



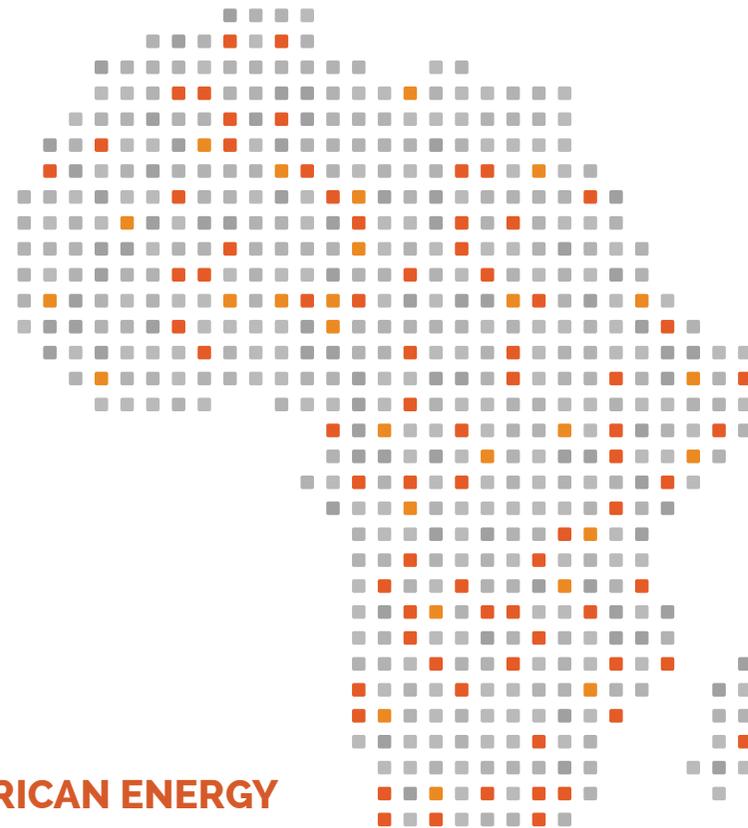
# AFRICA ENERGY INDABA

SOLUTIONS FOR AFRICA

## 2-3 MARCH 2021

CAPE TOWN INTERNATIONAL CONVENTION CENTRE, SOUTH AFRICA

[www.africaenergyindaba.com](http://www.africaenergyindaba.com)



Business + Investment + Technology = **GROWTH FOR AFRICAN ENERGY**



Strategic Partners



Trade Industry Association Partner



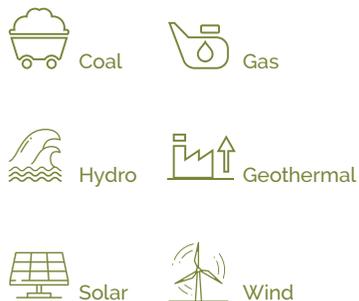


## Energy access and securing the future for Africa's citizens

### Energy Opportunities in Africa

Modern, affordable, reliable and sustainable energy is critical for economic growth and the provision of access to modern energy contributes tremendously to improved health care, better education and opens up economic opportunities in both urban and rural areas in Africa. Although access to modern energy in African countries is increasing, the lack of access to energy in the continent is a perennial problem, with around 615 million people without access to energy, and 730 million reliant on biomass for their energy needs. **Africa's population is projected to grow from 1 billion to 1.8 billion.** This population growth and the associated migration from rural to urban areas in African countries, will lead to increased demand for energy in African cities and towns.

### Africa's vast natural energy resources:



Africa is the continent of opportunity for the serious energy investor. With vast natural energy resources ranging from coal, oil, gas, hydro, solar, wind and geothermal, there is ample choice for the discerning energy entrepreneur. Renewable energy projects can provide immense job opportunities that can alleviate unemployment in African countries. Investments in the energy sector should also focus on skills development, technology transfer and empowerment.

### Africa is the next investment frontier for Energy

Energy access is now part of the political debate and there is an increase in political will to provide energy to African countries. Infrastructure development is key to improving the energy sector in Africa. The scope for Africa and all its respective countries to unlock its energy potential is immense – both conventional and renewable.



*Lack of access to electricity means that there is an opportunity for regional governments, energy businesses, organisations and investors to unlock electricity access to millions of people who have don't have power.*

## Building an energy future for Africa



*The Africa Energy Indaba is the definitive energy conference for Africa providing an annual programme that shapes energy policy for the African continent.*

### Exclusive global and energy partners sets us apart from other events

With strategic partnerships with the World Energy Council, the South African National Energy Association and the NEPAD Planning & Coordinating Agency to name a few, the Africa Energy Indaba enjoys the backing of leading energy organisations. These partners influence the event content and send their representatives to take part at the event, setting the event apart from those who are only able to attract middle-level management.

### Our partners

#### Strategic Partners



#### Government Host



#### Trade Industry Association Partner



Attendees of the Africa Energy Indaba conference and exhibition will meet project developers, owners and investors at the cutting edge of Africa's booming energy sectors. Delegates will hear about current attractive markets, pitfalls to be aware of and how to get involved in regional energy markets and energy infrastructure projects. There are many investors who would like to start energy businesses, but are not sure of how to get involved and how to make their businesses successful. The Africa Energy Indaba is the ideal event for them. In addition, energy intensive users like big mining groups are looking at alternative energy sources and partners to provide energy solutions and power up their operations.

### Some of the African countries represented at Africa Energy Indaba



Uganda



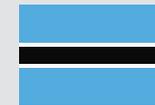
Zambia



Zimbabwe



Namibia



Botswana



Ghana



Kenya



Tanzania



South Africa

## 2021 Venue Announcement

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*We are excited to announce that Africa Energy Indaba 2021 will be hosted in the beautiful city of Cape Town, South Africa.*

The Africa Energy Indaba 2021 will be hosted at the multi-purpose conference and exhibition centre in the hub of Cape Town's business and entertainment centre: the Cape Town International Convention Centre (CTICC).

Perfectly positioned in Cape Town's bustling foreshore, the CTICC is only a short distance from a number of exciting attractions and amenities – from iconic Table Mountain and the thriving V&A Waterfront right on its doorstep, to popular destinations such as Kirstenbosch Botanical Gardens, the Winelands, and Cape Point within an hour's travel.

Extend your stay to visit some of the many available attractions, which can be organised through any of the professional and experienced destination management companies in Cape Town.

**2-3 MARCH | CAPE TOWN INTERNATIONAL  
2021 | CONVENTION CENTRE**

*The combination of the premium venue, services and facilities will provide a comprehensive array of services for potential AEI's stakeholders, African Energy Ministers and potential international investors.*

*Register now to join us in Cape Town where delegates from all continents will convene to discuss, debate and seek solutions to enable adequate energy generation across Africa.*



# The African Leaders' Dialogue summary

The Indaba Energy Leaders' Dialogue 2020 was a high-level event for the global energy leaders' community to facilitate ongoing dialogue on critical issues affecting the energy world. Discussions centered around the megatrends which are transforming the energy landscape as well as the new realities and models of collaboration which have emerged in the last 5 years. As we stand on the cusp of major technological change, it explored the role of innovation in addressing the regions' energy challenges.

## MEGATRENDS and New Realities for energy

-  **Increased urbanisation** and associated factors such as food security
-  **Decreasing prices** making renewables viable, especially solar PV and wind
-  **Sustainability/recycling:** Consequence management and the need to find solutions to air pollution, waste management, as well as a renewed awareness in climate change
-  **Energy efficiency:** the "fuel" of the future - reaching the same output but requiring much less energy
-  **Transport:** e-mobility and autonomous vehicles have synergy with renewables
-  **New energy discoveries** like shale gas and oil discoveries might affect our energy choices
-  **Decentralised systems:** - Regional challenges can be improved through decentralised systems which can exist outside the standard approach - Multiple utilities and reexamining the role of centralised energy

## The role of INNOVATION in addressing energy challenges

- Ability to integrate solutions and systems** including technology and storage into self-sustaining micro-grids
- Energy Storage:** Cost-effective energy storage is predicted to be the next big innovation for the energy sector
- Technological disruption:** including bio, Nano and neuro-technology
- Business ecosystems:** changing from corporate to entrepreneurial mind set
- The consumer at the center:** better informed through augmented reality
- Demassification:** to diversify and decentralise
- Disruptive finance:** technologies based on AI can allow rural customers to obtain the financing needed to access electricity
- Digitalisation:**
  - Robotics
  - Blockchain
  - IoT
  - Smart cities & grids
  - Analog -> Digital
  - 'Plug and play' energy systems



Reimagining what future cities will look like? Leading cities are becoming liberated from traditional options and more independent regarding energy security.

## NEW MODELS OF COLLABORATION

-  Connecting energy consumers and energy producers
-  Examining the private sector's opportunity in distribution, not only generation
-  Collaboration across industries, e.g. between mining and power
-  The combination of: Regulation + Funding + Skills is needed to break the logjam

## CHALLENGES/RISKS

- Accessibility of electricity
- Realistic tariffs
- Regulatory lag and finding the appropriate amount of regulatory freedom
- Balancing risk awareness while nurturing incubation and entrepreneurship
- Private/Public sector alignment
- Bankability and funding
- New challenges like cyber security
- The affordability of finance
- Lack of information: uninformed people continue to use less effective methods
- Crisis management instead of planning; and talking instead of actioning a problem
- Lacking political will

## OPPORTUNITIES FOR EXPONENTIAL GROWTH

Opportunities exist in various areas of **decarbonisation, decentralisation and digitalisation**; however we are cautioned against predicting which of them holds the most significant opportunity for exponential growth.

## The Africa Energy Indaba Conference 2021

The **13th Africa Energy Indaba Conference** will discuss, debate and seek solutions to enable adequate energy generation across the continent.

Delegates, drawn from all continents, represent an unrivalled combination of industry experts, project developers, financiers, energy users, government officials and manufacturers.

### Innovation and digitalisation high on the agenda

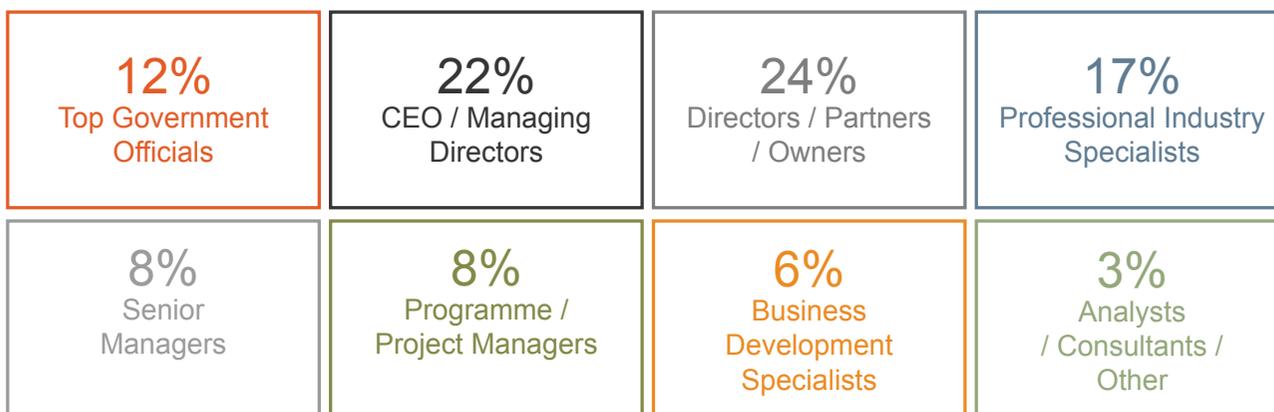
Energy systems are experiencing rapid change at local, national and global levels driven by a blend of innovation; changes in policy and consumer demands; and the reducing costs of new technology. Renewables, distributed energy and smart grids demand new capabilities, new business models and regulatory frameworks.

The conference will explore the role of digitalisation in creating modern and affordable energy sources without impeding development; and to take climate change into account when considering the growth and development in Africa.



H.E. Minister Jeff Radebe; Sean Cleary (Africa Energy Indaba 2020)

**Africa Energy Indaba is a tremendous opportunity for you to meet and reach out to leaders who are on the forefront of the energy sector. Our attendees are senior decision makers and influencers:**



Some key themes emerging from the previous conference:

- The future of the African Energy Sector
- Digitisation and the impact on the Energy Sector
- Innovative Financing: Attracting Finance & Investment
- Disruptive energy business models and risks
- Harnessing African Gas: Gas to Power Opportunity
- Accelerated Energy Access across the Continent
- Micro, Mini and Off-grid solutions for Africa
- The emergence of energy trading platforms
- Lessons to learn relating to Energy Efficiency
- Africa's renewable energy potential
- Energy Storage & Electric Vehicles
- Projects Panels featuring African Countries

## The Showcase Exhibition

*The Africa Energy Indaba Exhibition is highly relevant to companies actively involved in all areas relating to showcasing solutions for the benefit of Africa. This extends to services for major energy projects on the continent, rural energy solutions, urbanization and energy needs and the renewable & sustainable energy industry and the management thereof.*

By participating as an exhibitor you have an opportunity to promote your company to business counterparts, international investors, buyers and governments worldwide. This showcase will provide a platform for companies to demonstrate their commitment to provide the much needed solutions and services that will enable the African continent to embrace the challenges arising from current and future energy demands.



### Exhibitor Profile

-  Utilities and regulators
-  Government Institutions
-  Power Distribution
-  Energy Storage
-  Energy Efficiency
-  Electrical Transport
-  Refineries
-  Thermal Energy
-  Solar Power
-  Gas
-  Petroleum
-  Biodiesel
-  Low Carbon and Climate Initiatives
-  Education
-  Engineering Firms
-  Architects
-  Industry Associations
-  Energy Corporations and Consulting
-  Development Institutions and DFIs
-  Financial Services



## Marketplace: Connecting the dots through Strategic Energy Connections

As the continent's premier event, known for its exclusive, high-level content and delegates, the Africa Energy Indaba is proud to once again host its very successful **Marketplace** Business Matchmaking Programme. This Programme offers all delegates and exhibitors the opportunity to engage with high-profile guests and speakers they would ordinarily not be able to meet face-to-face. It assists investors and energy stakeholders with catalyzing new businesses and projects; meeting the right partners; and connecting companies with key stakeholders who can make their business successful. and mitigating the legal and regulatory risks that threaten project bankability.

This model is spearheaded by intelligent matchmaking software that will utilise attendees' profile and background information to connect them with relevant contacts that are significant to their goal attainment, send meeting requests and conveniently pre-schedule meetings at a central venue within the conference.

Meet with this year's high-level speakers, exhibitors, sponsors and delegates through the **Marketplace Business Matchmaking Programme**



### NEW FEATURE IN 2021:

Direct business engagement with FutureAfrica to support and assist the Business Matchmaking Programme to ensure actual dealflow with the decision-makers attending the Africa Energy Indaba. To find out more, please email: [info@energyindaba.co.za](mailto:info@energyindaba.co.za) and enquire about FutureAfrica at Africa Energy Indaba.

#### *How it works*



##### **Individual profiling**

Using the information that you provide, as well as our added background research, we will develop your own unique profile. Our matchmaking software will then apply your purpose and goal at the Indaba in its database search of contacts that are most suited to your needs.



##### **Pre-scheduling meetings**

We will ensure that meetings are duly confirmed through the online private diary for tracking a meeting's status and conferring over details such as suitable times.



##### **Intelligent matchmaking**

Once we have established your key contacts, you will be able to go online and select the person or company with which you would like to interact with. When you have reached a decision, you may send meeting requests – and let the matchmaking begin!



##### **Central meeting venue**

An email or text reminder will be sent to both participants for meetings in a pre-confirmed area at the Africa Energy Indaba venue.

\*By invitation only



## Create Brand Awareness

*Brand recognition plays a vital role in any long-term marketing strategy to enhance a company's visibility in the energy market. The Africa Energy Indaba Partner and Sponsorship Programme is one of the most effective and cost efficient methods for a corporation to achieve high visibility among Indaba participants. Our expert team is ready to discuss your company's needs to ensure that the Africa Energy Indaba delivers on your business objectives.*

Aside from valuable brand exposure throughout the event campaign and at the event, sponsorship is your route to addressing our audience with your knowledge and experience through our unique conference and workshop sessions.

Africa Energy Indaba provides an excellent opportunity for your organisation to reach an elite group of energy luminaries, thought-leaders and professionals from across the province. It provides a major networking platform for decision makers and professionals within the Energy sector; and participating as a sponsor is an ideal way to position your company as a market leader at this premier event.

## Delivering Real Brand Value Through Strategic Sponsorship

**Below are just a few options of the many sponsorship possibilities:**

- Branding/Advertising in marketing material and on website
- Onsite exposure
- Delegate places / Speaking opportunities
- Featured content in our marketing material
- Corporate brochure distributed to all delegates
- Conference delegate bag sponsor
- Name badge sponsor
- Sponsored sessions and workshops

**Africa Energy Indaba offers a variety of customisable marketing opportunities that fit your brand's needs and objectives. Contact us today to learn more about this opportunity.**

## Side Events

In addition to the Conference and Exhibition, Africa Energy Indaba hosts a number of side events each year. These events take place during the same week of Africa Energy Indaba and can be registered for separately. Contact us to express your interest in attending these additional events.



### The CEO Roundtables\*

The Africa Energy Indaba 2019 launched the inaugural series of CEO Roundtables, where CEOs and Leaders from across the continent gather to address some of Africa's energy challenges from a business perspective. There are 600 million Africans without modern access to electricity and the rising crisis of youth who won't be able to find jobs. The scale at which the need is rising is disproportionate to our ability to service that need. The purpose of the discussion is to brainstorm solutions for the benefit of business and the African consumers; and to turn vision into action.



### The Ministerial Roundtable\*

The Ministerial Roundtable was initiated by Minister Jeff Radebe (South Africa) as a forum to discuss some of Africa's pressing challenges and identify how the public sector, private sector, banks and development institutions can forge a working relationship and turn vision into action. Africa requires an estimated investment of US\$ 70 billion to meet the energy need by 2030. Energy is crucial for development and lack of access, or interruptions like load shedding, have devastating effects on economies.



### WEC Africa Regional Meeting\*

This is a WEC governance meeting exclusively for WEC members. This is where WEC is discussed in the African context and where WEC's African work programmes are formulated and discussed. A number of other matters are dealt with, all aimed at enhancing the effectiveness of the WEC member committees across the continent.



### Indaba Energy Leaders' Dialogue\*

The Indaba Energy Leaders' Dialogue brings together global and regional energy leaders to exchange views on critical issues facing the energy industry in informal, off-the-record discussions. These high-level invitation-only events provided an intimate forum in which participants could discuss topics such as how to best address the "energy trilemma" (trade-offs between energy security, social equity and environmental impact mitigation). These high-level events will be co-hosted by the World Energy Council and some energy luminaries from Africa and the world.

\*By invitation only



**AFRICA  
ENERGY  
INDABA**  
SOLUTIONS FOR AFRICA

## Contact us

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To register to participate, or for more information about this leading business event, please contact:



+ 27 11 463-9184



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[www.africaenergyindaba.com](http://www.africaenergyindaba.com)

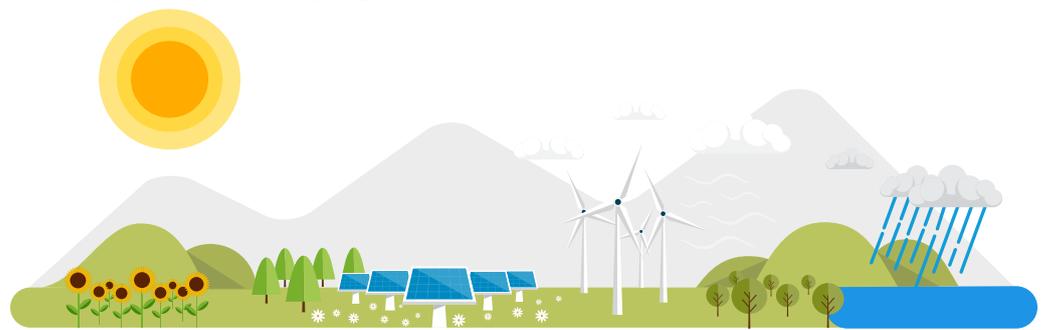
**2-3 MARCH 2021**

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SOUTH AFRICA



**SIYENZA**  
all about people

# 2021 PROGRAMME OVERVIEW



## DAY 1 - Tuesday, 2 March 2021

### The GREAT AWAKENING for the AFRICAN ENERGY SECTOR

|       |   |  |
|-------|---|--|
| 07:30 | REGISTRATION  |  |
| 09:00 | WELCOME AND OPENING   |  |
| 09:10 | Keynote Address   |  |
| 09:20 | Scene Setting 1   |  |
| 09:35 | OPENING PLENARY PANEL   | Re-positioning Africa's energy sector to deliver prosperity            |
| 10:45 | REFRESHMENT BREAK   |  |
| 11:15 | PLENARY PANEL 1   | Investing in and financing energy supply in emerging African economies |
| 12:30 | LUNCH & EXHIBITION VISIT                                      |  |
| 14:00 | Scene Setting 2   |  |
| 14:15 | PLENARY PANEL 2   | Energy: geo-politics, interdependence and interconnectivity            |
| 15:30 | REFRESHMENT BREAK   |  |
| 15:45 | PLENARY PANEL 3   | Is energy storage the key to energy access?                            |
| 17:00 | AFRICA ENERGY INDABA COCKTAIL RECEPTION & BUSINESS NETWORKING |  |

## DAY 2 - Wednesday, 3 March 2021

### TRANSITIONING from ASPIRATION to ACTION

|       |   |  |   |
|-------|---|--|---|
| 08:00 | REGISTRATION  |  |   |
| 08:45 | PANEL 6<br>Decentralised energy supply and mini-grids | PANEL 7<br>Africa's Trilemma:<br>Fossil Fuels / Poverty / Climate Change   | PANEL 8<br>Future utility models and the impact of prosumers – The Future Customer -- IPP forum                     |
| 10:00 | REFRESHMENT BREAK                                     |  |   |
| 10:30 | PANEL 9<br>The future of oil                          | PANEL 10<br>Leading through uncertainty to opportunity WEC / SANEA session | PANEL 11<br>Life extension for utility scale solar and wind power installations -- IPP forum                        |
| 11:45 | LUNCH & EXHIBITION VISIT                              |  |   |
| 13:00 | PANEL 12<br>Natural gas & LNG                         | PANEL 13<br>Digitisation: Transforming the energy sector                   | PANEL 14<br>How has the response to COVID-19 influenced the nature of future energy supply agreements? -- IPP forum |
| 14:15 | ROOM CHANGE   |  |   |
| 14:30 | PANEL 15<br>Innovation in transport in rural settings | PANEL 16<br>Hydrogen Economy – An African Dream?                           | PANEL 17<br>Innovative tariff systems to deliver sustainable pricing and revenue -- IPP forum                       |
| 15:30 | CLOSING   |  |   |

# INDABA ENERGY LEADERS' DIALOGUE

The Indaba Energy Leaders' Dialogue 2020 was a high-level event for the global energy leaders' community to facilitate ongoing dialogue on critical issues affecting the energy world. The discussions explored several pertinent questions, including: Where does the global energy agenda meet the Africa energy investment challenge? What do the game changes and challenges tell us about new investment opportunities and collaborations for accelerating the energy transition? And, how do we prepare for new and different energy futures?

## Preparing for new and different energy futures

Predetermined factors and critical uncertainties influence which of the 3 plausible pathways to 2040 will take place

3 Scenarios → 2040



The World Energy Issues Monitor 2020 helps define World Energy Agenda and its evolution over time, providing a high level perception of the issues and critical uncertainties

## Opportunities and Trends:

**Integration of sectors and policy:** Energy, Industry and Mining

**Innovation:** • Technology • Social • Institutional • Financial

**Thinking both 'Bigger' and 'Smaller' simultaneously:**

Bigger: e.g. Risk allocation sharing

Smaller: e.g. Reducing complexity, improving coordination on the ground



- Security of supply
- Energy affordability
- Technological transition from single to multi-supplier
- Infrastructure challenges and a need for decentralisation
- Geo-political uncertainties and resource allocation
- Skills gaps
- Extreme weather events
- Cybersecurity risks
- Market design and regulatory reforms
- Too many 'grand plans' that lack coordination and collaboration
- Issues relating to storage: the individual vs system; and the impact of declining storage on utilities

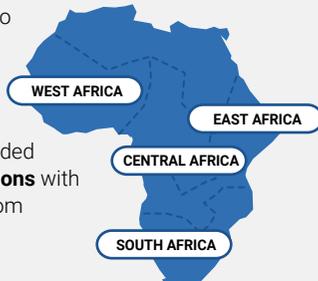
- Access to capital:** Lack of financial instruments and uncertainty makes it challenging to attract investment into Africa
- Cost transparency:** Non-technical tariff losses and the struggle with utilities to compromise on this
- Subsidised electricity** in many African countries means new electricity projects cannot compete
- A need to improve the **credit-worthiness** of off takers

Improved **regional integration and cooperation** holds many benefits; and could lead to larger government markets

Collaborative solutions need to be found between **Regulators + Utilities + Consumers**

**Coordination of political interest** is needed.

Allowing excess electricity to be fed back into the grid, could significantly alleviate **load shedding** during the day



The session included **Country Discussions** with representation from across Africa

## Customer Centricity:

Focusing on the needs/perspective of the consumer can lead to **new business and energy models**

The concept of energy as a **'Value Creating'** solution: the effective adoption of energy requires understanding of the factors that affect customer value

**Need to change behaviours**, not only technologies. Antiquated tariff structures do not provide incentive to drive consumer behaviour changes

# INSIGHTS FROM THE MINISTERIAL AND CEO ROUNDTABLE PANEL DISCUSSIONS

The Africa Energy Indaba 2020 once again hosted a series of exclusive panels where ministers, business leaders and CEOs from across the continent gathered to discuss some of Africa's pressing energy challenges and share collective experience. The discussions took place against the energy context of population growth; urbanisation; the urgent need to close the energy gap; technological transformation; requiring adaptability and continuous reinvention. With its abundant mineral resources and sun, Africa has the opportunity to outperform the world, however currently African countries are consumers and exporters and do not participate in the value chain. Rapid urbanisation and large industry needs grid-connection and base load (requiring massive funding), however the role of off-grid and mini-grids, and energy efficiency all require consideration. A few key insights are included below.

## THE MINISTERIAL ROUNDTABLE PANEL



### Need: reliable, affordable base load

Many African countries need to **add as much power as possible**, through a mix of generation. Funding currently favours renewables, making it challenging to find funding for fossil fuel projects. The scale of what is needed cannot be met by development banks alone. Funding needs to meet both commercial and developmental goals.

**Generation and Distribution** challenges



### Regional interconnectedness

Energy mix needs to be **region-specific**, based on resources and context. Dynamic, least-cost plans **diversify risks** of security of supply across interconnecting regions.

Energy decisions should consider all factors:



### Decarbonising

Africa needs to balance climate and environmental goals with industry's need for large amounts of reliable base load.

- There are challenges in using only solar for industrial needs and renewables still require advancements
- For larger roll-out of mini-grids, wider government acceptance is needed with the same concessional financing as for government-subsidised big plants

CEO PANEL 1

## ENERGY EFFICIENCY:



### Can EE measures be self-financing?

The ROI of EE (Energy Efficiency) is significant, however there has been **slow adoption** and **psychological barriers** relating to the perception and credibility of EE. Companies do not embrace EE but prefer to spend money on their **core business**, even at high manufacturing costs from backup energy sources like diesel generators.

### Issues with Energy Efficiency adoption:

- Insufficient understanding of EE by the stakeholders
- EE is not viewed as part of 'Core Business' leading to indecision
- Companies tend to add costly renewables without considering EE
- Inadequate reporting of savings to management
- Fear of committing unless they receive savings upfront
- Climate change & carbon tax not enough to modify behaviour

### Solutions that can help:



The approach to market Energy Efficiency: **Inform, educate, increase awareness, showcase successes, advocate, and relay the message to appeal to the audience in quantifiable metrics that has meaning.**

CEO PANEL 2

## ON-GRID VS OFF-GRID ENERGY SUPPLY:



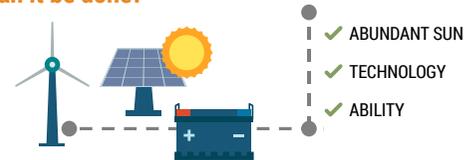
### The challenge for business

Industry requires **large volumes of reliable power** and therefore it is reliant on the utility. **Solar PV** costs have decreased from most expensive to least expensive renewable in only one decade, making it a popular solution to consider. Case studies exist of **successful implementation of off-grid** for manufacturing, however migration to renewables bring many **challenges**. Adoption of off-grid has permanent implications for utilities.



**1MW+ Generation plants in South Africa require generation licenses, but the criteria and application process can be confusing.**

### Can it be done?



- More creative solutions need to be allowed (within reason) to allow large industry to self-generate
- Some solutions exist for industry but would need utility collaboration including national transmission footprint
- Suitable backup power like Gas is needed
- The concept of Just Transition is important, but the bigger benefit of energy to a country needs to be weighed up against short term losses
- International case studies show that successful job redistribution can take place
- Commercial and residential are easier use-cases for going off-grid

CEO PANEL 3

## ACCESSING FINANCE:



### Developing Africa's energy sector

Issues in accessing finance:

Policy uncertainty and long lead times

Funding risks, especially for certain countries

Lack of bankable projects that meet requirements

Financing transmission projects is challenging

African countries require unique funding solutions

During the session, several companies and countries collaborated and shared experiences, including Standard Bank; Wonderbag; African Greenco; Irena; solar projects in universities; GE; Namibia; Uganda; Ethiopia; and Nigeria; to name a few.

Insights:



Business incubators and pre-feasibility funding can help projects move from ideas to funding stages



A need to introduce new funding tools: investment is available however banks need to find ways to bridge the investments



Africa needs innovative and specific solutions to its problems, a Euro-centric approach does not work



Standardising documents: PPA, bankability, power procurement, due diligence etc. will facilitate access to finance



Moving away from the idea of sovereign guarantee as a silver bullet (for example, through achieving cost-reflectivity)