

## **Fifteenth session of the IRENA Assembly**

### **Key Enablers for the Energy Transition: Grid, Solar and Storage**

11 January 2025, 11:00 – 12:30 GST  
St. Regis Hotel, Saadiyat Island, Abu Dhabi

#### ***Background***

In the next crucial decade, **limiting the rise of global temperature to 1.5°C depends on swift action** to fully decarbonise the energy system, implement robust energy efficiency measures, strengthen energy infrastructure and electrify end-use sectors. Despite numerous calls for action and climate warnings, the energy transition lags, leading to soaring emissions and an unavoidable and impactful climate crisis.

At COP28 in Dubai, the historic UAE Consensus was a landmark decision by over 130 countries to advance the energy transition. This agreement laid out ambitious targets, including tripling renewable energy capacity, doubling energy efficiency by 2030. Building on this progress, the COP29 Presidency launched the **Global Energy Storage and Grids Pledge**, which aims to increase global energy storage capacity sixfold from 2022 levels to 1,500 gigawatts by 2030. Endorsers of the pledge also commit to scaling investments in energy grids, supporting global goals to add or refurbish over 80 million kilometres of transmission and distribution lines by 2040. These initiatives prioritise accelerating the deployment of renewable energy technologies through enhanced storage and grid infrastructure. Together, they represent essential steps toward meeting rising energy demands while ensuring a just, equitable, and sustainable transition away from fossil fuels.

[IRENA's Coalition for Action](#) is a diverse partnership comprising over 150 non-governmental stakeholders, who emphasises the need for a comprehensive transition to a fully renewable energy-powered system by mid-century – setting a clear trajectory towards a 100% renewable energy system by 2050. Its forthcoming publication, [Key Enablers for the Energy Transition: Solar and Storage](#) provides crucial recommendations into how renewable energy storage solutions are instrumental in achieving global energy goals.

The report highlights how integrated solar storage solutions can serve as key enablers for achieving the global target of triple renewable energy capacity supported by 1,500 gigawatts of storage capacity by 2030. Solar energy, coupled with energy storage solutions, stands out as a cornerstone of these efforts. Solar PV systems, when integrated with advanced storage technologies, offer a holistic combination to meet fluctuating energy demands, provide grid flexibility, and enhance energy security. Moreover, innovative solar and storage applications offer transformative possibilities, particularly in

regions that are undergoing rapid energy transitions. However, large-scale deployment of storage solutions faces challenges, among these, safety and market design remain critical concerns.

The development of comprehensive safety standards, robust risk management and adaptive market design strategies will be vital to scaling up storage technologies globally.

It is against this backdrop that the roundtable discussions with leading experts will explore these themes in-depth. The discussions will play a pivotal role in shaping a clear pathway toward a resilient, renewable-powered future, serving as key drivers of the energy transition.

### ***Objectives:***

The event will aim to:

- **Showcase Key Recommendations:** Present insights from IRENA's forthcoming publication, **Key Enablers for the Energy Transition: Solar and Storage**, to guide stakeholders in implementing effective renewable energy and storage strategies.
- **Facilitate Expert Dialogue:** Provide a platform for leading experts to discuss strategies for accelerating the energy transition through renewable energy, storage, and grid enhancements.
- **Highlight the Benefits of Integrated Solar Storage Solutions:** Explore the role of solar and energy storage solutions as pivotal enablers for achieving global renewable energy and storage targets by 2030.
- **Address Deployment Challenges:** Examine key challenges, such as safety standards and market design, and identify actionable solutions for scaling up energy storage technologies worldwide.
- **Strengthen Public-Private Collaboration:** Encourage partnerships between governments, industry, and civil society to drive investments, innovations, and coordinated actions for a resilient and sustainable energy future.

### ***Associated Publications***

- [Key enablers for the energy transition: Solar and storage; Preliminary findings](#) (IRENA Coalition for Action, 2024)
- [Delivering on the UAE Consensus: Tracking progress toward tripling renewable energy capacity and doubling energy efficiency by 2030](#) (IRENA, COP28, COP29, GRA, MoEA and Government of Brazil, 2024)

### ***For more information please contact:***

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