

XVIII Sympozjum Naukowo-Techniczne

# ENERGETYKA BEŁCHATÓW 2016

5-7 września 2016 r. • Bełchatów

PROGRAM

INWESTYCJE • PALIWA DLA ENERGETYKI • CIEPŁOWNICTWO • INNOWACJE

SUNDAY | 4th September 2016

6.00 – 8.00 p.m. Preparation of exhibition stands by the exhibitors – Hala Sportowa in Sport Hotel

MONDAY | 5th September 2016

8.00 a.m. Opening of the Symposium Office – Sport Hotel, Hala Sportowa

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10.00 – 10.30 a.m. **START OF THE SYMPOSIUM**

**Sławomir Zawada**, CEO, PGE GiEK S.A., the Honorary Host

**The Ministry** of Energy representative

**Paweł Sałek**, Secretary of State, Ministry of Environment of the Republic of Poland

**Adam Grzeszczuk**, CEO, BMP, the Organizer

10.30 – 10.45 a.m. **HOST PRESENTATION**

PGE GiEK S.A. investment in new capacities (15 min), Marek Wdowiak

10.45 – 12.05 a.m. **INTRODUCTORY PANEL: investment in energy sector today and tomorrow**

CHAIR: **Marek Wdowiak**, PGE GiEK S.A.

**Today and tomorrow of Polish electrical power engineering** (20 min)

Władysław Mielczarski, Lodz University of Technology

**MHPS IGCC Technology –The Cutting-edge Clean Coal Technology from Demonstration to Commercial Plants** (15 min)

Representative, Mitsubishi Hitachi Power Systems GmbH

**Building permits in the investment process in Polish energy sector**

Rafał Bugajewski, ENERGOPROJEKT-KATOWICE SA

**BAT regulations/requirements as the driving force of energy investment** (15 min)

*Krzysztof Burek, RAFAKO S.A.*

**GE for Polish energy sector** (15 min)

*Beata Stelmach, General Electric Company Polska Sp. z o.o*

12.05 – 12.45 OPENING OF THE EXHIBITION

Break, business talks at the stands

12.45 – 14.45 ENERGY FORUM: How to reconcile various directions of energy sector development?

CHAIR: **Władysław Mielczarski**, Lodz University of Technology; **Herbert Leopold Gabryś**, Chairman of the Committee for Energy and Climate Policy,

Polish Chamber of Commerce

**Representative** of the Polish Ministry of Energy

**Paweł Sałek**, Secretary of State, Ministry of Environment\*

**Wojciech Dąbrowski**, CEO, PGNiG TERMIKA

**Adam Dobrowolski**, Head of Department of Electricity and Heat Markets, URE

**Representative**, CEO at Enea\*

**Robert Paprocki**, Advisor to the Board at PSE S.A.

**Beata Stelmach**, CEO at GE responsible for Poland and Baltics

**Agnieszka Wasilewska**-Semail, CEO at RAFAKO S.A.

**Marcin Wasilewski**, Executive Director, Power&Heat Generation, PKN ORLEN

**Michał Woźniczka**, Vice-President of the Management Board, ENERGOPROJEKT-KATOWICE

Topics::

- Polish Energy Plan (PEP) 2050 – energy security plan
- Climate policy – Polish electro-energy after COP21
- Single EU market– new financial instruments for Polish energy sector
- Integration of energy market – opportunities and risks
- Power generation units – big or small?
- Development scenarios, fuel diversification
- What with atom?
- Scattered power industry – the solution or problem of the future?
- Energy blackout – a real danger?

2.45 – 4.15 p.m. Dinner at Sport Hotel

4.15 – 5.15 p.m. TECHNICAL PANEL: Making energy sector modern....

CHAIR: Maria Jędrusik, Wrocław University of Science and Technology

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**Facilities and reducing and cooling stations for conventional and supercritical generation units (15 min)**

*Piotr Szul, Industrial Automation INTEC Sp. z o.o*

**Modern machinery needs very pure oil (15 min)**

*Paweł Gula, C.C. Jensen Polska*

**Online monitoring of transformers and generators (7.5 min)**

*Miroslaw Zajac, Zakład Usług Technicznych Energoaudyt Sp. z o.o.*

**Economic and technical benefits of oil regeneration for the users of transformers (7.5 min)**

*Tomasz Weber, ORGREZ*

**Safety first! But how to provide for it in Invitations for Tender and how to stick to it? (15 min)**

*Ryszard Sauk, The Office of Technical Inspection*

**5.15 – 5.45 p.m.** Break: visiting the stands, business talks

**5.45 – 7.15 p.m. DEBATES:**

**ELECTRICITY GENERATION:**

Does the future hold a revolution in energy industry?  
The road to the energy of the future.

**MODERATOR: Wojciech Nowak**, AGH University of Science and Technology

Discussion Participants:

**Krzysztof Burek**, Vice-President of the Management Board, Sales Director at RAFAKO S.A.

**Jacek Janas**, President of the Management Board at TAURON Wytwarzanie, President of the Management Board at the Economic Association of Polish Power Plants

**Jan Kurp**, Deputy Chairman of the supervisory Board at SBB ENERGY

**Paweł Smoleń**, Member of the Management Board at ERBUD

**Stefan Pacyński**, Vice-President of the Delevopment Strategy at Enea Wytwarzanie sp. z o.o.

**DEBATE ON HEAT ENGINEERING:**New directions for development....coolness, renewable energy and waste

**MODERATOR:** Bogusław Regulski, Vice President of Board at Izba

**Discussion Participants:**

**Marian Babiuch**, CEO, Polskie Towarzystwo Elektrociepłowni Zawodowych (Polish Association of Professional Heat and Power)

**Sławomir Burmann**, Board Member, Production and Asset Management Director, Veolia Energia Lodz SA

**Piotr Górnik**, Director, Production and Distribution Department, Fortum Power and Heat Polska

**Jerzy Kondratowicz**, Director of the Heating Department at PGE GIEK S.A.

**Olgierd Sikora**, Production Coordination Director, ENERGOPROJEKT- KATOWICE

**Aleksander Sobolewski**, Director of Institute for Chemical Processing of Coal, Zabrze

**Jacek Uhryn**, CEO, TAURON Ciepło sp. z o.o.

**Paweł Uznański**, Vice-President of the Management Board and Technical Director, PEC Bełchatów Sp. z o.o.

Topics:

Challenges faced by energy industry:

**EU climat policy:**

- requirements of climate energy package- coal and renewable energy after COP21
- climate policy and risks for traditional utilities
- effective implementation of climate policy, means and methods

**Future strategy for power utility companies:**

- Circular Economy and new business risks for coal power engineering
- Waste-free coal power engineering & Circular Economy – a new opportunity, not a problem
- how renewable energy can help, new regulations and conditions
- German and Polish and German examples: profitability of conventional power engineering and costs of renewable energy

Topics:

- challenges for district heating sector,
- cooling as a new product,
- development of renewable energy
- use of waste in energy and heating production for heating systems
- alternative fuels
- incineration plants and heat market – competition or co-operation?

7.15 – 8:00 p.m

Break: visiting stands, business talks

8.30 – 01.00 a.m.

GALA – SALA KONGRESOWA:

TUESDAY

6th September 2016

07.30 – 08.30 a.m.

Breakfast at the accommodation place

09.00 – 10.45 a.m.

TOPICAL PANELS

PANEL I: Investment in new capacities

CHAIR:

Adopting BAT Conclusions regulations to generating units in PGE GiEK S.A. (15 min)

PANEL II: Energy sector and environment

CHAIR: Mirosław Niewiadomski, PGE GiEK S.A

Emission standards in IED Directive and BAT Conclusions and in industrial practice

PANEL III: Developing the grid

CHAIR: Janusz Lewandowski, Warsaw University of Technology

Reconstruction of heat distribution system in Olsztyn by

Marek Wdowiak, PGE GiEK S.A.

Regenerative heat exchangers  
LJUNGSTRÖM – operating  
experiences (15 mins)

Mariusz Karpa, ARVOS  
LJUNGSTRÖM GmbH

Safety of industrial automation  
system (15 mins)

Igor Zbyryt, ASTOR Sp. z o.o.

Taprogge clearing systems –  
guaranteed efficiency in water cooling  
installations of new energy  
generators. Examples of applications  
(15 mins)

Gunter Binasch, Taprogge/GRC

Multifuel CFB boilers as a flexible  
solution where power restoration  
meets renewable energy generation  
aims (15 mins)

Grzegorz Szastok, Amec Foster  
Wheeler Sp. z o.o.

Construction of 910 MW unit in  
Jaworzno Power Plant – the current  
stage of works (15 mins)

Michał Cegielski, TAURON Polska  
Energia S.A

– example of PGE GiEK Oddział Elektrownia  
Turów (15 min)

Jan Wyszyński, PGE GiEK S.A. Oddział  
Elektrownia Turów

*Innovative technologies by Ecoenergia  
concerning NOx reduction in power boilers (15  
min)*

Jan Siwiński, Ecoenergia Sp. z o.o.

*Reducing emissions of Merkury while burning fos  
sil fuels – comprehensive approach without the  
seconadary emission effect (15 min)*

Robert Żmuda, SBB ENERGY S.A.

*Selection of De-NOx technology as a result of  
technical and economic analysis, on the basis of  
selected examples (15 mins)*

Robert Żmuda, SBB ENERGY S.A.

*Two cooling towers for units 5 and 6 in Opole  
Power Plant – progress of construction works (15  
min)*

Paweł Noakowski, BEROA Deutschland GmbH

*SNCR for large power generation units – new  
construction on unit no 3 in Bełchatów Power  
Plant (15 min ) Teresa Motyczyńska, ERC  
Technik GmbH Towards waste-free coal power  
engineering – areas of innovation (15 min)  
Tomasz Szczygielski, Warsaw University of  
Technology*

application of energy saving solutions (15 min)  
Andrzej Stolarski, MPEC Sp. z o.o. w Olsztynie

Fire-proof refractories – functionality conditions  
(15 mins)

Witold Wałachowski, IZOMAR-POLREF Sp. z  
o.o.

SUM Poland insulation covers in power and  
heat engineering – insulation of turbines, heat  
distribution centres, and elements of  
transmission insulation (15 min)

Wojciech Maurer, SUM Poland Sp. z o.o.

Design and execution of drainage systems with  
the use of excavation-free method on the land  
with highly developed utility infrastructure (15  
min)

Marcin Blockus, Uponsor Infra Sp. z o. o.; Ingeo  
Sp. z o.o.

Innovative bolted joints in industrial  
applications i (15 min)

Rafał Jemioło, Michał Janas, NORD-LOCK  
Poland Sp. z o.o.

Modernisation and automation of heat  
generation system in Ostrołęka from the EU  
funds (15 min)

Tadeusz Śniadała, ENERGA Ciepło Ostrołęka  
Sp. z o.o.

10.45 – 11.15 a.m.

11.15 – 1.00 a.m.

PANEL IV: Direction –  
investments and modernisation in  
conventional power engineering

Business talks at the stands

TOPICAL PANELS:

PANEL V: Fuels – a  
different look

PANEL VI: Efficiency first

CHAIR: Marek Ciapała, PGE  
GiEK S.A.

Modernisation of units 3-12 in Bełchatów  
Power Plant – results (15 min)  
Piotr Tokarczyk, PGE GiEK S.A. Oddział  
Elektrownia Bełchatów

Innovative protection of boiler appliances from  
corrosion and erosion (15 min)  
Andrzej Adamski, TMC Poland

Lean methodology in Projects – in early  
experiences of KAEFER company (15 mins)  
Representative, KAEFER S.A.

Complex ash removal and carborisation  
installations- the case of fluidised boiler in  
Synthis Dwory in Oświęcim  
(15 min)  
Eero Lehtilä, ADK System Damian Kicmal

Quality assurance and control in energy  
sector investment – own experience (15 min)  
Jacek Woch, TÜV Rheinland Polska Sp. z  
o.o.

Modernisation of oil refinement technology in  
energy sector  
(15 min)  
Paweł Gula, C.C. Jensen Polska

Doosan Škoda Power – Industrial Steam  
Turbines  
(15 min)  
Petr Babák, Doosan Škoda Power

CHAIR: Jarosław Zuwała,  
IChPW

From the concept to project execution -  
Construction of ITPOE in PGE GiEK S.A.  
(15 min)  
Grzegorz Pelczar, PGE GiEK S.A. Oddział  
Elektrociepłownia Rzeszów

Energy and mining conglomerate coupled  
with gasification of hard coal (15 mins)  
Adam Drzozga, ENERGOPROJEKT-  
KATOWICE SA

Gassification susceptibility of coal from  
prospective resources of PGE GiEK S.A.  
(authors: J. Zuwała, M. Tomaszewicz, G.  
Tomaszewicz, IChPW, M. Henc, PGE GiEK  
S.A.)  
(15 min) Jarosław Zuwała, IChPW

Fires in biomass combustion technology- in  
the experience of ENGIE ENERIA (15 mins)  
Stanisław Nowak, ENGIE ENERGIA  
POLSKA S.A.

Fuel measurements in power plants (15 min)  
PRECIA POLSKA Sp. z o.o.

Thermal treatment of alternative fuels –  
Directions of development and concepts (15  
min)  
Sebastian Kaczmarczyk, Uniserv-Piecbud  
S.A.

Alternative fuels as a desired resources for  
energy industry  
(15 min)  
Krzysztof Badyda, Warsaw University of  
Technology

CHAIR:

Enhancing of energy efficiency thanks to the  
construction of a new gas and steam power  
unit in PGE GiEK S.A. Oddział  
Elektrociepłownia Gorzów (15 min)  
Miroslaw Rawa, PGE GiEK S.A. Oddział  
Elektrociepłownia Gorzów

Energy audit in companies – useful aspects of  
the new legal obligation (15 mins)  
Tomasz Słupik, Energopomiar Sp. z o.o.

Valmet DNA System as a modern instrument  
of increasing power generation efficiency, an  
example of an automation of a new power unit  
BC50 (15 min) Adam Ossera, Valmet  
Automation Sp. z o.o.

ASIX as a CDAS system platform for  
data acquisition and analysis (15 min)  
Sebastian Piekoszewski, ASKOM Sp. z o.o.

Increasing efficiency and optimisation of  
investment process with modern Building  
Information Modeling method (15 min)  
Sławomir Gabryjeluk, Autodesk Sp. z o.o.

New approach to energy supply and flow  
parameters, fitting of measurement systems in  
the existing installation (retrofitting) - an  
example of Diris Digiware system  
(15 min)  
Paweł Bobin, SOCOMEC POLSKA Sp. z o.o.

Improving Boiler Through by Optimizing the  
Final Control Element (15 min) Marcin Badura,  
Arnap Sp. z o. o.

1.00 – 1.30 p.m. Business talks at the stands

1.30 – 3.30 p.m. TOPICAL PANELS

PANEL VII: The future of energy industry – innovations

Cooperation between industry and science - a fundament of innovative economy (15 mins)  
Leszek Tlałka, PGE GiEK S.A.

New Rotork electric actuators for valves and controls (15 min) Przemysław Wilczyński, Rotork Polska Sp. z o.o.

Efficient energy solutions for multistage pumps and vacuum condenser evacuation systems for new power units (15 min)  
Andrzej Gizicki, Sterling Fluid Systems Polska Sp. z o.o.

Substantial savings thanks to advanced analytical tools and precise process optimisation (15 mins) Marcin Szembek, STEAG Energy Services GmbH

Digital power plant - digital transformation of energy industry (15 mins)  
Robert Basiak, GE Digital

Predictive Maintenance –modern solution to machine park maintenance (15 min)  
Mateusz Marzec, Reliability Solutions

PANEL VIII: Safety first

CHAIR: Dorota Brzezińska, Lodz University of Technology  
Effective battery room ventilation as necessary prevention of hydrogen explosion (15 min)

Dorota Brzezińska, Lodz University of Technology

Stop the enemies of turbines – Mettler Toledo analysers (15 min)  
Zbyszko Lubiewski, Mettler-Toledo Sp. z o.o.

Practical aspects of control systems cyber security (15 mins)  
Jacek Gąsiorowski, Emerson Process Management Sp. z o.o.

Advanced RENOLIN ETERNA turbine oils applied in energy industry and high requirements concerning minimisation sediments and varnish deposits (15 min)  
Bogdan Miśta, FUCHS OIL CORPORATION (PL) Sp. z o.o.

Advanced NDT diagnostics applied to power facilities – example applications (15 min)  
Marek Barnaś i Artur Miszczak, DEKRA Certification Sp. z o.o.

PRP/HSR – a new dimension of redundancy in IEC 61850 networks (15 min)

PANEL IX: Heating and power engineering in the XXI century

CHAIR: Jerzy Kondratowicz, PGE GiEK S.A.

40 years of heat engineering in Bełchatów time of dynamic development (15 min)  
Paweł Uznański, PEC Bełchatów Sp. z o.o.

Filtration in cooling systems – application of Bernoulli automatic filters. The operating principle and example applications (15 min)  
Aleksander Labocha, OMC Envag Sp. z o.o.

Industrial ventilators dedicated to energy sector (15 mins)  
Aleksander Koszembar, Przedsiębiorstwo Techniczno-Handlowe „SURSYS” Sp. z o.o.

New technology provides easy direct measurement of chloride and sulfate (15 min)  
Kirk Buecher, Mettler-Toledo Sp. z o.o.

Strategic challenges faced by the heating sector in the XXI century (15 min)  
Krzysztof Fuzowski, PGE GiEK S.A.

Drives and hydraulic units in energy industry  
(15 min)

Adam Muchlado, HCS Sp. z o.o.

Carbon dioxide conversion, examples of  
research conducted by TAURON

Wytwarzanie S.A. (15 min)

Janusz Tchórz, TAURON Wytwarzanie S.A.

Michał Łęcki, Elmark Automatyka Sp. z o.o.

*Security of IT systems using process information  
of power plants (15 min)*

*Paweł Nitecki, PGE GiEK S.A. Paweł Nitecki, PGE  
GiEK S.A.*

3.15 – 4.30 p.m. Dinner at Sport Hotel

4.30 p.m. Dismantling of exhibition stands

6.30 – 12.00 a.m. Grill at Wodnik hotel garden

WEDNESDAY 7th September 2016

8.00– 9.00 a.m. Breakfast at accommodation place

10.10 – 12.00 p.m. Technical tours (own transport)

- Belchatów Power Plant

**Meeting point:** the main entrance (on the East side). Available park spaces.

- KWB Belchatów

**Meeting point:** the main entrance (on the East side). Available park spaces.

Transport to the mine is provided by the bus waiting at the power plant at 9:50.

Tours can be booked at the organiser's stand by 6.09.2016, 10 a.m.

12.00 – 13.00 p.m. Dinner  
address: ul. Energetyczna 9 Building U17, Rogowiec