, and low carbon incentivization recommendations • Update on current and future of small-scale LNG projects in the region • Looking ahead at blue hydrogen, and bio-LNG are these viable futures? <p>Moderator: Simone Santi, President of the Natural Resources and Energy Working Group, CTA</p> <p>Speakers:</p> <ul style="list-style-type: none"> • <i>CO2 capture and storage (CCS) opportunities in Mozambique</i> - Júlio Ferreira Carneiro, Professor, University of Évora, Portugal Manager of CONVERGE! Lda • Bruno Morgado, Chief Executive, Matola Gas Company (MGS), Mozambique • Mlandzeni Boyce, Chief Executive, Republic of Mozambique Pipeline Company (ROMPCO) • Robert van der Geest, Senior Gas Specialist, World Bank • Nelson Ocuane, Chief Executive, NOC Consulting Lda, Mozambique • Senior Representative, ENI Rovuma Basin* • <i>Energy transition in the O&G Industry</i> – Manuel Mota, Partner, EY
15:15 – 16:15	SESSION 3 MINING PANEL – MOVING FORWARD WITH AN EYE ON THE FUTURE
	<p><i>Mozambique is endowed with vast reserves of natural resources and mining activities will continue to contribute to play a key role in the sustainable economic development of the country. In this session, we have invited executives from the country's mining industry for a conversation on their latest project developments opportunities and challenges, and to look explore zero-carbon mines and the opportunities for artisanal and small-scale mining projects in Mozambique.</i></p> <p><i>mines</i></p> <ul style="list-style-type: none"> • Moving forward with an eye to the future - Investment in potential new projects and expansion • The outlook for Coal Exploration in Mozambique, in the current conjuncture of transition to decarbonization. • Assessing and targeting low-impact mineral processing trends and technologies • Analysis of strategic Minerals in Mozambique • Kimberley Diamond process strengthening Mozambique's economy

	<ul style="list-style-type: none"> Looking at artisanal and small-scale miners in Mozambique, low-tech, labor-intensive mineral extraction and processing Impact of Covid-19 on domestic mining supply chain Local policies: Challenges and opportunities <p>Moderator: Gareth Clifton, Mozambique Manager, Kenmare Resources</p> <p>Speakers:</p> <ul style="list-style-type: none"> Higino Mutemba, Mozambique Sector Lead: Resources, FNB Mozambique Sean Gilbertson, Chief Executive Officer, Gemfields Mozambique & Ethiopia Peter Munyi, Mining Engineer, Consultant, Content Writer, Mining Hub Africa, Kenya Senior Representative, Ministry of Mineral Resources and Energy MIREME Elias Xavier Felix Daudi, National Directorate of Geology and Mines (DNGM)* Senior Representative, Jindal Africa, Mozambique* Senior Representative, INP
16:15 – 16:45	Refreshment and Networking Break
16:45 – 17:45	<p>SESSION 4</p> <p>ENERGY PANEL - MEETING THE FUTURE: RENEWABLES IN THE ELECTRIFICATION OF MOZAMBIQUE</p> <p><i>This session will discuss the future energy requirements of the country and the increasing role of renewable energy in the national energy mix as well as opportunities in the regional energy sector. The session will assemble experts and representatives from Mozambique's leading renewable projects, grid and transmission development who are best positioned to meet growing demand and technological innovation.</i></p> <ul style="list-style-type: none"> "Energy for All" Programme: State of the situation and opportunities Internal and foreign market: Demand and Planning Renewables in Electrification of Mozambique Involvement of SMEs Future utility-scale energy storage in Mozambique and the region opportunities and challenges Tackling net-zero – The next frontier for hydro, wind, and solar Power grid planning, modernization, accommodating changing load shapes Repurposing and remodeling power grids Transmission line planning and construction Renewable Energy projects updates The future of hydrogen production and its role in renewable energy <p>Moderator: Olga Utchavo Madeira, Renewable Energy Director, EDM</p> <p>Speakers:</p> <ul style="list-style-type: none"> Eng. Abraão Rafael, Executive Director of Transport Systems, Hidroelétrica de Cahora Bassa (HCB) Piergiorgio Evangelista, Chief Executive Officer, RENCO, Mozambique Samir Sale, Country and Business Development Director, Globeleg, Mozambique Luc Koechlin, Head of Southern Africa, EDF Gonçalo Ferraz, Project Manager, Efacec Power Solutions Ricardo Costa Pereira, President, Associação Mocambicana de Energias Renováveis* Senior Representative, Banco Nacional De Mozambique(BNI)
17:45	Close of Day 1 MMEC 2022

Conference - Day 2 – 3rd June 2022

08:00 – 09:00	Morning Coffee and Refreshments - Hall open
09:00 – 09:15	Day 2 Welcome and Opening Remarks
09:15 – 10:15	<p>SESSION 5 ENERGY PANEL - ACCELERATING POWER STABILITY AND ACCESS, COMMUNITY ENERGY, MINI GRID DEVELOPMENT, AND OFF-GRID ENERGY DEVELOPMENT AND DEPLOYMENT</p> <p>The low energy access in the country has been a great concern for the government and private sector operators as it is a constraint on economic development initiatives and projects. <i>This session, therefore, brings together policymakers, investors, and developers to discuss the opportunities and challenges of harnessing the off-grid renewables opportunity for energy access and meeting SDG's.</i></p> <ul style="list-style-type: none"> • Accelerating the expansion of off-grid energy markets in Mozambique enabling policies and innovative delivery models • Scaling up operations in Mozambique's off-grid and mini-grid energy market innovations in delivery and business models • Unlocking capital for mini-grid development and deployment looking at the policy and regulatory environment and the envisaged role of mini-grids • The latest developments in off-grid technologies • Supporting SME's and entrepreneurship <p>Moderator: Jaime Comiche, Country Representative, UNIDO, Mozambique</p> <p>Speakers:</p> <ul style="list-style-type: none"> • Sergio Dista, Private Sector Development Adviser, BHC Maputo • Cesar Augusto Mba Abogo, Country Manager, AFDB, Maputo • Ash Sharma, Vice President of Nefco and Head of Beyond the Grid Fund for Africa • Boris Atanassov, Director, GreenLight Africa - Consultant in Renewables, Access Energy and Environment, Mozambique • Eng. Joaquim Ou-chim, Executive Board Member for Electrification, EDM • Dario Mapsanganhe, Mozambican Energy Expert

10:15 – 11:15	SESSION 6 OIL & GAS PANEL - MIDSTREAM AND DOWNSTREAM OPPORTUNITIES - DEVELOPMENT PROJECTS
Sponsored by:	<p><i>There are enormous opportunities for local industry participation in the midstream and downstream sectors of the oil and gas industry through local value addition, employment generation and the engagement of small and medium scale enterprises in the value chain. This session brings representatives from some of Mozambique's biggest midstream and downstream projects together to discuss current and future opportunities. When completed these projects will significantly enhance Mozambique's position in regional energy infrastructures and strategic energy mix.</i></p> <ul style="list-style-type: none"> • Update on developing LNG to power projects in Mozambique • Update on developing GTL projects in Mozambique • Update on Gas Monetization projects • LNG Downstream new build and expansion projects • The status of the refining sector in the region post-covid, domestic shifts, and how Mozambique will respond? • The development of smart industrial hubs to enhance the downstream operations-based electricity generation serving as a baseload to support renewable energy production • Mozambique as a regional low emission energy hub <p>Moderator: Bruno Dias, Consulting Leader, Ernst & Young, Lda., Mozambique</p> <p>Speakers:</p> <ul style="list-style-type: none"> • Ekpen J Omonbude, Energy and Mining Economist, UK • Robin Sutherland, COO, Mozambique-South Africa Power Project • Ezekiel Adesina, Head of Strategy & Planning, Nigeria LNG Limited, Nigeria • Marco Morgado, Chief Operating Officer, Gigawatt, Mozambique • Onório Manuel, General Manager, Mozparks, Mozambique
11:15 – 11:45	REFRESHMENT AND NETWORKING BREAK
11:45 – 12:45	SESSION 7 ENERGY EXTRACTIVES NEXUS PANEL- MINING: DELIVERING THE REGIONAL ENERGY TRANSITION
	<p><i>The challenge of climate change and the call for low carbon energy production is bringing to the forefront the issue of extractives and energy transition. This session will highlight the increasing global demand set at 3 billion tons of minerals and metals by 2050 and the capacity of mining players to meet the demand for clean energy technologies, to support wind, solar and geothermal expansion as well as energy storage.</i></p> <ul style="list-style-type: none"> • The Outlook of annual demand and supply for critical minerals for key Mozambique export markets • Operating mines in Mozambique, exploration, and prospection projects, total resource and life span • Resourcing tomorrow - developing value chains for critical minerals in Mozambique • Explore the global market, environmental and social implications of production and use • Funding and bankrolling critical minerals projects in Mozambique

- Evolution of critical mineral extraction, processing, refining, and recycling and the impact of accelerated technological advancements

Moderator: **Jocelyne Machevo**, Oil & Gas, & Energy, Industry Expert, Mozambique

Speakers:

- **Gareth Clifton**, Mozambique Country Manager, Kenmare Resources
- **Paula Duarte Rocha**, Founding Partner, MDR Advogados, Mozambique
- **Andrew Lane**, Leader, Energy, Resources & Industrials, Deloitte Africa
- **Natália Camba**, Local Content Manager, INP*
- **Marco Abalroado**, Managing Director, Access Bank Ipc, Mozambique
- **Antonio Saide**, Chief Executive Officer, FUNAE

12:45 – 13:45

NETWORKING LUNCH

13:45 – 14:45

SESSION 8

MINING PANEL - DECARBONISATION IN MINING

A fallout of the effect of climate change is the demand for the decarbonization of mining operations in order to reduce greenhouse gas emissions. The world has more than doubled cumulative GHG emissions since the early 90's. Ambitious targets and policies have been set to achieve net zero pinning reduction targets at =7% p.a. Mozambique Industry leaders in the mining sector join this panel to have a conversation around industry objectives. the challenges and business opportunities of meeting carbon reduction targets.

- Decarbonisation and the impact on commodity markets, which assets are most at risk from physical climate change?
- Commercial opportunities from decarbonization
- Transitioning towards net-zero; policies, scrap use, electrification, renewables, power storage, and hydrogen
- Sustainable futures across the value chain; supplier partnerships, shipping decarbonisation
- Low carbon processing opportunities. How decarbonization could shift demand for key minerals
- Strengthening local partnerships and how miners can decarbonize their own operations.

Moderator: **Dr. Daud Jamal**, Geologist and Environmental Consultant

Speakers:

- **Gilberto M.G. Mahumane**, Energy Planning & Applied Energy Economics (Vrije Universiteit Amsterdam)
- **José Mendes**, Member of AGMM and Executive Director Marcleusa Oil & Gas e Energia
- **Nikisi Lesufi**, Senior Executive: Environment, Health and Legacies, Minerals Council of South Africa*

14:45 – 15:45	SESSION 9 SME DEVELOPMENT ACROSS THE EXTRACTIVES INDUSTRY SECTORS
	<p>The government of Mozambique has put in place policies and incentives to encourage the participation of local small and medium scale enterprises in the extractives value chain to promote local value addition and economic growth. The session will discuss building <i>empowering value chains assessing the current and potential level for engagement by small and medium-sized enterprises in Mozambique in the low carbon economy and determining their perceived constraints.</i></p> <ul style="list-style-type: none"> • Entry and expansion challenges and available aid and support for SME's • Linguistic, regulatory, barriers and access to relevant support mechanisms • Quality standards, technology transfer, JV's, accurate identification of business opportunities, and the development of solid relationships with the right business partners <p>Moderator:</p> <p>Speakers:</p> <ul style="list-style-type: none"> • Ibrahima Aminu, Business Development Director, Invest Africa, Ghana • Paul Eardley-Taylor, Head of Oil & Gas, Standard Bank • David Mparutsa, Head: Enterprise & Supply Chain Development, Absa Bank • Joaquina Gumeta, Director General, Institute for the Promotion of Small and Medium Enterprises (IPEME)*
15:45 – 16:15	REFRESHMENT AND NETWORKING BREAK
16:15 – 17:15	SESSION 10 CLOSING DEBATE CONSIDERING HYDROGEN POTENTIAL FOR A GREENER ECONOMY – ROUNDTABLE DISCUSSION
	<p><i>This roundtable discussion is designed to bring together in a roundtable, industry leaders to deliberate on market readiness, the path to large scale production, policies, at the dawn of hydrogen, where the industry is going and the possible opportunities for Mozambique in the near future? It will evaluate the possibility of Mozambique becoming a hub for the production of hydrogen in the region.</i></p> <ul style="list-style-type: none"> • Assessing market readiness, production at scale, and setting the price? • Existing gas infrastructure for transportation and storage of hydrogen • Storage technologies – paving the way for large scale storage of renewable energy • Integrated Hydrogen grid - sector coupling towards an integrated, decarbonized energy system • Harnessing the excitement around the hydrogen economy to influence policy, discourse, and transform the energy landscape • Looking at hydrogen as an essential to prevent climate change - zero-carbon hydrogen as a fuel is central to reducing carbon emissions

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| **2 - 3 JUNE 2022**

JOAQUIM CHISSANO CONFERENCE CENTER, MAPUTO | MOZAMBIQUE

- Could Mozambique become a hydrogen hub?

Moderator: Prof. Salvador Mondlane, Department of Geology Universidade Eduardo Mondlane (UEM) Mozambique

Speakers:

- **Senior Representative**, ENH
- **Ed Reed**, Content Editor, Energy Voice
- **Senior Representative**, ENI Rovuma Basin*
- **Alessandro Piccoli**, Technical Research Principal, IHS Markit*
- **Carlos Yum**, Managing Director, Mphanda Nkuwa Hydroelectric Project Implementation Office*
- **Danie Cronje**, Senior Vice President: Green Hydrogen Global Market Development, Sasol*

17:15 - 17:30

CONCLUSION AND RESOLUTIONS INCLUDING 2023 DATES

17:30

END MMEC 2022