

MEGAWATT

Exhibition & Conference

Innovate. Connect. Empower.

2025 Conference Programme

**Milan Bergamo - Italy,
21 - 22 October**

www.MEGAWATTEXPO.com

With the Patronage of:



MINISTERO DELL'AMBIENTE
E DELLA SICUREZZA ENERGETICA

What's MEGAWATT 2025 Event?

MEGAWATT 2025 is a **two-day conference, networking, and specialized event** where industry leaders, innovators, policymakers, and experts convene to shape the future of the energy sector. At the heart of the event lies a clear and shared objective: to accelerate the global energy transition through sustainable practices and effective decarbonization strategies, guiding every technological and policy-related choice.

Through high-level forums, **keynote sessions, and strategic discussions**, attendees will explore critical topics such as **renewable energy, hydrogen, power generation efficiency, AI integration in energy systems, and the evolution of infrastructures in line with environmental goals.**

The **conference program** is designed to offer a comprehensive view of how **sustainability and decarbonization** intersect with innovation, featuring dedicated tracks on transmission and distribution, energy storage, digitalization, and advanced manufacturing technologies, including additive manufacturing.

Networking is a central element of MEGAWATT 2025. The event facilitates meaningful exchanges between energy professionals, institutions, and technology providers, building synergies and collaborations that enable more efficient, responsible, and forward-looking energy systems.

A highlight of the event is the **exclusive gala dinner**, a unique moment to connect in an informal setting, strengthen relationships, and share memorable experiences in an atmosphere that reflects both the spirit of collaboration and the urgency of the **energy transition challenge.**



CONFERENCE TRACKS

NUCLEAR



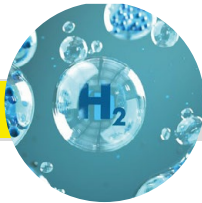
POWER GENERATION



SUSTAINABILITY



RENEWABLE ENERGIES



HYDROGEN & EMERGING FUELS



TRANSMISSION, DISTRIBUTION & STORAGE



ADVANCING MANUFACTURING & ADDITIVE TECHNOLOGIES



AI, DATA & DIGITALIZATION IN ENERGY



FUTURE TRENDS & FINANCE

SUSTAINABILITY & EMISSION REDUCTION

Decarbonization & Competitiveness: Strategies for a Sustainable Energy Future.

In a context of evolving regulation and growing focus on transparency, utilities and energy players must align innovation with sustainability.

This session explores effective strategies and technologies to reduce emissions, improve efficiency, and ensure grid resilience — all while addressing corporate responsibility through ESG policies and non-financial disclosures (DNF).

Key themes will include:

- Carbon Capture & Storage (CCS)
- Lifecycle emission management
- Dispatchable and hybrid technologies
- Low-carbon fuels: hydrogen, biofuels
- Digital tools for operational efficiency
- Circularity and competitiveness
- ESG and DNF: aligning performance and transparency

Join to discover how technological innovation and policy can drive meaningful progress toward net-zero goals and long-term value creation.



RENEWABLE ENERGY SOLUTIONS

Delve into strategies for integrating renewable energy sources such as wind, solar, hydroelectric, geothermal and nuclear power into existing power generation systems, including grid integration, storage solutions, and hybrid plant configurations. Discussions will also cover the use of new fuels derived from renewable sources in turbine operations.

Topics will include, but not be limited to:

- Next generation of renewables
- Nuclear energy as a lower-carbon energy source
- Bioenergy from waste: circular economy in renewable power
- Economics of renewable energy: cost reduction and market parity



NUCLEAR

Delve into the evolving role of nuclear energy in achieving global decarbonization goals.

Examine the potential of advanced nuclear technologies - including Small Modular Reactors (SMRs) and next-generation reactors - to provide reliable, low-carbon baseload power. Explore innovations in fuel cycles, waste management solutions, and safety enhancements that aim to make nuclear power more efficient and publicly accepted.

Sessions will address the integration of nuclear into hybrid energy systems, regulatory frameworks, and financing models supporting new-build and life extension projects. Join discussions on how nuclear can complement renewables in delivering a resilient and sustainable energy mix.

Topics will include, but not be limited to:

- The resurgence of nuclear: Are SMRs the future of clean energy?
- Innovations in nuclear waste management and fuel recycling
- Hybrid nuclear-renewable systems: maximizing reliability and sustainability
- Public perception, regulation, and investment in the nuclear renaissance



INNOVATIONS IN POWER GENERATION

Explore the latest innovations and advancements in steam and gas turbine technologies, including design enhancements, materials development, and efficiency improvements.

Special attention will be given to maintenance-friendly designs and technologies that optimize performance and reliability.

Topics will include, but not be limited to:

- Gas turbine potential for net-zero emissions
- Reinventing gas fired generation
- The role of cogeneration in decarbonisation
- Advancement in power generation technologies
- Asset & lifecycle management strategies



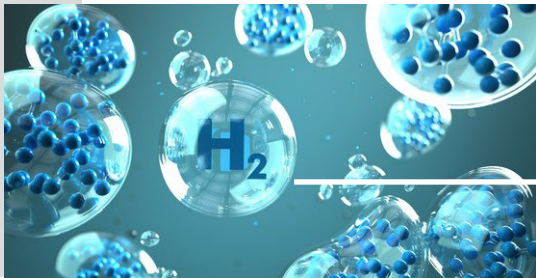
HYDROGEN & EMERGING FUELS

The conference will discuss and debate challenges, opportunities, and most importantly – solutions, to the increasingly green hydrogen fuel alternative or combined fuel in power generation.

Bringing together hydrogen producers, energy majors, the oil and gas industry, pipeline operators, offshore wind and energy companies, utilities giants, renewable energy investors, engineering firms, heavy industry, steel producers, chemical and process industries, and technology suppliers.

Topics will include, but not be limited to:

- Creating a commercially viable net-zero economy through H₂ adoption
- Challenges and success factors for OEMs and EPCMs – New ways of cooperation to reduce complexity, sources of error, costs and expenses
- Hydrogen blending in existing natural gas networks
- Blue hydrogen and carbon capture synergies
- Sector coupling with hydrogen for a resilient energy system



TRANSMISSION, DISTRIBUTION & STORAGE

Transmission and Distribution (T&D) systems play crucial, interconnected roles in delivering reliable power. As decentralized generation grows, distribution networks must adapt - embracing digitalization, bidirectional flows, and flexibility to maintain stability.

This session explores best practices for real-time grid balancing and the technologies enabling a modern, resilient energy system.

Topics will include, but not be limited to:

- Navigating challenges in the evolving energy landscape
- Delivering the real zero grid
- Enabling technologies for utility-scale long-duration energy storage integration
- Strategies for a robust and resilient transmission grid
- The role of energy storage in grid flexibility, peak shaving, and frequency regulation
- Unlocking the full potential of distributed storage as a grid asset



ADVANCED MANUFACTURING & ADDITIVE TECHNOLOGIES

Explore how advanced manufacturing & additive technologies are revolutionizing the energy sector. This session will delve into the creation of highly efficient, complex turbine components that enhance performance and reduce fuel consumption. Learn about the benefits of minimized material waste, on-demand part production, and reduced maintenance downtime.

Discover how this technology supports innovation, improves thermal management, and aligns with sustainability goals by reducing carbon emissions and facilitating the integration of renewable energy sources.

Topics will include, but not be limited to:

- Digital twin integration in manufacturing
- 3D Metal: only prototyping and small series or mass production?
- Foundry or additive printing: when the shape makes the difference
- Powders AM: the development of new materials applied to metal 3D printing
- Real-Time quality monitoring, control & certifications



Ai, DATA & DIGITALIZATION IN ENERGY

This session will explore the critical importance of managing the energy consumption of AI and data centers for sustainable development addressing the latest advancements in energy-efficient technologies, the integration of renewable energy sources, and the implementation of sustainable practices to significantly reduce their environmental impact.

Topics will include, but not be limited to:

- AI and the digital transformation of the energy
- Predictive analytics for power plant maintenance
- AI for balancing renewable and conventional energy sources
- Sustainable data centers: enhancing energy efficiency
- Automation and smart contracts in decentralized energy management



FUTURE TRENDS & FINANCE

This session will explore key topics shaping the energy sector, focusing on policy, regulations, finance, and market outlook.

This forum will bring together leading voices from both public and private sectors to discuss:

- Equity and energy justice
- Power generation, hydrogen, and carbon capture goals set by governments
- Permitting and licensing for operational compliance with environmental regulations
- Safety and quality standards
- Research and Development funding, with investment from governments and private entities in cutting-edge projects
- Green finance and incentives, including green bonds, loans, and investment opportunities
- Workforce development to support the future of the energy landscape
- Future trends and market outlook

WHO WILL ATTEND

Utilities

Independent Power Producers

Commercial and Industrial Users

Investors & Financiers

Government and NGOs

Associations & Regulatory Bodies

Distributors and Resellers

Suppliers and Manufacturers

Technology Providers

Academia and Research & Development

Municipalities

EPC'S

OEMs

How to REGISTER

Registrations are open:

EXHIBIT

EXHIBIT@MEGAWATTEXPO.COM

SPEECH

ABSTRACT@MEGAWATTEXPO.COM

ATTEND

REGISTRATION@MEGAWATTEXPO.COM

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2025 Agenda

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*Driving Sustainability &
Clean Energy
for a Brighter Future.*

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