

# HUMANISING ENERGY: A LOOK AT THE G20 AGENDA

MAKING CLEAN AND INCLUSIVE ENERGY TRANSITIONS HAPPEN

## WHY IS GLOBAL PROGRESS ON ENERGY TRANSITIONS SLOWER THAN EXPECTED AND HOW CAN WE SHIFT POLICY GEARS?

Humanity is losing ground in addressing the climate change emergency, even with the increase of solar and wind power in global electricity generation from less than 2% to 12% since 2010. By 2050, at least half of world energy usage is expected to be met with renewables. Even so, only 6% believe the Paris Agreement limit of 1.5°C will be met. According to the Chair of the IPCC, the world is on track for 3°C by 2100, and a heroic effort is needed to stay below 2°C by 2050.

We are now in a critical and unpredictable phase of climate crisis. Investment and actions on adaptation and mitigation must progress accordingly. Climate change impacts – including more frequent extreme weather events – are no longer future possibilities, but present realities. Their unevenly distributed impacts increase the risk of ecological collapse and present a new threat of massive societal upheaval.

Integrating renewables at scale is not easy, cheap or fast - and the renewables revolution is at risk from climate change, the cost-of-living crisis, new energy shocks and supply chain disruptions.

Progress cannot be achieved through top-down, supply-side or technology-centric approaches. The challenge is not only to go faster, but to accelerate deeper decarbonisation with justice and resilience. All energy levers will be needed – financial, technological and societal.

There is no shortage of global capital or technology.

But the role of people and communities better understanding their roles and agency remains the biggest blind spot in all net zero roadmaps.

**THE WORLD ENERGY COUNCIL WELCOMES THE BRAZIL G20 PRESIDENCY FOCUS ON SOCIAL INCLUSIVITY AND JUSTICE.**

## HOW CAN WE MOBILISE MORE PEOPLE, GENERATIONS AND DIVERSE COMMUNITIES IN MAKING ‘BETTER’ ENERGY TRANSITIONS HAPPEN?

In April 2024, the Council’s 100<sup>th</sup> anniversary World Energy Congress convened over 4,000 leaders from across 84 countries in a groundbreaking, inclusive, and intergenerational leadership dialogue, on the theme Redesigning Energy for People and Planet. The conclusion reached is sobering.

**HOW WE GOT TO HERE, WON’T GET US TO WHERE WE NEED TO BE!**

Multiple energy transitions along diverging technology pathways are emerging in different places, at different paces, across diverse regions. There is no single breakthrough technology; it is essential to utilise all available levers and avoid specific policy prescriptions.

Success depends on managing complex interconnected coordination challenges. The pull of societal transformation is key to scaling the push of technology and financial innovation.

**HUMANISING ENERGY OPENS A NEW SPACE FOR MOBILISING INCLUSIVE SOLUTIONS**

The social realities of energy transitions are messy. It is important to rise above fragmented, single-issue agendas – green jobs, modern access, affordability, capabilities, licensing, resilience, etc.

The Council has led the world in championing more holistic and inclusive energy transitions, with

a humanising energy vision and action agenda which is key to global step change mobilisation and impact.

Our independent and permanent global leadership community network, spanning all energy transition interests in over 100 countries, is actively working to:

- Foster shared understanding of the new opportunities and solutions space shifting policy gears and new market designs for transformative energy transitions.

- Boost ‘active’ energy literacy to empower communities in understanding their roles, making informed choices and changing behaviours.

- Encourage regions to lead with and learn from each other about what is and is not working.

- Convene a new model of interactive, inclusive and intergenerational solutions-driven leadership dialogues – and use new insights from collaborative foresight – to (re)design clean & inclusive net zero road maps.

## OPPORTUNITIES FOR THE G20 AND WORLD ENERGY COUNCIL TO MOVE FORWARD TOGETHER

We invite the G20 Energy Ministers to work more closely with the World Energy Council and community on the challenges of managing security, affordability and sustainability with resilience and justice. Please **register your interest** in receiving further briefings:

- 1. World Energy Issues Monitor:** The rise of the ‘social energy issues cluster’ and variations in priorities across regions.
- 2. World Energy Trilemma Index:** Tracking a decrease in energy affordability across decades.
- 3. Dynamic Resilience:** A new approach to preparing for new energy shocks, system disruptions and unpriceable risks.
- 4. World Energy Scenarios:** Navigating turbulent transitions using World Energy Scenarios Foundations to explore diverse pathways to align interests and accelerate collaboration at speed and scale.
- 5. Strategic Learning Opportunities:** Sharing learning across diverse regions – integrating renewables at scale, supporting societies in meeting full systems costs (including infrastructures and capabilities), and building ‘dynamic resilience’ to recover from multiple shocks and restart grids after extreme.

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.

**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.

**GLOBAL ENERGY ACCESS GAP**

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

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

Source: Sustainable Development Goals Report, 2024.

**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.

**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.

**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.

**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.

**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.