

Day 1: 20 May 2025

9:00-11:00 – Keynote Session (Strategise & Innovate Stages)

Covers technology-driven transformation and the future of power, with discussions on scalable energy solutions.

11:45-13:00 – Smart Grids and the Future of Energy Management (Innovate Stage)

Panel discussion on smart grid technologies, including real-time monitoring and demand response strategies.

11:45-12:00 – Scene Setter: System and Capacity Planning (Strategise Stage)

Explores challenges and opportunities in developing generation and transmission infrastructure for Africa's energy transition.

12:00-13:00 – Panel Discussion: A Holistic Approach to System and Capacity Planning (Strategise Stage)

Discusses coordinated approaches to generation and transmission infrastructure development.

14:00-15:00 – Desalination for Industry: Optimising Water Resources in Water-Scarce Regions (Water Hub)

Focuses on desalination technologies for water-scarce environments.

14:15-15:10 – Panel Discussion: Navigating the Complexities of Wholesale Markets (Strategise Stage)

Explores dynamics of wholesale energy markets, focusing on pricing and policy impacts.

15:10-15:30 – South Africa's Energy Sector Transformation (Strategise Stage)

Expert analysis of South Africa's energy landscape and ongoing transformation.

16:15-17:30 – Panel Discussion: Innovative Public-Private Partnerships Energising Africa's Power Sector (Strategise Stage)

Examines the role of public-private partnerships (PPPs) in accelerating energy sector development.

11:45-13:00 – Empowering Africa: Mastering Digital and Grid Modernisation for a Resilient Future (Power Hub)

Discusses digital tools and grid modernisation strategies.

11:30-11:50 – Transmission in the Transition: Adapting Grids to Support Clean Energy Expansion (Power Hub)

Explores grid adaptations for renewable energy integration.

13:30-14:50 – Smart Metering in Europe as a Benchmark for Africa (Power Hub)

Examines smart metering applications for energy management.

14:50-15:10 – Cloud-Based End-to-End Testing of Line Differential Relays: A Novel Single-End Controlled Approach (Power Hub)

Technical session on testing grid reliability solutions.

15:30-15:50 – Developing an Artificial Intelligence (AI) Copilot for Critical Infrastructure Control Room Operations (Power Hub)

Discusses AI applications in infrastructure management.

16:30-16:50 – A Novel Iterative AI Framework for Fraud Detection in Power and Water Systems Using Smart Meter Data (Power Hub)

Explores AI for detecting inefficiencies in resource systems.

Day 2: 21 May 2025

9:15-11:00 – Keynote Session (Strategise & Innovate Stages)

Focuses on the future of African energy and innovation imperatives.

10:00-10:10 – Coal Ash Water Treatment (Water Hub)

Discusses treatment of coal ash water for industrial use.

10:30-11:00 – Product Showcase: Smart Metering Solutions (Water Hub)

Showcases smart metering for water and energy management.

11:45-12:30 – Discussion: Understanding Climate Finance and How It Can Be Leveraged to Support Renewable Energy Projects in Africa (Strategise Stage)

Covers accessing climate finance for renewable energy projects.

11:45-12:00 – Case Study: Advanced Metering Infrastructure Implemented by Electricité De France (EDF) in India (Innovate Stage)

Case study on advanced metering infrastructure.

12:00-12:20 – Case Study: Innovation Within the Context of a Constrained Fiscus (Innovate Stage)

Discusses innovative energy solutions under financial constraints.

12:40-13:00 – Containerised Micro Grids (CMG) for EV Charging and Grid Resilience (Innovate Stage)

Explores microgrids for EV charging and resilience.

12:00-12:10 – Current Needs for the Water-Energy Nexus Specifically for Electricity Generation (Water Hub)

Examines the interplay between water and energy in generation processes.

12:10-12:20 – Smart Water Management in Agriculture and Industry (Water Hub)

Discusses smart technologies for water management.

12:30-12:40 – Harnessing Data and Artificial Intelligence for Smart Water Security (Water Hub)

Explores AI and data for water management.

12:45-12:55 – Reducing Non-Revenue Water (Water Hub)

Focuses on strategies to minimise water losses.

14:15-15:30 – Panel Discussion: Transforming Africa's Energy Landscape Through Regional Interconnection (Strategise Stage)

Discusses regional power interconnections for energy access and growth.

14:15-15:30 – Panel Discussion: Implementing the Energy Mix for Energy-Intensive Users (Innovate Stage)

Explores the ideal energy mix for C&I sectors, including solar, wind, and nuclear.

16:15-17:30 – Dynamic Insurance Solutions and Risk Mitigation Strategies in Project Financing (Strategise Stage)

Examines insurance solutions for managing project risks.

11:30-11:50 – Micro Steam Turbines (Power Hub)

Discusses micro steam turbines for power generation.

13:30-14:50 – Tracking Changes in Utility-Scale Solar Photovoltaics (Power Hub)

Examines advancements in solar PV technology.

Day 3: 22 May 2025

9:30-11:00 – Energy & Infrastructure Skills Development (Strategise Stage)

Workshop on private-sector roles in skills development for energy and water sectors.

9:30-9:50 – Presentation: Battery Energy Storage Systems (BESS) (Innovate Stage)

Discusses BESS applications in transmission networks.

9:50-10:15 – The Evolving Role of BESS in Transmission Systems (Innovate Stage)

Examines BESS for grid modernisation and renewable integration.

10:15-10:40 – South Africa's Energy Future with Reliable Baseload Power Amidst Renewable Energy Expansion (Innovate Stage)

Analyzes technologies for baseload power in a renewable-heavy mix.

10:40-11:00 – Case Study and Best Practices: BESS Deployments (Innovate Stage)

Showcases successful BESS deployments globally.

11:45-12:00 – Case Study: South Africa's Gas Aggregation Model: A Blueprint for Infrastructure Development (Strategise Stage)

Discusses a private-sector-led gas aggregation model for infrastructure.

12:00-13:00 – The Evolving Focus of Energy Sustainability (Strategise Stage)

Explores corporate sustainability in the context of rising costs and climate concerns.

11:45-13:00 – Masterclass: Energy Mix Part 2: Expanding Consensus (Innovate Stage)

Interactive session on crafting context-specific energy mixes, addressing technological and socioeconomic

9:40-10:00 – Leveraging EV Charging for Grid Flexibility and Efficiency (Renewable Energy & Storage Hub)

Discusses EV charging to improve grid stability.

10:00-11:00 – Panel Discussion: Scaling Productive Energy Use (Renewable Energy & Storage Hub)

Explores strategies to enhance energy access for productive uses, focusing on agriculture and small businesses.

11:45-12:05 – Charting a Path to Sustainability: How ESG Can Unlock Africa's Renewable Energy Potential (Renewable Energy & Storage Hub)

Examines ESG principles in renewable energy adoption.

12:05-12:25 – Case Study: Increasing the Business Case for Renewable Energy Projects: Boosting Investment Opportunities Through EV and Charging Infrastructure Integration (Renewable Energy & Storage Hub)

Highlights coupling EV infrastructure with renewables.

12:25-13:00 – Fireside Chat: The Business Case for EV Charging Infrastructure in Africa (Renewable Energy & Storage Hub)

Explores financial benefits of EV charging for power providers.

10:30-11:15 – Fireside Chat: Water Efficiency and Cooling – Is Water Efficiency Possible? (Water Hub)

Discusses water efficiency in cooling systems.

11:15-11:30 – Renewable Energy Solutions for Water Treatment and Distribution Systems (Water Hub)

Explores renewable energy applications in water systems.

Project & Investment Network Sessions (21-22 May 2025)

- 21 May, 9:05-10:15 – Fireside Chats: Mission 300: Preparing Compact Countries for Investment (Project & Investment Network)**
Discusses policy reforms and infrastructure upgrades to attract private capital for energy access.
- 21 May, 10:20-11:15 – Scaling Cost-Efficient Power Generation: Overcoming Bankability Challenges in Emerging Markets (Project & Investment Network)**
Examines challenges and solutions for bankable energy projects.
- 21 May, 11:50-12:45 – How Power Pools Can Support Bankability (Project & Investment Network)**
Explores how power pools de-risk projects through cross-border trade.
- 21 May, 14:15-15:30 – Round Tables: Project Briefings & Masterclass Discussions (Project & Investment Network)**
Covers regional IPPs, power pools, and carbon markets.
- 21 May, 16:15-17:30 – Round Tables: Carbon Credits, Battery Storage, and Innovative Financing (Project & Investment Network)**
Discusses carbon credits, BESS investment, and climate-resilient financing.
- 22 May, 9:30-11:00 – Incentivising Private Sector Participation and Ensuring Financially Viable Utilities (Project & Investment Network)**
Explores private capital in transmission and grid investment.
- 22 May, 11:45-13:00 – Roundtables: Capacitating Manufacturing, Nuclear, and Country-Specific Investments (Project & Investment Network)**
Discusses investment in manufacturing and energy projects.