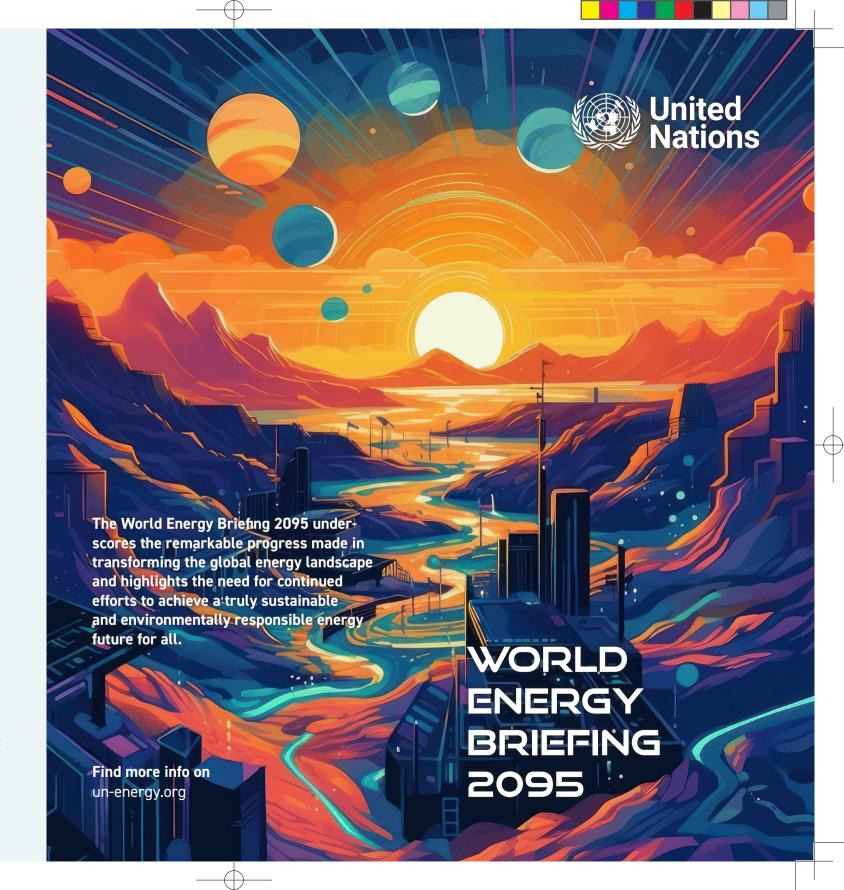
## RECOMMENDATIONS

- Strengthen international cooperation and coordination to accelerate the transition to a sustainable, low-carbon energy future. This includes fostering public-private partnerships, promoting technology transfer, and enhancing collaboration in research and development.
- Implement policies and incentives to encourage further adoption of renewable energy sources, including solar, wind, hydro, geothermal, and other emerging technologies.
   This may involve subsidies, tax credits, and regulatory reforms that support clean energy deployment and discourage fossil fuel consumption.
- Prioritise investment in energy infrastructure that is resilient to the impacts of climate change. This includes the development of advanced grid technologies, energy storage solutions, and climate-adaptive energy generation systems.
- Address energy inequality by promoting universal access to affordable, reliable, and sustainable energy. This includes targeted investments in rural electrification, capacity building, and technology dissemination in developing countries.
- Support research and development in advanced energy technologies, such as high-efficiency solar cells, next-generation batteries, and innovative renewable energy solutions, to further drive down costs and improve the overall efficiency of the global energy system.
- Encourage the integration of environmental and social considerations in energy planning and decision-making processes, to ensure that the transition to a sustainable energy future is equitable and inclusive.







## **EXECUTIVE SUMMARY**

The World Energy Briefing 2095, prepared by the United Nations' Energy Division, provides a comprehensive overview of the global energy landscape.

The Briefing examines the current status and future prospects of various energy sources, assesses the progress made towards achieving sustainable energy goals, and highlights the challenges and opportunities presented by climate change, technological advancements, and evolving geopolitical dynamics.

## **KEY FINDINGS**

- 1. The global energy mix has transformed significantly since the early 21st century, with renewable energy sources now accounting for over 80% of total energy production. Solar energy has emerged as the leading source of power, contributing to approximately 35-45% of global energy consumption, followed by wind, hydro, geothermal, and other renewables.
- Fossil fuel consumption has declined dramatically, with coal, oil, and natural gas accounting for less than 10% of the global energy mix.
   This decline has been driven by aggressive climate change mitigation policies, technological advancements in renewable energy, and the increasing economic competitiveness of clean energy sources.
- Decentralised energy generation has gained traction, enabled by advancements in solar, wind, and energy storage technologies. Smart grids, powered by General Artificial Intelligence, have become crucial in managing energy distribution and ensuring the efficient use of renewable resources.

- 4. Climate change impacts, including rising global temperatures, have presented both challenges and opportunities for the energy sector. Melting polar ice caps and shifting cloud cover patterns have created new regions suitable for solar energy installations. However, these same environmental changes have also exacerbated the need for resilient and adaptable energy infrastructure.
- 5. International cooperation and investment in renewable energy research and development have been critical in driving the energy transition. The establishment of global partnerships, such as the International Solar Alliance and the Global Wind Energy Council, has facilitated the sharing of knowledge and resources, accelerating the deployment of clean energy technologies worldwide.
- 6. Despite significant progress in transitioning to a sustainable energy future, energy inequality remains a pressing issue. Efforts to ensure universal access to affordable, reliable, and sustainable energy must be intensified, particularly in developing countries and regions facing the most severe impacts of climate change.