

Acting Systemically to Ensure the Integration of Renewable Energy Across Our Economies and Societies

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KEY MESSAGES

The current polycrisis is highly disruptive but it also creates opportunities to drive the shift from a fossil fuel economy to one built with renewables.

Deep transformational changes are needed to integrate renewables across our economies and societies. This means breaking down silos within the energy sector and forging bridges with other energy consuming sectors such as transport, buildings, agriculture and industry.

We must think systemically, looking not only at the energy system but the role of renewables in economic development, industralisation and in creating healthy, vibrant, equitable communities.

INTRODUCTION

Access to affordable, renewable energy is needed to meet SDG7's goal of ensuring access to clean and affordable energy for all as well as meeting broader economic and social objectives such as poverty eradication, gender equality, food security, health, education, clean water and sanitation, jobs, innovation, transport etc. A transition to renewable energy is also needed to address the biggest threat to humanity over the long term: climate change.

Three years after COVID-19 pandemic we have seen a record increase in global installed renewable power capacity and record investment in renewables. Solar and wind power now provide 12% of the world's electricity for the first time ever and over 135 countries have a target for net zero greenhouse gas emissions.

Yet the global energy transition is not happening quickly enough. Aftershocks from the pandemic and a rise in commodity prices disrupted renewable energy supply chains and have delayed projects. A rebound in economic activity has led to an increase in global energy demand, much of which is being met by fossil fuels, resulting in record carbon dioxide (CO₂) emissions.^{iv} The spike in energy prices in the second half of 2021, followed by the Russian Federation's invasion of Ukraine in early 2022, contributed to an unprecedented global energy crisis and commodity shock. In response, governments have implemented short-term measures to alleviate price spikes. This situation has

exposed the world to ever more pressing climate disasters as well as to geopolitical and economic threats.

While the current polycrisis is highly disruptive, it also creates opportunities for change and to build responses. The downsides of fossil fuel-based economies have become clearer. The increasing need for energy security exacerbated by Russia's cut of its oil and gas exports brings into stark contrast the need for renewable energy. In parallel, soaring fossil fuel prices and the risks of energy shortages—combined with stronger climate commitments, targeted policy frameworks and recent technological developments—are driving increased renewables use. Vi

But we cannot look at energy supply and security alone. Energy is deeply embedded in the larger structures of our societies and economies. Players have diverse energy needs, and all must benefit from renewables. These benefits need to be at the heart of any definition of an energy future and requires that we build up societal and market acceptance.

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MOVING TO SYSTEMIC THINKING

REN21 is the only global international policy network dedicated to the rapid uptake of renewables. It is also the historic holder and convener of the International Renewable Energy Conference (IREC) series; a conference series that gathers stakeholders from around the world to identify how to drive the systemic change of the energy transition, globally, regionally, nationally.

Established in 2004, the IREC series has a long history of bringing together different voices to push the energy discussion. The IRECs multi-stakeholder approach provides a unique vehicle to deepen and broaden the conversation about how to construct an energy system that supports sustainable development and climate objectives.

The Spanish International Renewable Energy Conference (SPIREC)—20-22 February 2023 in Madrid, Spain—was held at a strategic moment with the world caught between the competing challenges of rapidly finding sustainable solutions to a dangerously deteriorating climate situation and ensuring a sufficient, stable and affordable energy supply. Its programme was structured to look at the current energy crisis as an opportunity. Thematic tracks and sessions were designed to help bridge silos between energy and end use sectors. Interactive sessions pushed participants to define and debate what changes need to happen to anchor renewables at the heart of our economies and societies and how to achieve this.

Track 1- Stable Energy Supply, Energy Security and Sovereignty with Renewables

Sessions addressed the foundations necessary to build a stable new energy order around renewables such as securing energy supply and the supply of materials and technology, developing infrastructure and strengthening global, regional and local supply chains.

Track 2- Renewables: Meeting Energy Demand in All Sectors

Here sessions explored ways to meet the increasing energy demand in non-energy sectors like buildings, industry, transport and agriculture and the choices that can be made on the type of fuel used, including renewable power, thermal energy, or renewable-based fuels such as biofuels, green hydrogen, ammonia and synthetic fuels.

Track 3 - Seize the Opportunity: Building a New Economy with Renewables

The necessary trade and industrial developments needed to ramp up renewables, how to ensure local and equitable value creation, and the rules that need to be changed formed the sessions of this track.

Track 4 - People at the Centre: Renewables at the Heart of Society

This track investigated ways to inspire and build trust to make the energy transition "work" for all actors and at all levels. It also explored ways for players from government, industry and civil society to work together to reach this goal.

Track 5 - Innovation to Fast-Track and Scale Up Renewables

Here sessions deliberately looked "outside the box" for ways to trigger structural transformation beyond technological innovation, focusing on thought processes, business models and creative solutions for the rapid scale up of renewables.

Over the three days, ministers and government representatives, representatives of the private sector, civil society, academia and international organisations from 110 countries explored what it takes to drive these deep transformations. The following summarises the conclusions stemming from these discussions; the collection of which forms the SPIREC Declaration.^{ix}

SPIREC CONCLUSIONS

Based on the ever more undoubtable scientific evidence of the progression of climate change, participants were united by a sense of urgency to speed up the delivery of renewables and by the need to ensure secure, stable and affordable energy supply globally. They noted that the role of renewable energy as an economic driver and a driver for energy security is increasingly recognised by a broad diversity of players, creating a momentum for building shared answers in a more integrated way.

But transitioning to a renewables-based energy system requires more than a fuel switch if it is to be successful in replacing our current fossil fuel-based economy. This transition must also:

- create local social and economic value by putting put people at the centre, leading to increased public support for the acceleration of a just and inclusive transition;
- increase the use of renewables in industry, buildings, agriculture and transport;
- build on energy savings, energy efficiency, renewable energy supply, infrastructure (including storage) and digitalisation;
- increase and reinforce targeted investments;
- push for the evolution of "business as usual"; and
- drive a parallel reduction in the use of fossil fuel energy.

The transition also provides a prime opportunity to build a new and inclusive energy order around renewables by developing new infrastructure, strengthening global, regional and local value chains. The shift away from a few dominant companies to a granular network of renewable energy providers of all sizes, helps to decentralise and democratise the energy system.

Government policies need to become the backbone of the energy transition. Response to short term and geopolitical concerns must align with the opportunities that renewable energy for development can bring for all and should not undermine the longer-term objective of a sustainable energy future. Long term political support is vital and must include the removal of fossil fuel subsides. Political leadership is also required to ensure that the shift to renewables is politically anchored in the climate discussion.

RECOMMENDATIONS

The tremendous progress in renewable energy and related technologies makes a renewable energy future possible and economically sound. But deep transformational changes are needed as presented above. The SPIREC Declaration outlines three recommendations and accompanying action points:

1. Build a continuous drum beat for renewables

SPIREC, the SDG7 review, the 2023 climate talks (COP28) and the IREC in Australia (AUSIREC: April 7-11, 2024) provide strategic entry points to create a continuous momentum around the role of renewables in meeting development and climate objectives. SPIREC participants proposed to make 2023 the *Year of Renewables: From SPIREC to AUSIREC* to maintain steady conversation and messaging around an accelerated energy transition, to inspire, mobilise and create societal support for the energy transition.

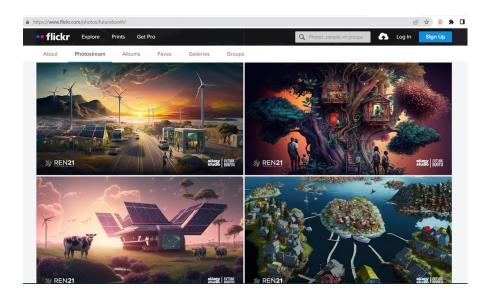
2. Develop continuous nexus dialogues to bring together stakeholders from different sectors and encourage the integration of sectoral policies and strategies

UNDP, in collaboration with the REN21 multistakeholder community will develop a *Renewable Energy for Development Academy* to shape the narrative of renewable energy as an enabler for sustainable development and demonstrate the business case for renewable energy globally. The objective is to support developing countries with capacity building and trainings that showcase multisectoral approaches for using renewable energy for productive uses and for economic development.

Other nexus topics to develop include convening a continuous dialogue on the renewables transport nexus and energy efficiency and renewable energy. The focus, of the latter, would be on building up and convening a continuous dialogue to strategically link efficiency and renewable energy, with a priority on strengthening developing country multi-stakeholder voices.

3. Rapidly scale-up communication around renewables

Launch an integrated narrative, embodied in the campaign #REBOOTtheworld to raise the overall profile of the value of renewable energy in ensuring a secure energy supply, robust economies and societies. The campaign will use artificial intelligence (AI) to interpret the ideas and concepts of everyday people in a world fueled by renewables. The tool creates images that contextualise these visions in real-life situations, offering a mosaic of how we want our future to be.



CONCLUSION

The crisis of our current fossil fuel-based energy system is alarming and we urgently need to transition to renewables across all economic and societal activities. To achieve this, renewable energy needs to be at the heart of the political response to the energy crisis. Only an energy-efficient and renewable-based economy can be a game changer for a more secure, resilient, low-cost—and and sustainable—energy system. To do this we must, collectively, embrace the fact that to achieve an equitable, sustainable future we need to look beyond energy as usual. We must think systemically, looking not only at the energy system but the role of renewables in economic development, industralisation and in creating healthy, vibrant, equitable communities.

ⁱ REN21 (2022), Renewables Global 2022 Status Report

[&]quot;Ember (2023), Global Electricity Review 2023

iii REN21 (2022), Ibid

iv Steven Davis, ZhuLiu, ZhuDeng, BiqingZhu, PiyuKe, et al. *Emissions rebound from the COVID19 pandemic*. Nature Climate Change, 2022,12, pp.412-414

^v IEA (2023), Russia's War on Ukraine, https://www.iea.org/topics/russias-war-on-ukraine

vi REN21 (2022), Ibid

vii www.ren21.net

viii SPIREC, the 9th meeting in the series of the International Renewable Energy Conferences (IRECs), builds upon successful outcomes of KIREC 2019 (Seoul/Korea), MEXIREC 2017 (Mexico City/Mexico), SAIREC 2015 (Cape Town/South Africa), ADIREC 2013 (Abu Dhabi/UAE), DIREC 2010 (Delhi/India), WIREC 2008 (Washington DC/US), BIREC 2005 (Beijing/China) and renewables 2004 (Bonn/Germany). It was held 20-22 February 2023 in Madrid, Spain.

ix The complete Declaration text can be found at: www.ren21.net/wp-content/uploads/2019/05/SPIREC-Declaration Final amended.pdf