



World Energy Council

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World Energy Council input to:

2025 High-level Political Forum on Sustainable Development

Theme: Advancing sustainable, inclusive, science-and evidence-based solutions for the 2030 Agenda for Sustainable Development and its Sustainable Development Goals for leaving no one behind.

Pre-Amble

- World Energy Council predates the UN and operates across 100 countries with thousands of membership organisations from across the public, private and civic sectors
- 2. We focus on energy for people and planet, not forgetting peace and prosperity.
- 3. In the 1980s we invented a flexible and inclusive approach to energy governance for sustainable development The World Energy Trilemma framework. We publish a biannual index which tracks performance across 120 countries over the past 25 years.
- 4. We confirm that energy systems transitions plural are emerging in all regions and all are moving too slowly to achieve net zero emissions world energy systems by 2050. We also highlight the term 'energy transition' has become a frequent source of misinformation, misunderstanding and political polarisation
- 5. The sobering conclusion of the 100th anniversary, World Energy Congress, in April 2024, is this: How we got to here won't get us to where we need to go.
- 6. People are the biggest blind-spot in all net zero roadmaps according to our most recent annual World Energy Issues Survey: the clean power demand tsunami, permitting, social engagement and climate adaptation cannot progress without engaging more people and divers communities in better understanding their choices, benefits and roles.
- 7. WE call on UN ECOSOC to invite UN Energy to explore more strategic partnership with the World Energy Council and work together to shape and deliver a Humanising Energy impact agenda. A new energy narrative is needed and a new space for a better quality leadership dialogue is essential which bridges divides and engages all energy interests and levers of change social, as well as markets and technologies.

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- A- Your assessment of the impacts of the multiple and interconnected crises on the implementation of SDGs 3, 5. 8, 14 and 17.
 - Fragmented Crisis Response: Poly-crises Covid-19, extreme weather events, return of war in Europe, etc. have impacted societies everywhere. The emerging world order is characterised by new geopolitics of energy with dynamics of competition, conflict and collaboration. The UNSDGs are largely off track to be delivered by 2030 and the metrics used to measure progress on UNSDG7 are woefully inadequate. UN policy responses to climate, biodiversity and human development challenges remain fragmented and siloed and COP processes have lost their lustre.
 - Missed Global Targets: Current trajectories indicate that progress is insufficient to
 meet the United Nations Sustainable Development Goals, the Paris Agreement, or
 the Convention on Biological Diversity objectives by 2030. A more realistic, pluralistic
 approach is needed to drive action and progress rather than just setting targets. A
 shift in leadership mindset from supply-centric energy systems to user-centric
 services and solutions needs to be accelerated.
 - Energy as the Ultimate Connector: Energy has become the biggest agenda
 across multiple sectors. It acts as a key enabler, linking sustainable economic
 development, environmental protection, and social well-being. However, siloed
 governance structures within UN bodies hinder coordination and progress.
 Strengthening collaboration through integrated energy governance is essential for
 systemic impact.
 - Adaptive and Inclusive Energy Governance: There is a need for decentralized, flexible governance that incorporates local knowledge and cultural contexts. Overly centralized, technocratic decision-making risks overlooking lived realities, eroding public trust, and hindering effective energy transitions.
- B- Three key areas where sustainable, inclusive, science- and evidence-based solutions for achieving the SDGs and leaving no one behind are being effectively delivered, especially related to the cluster of SDGs under review in 2025, also bearing in mind the three dimensions of sustainable development and the interlinkages across the Goals and targets.
 - Bridging Traditional and Emerging Energy Systems: The Council as an
 independent, inclusive platform is fostering a pragmatic approach that moves beyond
 ideological debates and instead integrates traditional energy and power sectors with
 emerging energy transition ecosystems. Efforts should focus on building an adaptive
 energy system that meets current and future needs equitably and efficiently.
 - Integrated World Energy Trilemma Governance for Sustainable Development:
 The Council's World Energy Trilemma framework helps countries manage trade-offs and identify synergies between energy security, equity, and environmental sustainability guiding evidence-based policymaking and investment decisions. By working with national Member Committees, policymakers, and business leaders, the Council fosters regionally adaptive solutions that support affordable, reliable, and



- clean energy for all (SDG 7), while contributing to healthy lives (SDG 3), economic growth (SDG 8), and gender equality (SDG 5).
- Co-Creation of Energy Wisdom: Local communities are not just beneficiaries of energy solutions they are valuable knowledge holders. The Council advocates for co-creating energy futures with diverse stakeholders to build trust, facilitate peer learning, and develop solutions that are practical, inclusive, and impactful.
- C- Three examples of measures to accelerate progress towards SDGs through well-coordinated actions in key transitions to bring progress to scale (food security, energy access and affordability, digital connectivity, education, jobs and social protection, climate change, biodiversity loss and pollution), building on interlinkages between SDGs to ensure cohesive progress.
 - Elevating Dialogue From Technology Policy Prescriptions to 'All levers' Actions: A more strategic, pragmatic, and solutions-driven conversation is needed across UN bodies, governments, and industries to break silos and accelerate implementation. Energy must be recognized as the central enabler of SDG progress, rather than treated as a fragmented or ideological issue.
 - Aligning Energy and Sustainability Frameworks for Systemic Impact: Stronger synergies between the World Energy Trilemma and key UN frameworks (UNFCCC, UN CBD, SDGs) are essential for a cohesive, whole-systems approach that enhances coordination and impact across global agendas. Expanding national and regional "soft" governance models can help scale progress and drive more integrated, action-oriented policies.
 - Enhancing Energy Literacy for Inclusive Transitions: Despite energy being a
 core enabler of sustainable development, energy literacy remains a major gap.
 Coordinated action is needed to empower local communities, businesses, and
 policymakers with practical knowledge, fostering informed decision-making,
 economic participation, and responsible energy use (SDG 8 Decent Work and
 Economic Growth).
- D- Follow-up actions and measures being undertaken by your intergovernmental body or forum to support implementation of the 2023 SDG Summit Political Declaration and the outcomes of the 2024 Summit of the Future, to advance the implementation of the 2030 Agenda for Sustainable Development.
 - Humanising Energy for Inclusive Transitions: The World Energy Council is driving
 a "Humanising Energy" action agenda to address persistent energy inequities and
 blind spots in the energy transition. Despite technological progress, billions remain
 underserved, and energy systems struggle to meet shifting demand dynamics across
 geographies, genders, and generations. At the same time, climate change and
 biodiversity loss threaten both ecosystem and community resilience. To succeed,
 energy transitions must go beyond technology and embrace societal transformation,
 prioritizing adaptation, resilience, and equity to ensure no one is left behind.
 - Enhancing Energy Literacy for a More Engaged Society: The World Energy Council is tackling the global energy literacy gap through initiatives that make



sustainable energy choices accessible and actionable. The Humanising Energy film series (produced with BBC StoryWorks) highlights diverse local solutions and leadership, while community-based programs, such as Women in Energy and Future Energy Leaders, deepen engagement. These efforts empower policymakers, businesses, and individuals with the knowledge needed to make informed energy decisions, drive change, and participate in the energy transition.

- Bridging Traditional and Emerging Energy Systems: The Council is actively
 working to integrate legacy energy and power sectors with emerging energy
 transition ecosystems, ensuring just, balanced, and pragmatic approaches that do
 not only focus on the supply side but enables the shift toward a user-centric energy
 system that embraces a 'whole society' approach. Promoting cross-sector
 collaboration to scale emerging technologies while ensuring a resilient and just
 transition for communities dependent on traditional energy industries.
- Updating the Energy Trilemma Framework with Resilience and Justice: The
 World Energy Trilemma Framework is evolving to incorporate resilience and justice
 as core dimensions, ensuring that energy transitions are not only secure, equitable,
 and sustainable but also adaptable and fair. This update will provide governments,
 businesses, and communities with a more comprehensive decision-making tool to
 navigate energy transitions and whole system change effectively while embracing
 global and regional disparities.

E- Recommendations and key messages to be considered for inclusion in the Ministerial Declaration of the 2025 HLPF.

- **Prioritising Energy as a Strategic Nexus:** Recognise energy as the ultimate connector between climate, sustainability, economic development, and biodiversity agendas. Energy must be elevated as a central pillar of global action, ensuring that energy transitions enable, rather than constrain, progress across all SDGs.
- Enhancing Interagency Coordination for Systems-Level Impact: Strengthen the interlinkages between SDGs and overcome siloed governance among UN bodies (UNFCCC, UN CBD, UN SDG, UN-Energy, etc.) by establishing energy as a unifying framework. Cross-sectoral alignment is essential to break down institutional barriers, accelerate progress, and avoid fragmented policy responses.
- Adopting the World Energy Trilemma as a "Soft" Governance Model: Endorse
 the World Energy Trilemma framework across UN institutions and global governance
 mechanisms to facilitate integrated, evidence-based dialogue and policymaking.
- Advancing a More Nuanced and Action-Oriented Energy Dialogue: Shift away
 from simplistic debates over fossil fuel bans and net-zero rhetoric. Instead, prioritise
 real-world, pragmatic solutions that accelerate emissions reduction, energy
 efficiency, and system-wide decarbonisation while ensuring social equity and
 economic stability.
- Championing Inclusive, Intergenerational, and Locally-Driven Energy Solutions: Energy transitions and transformations must be people-centred empowering communities, workers, women, and youth as active participants in shaping the energy future. A just transition must recognise the diverse challenges



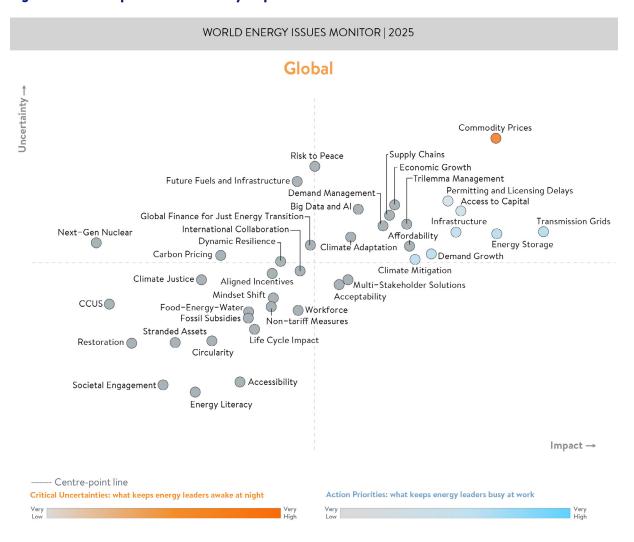
- and opportunities across regions, generations, and economic sectors, ensuring that no one is left behind.
- Embedding Resilience and Justice in Energy Planning: Future-proofing energy systems requires forward-looking strategies that go beyond net-zero goals.
 Governments must prioritise scenario planning, adaptive governance, and energy security measures that prepare for geopolitical, economic, and environmental uncertainties.

Exhibits to include:

- 2025 World Energy Issues Map (1) https://www.worldenergy.org/publications/entry/world-energy-issues-monitor-2025
- 2024 Humanising Energy Framework (2)
 https://www.worldenergy.org/publications/entry/humanising-energy-a-look-at-the-g20-agenda
- 2024 World Energy Trilemma Regional Comparison (3) https://www.worldenergy.org/publications/entry/world-energy-trilemma-report-2024

Exhibit 1

Figure 2. Global Impact and Uncertainty Map 2025





HUMANISING ENERGY

A MULTI-DIMENSIONAL FRAMEWORK TO INCLUSIVE TRANSITIONS

RISE OF SOCIAL ENERGY ISSUES

"There is an increasing attention to 'social energy issues' including affordability, acceptability and workforce transitions as critical uncertainties."

Source: World Energy Issues Monitor, World Energy Council, 2021-2023.

CLIMATE FINANCE -SEVERELY UNDERFUNDED AND BIASED

"Climate finance must increase by at least **five-fold** annually by 2030. Developing countries – the most vulnerable to climate change – receive less than 2% of total."

Source: Climate Policy Initiative (CPI), 2023.

COST OVER-RUNS AND DELAYS

"65% of large-scale energy projects face significant cost and schedule overruns, often due to inadequate stakeholder engagement, underestimating social and environmental complexities."

Source: Oxford University Study on Megaprojects, 2019.

DECLINE IN ENERGY AFFORDABILITY

"There has been a **23%** decline in household electricity affordability since 2000, with a **20% drop** in G20 countries."

Source: World Energy Trilemma Index, World Energy Council, 2000-2023.

STRANDING BILLIONS, DISRUPTING COMMUNITIES

"The early retirement of fossil power plants alone could strand over US\$500 billion in assets globally by 2050.

More than **70%** of these losses would impact countries in Asia and Africa, while simultaneously exposing millions of people to economic displacement and social disruptions risks."

Source: Nature, 2022.

"685 million people worldwide still lack basic access to electricity, and 2.1 billion people rely on harmful cooking solutions.

GLOBAL ENERGY

ACCESS GAP

Reducing energy poverty and achieving economic development requires ambitious targets – a **modern energy minimum.**"

Source: Sustainable Development Goals Report, 2024.

SMES AND THE GREEN FINANCE GAP

"SMEs make up 90% of firms, 50% of global employment, and up to 40% of GDP in emerging markets, while contributing significantly to GHG emissions.

Nearly half cite **lack of finance** as a barrier to climate action, and 70% need more funds to accelerate net-zero efforts. Many struggle to access sustainability finance due to limited reporting capacity, risking their survival and community impact."

Source: OECD, 2023.

CAPABILITIES GAPS

"Over **40%** of energy employers struggle to find workers with the skills needed for energy transitions.

While 'green talent' in the global workforce is increasing, demand for green skills is outpacing supply, and gender disparity is widening; **only 1 in 10 women**, compared to 1 in 6 men, has at least one green skill."

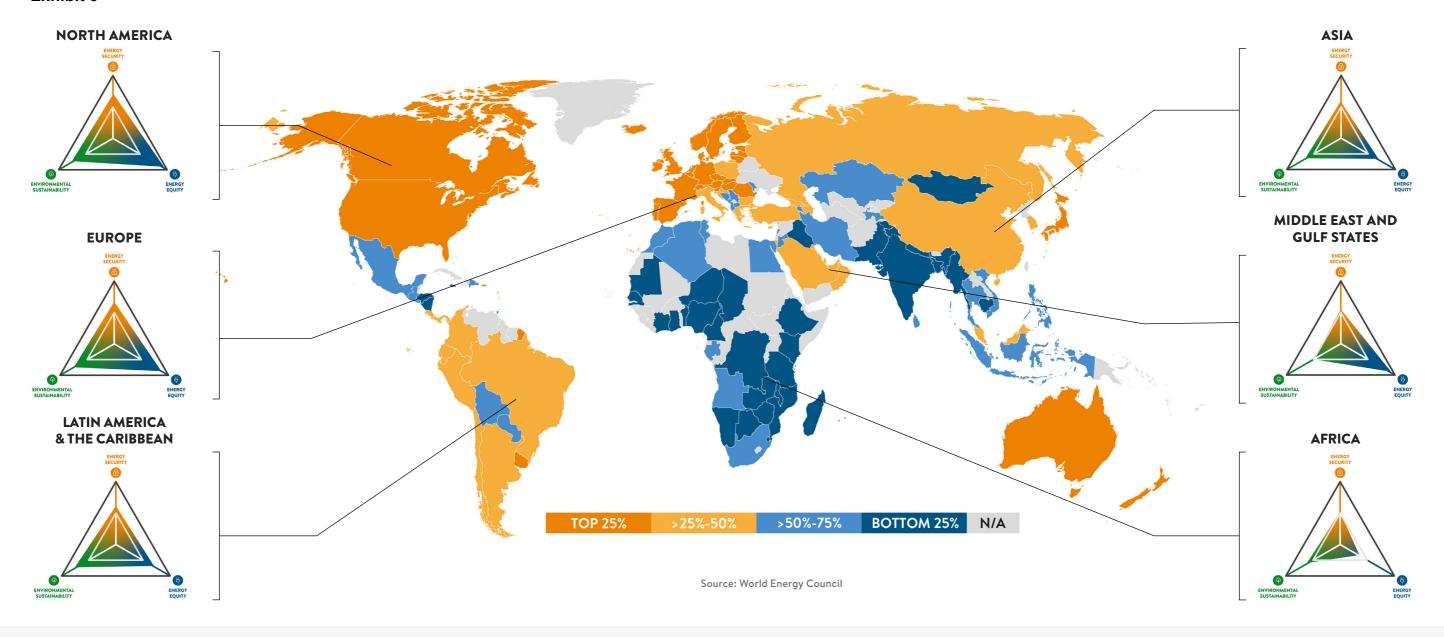
Source: Global Energy Talent Index, 2023; Green Skills Report, 2023.

YOUTH AND SOCIAL ENERGY MOVEMENTS

"More than **80%** of youth believe they are not adequately included in decision-making processes related to energy and climate policies."

Source: United Nations Youth Climate Report, 2022.

Exhibit 3



NORTH AMERICA

POWERING THE FUTURE: NORTH AMERICA'S TRILEMMA MANAGEMENT PLAN UNVEILED

North America is addressing its energy trilemma by focusing on infrastructure resilience, community-driven energy equity, and environmental sustainability. The transition towards clean energy is propelled by policies like the Inflation Reduction Act, although challenges such as investment in transmission infrastructure and market vulnerabilities persist. The continent's energy future hinges on balancing affordability, reliability, and sustainability, emphasising the importance of innovative policies and technologies, consumer engagement, and efforts to strengthen the grid against climate-induced disruptions.

EUROPE

NAVIGATING UNCERTAINTY TO MAINTAIN AFFORDABILITY AND TO ENSURE THE RESILIENCE OF ENERGY SYSTEMS IN RESPONSE TO GEOPOLITICAL SHOCKS

Europe is currently reassessing its energy strategy with a new focus on security in relation to affordability and sustainability. In contrast to a continuing reliance on gas, the rapid move towards diversification, particularly in renewables, reveals the tensions between immediate energy needs and long-term environmental goals. Price surges have prompted significant state intervention and electricity market reforms to protect consumers. Europe's challenge lies in balancing renewable integration, grid variability, and technological independence amidst geopolitical and energy sovereignty concerns, while steering towards resilient, self-reliant, and equitable energy systems.

LATIN AMERICA & THE CARIBBEAN (LAC)

FINDING A SOCIO-POLITICALLY APPROPRIATE PATH TOWARDS A RESILIENT AND SUSTAINABLE ENERGY FUTURE

Latin America and the Caribbean face complex energy futures, balancing security, equity, and sustainability amidst climate and political shifts. Subsidies play a crucial role in maintaining affordability, yet disparities and the cost of decarbonization continue to pose significant challenges. The region's reliance on hydro energy underscores the urgency for diverse and sustainable energy sources in the face of rising climate threats. The journey towards a resilient and sustainable energy future is marked by efforts to balance economic disparities, preserve biodiversity, and foster public-private partnerships amidst global energy shifts and the critical need for structural changes.

ASIA

ENSURING CONTINUITY OF ECONOMIC GROWTH WHILE MANAGING A SUSTAINABLE AND FAR-REACHING TRANSITION

Asia's energy transition is marked by robust demand driven by economic growth amidst climate threats and challenges to infrastructure resilience. Striving for energy independence, the region is exploring renewables while grappling with coal dependency. Efforts towards universal electricity access continue in a context of subsidies and other market complexities. Sustainability ambitions are visible in commitments to renewable expansion and electric vehicle adoption, yet balancing economic growth with clean energy transitions poses financing challenges. Asia's path is a multifaceted quest for resilience, clean energy, and sustainable growth, supported by regional cooperation and private investment.

MIDDLE EAST AND GULF STATES (MEGS)

PLACING ENERGY TRANSITION AT THE CENTRE OF AMBITIOUS ECONOMIC DIVERSIFICATION PLANS

The Middle East and Gulf States are at a crossroads, transitioning from traditional oil and gas dominance, critical to maintaining global energy security, to renewable and nuclear energy amidst geopolitical shifts. Already scoring high on energy equity, the region is investing in diverse energy sources and global initiatives to ensure continued access. Ambitious renewable targets and strategic investments mark a move towards sustainability, yet balancing economic diversification with challenges like governance and climate change is increasingly important. The region's journey towards balancing its energy trilemma involves navigating complexities to achieve sustainability and security goals amidst regional tensions.

AFRICA

SECURING RISING DEMAND DESPITE CONTINUOUS CHALLENGES

Africa is confronting a critical phase in its energy development, characterised by rising demand, security challenges, and a transition towards cleaner energy. Despite infrastructure and investment limitations, efforts towards renewable energy adoption and regional integration are gaining momentum. The continent faces a delicate balancing challenge between advancing energy equity, particularly in rural areas, and navigating environmental sustainability amidst increasing renewable investments and oil explorations. Africa's energy landscape is further complicated by geopolitical dynamics, highlighting the importance of upskilling, private sector financing, and institutional leadership for a sustainable future.