MEGAWATT

Exhibition & Conference

Conference Program

Innovate. Connect. Evolve.

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#MEGAWATT2026 **#JOINMEGAWATT**

MEGAWATT
Exhibition & Conference

2025 Speaking Companies

MEGAWATT 2026 CONFERENCE

The global energy system is experiencing the most rapid and profound transformation in its history.

In 2026, the MEGAWATT Exhibition & Conference program will bring together industry leaders, policymakers, technologists, researchers, and innovators to address strategic challenges and present real-world solutions for a cleaner, secure, and competitive energy future.

MEGAWATT conference tracks span the full spectrum of the energy transition - from conventional and nuclear power to renewables, hydrogen, carbon capture, digitalization, and industrial safety.

The program is designed to:

- Deliver actionable insights, case studies, and pioneering projects
- Foster strategic dialogue between industry and institutions
- Enable new business, partnerships, and investment opportunities
- Highlight emerging talent, advanced engineering, and future-proof skills

This is where the future of energy begins - and where leaders come together to shape it.

CONFERENCE TRACKS

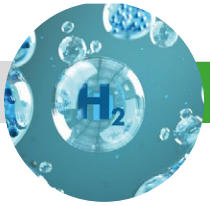
SUSTAINABILITY & EMISSION REDUCTION

CCUS & CLEANER POWER GENERATION

NUCLEAR INNOVATION

RENEWABLE ENERGIES INTEGRATIONS

HYDROGEN & EMERGING FUELS



GRID STABILITY & FLEXIBILITY

ADDITIVE MANUFACTURING, MACHINING & ADVANCED MATERIALS

MAINTENANCE & DIGITAL OPERATIONS

Ai, DATA & SMART INFRASTRUCTURE

SAFETY IN MAINTENANCE, CONSTRUCTION & ENERGY OPERATIONS

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.

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.

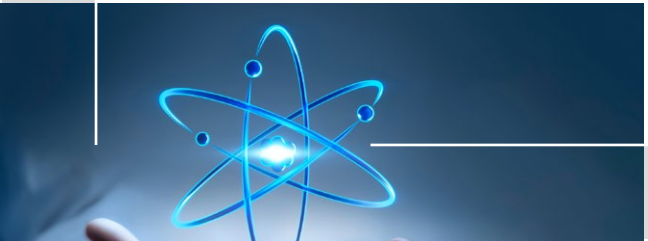
NUCLEAR INNOVATION

Nuclear energy is re-emerging as a core pillar of global decarbonisation and energy security. This track examines next-generation technologies and industrial strategies shaping the sector's revival in Europe and beyond.

Key themes:

- **Small Modular Reactors (SMRs) & advanced reactor designs for flexible, dispatchable power**
- **Fuel-cycle innovation & high-assay fuels to increase efficiency and sustainability**
- **Hybrid systems: nuclear integration with hydrogen production & carbon-capture processes**
- **Fast-track construction models & supply-chain revitalisation in Europe**
- **Operational excellence, safety frameworks & workforce development for the nuclear era**

Mission: Scaling safe, competitive nuclear energy to reinforce energy sovereignty - with dedicated focus on Italy's renewed strategy, investment pathways and short-to-mid-term project opportunities.



CCUS & CLEANER POWER GENERATION

As decarbonisation accelerates, carbon capture, utilisation and storage (CCUS) has moved from emerging concept to a strategic industrial priority. Alongside CCUS, innovation in cleaner power generation - spanning advanced turbine systems, fuel-flexible combustion, hybrid renewable-thermal models and energy recovery solutions - is shaping the next phase of global energy transition.

This track explores:

- **Next-generation capture technologies, sorbents & membranes**
- **Retrofitting and repowering conventional power assets**
- **High-efficiency turbines and H_2-ready & ammonia-capable systems**
- **Hybrid architectures combining thermal, renewables & storage**
- **Industrial heat decarbonisation & waste-heat recovery**
- **Business models enabling clean-power investments at scale**

With real industrial case studies and deployment roadmaps, sessions provide a practical look at how clean power technologies and CCUS can be scaled with economic viability, supporting climate goals while safeguarding energy security and industrial competitiveness.

MAINTENANCE & DIGITAL OPERATIONS

Operational excellence and asset resilience are becoming decisive competitive advantages in the energy sector. As infrastructure evolves, maintenance is shifting from scheduled actions to predictive, data-driven and autonomous models. This track covers how AI, digital twins, remote diagnostics, advanced analytics and robotics enable smarter maintenance, lower lifecycle costs and higher uptime across power and industrial assets.

Key themes include:

- **Predictive maintenance & condition-based strategies**
- **Digital twins & data-driven asset-performance optimisation**
- **Remote service & autonomous inspection**
- **Supply-chain resilience for critical components & repairs**
- **Workforce upskilling and field-service digital tools**
- **OT cybersecurity & regulatory readiness**
- **Reliability engineering & asset-lifecycle strategies**

With real project insights, the programme highlights how digital operations are building reliable, efficient and future-ready energy systems.

GRID STABILITY & FLEXIBILITY

As renewable penetration grows and electrification accelerates, securing grid stability and system resilience has become one of the most critical challenges for operators, regulators and technology providers.

This track explores how advanced grid-forming technologies, hybrid storage systems, digital control platforms and flexible demand models are reshaping power systems to withstand variability, ensure reliable capacity and maintain security of supply.

Key focus areas:

- **Grid-forming inverters & advanced power electronics**
- **Battery-based frequency services & hybrid storage architectures**
- **Flexible demand, virtual power plants & aggregation models**
- **Digital grid intelligence, forecasting & real-time control**
- **Black-start capabilities & system recovery planning**

Participants will gain insight into the architecture of future power systems - resilient, flexible and intelligent - capable of integrating large shares of renewables while guaranteeing stability, reliability and operational excellence.

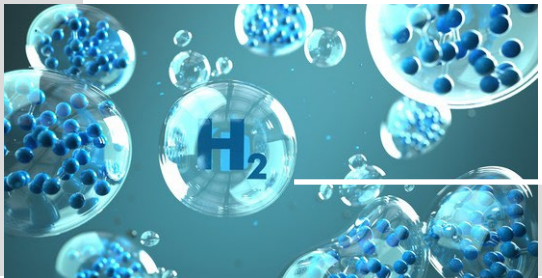
HYDROGEN PROGRESS

Hydrogen is shifting from pilots to industrial scale, becoming a key pillar for decarbonising power, mobility and hard-to-abate industries. This track examines the technologies and market frameworks enabling real deployment and value-chain maturity.

Topics include:

- **Next-generation electrolysers & high-capacity rollout**
- **H_2-ready turbines & combustion innovation**
- **Transport, compression & large-scale storage solutions**
- **Industrial hydrogen hubs & cross-sector integration**

Sessions focus on scalability, cost-competitiveness and real-world integration, showcasing how hydrogen ecosystems can be efficiently built and connected to power and industrial systems.



RENEWABLES INTEGRATIONS

Turning renewable capacity into reliable, dispatchable energy is now one of the defining challenges of the transition. This track explores how to move beyond simple generation toward integrated, intelligent renewable ecosystems capable of delivering stability, flexibility and economic value at scale.

Topics include:

- **Hybrid architectures: solar + wind + storage + thermal support**
- **Grid-connected microgrids & renewable-powered industrial sites**
- **Long-duration energy storage (batteries, thermal, hydrogen, gravity)**
- **Power-to-X opportunities & industrial electrification**

Case studies highlight operational success stories, system-level economics and lessons learned on balancing intermittency with grid stability.
The focus: renewables that do not just produce energy - but anchor a resilient, dispatchable power system.

AI & SMART INFRASTRUCTURE

The digital backbone of the energy transition is expanding fast - and intelligence at scale is no longer optional. As electrification accelerates and new loads emerge, AI-enabled systems and high-efficiency data centers are reshaping how energy is produced, distributed and consumed.

This track explores the convergence of artificial intelligence, edge computing, data-center infrastructure and smart energy systems, examining how they unlock reliability, flexibility and performance across the global energy value chain.

Key focus areas:

- **AI-driven grid orchestration & demand optimisation**
- **Intelligent energy management in data centers**
- **High-efficiency cooling & power architectures**
- **Edge computing & real-time control systems for distributed energy resources**
- **Interoperability & secure data frameworks for energy platforms**
- **AI-powered decision systems & autonomous industrial operations**
- **Digital ethics, cybersecurity & resilience for mission-critical infrastructure**

The goal: enabling scalable, efficient, secure and autonomous energy systems capable of supporting electrification, industry growth and next-generation compute demand.

SAFETY IN MAINTENANCE, CONSTRUCTION & ENERGY OPERATIONS

As infrastructure grows and industrial systems evolve, safety is not just compliance - it is a competitive advantage and foundation for operational excellence.
This track explores how digital tools, advanced training and modern safety culture are reshaping risk prevention and execution in high-risk environments across power generation, hydrogen, nuclear and industrial facilities.

Key themes:

- **Human-machine collaboration & ergonomics in modern plants**
- **Predictive safety & real-time risk intelligence (AI, sensors, analytics)**
- **VR/AR immersive training & upskilling for field teams**
- **Behaviour-based safety & leadership commitment**
- **Best-practice frameworks for shutdowns, turnarounds & brownfield projects**
- **Contractor management & multi-vendor site coordination**

Italy Safety Roundtable: Regulation, Bureaucracy & Industry Needs - A dedicated executive roundtable will address regulatory frameworks, permitting complexity, and the need for a more agile legislative ecosystem.

Mission: advancing toward zero-incident operations while accelerating infrastructure delivery.

ADDITIVE MANUFACTURING, MACHINING & ADVANCED MATERIALS

Precision engineering is accelerating the evolution of turbomachinery, hydrogen systems, nuclear components and high-efficiency power assets.

This track brings together OEMs, advanced material specialists and additive-manufacturing leaders to explore next-generation industrial capability.

Key themes:

- **Additive manufacturing: prototypes → serial production**
- **Hybrid machining & laser-based production workflows**
- **High-performance alloys, coatings & powders for extreme conditions**
- **Material innovation for hydrogen & nuclear applications**
- **Digitalised production, automation & accelerated lead-times**
- **Non-destructive testing & material integrity monitoring**

Mission: Enabling stronger, cleaner, faster-to-market industrial components - building a resilient European supply chain to support the future of energy and heavy industry.

CALL FOR PAPERS

- Simply write us to **submit your abstract**(s) of 500 to 1000 words **by 15th March 2026.**

- Abstract content: emphasize new contributions in knowledge or experience, potential applications of the presented information, key findings, and significant conclusions. Include any advancements in technology, economics, or innovation. Ensure the abstract reflects completed work rather than developing ideas or preliminary research. It should serve as an informative and precise summary of the full paper, not just a list of topics to be discussed.

- All applicants will be notified about the status of their abstracts at the middle of May 2026.

- Authors of selected contributions will be asked to write a full paper and register for the conference by 10th June 2026 to become Speakers, with a maximum of two speakers per paper. This role requires presenting in person at one of the Technical Sessions.

- Abstracts or papers that have been previously published or circulated are not accepted. If selected, authors must confirm that the full paper they will present at MEGAWatt Exhibition & Conference 2026 has not been published elsewhere.

Benefits for presenting authors:

- No. **5 Complimentary Delegate pass**
- Fee access on all event and **networking sessions**
- Exclusive access to the **speaker lounge & lunch**
- Exclusive invitation to **MEGAWATT Gala Dinner**
- **Long term visibility**: all selected papers are published in the Conference proceedings and made available for free download to 2026 delegates

abstract@megawattexpo.com

WHO WILL ATTEND

- Utilities
- Indipendent 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 Reach us:

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