



G20

SOUTH AFRICA 2025



Solidarity

Equality

Sustainability

Sherpa Track

ISSUE NOTE

Energy Transitions Working Group

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Energy Transitions Working Group (ETWG)

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1. BACKGROUND AND CONTEXT

Since 2009, energy has been central to G20 discussions based on the sector's contribution to sustainable development. A dedicated Energy Sustainability Working Group was established in 2013 to discuss various energy related matters. In 2014, the G20 Energy Sustainability Working Group (ESWG) co-chaired by Australia and India focused on ways in which to improve the operation of global energy markets and strengthen collaboration between developed and emerging economies, notably on energy efficiency, energy access and renewable energy.

Subsequent ESWG Chairs, following India and Australia, have been introducing slight amendments to the working group's agenda based on their country priorities. In this regard, a fundamental shift towards the just energy transition emanated from the signing of the Paris Agreement and Congress of Parties (COP) outcomes. As part of the Turkey G20 Presidency, the first meeting of G20 Energy Ministers endorsed a strong focus on completing energy access, notably in Sub-Saharan Africa.

Japan introduced innovation as a priority area, due to innovation being a key driver in enabling just energy transitions and sustainable growth. In 2020, Saudi Arabia's Presidency introduced the concept of circular carbon economies comprising a variety of energy solutions and technologies which are underpinned by research, development and innovation (RDI) to ensure cleaner, more sustainable and affordable energy systems.

Key focus areas and energy outcomes of Recent G20 Presidencies

Indonesia (2022): Just Energy Transitions

Indonesia's G20 presidency elevated energy transitions to a G20 Leader-level priority, expanding the conversation across the G20 finance and sherpa tracks. During its presidency, Indonesia focused on reducing coal dependency and advancing renewable energy through international partnerships, especially the Just Energy Transition Partnership (JETP). This approach was groundbreaking but

also highlighted challenges in financing models that heavily rely on loans, which are less suitable for countries with high coal dependency and fiscal constraints.

India (2023): Green Innovation and South-South Cooperation

India's presidency prioritized scalable renewable energy solutions, emphasizing technology sharing and agree on principles of green hydrogen development through initiatives like the National Hydrogen Mission and Global Biofuel Alliance. India's "One Earth, One Family, One Future" theme fostered South-South cooperation, making it a pivotal example of developing-country leadership on climate issues, supporting consensus on the necessary energy sector actions to be taken by the G20, such as the tripling of renewable energy capacity by 2030.

Brazil (2024): Socio-Economic Dimensions in Energy Transition

Brazil focused on sustainable fuels, including biofuels, hydrogen and derived fuels and renewables, tackling social and environmental impacts of energy policies, particularly for vulnerable communities. Brazil's energy policy served as a model for integrating socioeconomic dimensions into clean energy strategies, highlighting the importance of balancing renewable adoption with inclusive growth.

South Africa's 2025 G20 presidency provides a unique opportunity to drive forward a balanced and inclusive global energy transition. Building on lessons from previous G20 presidencies (Indonesia, India, and Brazil), this roadmap for the ETWG focuses on advancing energy security, enabling just and inclusive transition, and regional energy cooperation. Key goals include achieving universal, affordable energy access, developing value chains for low carbon emitting technologies, and enabling the integration of regional energy networks and economic growth across diverse G20 economies.

The G20 South Africa is a key opportunity to advance the African Union's Agenda 2063: The Africa We Want and build on the Africa Climate Summit's Nairobi

Declaration by fostering the continent's industrial growth, scaling up clean energy investments and ensuring just and inclusive transitions.

2. SOUTH AFRICA'S PRIORITIES AND DELIVERABLES

As South Africa assumes the G20 Presidency, the focus on the Just Energy Transitions Workstream will address critical issues of energy access and affordability and creating the jobs of the future in the energy sector innovation. This approach will be anchored in three key pillars: (i) Energy Security and Affordable, Reliable Access (ii) Just, Affordable and Inclusive Energy Transitions, and (iii) Regional Interconnectivity with a focus on Africa and Energy Pools.

Underpinning these three pillars, is the development of a research and innovation agenda that supports the global south and other small and emerging economies to get ahead of the innovation curve, as the basis of driving an industrial growth path to bridge the global inequality and development gap. This issue note outlines the Department of Electricity and Energy (DEE's) strategic priorities and outcomes for each pillar to drive an inclusive energy transition agenda during the 2025 ETWG and beyond.

2.1 Priority Area 1: Energy Security and Affordable, Reliable Access

Objective: To enhance global energy access, affordability and security by promoting sustainable and resilient energy systems especially in underserved regions.

Under South Africa's G20 Presidency, the focus on energy security emphasizes ensuring dependable, resilient, and affordable energy systems to support sustainable economic growth across G20 member states. This sub-theme within the Energy Transition Working Group (ETWG) addresses the critical need for infrastructure and policies that safeguard against energy disruptions, particularly those due to climate change, market volatility, or geopolitical factors. South Africa's objective is to foster a collaborative framework that encourages investment in grid resilience, renewable energy integration, and decentralized

energy solutions, especially in underserved regions. South Africa supported the Roadmap for the Brazil G20 Presidency's Clean Cooking Strategy and has been continually working towards universal access. South Africa also supported the Circular Carbon Economy Platform as a tool to advance its own just transition towards affordable, reliable, accessible, sustainable and secure energy for all, while advancing sustainable development and inclusive economic growth. 6 By prioritizing energy security, the ETWG aims to create a foundation for inclusive growth and stability, aligning with broader G20 goals of economic resilience and equitable development.

Outcomes:

- **Energy Security:** Develop a framework on how to address energy security risks, considering diversification of energy sources such as natural gas, small modular reactors, solar, wind and hydrogeneration.
- **Decentralised Energy Systems:** Develop a G20 roadmap for financing energy access with an Africa-focused action plan for deploying technologies, such as microgrids, to un-serviced communities.
- **Closing the clean cooking gap:** Accelerate the deployment of cleaning cooking solutions in the next two years to reach universal access to clean cooking by 2030, notably in Africa.
- **Infrastructure Resilience:** Develop a G20 action plan for developing and/or upgrading - energy infrastructure, particularly in under-serviced communities, based on robust energy planning frameworks, infrastructure resilience assessments to withstand extreme weather events and related investment plans.
- **Affordability Frameworks:** Work towards a global energy poverty compact based on a compendium of policies and funding schemes to reduce energy cost, energy poverty and support vulnerable consumers.

2.2 Priority Area 2: Just, Affordable and Inclusive Energy Transitions

South Africa's objective for a Just, Affordable, and Inclusive Energy Transition (JET) during its G20 Presidency is to advocate for an energy shift that prioritizes socioeconomic equity alongside climate goals. The JET will also focus on developing local benefits from clean manufacturing, notably resilient and diverse supply chains, including hydrogen, renewables, energy efficiency, sustainable fuels and other low-emission technologies. This could include upgrading and energising existing industries, linking to development and strengthening clean energy supply chains across regions as well as jobs and skills exchanges and collaboration on education within the just, affordable and inclusive transitions pillar.

This focus on JET emphasizes structured support for coal-dependent economies and marginalized groups, ensuring that no one is left behind in the transition to a low-carbon future. By aligning with international frameworks, the ETWG's JET initiatives will promote targeted funding, technology transfer, and workforce reskilling to facilitate an equitable transition, reflecting South Africa's commitment to a just and balanced energy landscape across G20 and building on the G20 Principles for Just and Inclusive Transitions, agreed under Brazil Presidency in 2024.

Outcomes :

- **Green Industrialization Hubs:** Develop a roadmap and action plan for establishing green industrial frontier hubs in Africa by 2027, focusing on green jobs and low-carbon industries. The roadmap should also outline the necessary intercontinental partnership to unlock funding and enable technology transfer to the continent.
- **Socio-economic Safeguards for Coal-Dependent Regions:** Initiate pooled capacity/Country support for identification studies regarding critical sectors (e.g., PMGs, steel manufacturing and fabrication) that will

benefit from infrastructure investments in energy, emphasising the promotion of local production and global competitiveness, as a basis for repurposing coal dependant economies.

- **A G20 action agenda for affordable and inclusive transitions:** Deepening the Brazil's G20 principles and engaging the Global Commission for People-Centred Transitions.
- **Local Content Requirements:** Develop a roadmap and action plan for a local social compacting (Government, Business, Labour, to implement 60% domestic sourcing policy for renewable projects by 2026, to mitigate “jobs deficits” because of energy transitioning.
- **Green Hydrogen for hard to abate sectors:** Industries such as steel industry, aviation industry, cement manufacturing, chemical and refineries, with a focus on Africa: Develop a roadmap and action plan in 2025 for the establishment of industrial frontier hubs, with emissions reduction targets for steel and chemicals by 2030. Agree and publish common principles for standard terms to secure agreements with off-takers for green hydrogen investment.
- **Sustainable Fuels:** Develop a roadmap for sustainable fuels building on the latest global analysis and related collaboration initiatives.

2.3 Priority Area 3: African Interconnectivity and Energy Pools

Objective: Promote regional cooperation within Africa to enhance energy security, trade and cross-border access.

Regional integration of energy markets and trade brings multiple benefits in terms of energy security, renewable energy integration, resilience and affordability. Over the past decade, multiple regions across the G20 membership have strongly advanced their regional energy market integration and have important lessons that can be shared, be it in the European Union, Latin America (SIESUR) or Asia (ASEAN). In the context of Africa,

the G20 South Africa Presidency proposes for the ETWG to take a deep dive on Africa's interconnectivity and experiences from the Energy Pools.

By strengthening cross-border energy infrastructure and enhancing regional cooperation, this initiative will promote efficient energy sharing, reduce reliance on fossil fuels, and support the integration of renewable energy sources across Africa. Interconnected energy grids will not only improve energy access and affordability but also foster energy security and resilience on the continent. These efforts will contribute to a stable and sustainable energy transition for African nations, aligning regional goals with global climate commitments and ensuring inclusive growth across the continent.

Outcomes:

- **Exchange best practices on regional interconnectivity:** Develop an action plan for achieving regional interconnectivity in Africa based on the three pillars:
- **Ten-year infrastructure investment plan for Africa's Cross-Border Projects:** Guided by the African Union (AU), identify a minimum of three significant cross border energy projects and develop project financing mechanisms.
- **Policy Harmonization to support cross border trade:** Align regulations in 50% of AU member states by 2025 to foster a unified energy market. 4. Renewable Energy Corridors: Establish two corridors by 2030, supplying 15% of regional needs.

3. Key Side Events

1.	<i>Africa Green Hydrogen Summit 2025</i> in partnership with the UN and the EU
2.	<i>G20 Energy Ministerial</i> : Launch of a G20 action plan on clean energy supply chains
3.	<i>G20 Ministers</i> to join the IEA Summit on the Future of Energy Security (April 2025)
4.	Convene AU members in SA G20 capacity on the just transition narrative and what it means for the continent.
5.	Convene the IEA Clean Energy Labour Council (COSATU is co-chair of the Council).
6.	<i>G20 Energy Ministerial</i> (per invite): In-person Global Commission meeting, including members from labour unions in S.A. (Side to start early morning before G20 Energy Transition Ministerial Meeting)
7.	G20 ETWG-SFWG event on sustainable finance and investment in clean energy, with National Treasury, Reserve Bank, AU, AfDB, UN, IEA Finance Industry Advisory Board.
8.	G20 Energy Innovation Forum (latter half of 2025) to build on the IEA tracking of clean energy technology policies, developed for the G20 Research and Innovation Ministerial 2024.
9.	G20 ETWG: <i>Ministerial roundtable</i> with IFIs, DFIs and MDBs.
10.	G20 Leaders' Summit: G20 call for a new Global New Energy Investment Pact for Africa.
11.	G20 ETWG – Jointly host with IEA African and <i>South-South Energy Ministers roundtable</i> on energy access and affordability to achieve universal access by 2030 (Supported by AfDB, DBSA, et.al)
12.	G20 Leaders' Summit: G20 sponsor call for global partnership to forge universal access by 2030.
13.	ETWG Dialogue – Jointly host with IAEA, Symposium on SMR's
14.	G20 Ministerial of Gas exporting countries (SASOL, ESKOM, PETROSA (iGAS)

15. **ETWG Dialogue** – Jointly host in partnership with IEA an African Energy Dialogue with stakeholders from across Africa, including government officials, energy industry leaders, and international organizations, to discuss strategies and partnerships aimed at strengthening energy security across the continent.

The focus will be on improving both electricity generation and transmission interconnectivity among African nations.

4. 2025 ETWG Calendar

Proposed Calendar for 2025 Energy Transitions Working Group Meeting

	TRACK	TITLE OF MEETING	DATE	VENUE	NUMBER OF DAYS (excludes showcasing site visits)	NUMBER OF PARTICIPANTS	LEVEL
1.	Sherpa Track	1 st Energy Transitions WG Meeting	27-28 February 2025	VIRTUL (PTA)	2	250	Senior Officials
2.	Sherpa Track	2 nd Energy Transitions WG Meeting	30 April 2025 – 02 May 2025	IN-PERSON (Northern Cape) Site Visit: - RE Sit (TBC) Dinner: TBC	2 +	250	Senior Officials
3.	Sherpa Track	3 rd Energy Transitions WG Meeting	29-31 July 2025	IN-PERSON North-West Province (SUN CITY) Site Visit: TBC Dinner: TBC	3 +	250	Senior Officials
4.	Sherpa Track	4 th Energy Transitions WG Meeting & Ministerial Meeting	23-26 September 2025	IN-PERSON Mpumalanga (KRUGER NATIONAL PARK)	3 + 1	450	Senior Officials & Ministeria l

