CALL FOR PAPERS
Submit an abstract for POWER-GEN Europe 2016

Abstract submission deadline 30 October

DELIVERING AN INTEGRATED ENERGY FUTURE

CONFERENCE & EXHIBITION

MILAN, ITALY
21-23 JUNE 2016

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Submit an abstract for POWER-GEN Europe 2016

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www.powergeneurope.com
POWER-GEN Europe and co-located Renewable Energy World Europe, is a dynamic centre point for the power industry to meet and share information on the challenges facing the power industry and discuss solutions for advancing Europe’s energy future. Attracting a worldwide audience, it is the industry’s premier event.

Featuring the leading suppliers, sub-suppliers and service providers across the entire power generation value chain, POWER-GEN Europe and Renewable Energy World Europe encapsulate all aspects of the power generation and energy services sector. Together they combine strategic and technical presentations with the largest trade show exhibition of power equipment and services.

Delegates use POWER-GEN Europe and Renewable Energy World Europe to:

• Encounter new technologies and developments
• Keep up to date with industry trends
• Source new products / suppliers
• Network with industry peers and colleagues

As a well-established knowledge base for the power industry, POWER-GEN Europe and Renewable Energy World Europe highlight the various aspects of Europe’s energy change and identify opportunities for innovative and flexible businesses across the sector.

Europe’s power sector transition continues to present opportunities for innovation and new ways of operating, all of which will be discussed, debated and disseminated at POWER-GEN Europe and Renewable Energy World Europe in Milan 2016.

SUBMIT AN ABSTRACT

The Advisory Board of the POWER-GEN Europe and Renewable Energy World Europe conference invites power industry professionals to participate in the joint conference in Milan, Italy on 21-23 June 2016. The chosen papers will be part of a unique combined conference programme addressing issues facing the evolving European electricity sector and market opportunities beyond. This leading industry conference will deal with the fundamental changes occurring throughout the electricity value chain and will focus on the exciting opportunities arising from this.

Papers are invited that will extend the boundaries of knowledge and understanding among industry professionals who will be designing, building, operating and maintaining the power systems of the future.

Special emphasis is put on aspects of urban energy systems, the integration of intermittent and predictable power generation sources, the new business models for European utility companies and the effective operation of existing power facilities.

A full listing of the themes and topics are included on pages 4 -7 of this document.

Abstract submission deadline: Friday 30 October 2015
To submit your abstract please see Abstract Submittal Procedure

www.powergeneurope.com
WHO WILL BE YOUR AUDIENCE?
Qualified senior management/executive decision makers who have the authority to purchase, or influence the purchase of world-class products and services including:

- Public and municipal utility owners & managers
- Government and regulatory executives
- Independent power producers
- Original equipment manufacturers
- Power / heat plant owners & operators
- Plant service sector
- Project developers & managers
- Fuel suppliers
- Design/structural/construction engineers
- Industrial facilities personnel
- Mechanical/electrical/plant engineers
- Strategic and portfolio investors
- Industry consultants and advisers
- Energy service companies
- Trade Press

BEST PAPER AWARDS
Conference speakers will be expected to deliver a written paper and are then eligible for a coveted Best Paper Award. The Best Paper Awards are presented for POWER-GEN Europe and Renewable Energy World Europe. Judges from the expert conference programme Advisory Board will choose a Best Paper Award winner from each of the conference themes with the judging criteria based on outstanding concept and content. There will also be two highly commended papers in each category. With well over 500 people expected to submit abstracts for the Milan conferences, these winners will be rightly recognized by the industry as being the ‘best of the best’.

STATISTICS AT A GLANCE

- 56 Sessions
- 400 Exhibitors
- 9,753 Attendees
- 70.5 attendees rated the events as very good
- 203 Speakers
- 530 Keynote Attendees
- 721 Plenary Attendees
- 85% Re-booking for the 2016 events
- 960 Delegates

NUMBER OF ATTENDEES BY REGION

1. North Asia: 209
2. Central Asia: 97
3. North America: 603
4. Central America: 8
5. Latin America: 28
6. Australasia: 14
7. EU: 7542
8. Middle East: 203
10. Africa: 68

SPEAKER BENEFITS
As a speaker at this prestigious conference you will gain a heightened professional profile and recognition from colleagues worldwide as you share your knowledge, ideas and industry insights. Furthermore, you will have the perfect opportunity to represent your company and network with leading organizations and high-level influencers.

ADVISORY BOARD
POWER-GEN Europe’s independent expert Advisory Board is responsible for setting the conference themes and suggested topics, for selecting papers to be included in the programme, and for judging the Best Paper Awards. The Board represents a wide cross section of the industry, and currently comprise 90 experienced professionals from leading European utility companies, equipment suppliers, manufacturers, service providers, associations and consultancies.
Abstracts are invited that fall into one of the following categories:

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**AUTOMATION, CONTROLS & MONITORING**
- Automating, controlling, and monitoring systems
- ENTSO-E compliance
- Remote control & operation
- Control system applications
- Online diagnostics
- Life-cycle management

**MONITORING & OPTIMIZATION SYSTEMS**
- Emissions controls
- Improvements for flexibility & efficiency
- Condition & plant monitoring
- Combustion monitoring & optimization
- Monitoring equipment service life

**SAFETY & SECURITY**
- Cyber security systems
- Safety & protection systems

**DECARBONIZATION & ENERGY EFFICIENCY**
- Papers are invited covering case studies and technological options available to achieve the combination of flexible power generation and the lowest carbon footprint.
- Oxy-combustion
- Pre-combustion capture
- Post-combustion capture
- NER300 demonstration projects
- EOR projects

**LOW CARBON FOSSIL FUEL SOLUTIONS**
- Biomass combustion
- Combined heat & power
- Waste to energy
- Hybrid solutions
- Syngas use

**ENERGY BUSINESS & STRATEGIES**
- Covering the all-important area of financing and running a profitable energy business in an era of competitive markets, deregulation and decarbonization where prosumers, energy service providers and consolidators are playing increasing roles.

**ECONOMIC LANDSCAPE**
- Regulatory environment
- Ensuring competitiveness of European market
- Energy trading
- Voice of the European power market
- CO2 trading
- Subsidies
- Fuel price developments
- Grid contracts
- Capacity & flexibility markets

**FINANCING**
- Creating bankable projects
- Sources of funding
- New financing models
- Debt/equity balance
- Financing refurbishments & modernization
- Financing renewable energy projects
- Case studies

**INVESTMENT CLIMATE**
- Investing in new plant
- Market attractiveness
- Handling risk
- Impact of regulation
- Project development opportunities

**ENERGY STORAGE**
- Cost-effective and scalable energy storage is universally agreed as the “holy grail” that would radically transform the electricity sector. Papers are invited on the current state of policy and regulation around storage, its application and most promising and applicable technologies.

**POLICY, REGULATION AND LEGISLATION**
- EU level
- National level
- Regional cooperation

**STORAGE TECHNOLOGY OPTIONS**
- Chemical energy
- Electrical energy
- Electrochemical
- Power to gas
- Mechanical energy
- Thermal energy

**USES OF STORAGE**
- Generation
- Transmission
- Distribution
- End user – industrial & domestic
GAS FIRED GENERATION
Papers are invited on the role of gas fired generation in Europe’s energy mix, its role as a flexible, clean generation source and its struggle to cope with current prices and merit order issues, plus an update on all technological developments of note.

CHP/COGENERATION
- Project concepts and execution
- Power/utility (heat/steam) applications

COMBUSTION
- Fuel quality
- Liquid fuels
- Fracked gas
- Bio gas
- Hydrogen & syngas

FLEXIBILITY
- Ramp rates
- MSG

GAS ENGINES
- OEM new technology
- Upgrades and improvements

GAS TURBINE TECHNOLOGY
- OEM new technology
- Large, medium & industrial size
- Small & micro-turbines
- Efficiency improvements

HRSGS & BOP
- Cycling operation
- Fast start units
- Turn down capabilities
- Fouling and tube cleaning
- Supplementary firing
- Emission control
- Materials for high pressure steam cycles

LOAD MANAGEMENT
- Grid support
- Reactive load
- Plant operation (spinning vs. non-spinning)
- Frequency control

PORTFOLIO OPTIMIZATION
- Fast start
- Merit order
- Capacity market operation

TODAY’S PLANT OPERATION
- Balancing with renewables
- Operational improvements
- Financial viability
- Seasonal flexibility
- Profitable operation
- Compliance with emission standards
- Gas quality issues/fuel flexibility

GENERATORS & ELECTRICAL SYSTEMS
Grid compliance and ancillary services are increasingly important in the European power system and papers are invited around this theme and others related to the electrical side of power plant technology.

GENERATORS
- New generator designs
- Operating experiences
- Improving reliability
- Life cycle management

GRID SUPPORT
- Equipment challenges of ENTSO-E compliance
- Voltage and reactive power issues
- Power management & synchronization
- Grid stability & security of supply
- Fault ride-through issues

GLOBAL MARKET OPPORTUNITIES
While new investment in Western European power markets is minimal, some markets further afield are looking more attractive to developers. Papers are invited on markets in Central and Eastern European markets and also non-European markets of interest.

ALTERNATIVE RENEWABLE ADOPTION APPROACHES
- Analysis of approaches to changing markets
- Country/regional market investment opportunities
- International electricity market overviews

INTEGRATED ENERGY SYSTEMS
Papers are invited on all aspects of strategy within the European power sector, with emphasis on broadening understanding of the changing shape of the sector in areas such as decentralised energy, smart cities, energy services companies. Abstracts are also requested in areas of European policy and regulation.

ASSET MANAGEMENT
- Portfolio mix
- Energy services
- Demand forecasting
- Trading
- Procurement
- Stranded assets
- CHP
- Tariffs
- Green targets
- New market participants

EUROPE & ELECTRICITY
- Long-term trends
- Future use of electricity
- Security of supply issues & responsibility
- Fuel security
- Role of the prosumer
- Decarbonization strategy

INFRASTRUCTURE ISSUES
- Promoting R & D and technical excellence (BAT)
- Revitalising investment in Europe
- Interconnection infrastructure investment
- Public acceptance issues
- Electrification of society
- Security of critical infrastructure
- Impact of disruptive technologies
### THEMES AND TOPICS

#### POLICY & REGULATION
- EC policy overview
- Market design
- Capacity markets
- Tougher environmental standards
- Renewable support incentives
- EU vs national policies
- Emissions trading mechanisms
- Policies to drive investment
- Legal boundary conditions
- Managing over supply
- Municipality
- Green city
- Optimised production
- Skills & training

#### RENEWABLE STRATEGY & BUSINESS
- Policy & regulation
- Business strategy
- Financing and bankability
- Asset management
- Environmental impact
- Virtual power plants
- Distributed generation & micro grids
- Demand side response

#### URBAN ENERGY INTEGRATION
- Smart cities
- Municipal energy storage
- Waste integration
- Transport integration
- Planning
- Customer engagement
- Financing
- Home automation services/ domotics
- Local energy exchange
- Customer boundary crossing issues
- Energy use pattern analysis
- New role of utility company

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#### INTEGRATED ENERGY TECHNOLOGY

**The addition of sizable renewable energy capacity on Europe’s power grids gives rise to new and demanding technical integration challenges affecting those in the conventional, renewable and grid management sectors. Papers are invited that examine these critical issues and those that offer technical solutions.**

**GRID ISSUES**
- Integration of renewables
- Big data management
- Micro grids
- Distributed power and integration into the grid/network
- Smart grid solutions
- Load management (61850, Synchrophasor technology)

**HARDWARE**
- Automation
- Integration of heat & power & processes
- Power to fuel/Powter to hydrogen
- Urban integration network issues
- Heat pumps
- Heat distribution technologies
- Disruptive technologies

#### MODERN PLANT MANAGEMENT

**Extensive deployment of renewable energy has changed the landscape for existing plants. POWER-GEN Europe seeks cutting-edge papers on technologies, operational techniques and solutions that address this huge operational challenge.**

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#### OPERATIONS, MAINTENANCE AND OPTIMIZATION
- Cost reduction
- Operation maintenance
- Operational flexibility/efficiency
- Conservation & mothballing (Standstill issues, peaking with big gaps)
- Spinning low load operation issues (Renewable backup)
- Fuel handling, personnel, spare parts strategy
- Profitable operation
- Modern predictive maintenance technologies
- Optimization with big data
- Spare part management

#### REFURBISHMENTS, RETROFITTING & MODERNIZATION
- Plant life extension
- Operation & maintenance
- Meeting environmental standards

#### NUCLEAR POWER

Nuclear power remains an important element of the energy mix in several European countries, offering as it does zero CO₂ baseload capacity. The advisory board invites papers addressing aspects of new build and decommissioning as well as the topics below.

#### PROJECTS
- New build
- Project updates
- Operations & maintenance
- Decommissioning
- Fuel cycle management
- Project Risk
- PLIM & PLEX

#### TECHNOLOGY
- New designs
- R & D

#### INDUSTRY CHALLENGES
- Public acceptance
- Skills shortage
- Training
RENEWABLE PLANT & TECHNOLOGY

Renewable energy generation continues to see dramatic technology advances and a lowering of costs, enabling European utilities to rapidly develop their green portfolios. Papers are invited on cutting-edge commercialised technologies that have utility-scale applications.

HYDROPOWER
- Equipment & technology
- Market trends and strategies
- Project management & operations
- Water management
- Pumped storage
- Environmental/social impact
- Tidal and wave energy

NEW TECHNOLOGIES & INNOVATIONS
- Inception
- Proof of concept
- Demo/Prototype
- Transition to commercial operation

OTHER RENEWABLE TECHNOLOGIES
- Biogas
- Biomass
- Geothermal
- W2E
- Osmosis (seawater/sweet water boundaries)

SOLAR POWER
- PV
- CSP
- Hybrid plants
- Operational issues
- Grid connection
- New innovations

WIND POWER
- Onshore wind
- Offshore wind
- Operational issues
- Re-powering
- Grid connection
- Project case studies
- Offshore construction techniques
- New innovations

RENEWABLE PROJECTS & PLANNING

While renewable energy strategy is covered under Integrated Energy Systems, papers are invited which examine the current and future trends in renewable energy project development issues and investment/risk considerations.

ASSET MANAGEMENT
- Case studies
- Success stories/Lessons learned
- Operation excellence
- Maintenance issues

DEMAND SIDE RESPONSE
- Demand reduction
- Ancillary services management

ENVIRONMENTAL IMPACT
- Renewable energy sources availability
- Sustainability
- Local and regional participation and acceptance

INVESTMENT/RISK
- Investment appraisal
- Business and benefits case
- Value creation
- Risk assessment
- Mitigation measures
- Risk management

PROJECT DEVELOPMENT
- Approach
- Best practices
- People & partnerships

PROJECT IMPLEMENTATION
- Supply chain management
- Project realization

SUPPLY AND DEMAND CHALLENGES
- Virtual power plants
- Distributed generation

STEAM PLANT TECHNOLOGY

The Advisory Board is soliciting non-commercial papers addressing all aspects of advanced and flexible steam power plants, which reflect their changing role in power production, the advances in efficiency, flexibility and wider range of combustion materials.

ADVANCED STEAM TURBINES
- New design & manufacturing of turbine components
- Efficiency improvements
- Operational flexibility

COMBUSTION TECHNOLOGIES
- Firing & boiler technologies
- Gasification
- Co-firing
- Fuel flexibility & management
- Corrosion & fouling

EMISSIONS CONTROL REQUIREMENT & SYSTEMS
- Flue gas cleaning
- Heavy metal capture
- Ash handling
- Wastewater treatment
- Impact of new environment legislation

LARGE-SCALE WASTE TO ENERGY PLANT
- Combustion & gasification
- RDF co-firing
- Latest experiences and development features

ULTRASUPERCritical PLANT, OPERATION & MATERIALS
- Notable case studies
- Operating experiences
- High efficiency – new materials
ABSTRACT SUBMITTAL PROCEDURE

All abstracts must be submitted before 30 October 2015.

All abstracts must be submitted in English, using the on-line form found on the joint POWER-GEN Europe and Renewable Energy World Europe website: www.powergeneurope.com

The main body of your abstract should be between 150 and 300 words. Customer and joint customer/supplier papers are particularly welcome. Commercial abstracts will not be accepted for the conference. For full guidelines and requirements, please visit the POWER-GEN Europe website under the Conference tab.

Please note: In submitting an abstract you are confirming your availability and willingness to develop and write a full paper, attend and present your paper at POWER-GEN Europe & Renewable Energy World 2016, if selected, and comply with all the deadlines.

Please ensure that the speaker and author details you are providing when submitting your abstract are correct, as these will be used for pre-event marketing purposes.

Speakers are responsible for their own travel and accommodation costs.

Abstract Submittal Requirements and Guidelines

Authors who submit a paper proposal/abstract for possible inclusion in the POWER-GEN Europe & Renewable Energy World 2016 Conference Programme must meet certain obligations and adhere to requirements. Submittal rules/styles apply.

Please pay close attention to the following requirements:

1. Designate a primary contact responsible for meeting all deadlines and obligations and provide his/her name, company, address, phone/mobile numbers and e-mail address. This can also be the speaker.

2. Designate the speaker/presenter of the paper.

3. Provide names, companies, addresses, phone/fax number and e-mail address for ALL authors, co-authors and speakers.

Step-by-step instructions:

1. Go to www.powergeneurope.com

2. Click the Conference tab

3. Click “Submit Abstract” in the LEFT navigation bar

4. Enter your ecode to start submitting your abstract, speaker and author details. If this is your first visit to the new website you will be asked to set up a log-in account. If you have previously submitted an abstract for a PennWell event, you might already be registered in our system.

5. Your abstract will not be submitted until you have completed all the required fields and clicked “Submit Abstract” at the end of the form (3rd tab). You will also receive an e-mail confirming your submittal.

You are able to make amendments to a submitted abstract until Friday 30 October. Just click on “Edit/Modify Existing Abstract” in the left navigation bar. If you make amendments to an abstract previously submitted, you will need to press “Submit Abstract” again on the 3rd tab of the form.

After Friday 30 October, no further revisions can be made and abstracts will be submitted to the Advisory Board for review.

Further instructions are available on www.powergeneurope.com under “Abstract Submittal Instructions”, in the conference tab or contact:

POWER-GEN EUROPE
Emily Pryor
Conference Manager
T: +44 (0) 1992 656 614
E: emilyp@pennwell.com

RENEWABLE ENERGY WORLD EUROPE
Mathilde Sueur
Senior Conference Manager
T: +44 (0) 1992 656 634
E: mathildes@pennwell.com

All Primary Contacts will be notified in writing whether or not the abstract was accepted by end of January 2016.