LET'S TALK

Quarterly Newsletter
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sanedi
South African National Energy Development Institute

Meet the Editorial Team



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Top News

SANEDI Strengthens South Africa China Energy Partnerships to Advance IRP 2025 and Energy Security







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A MESSAGE FROM THE CHAIRPERSON:

Strengthening Leadership, Innovation and South Africa's Energy Future

As we reflect on the second quarter of the 2026/27 financial year, the South African National Energy Development Institute (SANEDI) continues to demonstrate the importance of research, innovation and technical expertise in addressing South Africa's evolving energy challenges. Our work remains firmly anchored in our mandate to support energy security, improve energy efficiency, advance technological innovation and contribute to a sustainable and inclusive energy future.

During this quarter, SANEDI continued to support national efforts to reform the electricity sector. On 18 August 2026, the Institute participated in the media briefing by the Honourable Minister of Electricity and Energy, Dr Kgosientsho Ramokgopa, on Government's proposed Revised Electricity Pricing Policy. The proposed reforms seek to improve electricity affordability, tariff transparency, efficiency and long-term price certainty. SANEDI's technical expertise in energy modelling, demand analysis, energy efficiency, municipal energy systems and long-term energy planning will remain important in supporting evidence-based decision-making as the policy process progresses.

The Board also remains committed to ensuring that SANEDI's technical work translates into practical outcomes for municipalities, communities and the broader economy. Our engagement on the Eskom–Tokologo Local Municipality electricity billing intervention is an example of the Institute's contribution through independent technical assessment and evidence-based analysis. The next phase of this work presents an opportunity to support constructive engagement on settlement arrangements, payment planning and improved electricity-cost management, in consultation with the relevant government stakeholders.

Equally important is SANEDI's role in advancing emerging energy technologies and building the skills required for South Africa's energy transition. Our participation in the Africa Green Hydrogen Summit strengthens our contribution to the national hydrogen agenda, while opportunities to collaborate with the Department of Employment and Labour on energy-efficiency skills development could help build technical capabilities, support job creation and stimulate economic activity. These initiatives reinforce the need for partnerships that connect research, policy, industry and skills development.

A new chapter of leadership

An important milestone for SANEDI is the appointment of Ms Prudence Madiba, Pr.Eng, FSAIEE, as Chief Executive Officer, following Cabinet approval. On behalf of the Board, I warmly congratulate and welcome Ms Madiba to the Institute.

Her extensive engineering experience, research and innovation expertise, and executive leadership capabilities will be valuable as SANEDI strengthens its contribution to South Africa's energy priorities. She assumes leadership at a time when the energy sector requires innovative solutions, credible research, effective partnerships and the ability to translate technical knowledge into measurable national impact. The Board looks forward to working with her and Management to advance SANEDI's strategic objectives and strengthen institutional performance.

I also wish to express the Board's sincere appreciation to Prof Prathaban Moodley for his leadership as Acting Chief Executive Officer during this period of transition. His stewardship has provided continuity and stability, while the commitment of the Executive Committee and employees has helped sustain the Institute's work.

As we move into the next quarter, I encourage all SANEDI employees to remain focused on excellence, collaboration, accountability and innovation. Our collective success depends on our ability to work together, build meaningful partnerships and deliver solutions that respond to the country's energy needs.

The Board remains confident in SANEDI's ability to fulfil its mandate and contribute meaningfully to a secure, sustainable, innovative and inclusive energy future for South Africa. Together, we must continue to turn knowledge into solutions and strategic priorities into tangible outcomes for our country.

Mr. Sicelo Xulu

Chairperson of the SANEDI Board
South African National Energy Development Institute (SANEDI)

ENERGY PULSE



A MESSAGE FROM THE ACTING CEO:

Dear Colleagues

I am encouraged by the progress SANEDI continues to make in advancing South Africa's energy research, innovation and development priorities during quarter two. Our work takes place at a critical time for the country's energy sector, as we seek to strengthen energy security, support economic growth, accelerate technological innovation and contribute to a just and inclusive energy transition.

At SANEDI, our responsibility extends beyond conducting research and developing technical solutions. We must ensure that our knowledge, expertise and innovation translate into practical interventions that support government decision-making, strengthen industry capabilities and create lasting value for South Africa. This requires strong partnerships, evidence-based planning, sound governance and a collective commitment to delivering measurable outcomes.

One of the important areas of progress has been our contribution to strengthening national energy planning. Through our engagement with the Department of Electricity and Energy (DEE), the National Transmission Company South Africa (NTCSA) and other stakeholders, we are advancing the establishment of the Energy Planning, Modelling and Data Management Centre of Excellence (EPDM CoE).

The Centre represents an important investment in South Africa's institutional capacity to undertake integrated energy planning, modelling and data management. As the energy landscape evolves, credible data and robust analytical tools are essential to informing policy, guiding investment decisions and ensuring that our energy plans remain responsive to changing economic, technological and system conditions.

Our participation in the Integrated Resource Plan 2025 Colloquium further reinforced the importance of moving towards a more dynamic, evidence-led approach to national energy planning. Equally important is our work on the IRP Workforce Planning Framework, which seeks to connect energy infrastructure requirements with the skills, occupations, qualifications and employment opportunities needed to implement South Africa's energy plans.

The launch of the Low-Carbon Electric Mobility Project in July marked an important milestone in supporting the development of South Africa's electric mobility ecosystem. Implemented by SANEDI in partnership with UNIDO and relevant government departments, the project will strengthen battery testing and certification capabilities, promote battery recycling and circular economy practices, support skills development and stimulate investment in electric mobility manufacturing and associated value chains.

Our work in hydrogen research and development also continues to create opportunities for technological advancement and industrialisation. The third Hydrogen South Africa (HySA) Five-Year Review provided an important opportunity to assess the programme's scientific, technological, institutional and commercial performance and identify lessons to inform its next phase.

ENERGY PULSE

Similarly, SANEDI's participation in the Africa Green Hydrogen Summit highlighted the importance of moving from research and demonstration towards commercially viable, bankable projects. I collaboration remains fundamental to achieving our objectives. During the quarter, SANEDI strengthened engagements with national and provincial government, academia, industry and international partners across several strategic areas.

The launch of the Eastern Cape Green Hydrogen Strategy demonstrated the value of collaboration between government, SANEDI and Nelson Mandela University in supporting coordinated provincial planning for green hydrogen development. In the built environment, our partnership with the Global Buildings Performance Network (GBPN) to launch Building the Evidence: Unlocking Carbon Data for Decarbonisation Policy in South Africa underscored the importance of reliable data in guiding energy-efficiency interventions and reducing emissions.

Our regional and international engagements, including knowledge exchange with Kenya's Energy and Petroleum Regulatory Authority and collaboration opportunities explored with international energy partners, further demonstrate the importance of sharing expertise and building relationships that strengthen South Africa's energy innovation ecosystem.

Strengthening Institutional Excellence and Accountability

While our technical programmes are central to our work, their success depends on the strength of our institution. We must continue to uphold sound governance, financial discipline, effective risk management, occupational health and safety, and accountability for the resources entrusted to us.

Our governance structures and management engagements continue to reinforce the importance of quality reporting, effective project oversight, responsible financial stewardship and consistent monitoring of performance. These practices are essential to ensuring that our programmes remain aligned with our mandate, available resources and the priorities of our shareholder.

The Board and Management strategic planning session in September also provided an important opportunity to reaffirm SANEDI's strategic direction and strengthen alignment between our mandate, programme activities, resources and measurable outcomes. As we prepare for the next planning cycle, our focus must increasingly be on demonstrating the value and impact of our work, rather than measuring success through activities and outputs alone.
I encourage every employee to take ownership of their responsibilities, contribute constructively across teams and remain focused on the outcomes we collectively seek to achieve.

Prof. Prathaban Moodley

Prof. Prathaban Moodley
Acting Chief Executive Officer - South African National Energy Development Institute (SANEDI)

SANEDI MANDATE

POWERING THE FUTURE: A MANDATE FOR ENERGY INNOVATION

1 COLLABORATE FOR A SUSTAINABLE FUTURE

We're not just dreamers, we're doers. By partnering with brilliant minds from around the globe, we **foster international collaborations** to tackle energy challenges head on whilst embracing innovation. This critical part of our mandate empowers the next generation of Energy Explorers by **providing grants and training opportunities** that promotes a steady stream of pioneering talent. Without these connections, South Africa's exciting energy future would not be possible.

2 ADVISE THE GOVERNMENT

As leaders in research and development, SANEDI is proudly mandated to act as the *SideKick wingman* alongside the South African government through critical engagements and informed guidance that supports law and decision makers align our work and theirs. This key component of our work assists in aligning government policy and planning with the ground breaking work we continue to produce and introduce.

3 IMPLEMENT DMRE POLICIES AND MAINTAIN REGISTERS

As *Guardians of Energy Policy* development and implementation, this part of SANEDI's mandate ensures that we implement relevant policies in alignment with our collective work with the Department of Mineral Resources and Energy (DMRE). This provides the policy certainty needed for South Africa's transformational energy landscape to thrive in the face of its multiple challenges and opportunities. By aligning the rest of our mandate to that of the DMRE we continue to drive the implementation of key regulations meant to foster a universally accessible and affordable energy future. This includes managing centralised registers that illustrates and quantifies the state of energy in various sectors while engaging important stakeholders on regulatory compliance changes and improvements.

CHAMPIONING RESEARCH AND DEVELOPMENT THROUGH NUMEROUS, FOCUSED SKILLS



SANEDI MANDATE

4 FUTURE FUELERS

Developing leaders in the fields aligned to SANEDI's scope of operations is a core part of what we do. As Future Fueler Heroes of the energy landscape it is among our most encouraging areas in the organisation mandate where gender and equal opportunities have shone bright over the years. Our future Fuelers are the next leaders in energy innovation and transformation, rendering their cultivation and support an invaluable part of what we do.

5 ADVANCING ENERGY RESEARCH AND DEVELOPMENT WITH A SPARK

In the land of heroic characters forwarding South Africa on a path to energy security and economic development, SANEDI represents the gumptious and daring Energy Explorer thriving on deep dives into the world of energy and uncovering new and exciting possibilities through the advancement of innovations with excellence.

By **championing research and development** through numerous, focused skills - partnerships, this critical part of our mandate stands as an essential foundation for the advancement, testing and implementation of new and cutting - edge technologies. All this while growing the local skills base necessary to take our future energy mix meaningly forward. These initiatives would be futile without a well - developed knowledge sharing focus within our R&D programmes that continue to translate into commercialisation ready, and adaptable solutions to the evolving energy environment in various sectors of the economy.

6 BRIDGE THE GAP BETWEEN RESEARCH AND REALITY

Our *Architects of the Energy Future* are no less significant than their teammates. It is our duty and mandate to support an environment that **transforms groundbreaking research into real-world solutions** that are commercial ready. It is here where we carefully protect South Africa's intellectual property, safeguarding innovation, and licensing implementation to empower industries and communities. We bridge the gap between theory and practice, ensuring that brilliant ideas shine outside our collaborative research.



SANEDI PROGRAMMES

The South African National Energy Development Institute spearheads initiatives to advance sustainable energy practices across the nation. Their programmes focus on areas such as energy efficiency, applied energy research and smart grids, aiming to drive innovation and promote a cleaner, more efficient energy landscape. In this section, we highlight recent articles and developments from SANEDI's programmes, showcasing their ongoing contributions to South Africa's energy sector.

1. APPLIED ENERGY RESEARCH DEVELOPMENT AND INNOVATION

SANEDI Launches Low-Carbon Electric Mobility Project to Drive Sustainable Transport and Industrial Growth

The initiative aims to strengthen South Africa's electric mobility ecosystem, advance battery technology, create jobs and support the country's transition to a low-carbon economy.

On 17 July, the South African National Energy Development Institute (SANEDI) officially launched the Low-Carbon Electric Mobility Project, marking a significant milestone in South Africa's journey towards a low-carbon economy and a more sustainable transport sector.

Delivering the keynote address, Prof Prathaban Moodley, emphasised that the project extends beyond promoting the adoption of electric vehicles. It seeks to establish a competitive electric mobility ecosystem that supports local industrial development, creates employment opportunities and contributes to South Africa's Just Energy Transition.



Mr. Tebogo Snyer - Acting General Manager: Applied Energy Research, Innovation and Development

SANEDI is the executing agency for the project, working in partnership with the United Nations Industrial Development Organization (UNIDO), the Department of Trade, Industry and Competition (the dtic), the Department of Electricity and Energy (DEE) and the Department of Transport.

This collaboration brings together key stakeholders to strengthen the infrastructure, technical capabilities and industrial opportunities needed to accelerate the development of South Africa's electric mobility market.

Building a Competitive Electric Mobility Industry

A central objective of the project is to reduce greenhouse gas emissions by strengthening the quality infrastructure required to support the growth of South Africa's low-carbon electric mobility market and its associated value chain.

As the global shift towards cleaner transport gathers momentum, South Africa has an opportunity to leverage its natural resources, existing manufacturing capabilities and technical expertise to participate more meaningfully in the emerging electric mobility industry.

SANEDI PROGRAMMES

SANEDI Launches Low-Carbon Electric Mobility Project to Drive Sustainable Transport and Industrial Growth

Battery technology is a key focus area, given its importance to electric vehicles and the broader energy transition. By building local capacity and leveraging the country's critical mineral resources, the project aims to strengthen South Africa's position in the global battery value chain while opening up opportunities for local manufacturing, innovation and investment.

A significant intervention will be the upgrading of the uYilo Battery Testing Laboratory into a world-class pilot testing and certification facility. This investment will enhance the country's ability to test and certify battery technologies in line with international quality standards, helping local manufacturers improve product quality, strengthen export competitiveness and access international markets.

Advancing Battery Innovation and a Circular Economy

Beyond manufacturing and testing, the project will promote the recycling, reuse and second-life applications of lithium-ion batteries. These interventions are important for reducing waste, improving resource efficiency and supporting the development of a circular economy in which valuable materials can be recovered and reused. Developing local capabilities in battery recycling and repurposing will also help South Africa respond to the environmental challenges associated with battery disposal while creating opportunities for new businesses and industrial activities.

Skills development is another priority. The project will support training programmes aimed at strengthening expertise in battery manufacturing, testing, maintenance and recycling. These initiatives will contribute to building a skilled workforce capable of supporting the growth and long-term sustainability of the electric mobility industry.

By strengthening institutional capacity alongside technical skills, the project aims to establish a foundation for continued innovation, knowledge development and local industry participation.

Unlocking Investment, Industrial Development and Jobs

The Low-Carbon Electric Mobility Project also seeks to translate technical capability into tangible economic opportunities. Through support for investment-ready projects, manufacturing opportunities and feasibility studies, it will help identify and advance initiatives with the potential to stimulate industrial development, attract investment and create jobs.

These interventions are particularly important as South Africa seeks to balance its decarbonisation objectives with economic growth, industrial competitiveness and inclusive development. Building a domestic electric mobility value chain can help expand local production capabilities, support emerging enterprises and create new opportunities across the battery and transport sectors.

Positioning South Africa for a Low-Carbon Future

In concluding his address, Prof Moodley reaffirmed SANEDI's commitment to delivering lasting impact through innovation, strategic partnerships and sustainable industrial development.The launch underscores SANEDI's role in advancing practical solutions that support South Africa's energy transition while strengthening the country's technological and industrial capabilities.

SANEDI PROGRAMMES

2. DSTI ENERGY SECRETARIAT

Advancing South Africa's Hydrogen Future Through Local Innovation and Strategic Partnerships

SANEDI, DSTI, Sasol and North-West University commission 2 kW PEM electrolyser to strengthen local hydrogen technology capability



Prof Sampson Mamphweli - Head: Department of Science, Technology, and Innovation's Energy Secretariat

The South African National Energy Development Institute (SANEDI), in partnership with the Department of Science, Technology and Innovation (DSTI), Sasol and North-West University, has reached an important milestone in advancing South Africa's hydrogen technology capabilities with the commissioning of a 2 kW Proton Exchange Membrane (PEM) electrolyser at Sasol's Research and Technology campus in Sasolburg.

Developed through the Hydrogen South Africa (HySA) Programme, the electrolyser provides a platform for testing, learning and skills development in hydrogen production and system integration.

It will also enable the assessment of the technology's performance under dynamic renewable electricity conditions, supporting efforts to understand how hydrogen production systems can operate alongside renewable energy sources.The commissioning was attended by the Minister of Science, Technology and Innovation, Professor Blade Nzimande, alongside representatives from Sasol, SANEDI and North-West University, on 31 July highlighting the importance of collaboration in strengthening South Africa's local energy research, development and innovation capabilities.

A milestone for local energy innovation

Speaking at the launch and handover, SANEDI Board Chairperson Mr Sicelo Xulu reaffirmed the Institute's commitment to advancing South Africa's energy research, development and innovation agenda. He highlighted the successful delivery of the electrolyser as a significant achievement made possible through collaboration between government, research institutions and industry.Supported by the DSTI and implemented through SANEDI, the project demonstrates the value of partnerships in developing local technological expertise and creating platforms for future innovation.

Mr Xulu emphasised that the initiative aligns with SANEDI's mandate under the National Energy Act, 2008, which includes directing and conducting energy research. He also highlighted the longstanding partnership between SANEDI and the DSTI, strengthened through the establishment of the DSTI Energy Secretariat at SANEDI in 2019. Through this collaboration, SANEDI supports the implementation of four flagship energy research, development and innovation programmes: Hydrogen South Africa (HySA), Energy Storage, the Coal CO_2-to-X Programme, and the Renewable Energy Hub and Spokes Programme. These programmes contribute to building the scientific knowledge, technical expertise and innovation capacity required to support South Africa's evolving energy landscape.

SANEDI PROGRAMMES

Advancing South Africa's Hydrogen Future Through Local Innovation and Strategic Partnerships

From development to testing and future scale-up

The 2 kW PEM electrolyser successfully completed its design, fabrication, Factory Acceptance Testing and comprehensive system verification before delivery to Sasol. SANEDI also inspected the unit at North-West University ahead of the handover, supporting the verification of the system before it moved to the next stage of implementation.

Following the project's completion, SANEDI will submit a comprehensive handover report to the DSTI, including the Factory Acceptance Testing report, equipment datasheets, operating manual, maintenance guidelines and engineering drawings. A Certificate of Completion will also confirm delivery in accordance with the project's contractual requirements.

The next phase will focus on testing by Sasol and its partners, generating practical insights into the system's performance and informing opportunities for further technology development and scale-up.
While the commissioning represents an early-stage development, it is an important step towards building the local capabilities needed to support a competitive hydrogen economy. By strengthening technical knowledge, developing skills and creating opportunities for collaboration, the initiative contributes to South Africa's broader ambitions for industrial development, innovation and lower-carbon energy solutions.

For SANEDI, the project reinforces the importance of strategic partnerships in translating energy research into practical technological capabilities. Continued collaboration with the DSTI, industry and academic institutions will be essential to advancing hydrogen technologies and unlocking their potential contribution to South Africa's clean energy transition.



SANEDI PROGRAMMES

3. ENERGY EFFICIENCY AND DEMAND SIDE MANAGEMENT (EEDSM)

SANEDI and GBPN Launch Partnership to Build South Africa's First National Baseline of Building Energy Use and Emissions

New initiative will strengthen evidence-based policymaking, advance building-sector decarbonisation and support South Africa's transition to a more energy-efficient built environment.

The South African National Energy Development Institute (SANEDI) and the Global Buildings Performance Network (GBPN) have launched a 12-month partnership to develop South Africa's first granular national baseline of building-sector energy use and emissions.

The initiative marks an important step towards strengthening the evidence needed to inform policy, guide investment and accelerate the decarbonisation of the country's built environment.



Ms Faith Mkhacwa - General Manager: Energy Efficiency and Demand Side Management

The partnership was officially launched on 25 August 2026 at the Radisson Blu Sandton Hotel under the project titled Building the Evidence: Unlocking Carbon Data for Decarbonization Policy in South Africa. The project will establish a comprehensive picture of how buildings consume energy and contribute to emissions, while developing business-as-usual and mitigated-emissions scenarios for 2030 and 2050.

The initiative responds to a critical evidence gap at a time when South Africa's building stock is projected to grow by between 74% and 125% by 2050. The built environment already accounts for approximately 7% of the country's direct emissions, while the national electricity system remains heavily reliant on coal. Without effective energy-efficiency and decarbonisation interventions, emissions from the sector could increase by more than 50%, potentially locking the country into carbon-intensive buildings and infrastructure for decades.

By establishing a credible national evidence base, the partnership seeks to help South Africa better understand the scale of the challenge, identify opportunities to reduce emissions and make informed decisions about the future performance of its buildings.

Strengthening the link between research and policy

The project will be undertaken jointly with SANEDI, creating a direct pathway between research findings and national policy development. The timing is particularly significant. The Department of Public Works' Green Building Policy targets net-zero carbon performance for new public buildings by 2030 and existing public buildings by 2050. In addition, consultation on South Africa's National Energy Efficiency Strategy has been completed, with the Department of Electricity and Energy finalising the strategy.

SANEDI PROGRAMMES

SANEDI and GBPN Launch Partnership to Build South Africa's First National Baseline of Building Energy Use and Emissions

The new evidence base is therefore expected to provide valuable insights to inform policy decisions, strengthen implementation planning and support the monitoring of progress towards national energy-efficiency and decarbonisation objectives. For SANEDI, the partnership reinforces its role in advancing energy efficiency, supporting research and development, and ensuring that reliable evidence informs interventions aimed at improving the country's energy performance.

Faith Mkhacwa (Mavukani), SANEDI's General Manager: Energy Efficiency and Demand Side Management, emphasised the importance of establishing a consistent and credible national baseline.

"A credible national baseline will give SANEDI a consistent evidence base for understanding how South Africa's buildings use energy and where emissions-reduction measures can have the greatest impact. It will strengthen our ability to fulfil our energy-efficiency mandate and enhance the National Building Energy Performance Register as a practical tool for monitoring progress and informing policy," said Mkhacwa.

The project will also build on methodologies GBPN has applied in other countries, including Indonesia and Kenya. This includes work supporting the Kenya National Buildings and Construction Decarbonization Roadmap, launched earlier in 2026. The approach will be adapted to South Africa's specific building, energy and policy context.

A collaborative approach to building national capacity

The initiative brings together a range of partners whose expertise will support the development of a robust and locally relevant evidence base. In South Africa, the project will be delivered in partnership with the University of Cape Town's Energy Research Centre, African Women in Energy and Power (AWEaP), Mzansi Clean Energy Capital, Solid Green Consulting and the Green Building Council of South Africa (GBCSA). This collaborative approach will combine research, technical expertise, industry knowledge and financing perspectives to ensure that the findings are relevant to both public policy and practical implementation.

Ms Mugure Njendu, GBPN's Africa Programs Lead, highlighted the importance of grounding building-sector policy decisions in reliable data. "A strong evidence base is a strong foundation. South Africa's building stock will roughly double by 2050. GBPN is committed to working with SANEDI and South African stakeholders to make sure that building decarbonization policy decisions are grounded in data. Towards a healthier and more resilient future," said Njendu.

The project's objectives extend beyond the production of research. Within the first ten months, the partners aim to secure SANEDI's formal endorsement of the national baseline and the 2030–2050 emissions scenarios as an official government reference dataset. By the end of the 12-month project, the partners also aim to support private-sector uptake of at least two policy recommendations arising from the work.These milestones are intended to help translate research into practical action, ensuring that the evidence generated contributes to policy development and informs decisions across the buildings sector.

Connecting research, policy and investment

A key feature of the partnership is its ambition to connect evidence-based policymaking with investment opportunities. A reliable understanding of building-sector energy consumption and emissions can help identify where interventions are most needed, assess potential emissions reductions and inform the development of financing mechanisms for energy-efficient buildings and retrofits.

SANEDI PROGRAMMES

SANEDI and GBPN Launch Partnership to Build South Africa's First National Baseline of Building Energy Use and Emissions

Mzansi Clean Energy Capital is expected to draw directly on the baseline and emissions scenarios to inform the design of a green building or retrofit finance product. This presents an opportunity to connect national building-sector data with bankable climate-finance solutions, helping to support investment in improved building performance.

Prof. Abimbola Windapo, Professor of Construction Management at the University of Cape Town, underscored the importance of aligning research with the country's policy priorities."Research and policymaking must be more closely connected. Policy priorities should help shape the research questions we ask and the evidence we generate, ensuring that research is both rigorous and directly relevant to South Africa's decarbonization needs," said Prof. Windapo.

This approach reflects the broader objective of ensuring that research does not remain an academic exercise, but becomes a practical resource for government, industry and investors.

Laying the foundation for a more energy-efficient built environment

As South Africa's building stock expands, decisions made today will have long-term implications for energy consumption, emissions, operating costs and climate resilience. Establishing a national baseline will provide a common reference point against which future progress can be assessed and the effectiveness of policy interventions monitored.

For SANEDI, the partnership with GBPN represents an important opportunity to strengthen the evidence underpinning energy-efficiency initiatives and enhance the value of the National Building Energy Performance Register. It will also support closer collaboration between government, research institutions, industry and the financial sector in advancing the decarbonisation of buildings.



NEWS

SANEDI Highlights Hydrogen, Battery and Energy Innovation Pathways at uYilo e-Mobility Summit 2026

The South African National Energy Development Institute (SANEDI) participated in the uYilo e-Mobility Summit 2026, held from 26–27 August at Nelson Mandela University's Ocean Sciences Campus in Gqeberha, bringing together key stakeholders to explore opportunities for accelerating electric mobility and strengthening South Africa's emerging e-mobility ecosystem.

Held under the theme "Accelerating Electric Mobility Implementation in South Africa: From Innovation to Industrial Participation," the Summit provided a platform for industry, academia, government and research institutions to engage on the technologies, policies, skills and partnerships required to move electric mobility from innovation to widespread implementation.





Representing SANEDI, Prof Sampson Mamphweli, Head of the Energy Secretariat, delivered a presentation titled "South Africa's Hydrogen and Battery Innovation Pathways: From Research to Implementation." His presentation highlighted the country's growing capabilities in hydrogen, battery technologies and advanced energy research, while emphasising the importance of strengthening the pathway from research and innovation to demonstration, commercialisation and industrial application.

Prof Mamphweli's contribution underscored the role of research and development in building the technological foundations required for South Africa's energy transition. It also highlighted the importance of creating stronger links between research institutions, industry and government to ensure that locally developed technologies and knowledge can translate into practical applications and economic opportunities.

A key highlight of the Summit was the keynote address by Deputy Minister of Science, Technology and Innovation, Dr Nomalungelo Gina, who highlighted the value of the Department's partnership with SANEDI, the uYilo e-Mobility Programme and Volvo Cars South Africa through the e-Mobility Energy Drive.

NEWS

SANEDI Highlights Hydrogen, Battery and Energy Innovation Pathways at uYilo e-Mobility Summit 2026

The initiative has provided valuable real-world evidence on electric vehicle performance, charging efficiency, energy consumption and user experience across different provinces. By generating data under actual operating conditions, the e-Mobility Energy Drive demonstrates how research, innovation and collaboration can provide practical evidence to inform decision-making and support the implementation of electric mobility in South Africa.

The Summit also reinforced the interconnected nature of South Africa's emerging clean mobility landscape. Hydrogen, battery technologies, electric vehicles, charging infrastructure, skills development and industrial participation will all play an important role in shaping a sustainable and competitive mobility ecosystem.

For SANEDI, participation in platforms such as the uYilo e-Mobility Summit reflects its commitment to supporting the development and deployment of innovative energy solutions. By connecting research and technological development with demonstration, evidence generation and commercialisation, SANEDI contributes to creating pathways through which energy innovation can deliver tangible benefits for society and the economy.

As South Africa advances its energy transition, stronger collaboration across government, research institutions, academia and industry will be essential. From hydrogen and battery innovation to electric mobility, these partnerships can help accelerate the translation of research into technologies, skills, industrial opportunities and practical solutions that support a more sustainable energy future.

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NEWS

SANEDI Strengthens Industry Engagement at Manufacturing Indaba 2026

The South African National Energy Development Institute (SANEDI) participated in the Manufacturing Indaba 2026, held from 14–15 July 2026 at the Sandton Convention Centre, bringing together industry leaders, policymakers, innovators and key stakeholders to explore opportunities for strengthening South Africa's manufacturing sector. Over the two-day event, SANEDI showcased its work and initiatives aimed at advancing sustainable energy solutions, improving energy efficiency and supporting a more competitive and sustainable manufacturing sector.

SANEDI's exhibition stand served as a platform for meaningful conversations with industry representatives, partners and other stakeholders interested in energy innovation and solutions that can contribute to South Africa's industrial development. Ms. Evelyn Nyandoro represented SANEDI at the exhibition stand, engaging with visitors, sharing information about the organisation's work and contributing to discussions on the role of energy innovation in supporting the manufacturing sector.



As part of the programme, Mr. Stalin Ndlovu represented SANEDI as a panellist, delivering insights on "Analysis of Energy Efficiency Projects in the South African Manufacturing Sector." His contribution highlighted the importance of energy efficiency in strengthening industrial competitiveness, reducing energy consumption and supporting businesses in navigating South Africa's evolving energy landscape.

The discussion provided an opportunity to explore the progress and potential of energy efficiency projects within the manufacturing sector, while highlighting the value of practical interventions that can improve energy performance and contribute to broader sustainability objectives.

NEWS

SANEDI Strengthens Industry Engagement at Manufacturing Indaba 2026

The Manufacturing Indaba also provided SANEDI with an opportunity to demonstrate how its work in energy research, innovation and development can support broader national priorities, including industrial growth, energy security, competitiveness and the transition towards a more sustainable energy future.The event reinforced the importance of collaboration between government, industry, research institutions and other stakeholders in developing practical energy solutions that respond to the needs of South Africa's manufacturing sector.

Through its participation in Manufacturing Indaba 2026, SANEDI continues to strengthen its engagement with industry and contribute to conversations that advance energy efficiency, innovation, industrial development and a sustainable energy transition in South Africa.





NEWS

SANEDI TAKES SOUTH AFRICA'S GREEN INNOVATION MESSAGE TO CHINA

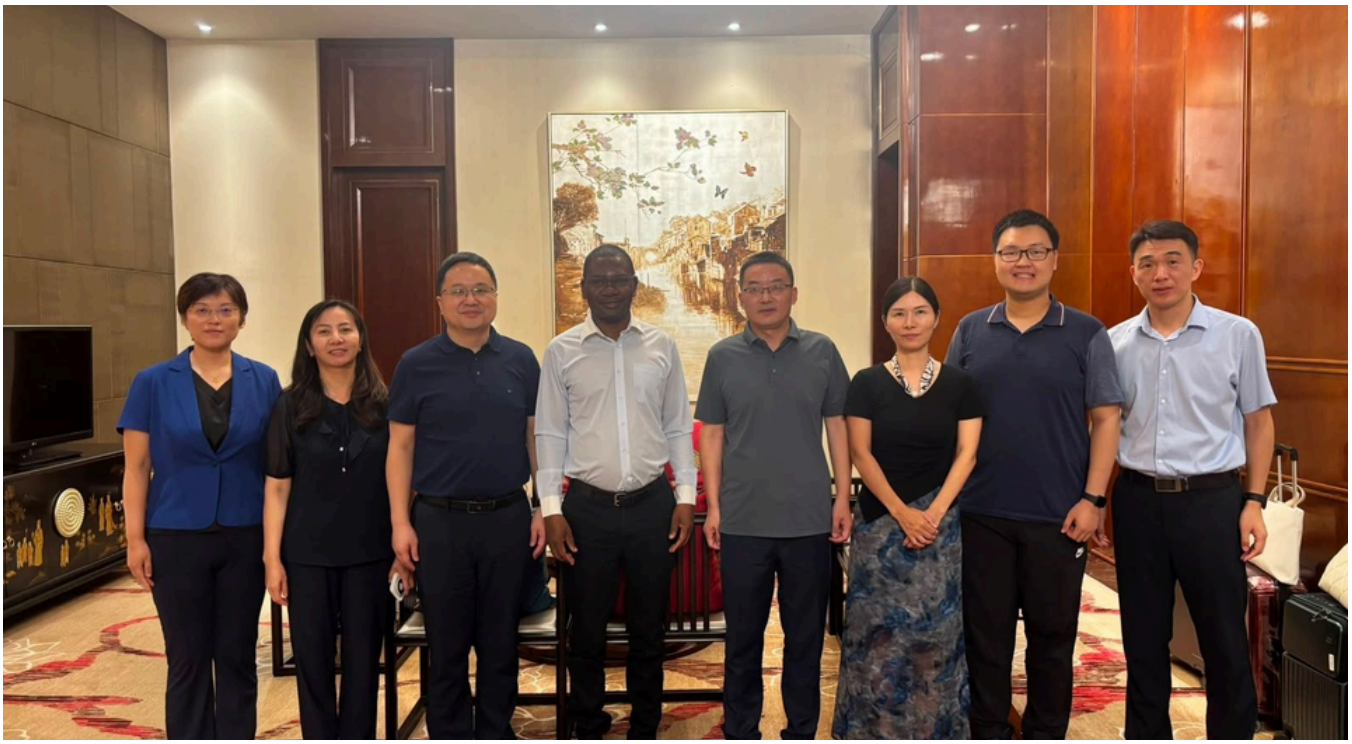
The South African National Energy Development Institute (SANEDI) strengthened South Africa's international science, technology and innovation engagement with China through the participation of Prof Sampson Mamphweli at the 2026 Green Low Carbon Innovation Conference in Huzhou, Zhejiang Province, China.

Prof Sampson Mamphweli participated as a Guest of Honour and delivered a keynote address that placed South Africa's re-industrialisation ambitions at the centre of discussions on green and low-carbon innovation. The conference brought together more than 250 delegates from across the world to explore opportunities for advancing innovation, sustainable development and low-carbon economic growth.

In his keynote address, Prof Mamphweli highlighted the opportunity to leverage existing energy-sector policies and strategies to accelerate innovation, industrial development and sustainable economic growth in South Africa. He emphasised the importance of local critical mineral beneficiation, renewable energy and hydrogen technologies, technology localisation and the development of local manufacturing capabilities as key components of the country's re-industrialisation agenda.

A key message from the engagement was the importance of strategic international partnerships in translating innovation into tangible industrial opportunities. Prof Mamphweli highlighted the potential for stronger collaboration between South African and Chinese institutions and companies to support technology development, knowledge exchange, skills development and the localisation of technologies relevant to South Africa's energy transition.

The conference engagement formed part of a broader South African delegation convened by the South African Council for Natural Scientific Professions (SACNASP), which served as the Guest of Honour Organisation at this year's conference. It also builds on the growing science, technology and innovation cooperation between South Africa and China through the partnership between the Department of Science, Technology and Innovation (DSTI) and the China Association for Science and Technology (CAST).



NEWS

SANEDI TAKES SOUTH AFRICA'S GREEN INNOVATION MESSAGE TO CHINA

Beyond the conference, Prof Mamphweli participated in strategic partnership engagements and followed up on initiatives established during his previous visit to China. As part of these engagements, he was received by the President of CAST and the Vice President of the China International Science and Technology Exchange Centre, creating further opportunities for institutional collaboration, knowledge exchange and strategic partnerships.

These engagements demonstrate the value of sustained international cooperation in advancing South Africa's energy and innovation priorities. For SANEDI, partnerships of this nature provide an important platform to connect South African expertise with international knowledge, technologies and investment opportunities that can contribute to a more innovative, resilient and sustainable energy future.

SANEDI's participation further reinforces the Institute's role in supporting South Africa's energy transition, innovation, industrial development and re-industrialisation agenda, while strengthening connections between research, policy, technology and industry. Through continued collaboration with international partners, SANEDI remains committed to building platforms that turn knowledge and innovation into opportunities for sustainable economic development.



NEWS

SANEDI Supports DEE at the IRP 2025 Colloquium

The South African National Energy Development Institute (SANEDI) supported the Department of Electricity and Energy (DEE), its Shareholder Department, at the Integrated Resource Plan (IRP) 2025 Colloquium, held on 28 August 2026 at Investec in Sandton.

The Colloquium brought together key stakeholders from government, industry, academia and the broader energy sector to reflect on the IRP 2025 and strengthen South Africa's approach to electricity planning and implementation. SANEDI played a key technical role in the programme, with Acting CEO Professor Prathaban Moodley delivering two presentations that explored the importance of strengthening the country's energy-planning capability.

From System Modelling to an Approved Electricity Plan

In his first presentation, "Developing the Integrated Resource Plan 2025: From System Modelling to the Approved Electricity Plan," Prof Moodley highlighted the importance of integrated planning, credible data and robust analytical capabilities in supporting sound national energy decisions.

The development of an effective electricity plan requires more than modelling future scenarios. It requires a strong evidence base, reliable data and the ability to translate complex analytical outputs into practical planning decisions that can support implementation.





NEWS

SANEDI Supports DEE at the IRP 2025 Colloquium

Building a Dynamic and Data-Led Planning Capability

Prof Moodley's second presentation, "Beyond IRP 2025: Building a Dynamic and Data-Led Electricity Planning Capability," explored the need to move beyond periodic planning towards a more dynamic and responsive approach. This approach would enable government to continuously monitor real-world developments against the assumptions underpinning the country's electricity plans. These include changes in electricity demand, technology costs, generation project delivery, transmission readiness, fuel markets and broader economic conditions.By strengthening the link between planning, implementation and evidence, South Africa can better identify emerging risks and opportunities and respond to changes in the energy landscape in a timely manner.

Strengthening South Africa's Energy-Planning Capability

For SANEDI, the Colloquium highlighted the Institute's growing role in supporting DEE through energy planning, modelling, data management, research and decision intelligence. The objective is not simply to develop another energy plan, but to contribute towards building an enduring national capability that enables South Africa to plan, monitor, learn and respond as the electricity system evolves.

As the country works towards implementing IRP 2025, SANEDI remains committed to providing the technical expertise, evidence and analytical capabilities required to support credible, adaptive and evidence-led energy planning for implementation.



NEWS

From Learning to Earning: SANEDI Inspires Young Minds at KwaNdebele Science School

Siyabuswa, Mpumalanga The journey from the classroom to a career in South Africa's evolving energy sector begins with knowledge, skills and opportunity. This message took centre stage when the South African National Energy Development Institute (SANEDI) participated in the KwaNdebele Science School Sustainable Energy Day in Siyabuswa, Mpumalanga, held under the theme "From Learning to Earning: Powering Opportunity."

The event brought together learners and stakeholders to explore how education, science, innovation and technical skills can open pathways to meaningful careers and economic participation in the energy sector.Leading the SANEDI delegation was Acting General Manager: Applied Energy Research, Development & Innovation, Mr Tebogo Snyer, who engaged learners on the wide range of opportunities emerging across South Africa's energy landscape.

His engagement highlighted the growing importance of Science, Engineering, innovation, technical skills and entrepreneurship in responding to the country's energy needs and building a sustainable energy future. Learners were encouraged to look beyond traditional career pathways and consider how their knowledge and skills can be applied to emerging opportunities across the energy value chain.

The Sustainable Energy Day also provided an important platform for learners to make the connection between what they learn in the classroom and the real-world challenges and opportunities facing communities and the country. From technical careers and engineering to research, innovation and entrepreneurship, the discussions demonstrated how education can serve as a foundation for employment, enterprise development and community resilience. Importantly, the learners themselves demonstrated that they are already capable of contributing to the sustainability conversation.





NEWS

From Learning to Earning: SANEDI Inspires Young Minds at KwaNdebele Science School



KwaNdebele Science School learners showcased their knowledge and creativity through presentations focused on saving water and electricity, offering practical perspectives on responsible resource use. Their participation demonstrated that young people are not simply future beneficiaries of South Africa's energy transition they are already active contributors to conversations about how resources can be used more sustainably.

For SANEDI, engagements such as the Sustainable Energy Day form part of the Institute's broader commitment to promoting energy literacy, youth development, skills development, innovation and meaningful community participation. By exposing learners to the possibilities within the energy sector, SANEDI seeks to help cultivate the next generation of energy professionals, artisans, researchers, entrepreneurs and community leaders who will contribute to South Africa's sustainable energy future.

The message from Siyabuswa was clear: education is not only about preparing young people for the world of work; it is about equipping them to identify opportunities, solve real-world problems and create value within their communities. As South Africa continues to transform its energy landscape, initiatives that connect young people with knowledge, skills and opportunity will be critical to ensuring that the country's energy transition is not only sustainable, but inclusive and economically empowering.

From learning to earning. From ideas to impact. From today's learners to tomorrow's energy leaders.

NEWS

SANEDI Turns 67 Minutes into Meaningful Community Impact

On 16 July 2026, SANEDI colleagues came together to commemorate Mandela Day by turning 67 minutes of their time into a meaningful contribution to vulnerable communities.SANEDI participated in the Mandela Day 2026 Corporate Volunteer Event, hosted by Ashraful Aid in partnership with Lions Cricket. The initiative provided an opportunity for organisations and individuals to honour the legacy of Nelson Mandela through service, compassion and collective action.

As part of the day's activities, SANEDI colleagues rolled up their sleeves and dedicated their 67 minutes to packing food parcels for distribution to vulnerable families and communities. Through the collective efforts of our team, 100 food parcels were successfully packed, providing much-needed support to households facing food insecurity. The initiative served as a powerful reminder that meaningful change does not always require grand gestures. Sometimes, it begins with giving a small portion of our time, working together and recognising the needs of those around us.

For SANEDI, the spirit of Mandela Day aligns closely with the organisation's commitment to contributing to a more sustainable and inclusive South Africa. While SANEDI's mandate is centred on advancing energy innovation, research and solutions that support the country's sustainable energy future, creating lasting impact also means recognising the importance of communities and the people at the heart of South Africa's development.

The volunteer event also reflected the values of Ubuntu-the belief that our humanity is interconnected. By coming together in service of others, SANEDI colleagues demonstrated that collective action can make a tangible difference in people's lives. SANEDI extends its sincere appreciation to all colleagues who volunteered their time, energy and compassion to make the initiative a success. Their willingness to serve is a reflection of the organisation's commitment to being an institution that not only works towards a sustainable future, but also plays its part in building stronger and more resilient communities.

67 minutes. 100 food parcels. One collective effort towards making a difference.

As Nelson Mandela reminded us: "It is in your hands to make a better world for all who live in it."





NEWS

SANEDI Supports the 3rd HySA Five-Year Review

The South African National Energy Development Institute (SANEDI), through the Department of Science, Technology and Innovation (DSTI) Energy Secretariat, supported the 3rd Hydrogen South Africa (HySA) Five-Year Review, an important milestone in assessing the progress, impact and future direction of South Africa's national hydrogen research and innovation programme.

Commencing on 31 August 2026, the review brought together an independent panel of national and international experts to engage directly with the HySA Centres of Competence (CoCs), researchers and key stakeholders. The review provided the panel with an opportunity to gain first-hand insight into the programme's research activities, laboratory facilities, technologies and project outputs.

Assessing Progress and Impact

The review focused on the 2019–2024 period, assessing the scientific, technological, institutional and commercial performance of the HySA Programme and its Centres of Competence.



It also examined the programme's alignment with South Africa's hydrogen policy priorities, its effectiveness and impact, as well as its long-term sustainability. Importantly, the review sought to identify key gaps, lessons and opportunities that can strengthen the programme going forward.

During the review week, the panel visited all HySA Centres of Competence and toured their respective laboratories and research facilities. The engagements provided valuable insight into the research, technologies and activities being undertaken across the programme.



The review commenced with visits to HySA Mintek in Randburg and HySA Infrastructure at the CSIR, followed by engagements at HySA Infrastructure at North-West University (NWU), HySA Systems at the University of the Western Cape (UWC) and HySA Catalysis at the University of Cape Town (UCT).

These engagements enabled the panel to interact directly with researchers and gain a deeper understanding of the work being undertaken to advance hydrogen research, innovation and technology development in South Africa.

NEWS

Strengthening Collaboration Across the Hydrogen Ecosystem

The review week concluded with a stakeholder engagement session hosted at the SANEDI offices, bringing together the review panel, SANEDI and the DSTI. The session provided an opportunity to reflect on the achievements and progress of the HySA Programme while emphasising the importance of continued collaboration across South Africa's growing hydrogen ecosystem. Further engagements with additional hydrogen stakeholders will be scheduled to broaden the consultation process and ensure that a range of perspectives informs the review.

Beyond assessing past performance, the review provided an opportunity to recognise the contributions of HySA researchers and Centres of Competence, reflect on lessons learned and identify opportunities to strengthen the programme's impact.

Informing the Next Phase of HySA

The evidence and insights gathered throughout the review week will contribute to the panel's consolidated review report and recommendations. These findings will help inform the future direction of the HySA Programme, including considerations around its proposed 10-year extension.

The review therefore represents more than an assessment of what has been achieved. It is an opportunity to build on the programme's research and innovation foundations, strengthen institutional and stakeholder collaboration, and support the continued development of South Africa's hydrogen research, innovation and commercialisation ecosystem.

For SANEDI and the DSTI Energy Secretariat, the review reinforces the importance of sustained research, innovation and collaboration in positioning South Africa to participate meaningfully in the emerging hydrogen economy.
The 3rd HySA Five-Year Review concluded a productive week of engagement, collaboration and reflection, providing valuable insights that will help shape the next chapter of South Africa's hydrogen research and innovation journey.





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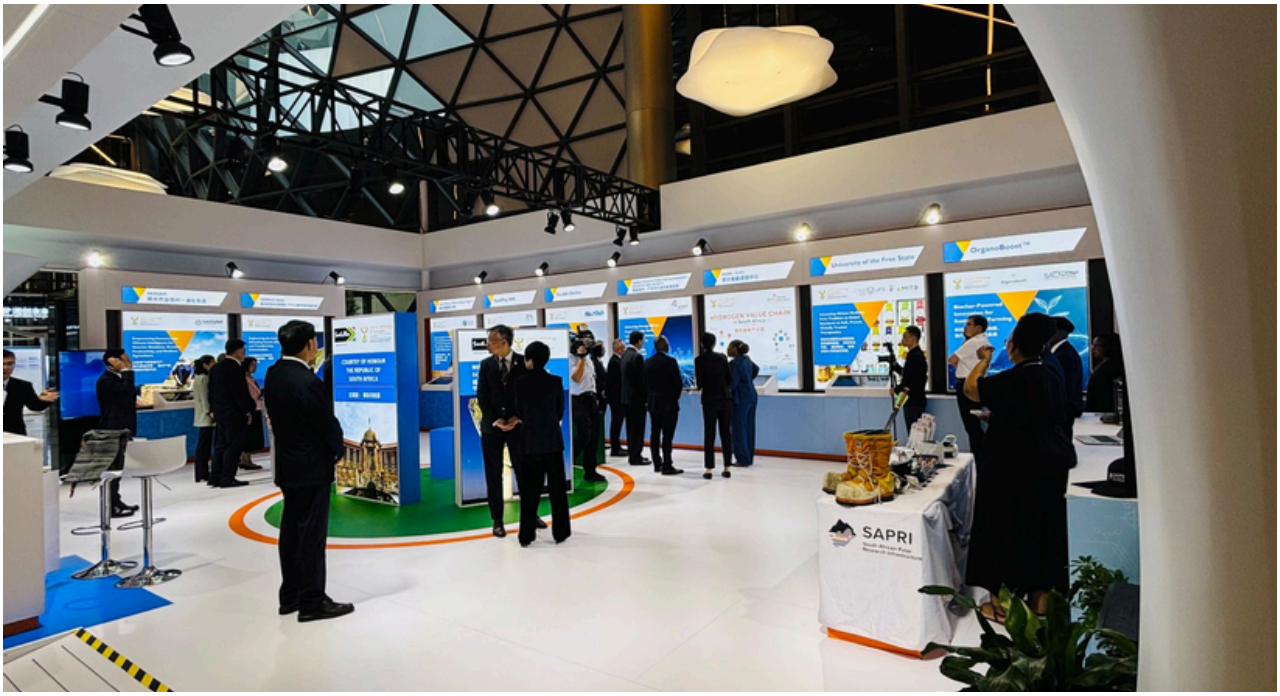
SANEDI Strengthens South Africa's Hydrogen and Green Industrial Innovation Partnerships in China

The South African National Energy Development Institute (SANEDI) is strengthening South Africa's participation in international science, technology and innovation platforms in China, contributing to strategic engagements focused on hydrogen innovation, commercialisation and green industrial development.

South Africa's participation as the Country of Honour at the 19th Pujiang Innovation Forum, held in Shanghai from 12–14 September 2026, provided an important platform to showcase the country's capabilities in science, technology and innovation while deepening cooperation with international partners. Representing SANEDI at these engagements was Dr Richmore Kaseke, who contributed technical expertise to South Africa's engagements with Chinese and international stakeholders, with a particular focus on hydrogen commercialisation, innovation and opportunities for green industrial development.

The engagements created opportunities for SANEDI to share South African expertise while exploring areas of potential collaboration, including institutional partnerships, knowledge exchange, technology transfer and skills development. These areas are critical to accelerating the transition from research and innovation towards practical applications that can support economic development and industrial competitiveness.

SANEDI's participation is aligned with the organisation's mandate and strategic priorities, as well as South Africa's Hydrogen Society Roadmap, Just Energy Transition priorities and broader objectives to promote green industrial development.



NEWS

SANEDI Strengthens South Africa's Hydrogen and Green Industrial Innovation Partnerships in China

The international programme also included the 2026 Green Industry Innovation Conference, held in Tianjin from 16–17 September under the theme "Green Solutions for Industrial Decarbonization and Global Cooperation." The conference brought together stakeholders to explore opportunities across green hydrogen production, hydrogen-based green fuels, industrial applications and pathways for translating technological innovation into bankable projects.

For South Africa, these engagements provide an opportunity to position its energy innovation capabilities within the global transition towards low-carbon and sustainable industrial systems. They also create avenues for strengthening international partnerships that can support technology development, investment, capacity building and the localisation of emerging green technologies.

Through its participation, SANEDI continues to play a strategic role in connecting South African research, technology and expertise with international opportunities, helping to advance collaboration that can contribute to energy security, industrial development, skills development and inclusive economic growth. As the global energy landscape continues to evolve, SANEDI remains committed to supporting partnerships that translate innovation into practical solutions and contribute to South Africa's transition towards a greener, more resilient and more industrialised economy.





NEWS

SANEDI Welcomes Deputy Minister Abrahams for Strategic Engagement on South Africa's Energy Future

The South African National Energy Development Institute (SANEDI) welcomed the Honourable Deputy Minister of Electricity and Energy, Ms Alexandra Abrahams, to the Institute on 7 August 2026, marking her first official visit to SANEDI and an important opportunity to strengthen collaboration in support of South Africa's energy priorities. The visit brought together SANEDI's leadership, Executive and Management teams for a strategic engagement focused on the Institute's mandate, governance framework, strategic programmes and its role within the broader energy landscape.

Led by SANEDI Deputy Chairperson of the Board, Ms Nonkosi Koranteng, and Acting CEO, Ms Faith Mkhacwa, the engagement provided an opportunity to showcase the breadth of SANEDI's work and its contribution to the country's energy development agenda. Through presentations and engagements with the Deputy Minister, SANEDI highlighted how its research, innovation, technical expertise and implementation capabilities are supporting evidence-based energy planning and contributing to the delivery of South Africa's energy policy priorities.

The visit also provided an important platform to strengthen alignment between SANEDI's programmes and the strategic priorities of the Department of Electricity and Energy, particularly in advancing energy security, innovation, sustainability and inclusive socio-economic development.

Strengthening partnerships for energy security and innovation

A key message emerging from the engagement was the importance of collaboration across government, research institutions, industry and other stakeholders in addressing South Africa's evolving energy needs.

SANEDI's work spans critical areas of the energy sector, positioning the Institute to contribute technical knowledge, research and practical solutions to some of the country's most pressing energy challenges. The Deputy Minister's visit therefore served not only as an opportunity to introduce the Institute's work, but also to reinforce the importance of continued cooperation in translating research and innovation into meaningful impact.



NEWS

SANEDI Welcomes Deputy Minister Abrahams for Strategic Engagement on South Africa's Energy Futuret

The engagement concluded with remarks from SANEDI Board Chairperson, Mr Sicelo Xulu, who joined virtually from China while participating in the South Africa-China Electricity and Energy Investment Mission. In his remarks, Mr Xulu reaffirmed SANEDI's commitment to building strategic partnerships and leveraging international collaboration, knowledge exchange and innovation to support South Africa's energy transition.

The visit comes at an important time for the country's energy sector, as South Africa continues to pursue a secure, sustainable and inclusive energy future. For SANEDI, strengthening its relationship with the Department remains central to ensuring that its research, innovation and technical capabilities continue to respond to national priorities.

As SANEDI continues to advance its mandate, the Institute remains committed to working closely with the Minister, Deputy Minister and the Department of Electricity and Energy to support energy security, accelerate innovation and contribute to sustainable development for the benefit of all South Africans.









NEWS

Powering Africa's Critical Minerals Future





The South African National Energy Development Institute (SANEDI) participated in the Africa Critical Minerals Summit 2026, contributing to important discussions on the energy systems required to unlock Africa's critical minerals potential and support sustainable industrial development.

Prof. Sampson Mamphweli, Head of the Department of Science, Technology and Innovation's Energy Secretariat at SANEDI, joined the panel discussion titled "Power, Transition & Prosperity: Building the Energy Architecture Africa's Critical Minerals Actually Needs." The discussion explored the critical link between Africa's mineral wealth and the availability of reliable, affordable and sustainable energy to support mining, mineral beneficiation, industrialisation and economic growth.

Drawing on South Africa's experience, Prof. Mamphweli highlighted key lessons for the continent, emphasising that the development of critical minerals value chains must be underpinned by deliberate energy planning and a diverse, resilient energy mix. He reflected on South Africa's journey in developing its renewable energy industry, noting the role of early investment and premium pricing in creating the conditions for the sector to grow. Over time, these interventions helped establish a competitive renewable energy industry and contributed to the significant reduction in renewable energy costs seen today.

Energy planning remains central to this transition. Prof. Mamphweli highlighted the Integrated Resource Plan (IRP) as an important blueprint for determining South Africa's future energy mix and supporting the decarbonisation of both the electricity and mining sectors.

NEWS

Powering Africa's Critical Minerals Future





He further emphasised that South Africa's energy transition should not be viewed simply as a response to international pressure. Rather, the country is pursuing an energy mix approach that seeks to balance energy security, affordability, sustainability and economic development.As South Africa addresses its ageing coal-fired power fleet, the transition includes the decommissioning and repurposing of existing infrastructure, while also exploring alternative and emerging technologies. These include small modular reactors (SMRs), circulating fluidised bed combustion (CFBC) technologies and other solutions that could contribute to a more resilient and sustainable energy system.

The discussion highlighted a broader challenge facing the continent: Africa's critical minerals ambitions cannot be separated from the question of energy. As countries seek to move beyond the extraction of raw minerals towards local beneficiation, manufacturing and higher-value industrial activities, the availability of dependable and competitively priced energy will be increasingly important.

For Africa to fully realise the economic opportunities presented by its critical mineral resources, the continent will require an energy architecture capable of supporting mining, beneficiation, industrialisation, energy security and sustainable economic growth. SANEDI's participation in the Africa Critical Minerals Summit reinforces the Institute's role in contributing energy research, planning and innovation perspectives to conversations shaping Africa's sustainable energy and industrial future.

NEWS

SANEDI Strengthens South Africa China Energy Partnerships to Advance IRP 2025 and Energy Security

The South African National Energy Development Institute (SANEDI) is strengthening its international partnerships to support the implementation of South Africa's Integrated Resource Plan (IRP) 2025, following a series of strategic engagements in Beijing as part of the South Africa China Electricity and Energy Investment Mission.

Led by the Minister of Electricity and Energy, Dr Kgosientsho Ramokgopa, the South African delegation brought together Premiers, Development Finance Institutions (DFIs), industry leaders and key stakeholders to strengthen bilateral cooperation, mobilise investment and identify opportunities to accelerate the country's energy transition.

Representing SANEDI during the mission were Board Chairperson Mr Sicelo Xulu, Acting Chief Executive Officer Prof Prathaban Moodley and Mr Sonwabo Damba. SANEDI's participation in the South Africa China Electricity and Energy Investment Conference included strong representation at leadership and technical levels.

SANEDI Acting CEO, Professor Prathaban Moodley, proudly represented the Institute as a panellist on Emerging Energy Industries, contributing to discussions on the opportunities, technologies and industries shaping the future of the global energy landscape.



NEWS

SANEDI Strengthens South Africa China Energy Partnerships to Advance IRP 2025 and Energy Security

His participation highlighted the importance of innovation, research and technical expertise in unlocking new opportunities within South Africa's evolving energy sector, while reinforcing SANEDI's role in supporting the development of emerging energy industries aligned with the country's energy transition and economic development objectives.

Mr Sonwabo Damba also represented SANEDI as a panellist during Panel 1: Delivering the IRP 2025 – South Africa's Project Pipeline, highlighting the Institute's role in supporting the implementation of South Africa's energy planning priorities through research, innovation, technical expertise and strategic collaboration. Together, these engagements demonstrated SANEDI's contribution at both strategic and technical levels to conversations around investment, emerging energy industries and the implementation of IRP 2025.

Exploring pumped storage opportunities with PowerChina BJEC

As part of the mission, the SANEDI delegation also held a strategic bilateral engagement with PowerChina Beijing Engineering Corporation Limited (BJEC). The discussions focused on BJEC's expertise and experience in pumped storage development and its long-term interest in supporting energy infrastructure development in South Africa.

The engagement explored the role of pumped storage in strengthening grid flexibility and supporting the integration of renewable energy into the electricity system. Discussions also identified potential areas of cooperation in capacity building, energy planning and policy studies, resource assessment, data modelling and project development.

The delegation further exchanged views on the Tubatse Pumped Storage Project and other potential initiatives that could contribute to strengthening South Africa's energy infrastructure and enhancing long-term energy security. The engagement underscored the importance of combining South Africa's energy priorities and technical capabilities with international expertise and investment to unlock strategic infrastructure opportunities.





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SANEDI Strengthens South Africa China Energy Partnerships to Advance IRP 2025 and Energy Security

Deepening technical cooperation with CEPRI

The SANEDI delegation also held a bilateral engagement with the China Electric Power Research Institute (CEPRI) on 5 August 2026, opening further opportunities for technical and institutional cooperation between the two organisations.

The engagement began with institutional presentations and discussions on areas of mutual interest, followed by a technical tour of selected CEPRI research, testing and demonstration facilities. The delegation visited the State Key Laboratory of Renewable Energy Grid-Integration, gaining insight into CEPRI's work in integrating renewable-energy resources into modern electricity systems, as well as its capabilities in power-system testing, modelling, simulation and advanced visualisation.

The visit also showcased emerging technologies, including embodied intelligence and humanoid robotics for the electricity sector. The delegation was introduced to potential applications of robotic technologies in electricity infrastructure inspection, maintenance and operations, particularly in difficult or hazardous environments.

These engagements highlighted a range of potential areas for future cooperation between SANEDI and CEPRI, including:

- Energy planning, modelling and simulation;
- Renewable-energy grid integration;
- Electricity-sector digitalisation and artificial intelligence;
- Advanced energy research and testing infrastructure;
- Robotics and emerging energy technologies;
- Skills development and knowledge exchange; and
- Adaptation of innovative technologies to South Africa's electricity-sector requirements.

From international cooperation to local energy impact

For SANEDI, the South Africa China mission represents more than an international exchange. It provides a platform to identify practical opportunities through which international expertise, technology, investment and knowledge can be aligned with South Africa's specific energy needs. The engagements with BJEC and CEPRI demonstrate the breadth of opportunities available through strategic international partnerships from developing large-scale energy infrastructure and pumped storage solutions to advancing renewable-energy integration, digitalisation, artificial intelligence and emerging technologies.

They also reinforce SANEDI's role as a bridge between research, innovation, policy and implementation, helping to connect South Africa's energy priorities with global expertise and technological developments. As South Africa continues to implement IRP 2025 and build a more secure, resilient and sustainable energy system, SANEDI remains committed to fostering partnerships that enable knowledge exchange, strengthen technical capacity, mobilise investment and accelerate the deployment of innovative energy solutions.

Through these partnerships, SANEDI is contributing to the development of an energy system that is not only more secure and resilient but also positioned to support South Africa's long-term economic growth and transition towards a low-carbon future.

NEWS

Inspiring Tomorrow's Energy Leaders: SANEDI Engages Learners on Nelson Mandela Day

As part of its Nelson Mandela Day activities, the South African National Energy Development Institute (SANEDI), through its DSTI Energy Secretariat, joined the Nepo4Change Career Day at Buhlebemfundo Secondary School in KwaZulu-Natal, engaging Grade 10–12 learners on the opportunities available in Science, Technology, Engineering and Mathematics (STEM).

The career day provided an important platform to inspire young people to consider careers that will contribute to South Africa's evolving energy landscape and to highlight the critical role that young professionals will play in driving innovation, research and the country's transition towards a sustainable energy future. Representing SANEDI, Ms Azwihangwisi Nemadandila delivered a presentation titled "South Africa's Energy Transition, Innovation, Research and the Role of the Youth." The presentation introduced learners to SANEDI's work in energy innovation, research, energy efficiency and clean energy technologies, while demonstrating how STEM skills can open pathways into South Africa's growing green economy.

Learners were introduced to emerging areas of the energy sector, including solar energy, wind energy, battery energy storage and green hydrogen. Particular attention was given to the Hydrogen South Africa (HySA) programme, highlighting opportunities for young people to pursue careers in hydrogen research, innovation and skills development. SANEDI also used the career day as an opportunity to engage directly with learners through its exhibition stand. Mr Ntethelelo Khumalo shared information about SANEDI's mandate and provided learners with insights into education, skills development and potential career opportunities within South Africa's energy sector.



NEWS

Inspiring Tomorrow's Energy Leaders: SANEDI Engages Learners on Nelson Mandela Day





The event brought together several organisations and institutions committed to developing the next generation of talent. The Department of Electricity and Energy (DEE) was represented by Mr Silas Zimu, Advisor to the Minister of Electricity and Energy, while partners including Siemens Energy, the KwaZulu-Natal Sharks Board, Wits University and the Durban University of Technology (DUT) provided learners with valuable career guidance and insights into opportunities within their respective fields.

The day also celebrated academic excellence, with top-performing learners receiving recognition for their achievements. In a further contribution towards strengthening science education at the school, Wits University donated laboratory equipment and scientific resources to Buhlebemfundo Secondary School, supporting learners' access to practical science education.

SANEDI's participation reflects the organisation's commitment to supporting the development of a skilled and future-ready workforce. By exposing learners to the possibilities within the energy sector at an early stage, initiatives such as the Nepo4Change Career Day help young people understand how their interests and STEM skills can translate into meaningful careers that contribute to national development.

Nelson Mandela Day provided a fitting reminder that investing in young people is an investment in South Africa's future. Through continued engagement, knowledge sharing and skills development, SANEDI remains committed to inspiring the next generation of energy leaders and supporting the skilled workforce needed to drive the country's sustainable energy future.

NEWS

SANEDI Strengthens Collaboration with Eastern Cape on Sustainable Fuels and Biofuels Development

The South African National Energy Development Institute (SANEDI) is strengthening collaboration with the Eastern Cape to advance opportunities in biofuels, sustainable fuels and renewable energy, following an engagement with the Eastern Cape Biofuels Steering Committee held on 25 August 2026. The engagement brought together key provincial stakeholders to explore how the Eastern Cape can leverage its energy and resource potential to support investment, industrial development, job creation and the province's transition towards a more sustainable energy future.

The delegation was led by the Eastern Cape Office of the Premier Deputy Director-General, Mr Mahlubandile Qwase, and included representatives from the Eastern Cape Office of the Premier, the Eastern Cape Rural Development Agency (ECRDA), the Central Energy Fund (CEF)/PetroSA, the Department of Economic Development, Environmental Affairs and Tourism (DEDEAT), as well as other provincial stakeholders. Additional members of the Steering Committee participated virtually.

Representing SANEDI was a multidisciplinary team led by Dr Karen Surridge, Dr Neville Smith and Dr Richmore Kaseke, supported by members of the Biofuels Project Team and colleagues from SANEDI's Applied Energy Research, Development and Innovation Programme.

From potential to practical opportunities

The engagement provided an opportunity for SANEDI and provincial stakeholders to reflect on the Eastern Cape's biofuels development journey, assess institutional readiness and identify opportunities to strengthen collaboration in sustainable fuels and renewable energy. A key focus of the discussions was the need to move beyond identifying the province's potential towards developing practical, implementable and investable projects.

The Eastern Cape has opportunities to position sustainable fuels as part of a broader economic development strategy, particularly through initiatives that connect energy development with rural economies, industrialisation, skills development and employment creation.

The discussions highlighted several areas where sustainable fuels could contribute to the province's development agenda, including:

- Investment and economic development through the development of new energy value chains and opportunities for private-sector participation;
- Rural development and job creation by creating opportunities across sustainable fuel production, supply chains and supporting industries;
- Green industrialisation through the development of local capabilities and value chains linked to emerging energy technologies;
- Renewable energy development by strengthening the integration of sustainable fuels within the province's broader energy landscape; and
- A Just Energy Transition that supports inclusive economic participation while contributing to South Africa's broader climate and energy objectives.

NEWS

SANEDI Strengthens Collaboration with Eastern Cape on Sustainable Fuels and Biofuels Development

Leveraging technical expertise and partnerships

The engagement also underscored the importance of collaboration between national institutions, provincial government and industry in unlocking the potential of sustainable fuels. Through its work in energy research, development and innovation, SANEDI brings technical expertise that can support stakeholders in assessing opportunities, strengthening project development and contributing to evidence-based energy planning.

For the Eastern Cape, strengthened collaboration with SANEDI provides an opportunity to build on existing work and explore how technical knowledge, research and innovation can be translated into projects that deliver tangible socio-economic benefits. The engagement reflects a shared recognition that the development of a sustainable fuels sector requires coordinated action across government, industry, research institutions and other stakeholders.

Supporting the Eastern Cape's sustainable energy future

As South Africa advances its energy transition and seeks to unlock new pathways for economic growth, sustainable fuels have an important role to play in diversifying the energy landscape and creating new opportunities across the economy.

For the Eastern Cape, developing these opportunities could support the province's ambitions for inclusive growth while contributing to national priorities around energy security, industrial development and a Just Energy Transition. The engagement between SANEDI and the Eastern Cape Biofuels Steering Committee therefore marks an important step towards strengthening institutional collaboration and identifying pathways to convert the province's sustainable energy potential into practical opportunities.

SANEDI remains committed to working with provincial and national partners to advance innovative energy solutions that are technically sound, economically viable and capable of delivering meaningful developmental impact.



NEWS

SANEDI Advances South Africa's Green Hydrogen Agenda at Africa Green Hydrogen Summit 2026

The South African National Energy Development Institute (SANEDI) participated in the Africa Green Hydrogen Summit 2026, contributing to high-level discussions on South Africa's emerging green hydrogen economy, research and development priorities, skills development, technology validation and opportunities for industrialisation.

The Summit provided an important platform for government, industry, academia, researchers and other stakeholders to engage on the role of green hydrogen in supporting South Africa's energy transition and broader economic development.

South Africa moves from green hydrogen ambition to implementation

Day One of the Summit marked an important milestone for South Africa's green hydrogen ambitions, with the Honourable Minister of Electricity and Energy, Dr Kgosientsho Ramokgopa, delivering the Keynote Address on behalf of President Cyril Ramaphosa.

During the address, the President announced the first wave of six Green Hydrogen Projects under South Africa's National Green Hydrogen Programme. The projects followed a rigorous assessment process aimed at strengthening bankability and investor confidence in the emerging green hydrogen sector.

Among the first wave of projects is the Phelan Green Group's electro-Sustainable Aviation Fuel project in Saldanha Bay, which has reached Final Investment Decision, with US$100 million in equity committed and an offtake agreement secured. Construction is expected to begin in the first quarter of 2027, with first exports targeted for the first quarter of 2029.

The announcement signals an important shift from green hydrogen ambition towards tangible implementation, while highlighting the potential of the sector to unlock new opportunities for investment, industrialisation, localisation and sustainable economic growth.

SANEDI contributes to the technical and research dialogue

SANEDI Acting CEO, Prof Prathaban Moodley, participated in a high-level panel discussion titled "Eskom's Green Hydrogen Technology Development Context and Approach."

The discussion explored the role of hydrogen within South Africa's broader energy system and the areas where hydrogen technologies can potentially contribute to the decarbonisation of energy-intensive sectors.



NEWS

SANEDI Advances South Africa's Green Hydrogen Agenda at Africa Green Hydrogen Summit 2026

Prof Moodley emphasised that South Africa's hydrogen opportunity should be considered within the context of the wider energy system, particularly in sectors where emissions are difficult to reduce through conventional electrification alone. These include steel, fertilisers, chemicals and industrial heat.

He highlighted three key research and development priorities for South Africa:

1. Renewable energy-to-hydrogen systems linked to productive end uses;
2. Hydrogen for industrial heat and hard-to-abate processes; and
3. Long-duration energy storage, considered alongside competing technologies.

A key message from the discussion was that hydrogen technologies should be researched, tested and demonstrated where they can create genuine system and economic value, while competing with alternative technologies on merit. This approach reinforces the importance of evidence-based research, technology validation and demonstration in determining where hydrogen can make the greatest contribution to South Africa's energy future.

Building a skilled workforce for the hydrogen economy

As the Summit continued, Prof Sampson Mamphweli contributed to discussions on the human capital requirements needed to support the growth of the green hydrogen sector.He participated in a panel discussion titled "Building a Competent Workforce via Research and Training: From Theory to Practice."

The session brought attention to the importance of developing the skills, research capabilities and practical experience required to translate green hydrogen ambitions into commercially viable projects and industrial applications.

SANEDI drives technical dialogue on green hydrogen development

SANEDI also hosted a high-level panel discussion titled "Driving Down the Cost of Green Hydrogen: Electricity, Electrolysers, Water and System Integration." The session brought together energy experts, industry leaders and stakeholders to examine some of the key factors influencing the cost, scalability and commercial viability of green hydrogen production.





NEWS

SANEDI Advances South Africa's Green Hydrogen Agenda at Africa Green Hydrogen Summit 2026

The discussion focused on the need to address the interconnected components of the green hydrogen value chain, including the cost and availability of renewable electricity, electrolyser technologies, water requirements and effective system integration.

By convening this discussion, SANEDI provided a platform for stakeholders to exchange insights and explore practical pathways for improving the competitiveness of green hydrogen while ensuring that technology choices and investments are informed by evidence and system-level considerations.

The session formed part of SANEDI's broader contribution to the Summit, which included high-level engagements on technology development, research and development, skills development and the practical application of hydrogen technologies. Through these engagements, SANEDI continues to support the development of an evidence-based green hydrogen ecosystem that connects research and innovation with industry needs and South Africa's broader energy and industrial development objectives.



NEWS

Women in Green Hydrogen Luncheon Opens Africa Green Hydrogen Summit 2026

The Africa Green Hydrogen Summit 2026 week officially kicked off with the Women in Green Hydrogen Luncheon, bringing together women leaders, policymakers, industry experts, development partners and key stakeholders to advance meaningful participation and leadership in Africa's emerging green hydrogen economy.

Held under the theme, "Global Partnerships, Local Impact: The Strategic Importance of International Collaboration in Advancing Women in South Africa's Green Hydrogen and Power-to-X Economy," the luncheon provided a platform for dialogue, networking and collaboration around the opportunities and challenges facing women across the green hydrogen and Power-to-X value chains.

The gathering welcomed distinguished leaders, including Minister of Electricity and Energy, Dr Kgosientsho Ramokgopa, and Deputy Minister of Science, Technology and Innovation, Dr Nomalungelo Gina, alongside representatives from government, industry, research institutions. The programme was directed by Ms Prudence Madiba, General Manager: Research, Testing and Development at Eskom, who opened the ceremony with an inspiring address emphasising the importance of creating opportunities for women to actively shape the future of the green hydrogen economy.

Delivering the keynote address, Deputy Minister Dr Nomalungelo Gina stressed that women must not only be included in the green hydrogen economy once major decisions have already been made, but must be positioned to influence and shape those decisions from the beginning.
She called for a shift:

"From networking to opportunity. From conversation to collaboration. From mentorship to advancement. And from participation to leadership and ownership."

Dr Gina further emphasised that international partnerships must translate into tangible opportunities for women, including access to knowledge, skills, networks, investment, markets and technologies.She challenged stakeholders to look beyond representation and consider who is positioned within the economic architecture of the emerging hydrogen economy who makes investment decisions, who owns projects, who leads engineering teams, and who structures finance and intellectual property.

As Africa works to move its green hydrogen ambitions "from PowerPoint to gigawatts," Dr Gina highlighted the importance of ensuring that this transition also moves women into positions of leadership, entrepreneurship, research, investment and ownership across the hydrogen and Power-to-X value chains.

The programme featured contributions from Ms Zanele Ngcobo, Principal Specialist: Business Development at Sasol; Ms Lilly von Hoyningen-Huene, Head of Legal at Phelan eFuels; Mr Teslim Mohammed Yusuf, Executive: Planning, Monitoring and Evaluation at EWSETA; and Caroline Capone, Head of Project: H2SA II / BVC at GIZ, who delivered the remarks.



NEWS

Women in Green Hydrogen Luncheon Opens Africa Green Hydrogen Summit 2026

Turning Commitments into Impact

The day concluded with a powerful panel discussion on “Turning Commitments into Impact: How Industry, Government and Development Partners Can Accelerate Women’s Participation in the Green Energy Transition.” Moderated by Ms Mokgadi Modise, Director at SARETEC, the discussion brought together perspectives from across the sector on how commitments to gender inclusion can be translated into practical opportunities and meaningful participation for women in the green energy transition.

SANEDI was proudly represented on the panel by Prof Sampson Mamphweli, who contributed to the important conversation on strengthening pathways for women to participate, lead and create impact within the evolving green hydrogen and broader clean energy landscape. The luncheon concluded with closing remarks by Ms Zama Khanyase, Chairperson of the Portfolio Committee on Electricity and Energy, bringing the day to a fitting close.

The Women in Green Hydrogen Luncheon set an important tone for the Africa Green Hydrogen Summit 2026, reinforcing that Africa’s green hydrogen ambitions must be matched by inclusive opportunities, strong partnerships and deliberate action to ensure women are not only participants, but leaders and owners within the emerging hydrogen economy.

SANEDI is proud to contribute to this important dialogue and to engagements that support South Africa’s energy transition, strengthen innovation and research, and advance a sustainable, inclusive and competitive green hydrogen economy.





TEAM TALK

MEET OUR NEW CEO

Ms. Prudence Madiba, Pr.Eng, FSAIEE



Ms. Prudence Madiba, Pr.Eng, FSAIEE, is a professionally registered Electrical Engineer with over 24 years of distinguished service at Eskom. She currently holds the position of General Manager: Research, Testing, and Development, where she is responsible for setting strategic direction and providing executive leadership. In this capacity, Ms. Madiba drives innovative research initiatives, advises on technical strategies, oversees the analysis and implementation of operational improvements for existing assets, and leads the development of technical capabilities within the organisation.

Ms. Madiba's academic credentials include a Bachelor of Science in Electronic Engineering and a Postgraduate Diploma in Business Management from the University of KwaZulu-Natal, a Graduate Diploma in Engineering (Industrial) from the University of the Witwatersrand, a Master's in Engineering Management from the University of Pretoria, and completion of the Executive Development Program at Duke University. She is currently pursuing a PhD in Industrial Engineering with University of Stellenbosch.

Ms. Prudence Madiba demonstrates a steadfast commitment to advancing the engineering profession. She currently serves as President of the South African Institute of Electrical Engineers (SAIEE) and chairs its Exco and Council Committees, providing strategic oversight and fiscal leadership. Her governance experience includes tenure as a council member of the Engineering Council of South Africa (ECSA), where she also served as Chairperson of the Registration Committee, contributing to the regulatory framework and professional standards of the industry. Additionally, Ms. Madiba is an active member of the EPRI Research Advisory Committee, participating on the executive committee, and has previously held an executive committee position at the International Centre for Sustainable Coal (ICSC), further evidencing her influence within the global engineering community. Ms. Madiba demonstrated exemplary leadership as the technical lead for Priority 1 of the 2025 G20 Energy Transitions Working Group (ETWG).

TEAM TALK



Please join us in warmly welcoming
Ms. Khomotso Kumalo to SANEDI

Khomotso holds an LLB from the University of Pretoria and brings valuable experience in legal administration, governance and administrative support, gained across both the public and private sectors.

In her new role, Khomotso will provide administrative and coordination support to SANEDI's committees, contributing to effective governance, efficient coordination and the smooth functioning of committee activities



Please join us in warmly welcoming
Sebina Phochana to SANEDI

Sebina joins SANEDI as a Legal Advisor in the Legal, Governance, Risk and Compliance (LGRC) Division.He is an admitted attorney with a diverse academic background that includes a BSc in Biochemistry and Chemistry, a Bachelor of Laws (LLB), and a Master of Business Administration (MBA).

He brings more than a decade of experience within the National System of Innovation, having served in various specialist and professional roles focused on intellectual property law and its management. His experience includes working as a Technology Transfer Officer, where he was involved in the management of university intellectual property, as well as serving as part of the legal team at the Technology Innovation Agency (TIA).

In this capacity, he contributed to intellectual property due diligence for funding assessments and contract management. Sebina brings a valuable combination of technical, legal and business expertise, particularly in intellectual property, technology transfer and innovation. His collaborative approach and strong interpersonal skills will further contribute to his role as a valued member of the SANEDI team.

INVESTING IN IMPACT

From Ambition to Action: EEPBIP Takes a Major Step Towards Its First Energy Performance Contract

The publication of the first Energy Performance Contracting (EnPC) tender under the Energy Efficiency in Public Buildings and Infrastructure Programme (EEPBIP) marks a significant milestone for the programme, SANEDI and South Africa's public-sector energy-efficiency agenda.

The Energy Efficiency in Public Buildings and Infrastructure Programme (EEPBIP) has reached a major milestone with the publication of its first Energy Performance Contracting (EnPC) tender by the East London Industrial Development Zone (ELIDZ) on 14 August 2026. This achievement represents an important step in translating the programme's ambition into practical action, demonstrating how innovative financing mechanisms can unlock energy-efficiency investments in the public sector.

The pioneering project, the ELIDZ Smart Street Lighting EnPC, aims to modernise approximately 415 conventional high-pressure sodium streetlights by replacing them with energy-efficient LED luminaires. The upgraded lighting infrastructure will incorporate Internet of Things (IoT)-enabled controls and a Central Management System, enabling smarter monitoring, improved management and optimisation of the lighting network.

Beyond the immediate benefits of modernising public lighting infrastructure, this milestone demonstrates the potential of Energy Performance Contracting to address longstanding barriers to energy efficiency in South Africa's public sector. It also represents a significant achievement for SANEDI through its role in supporting the development of investment-ready energy-efficiency projects that can attract private-sector investment and deliver measurable savings.

Turning Energy-Efficiency Opportunities into Investment-Ready Projects

The project has been supported by the Energy Efficiency Project Support Unit (EEPSU), a project preparation unit housed at the South African National Energy Development Institute (SANEDI). EEPSU was established to assist public-sector institutions in identifying, developing and preparing bankable energy-efficiency projects that reduce energy costs and greenhouse gas emissions.

Over the past few months, EEPSU has worked closely with ELIDZ to identify energy-efficiency opportunities, undertake technical and financial due diligence, and package the project into an investment-ready EnPC opportunity for the Energy Service Company (ESCo) market.

The publication of the tender is a tangible outcome of this project preparation process. It demonstrates that with the right technical expertise, project development support and innovative financing mechanisms, energy-efficiency opportunities can be transformed into viable investment projects.

For SANEDI and EEPBIP, this achievement is particularly significant because it provides a practical example of how public-sector institutions can move beyond identifying potential energy savings to procuring projects designed to deliver them.

INVESTING IN IMPACT

From Ambition to Action: EEPBIP Takes a Major Step Towards Its First Energy Performance Contract

Unlocking Energy Savings Through Innovative Financing

One of the major challenges facing the South African public sector in scaling up energy-efficiency interventions is limited funding. Public institutions may also lack the internal capacity and technical expertise required to identify energy-saving opportunities and develop them into investment-ready projects. Energy Performance Contracting offers an innovative approach to addressing these challenges. Under an EnPC, an Energy Service Company (ESCo) invests in and implements agreed energy-efficiency measures, with the resulting energy savings used to repay the investment in accordance with the contractual arrangements. This model can reduce the need for public institutions to mobilise the full upfront capital expenditure required to implement energy-efficiency improvements.

For ELIDZ, the Smart Street Lighting EnPC presents an opportunity to modernise its lighting infrastructure while reducing energy consumption and operational costs, without having to fund the entire upfront investment itself. The project's eventual savings and financial benefits will depend on the final contract terms, implementation and verified performance.The approach creates an opportunity for public institutions to pursue energy-efficiency improvements that might otherwise be delayed or constrained by competing budget priorities.

A Milestone for EEPBIP and SANEDI

EEPBIP is implemented through a partnership between the Department of Electricity and Energy (DEE), SANEDI, the National Business Initiative (NBI) and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), with funding from the Mitigation Action Facility (MAF).

The programme seeks to catalyse an energy-efficiency transformation across South Africa's public sector while contributing to climate-change mitigation through reduced energy consumption and carbon dioxide emissions. Its ambitious targets reflect the scale of the transformation it seeks to achieve:

- 4.3 million tonnes of CO_2 equivalent ($MtCO_2e$) in emissions reductions.
- 4,195 GWh in energy savings.
- 1,800 jobs created.
- At least 255 public-sector officials capacitated.
- R1 billion in private finance mobilised for public-sector energy-efficiency investments.

The publication of the first EnPC tender is an important step towards realising this vision. It demonstrates progress in developing a pipeline of bankable projects and creating the conditions for private finance to support public-sector energy efficiency.

For SANEDI, the achievement reinforces the value of its project preparation and technical support role in helping public institutions overcome barriers to implementation. It also illustrates how collaboration between government, development partners and the private sector can help advance national energy-efficiency objectives.

INVESTING IN IMPACT

From Ambition to Action: EEPBIP Takes a Major Step Towards Its First Energy Performance Contract

Creating Opportunities for Local Businesses and SMMEs

Beyond energy and cost savings, EEPBIP aims to contribute to the development and growth of South Africa's ESCo market. As this market expands, it can create opportunities for local businesses and small, medium and micro enterprises (SMMEs), including women- and youth-led enterprises.

A stronger ESCo market can support job creation, skills development and the growth of local capabilities in energy-efficiency services. It can also help establish a more sustainable ecosystem in which public institutions access specialised expertise and private-sector investment to implement energy-saving projects.

The ELIDZ tender is therefore important not only for the infrastructure it seeks to modernise, but also for the wider market-development opportunities that successful Energy Performance Contracting projects can help unlock.

Building a Blueprint for Replication

The EnPC process typically follows a series of stages, from identifying an energy-efficiency opportunity to implementing interventions and verifying the resulting savings:

Opportunity Identification → Project Development → Procurement → Contract Negotiation → Investment → Implementation → Savings Verification and Sharing



INVESTING IN IMPACT

From Ambition to Action: EEPBIP Takes a Major Step Towards Its First Energy Performance Contract

The ELIDZ Smart Street Lighting EnPC demonstrates how this process can be put into practice. More importantly, the experience provides a potential blueprint for other public-sector institutions seeking to implement energy-efficiency improvements through similar financing arrangements.

The model can be applied to a range of interventions, including building retrofits, public lighting upgrades, and improvements to water and wastewater facilities. Replicating successful projects across these areas could help accelerate energy savings, reduce operational expenditure and lower greenhouse gas emissions throughout the public sector.

As the project progresses through procurement and subsequent implementation, its experience will offer valuable lessons for developing future EnPC opportunities and strengthening the market for energy-efficiency investments.

From One Tender to Wider Transformation

The publication of the first EEPBIP-supported EnPC tender is more than a procurement milestone. It is an important demonstration of progress towards making energy efficiency a practical, financeable and scalable investment opportunity for South Africa's public sector.For EEPBIP, it signals movement from programme ambition to implementation.

For SANEDI and EEPSU, it highlights the importance of project preparation in converting opportunities into investment-ready projects. For ELIDZ, it opens a pathway towards modernised street lighting and the potential for reduced energy and operational costs.

Congratulations to ELIDZ and all programme partners, stakeholders and project teams whose collaboration and commitment have contributed to reaching this important milestone. Their efforts are helping lay the groundwork for a more energy-efficient public sector and a stronger market for sustainable energy solutions in South Africa.

JOLT YOUR SCHEDULE - DATES TO REMEMBER

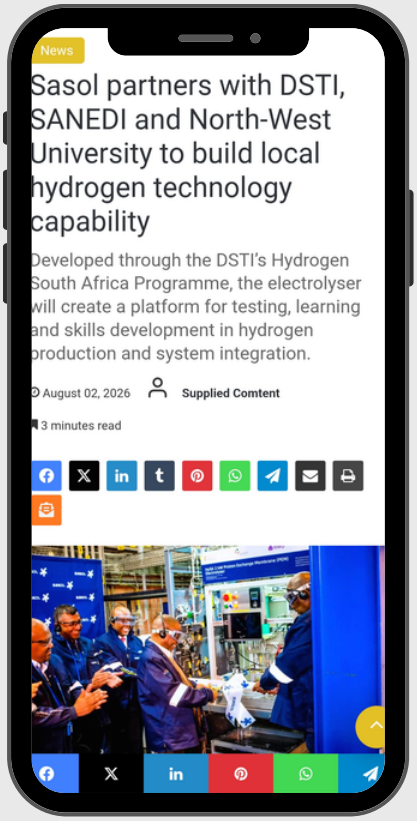
09 AUGUST 2026
Women's Day

16 September 2026
International Day for the Preservation of the Ozone Layer

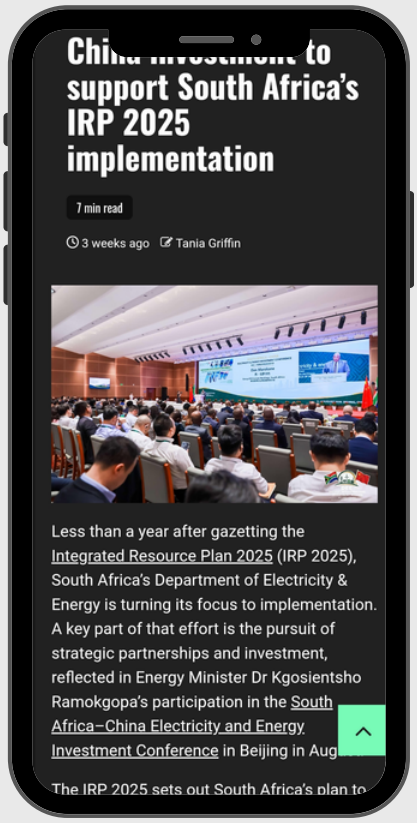
13 October 2026
International Day for Disaster Risk Reduction

05 December 2026
International Volunteer Day for Economic and Social Development

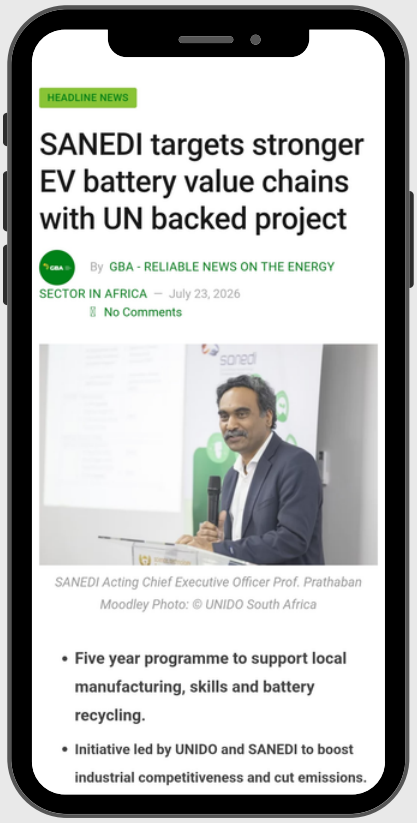
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