



# Mednarodna konferenca daljinske energetike 2017

**Portorož, 19.–21. marec 2017**

# International Conference on District Energy 2017

**Portorož, 19–21 March 2017**



**Z daljinsko  
energetiko do  
zelenih mest /  
District Energy  
for Green  
Cities**

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Karlovska cesta 3, 1000 Ljubljana, Slovenija

## SDDE 2017 CONFERENCE PROGRAMME

### Sunday, 19 March 2017

- 16.00 – 18.00 Sponsor registration
- 18.00 – 19.00 SDDE general assembly
- 19.00 – 21.00 Welcome reception in the exhibition area
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### Monday, 20 March 2017

- 9.00 – 10.00 Participant registration
- 10.00 – 10.30 Opening address  
**Samo Lozej**, Energetika Ljubljana  
**Alojz Poredoš**, President of SDDE  
**Klemen Potisek**, State Secretary, Ministry of Infrastructure, Slovenia  
**Iztok Golobič**, ZSIS
- 10.30 – 11.30 Plenary lectures  
**Paul Voss**, Euroheat & Power  
**Franc Žlahtič**, WEC and Slovenian Academy of Sciences and Arts, Council of Energy
- 11.30 – 12.50 Main panel: **District energy for green cities**  
Moderator: **Alenka Žumbar Klopčič**, Energetika.NET
- Panellists:  
**Alojz Poredoš**, SDDE  
**Jože Dimnik**, Ministry of Infrastructure, Slovenia  
**Samo Lozej**, Energetika Ljubljana  
**Hinko Šolinc**, Eco Fund Slovenia (TBC)  
**Janez Grošelj**, Petrol
- 12.50 – 14.10 Lunch

14.10 – 16.10

**SESSION 1: DISTRICT HEATING AND COOLING SYSTEMS** – parallel session

Moderator: *Lars Gullev*, VEKS, Denmark

- **The role of district cooling in future smart energy systems**  
*Oddgeir Gudmundsson, Jan Eric Thorsen and Marek Brand, Danfoss A/S*
- **Integrating district heating systems into sustainable energy systems**  
*Adnan Karahmetović, Amer Karabegović, Centralno grijanje Tuzla*
- **Hourly optimization model for district heating systems including building retrofit – Case study for the city of Velika Gorica**  
*Hrvoje Dorotić, Matija Pavičević, Tomislav Novosel, Tomislav Pukšec, Neven Duić, Faculty of Mechanical Engineering and Naval Architecture, University of Zagreb*
- **Measures to improve energy efficiency and reduce the specific primary energy consumption in the Konjarnik district heating plant**  
*Branimir Vidačić, Bojan Bogdanović, Vladimir Tanasić, PUC Beogradske elektrane*
- **Ensuring high reliability of Energetika Ljubljana district heating systems**  
*Primož Matičič, Srečko Trunkelj, Energetika Ljubljana*
- **The first year of circular economy in using metallurgical waste heat for district heating and sanitary hot water production in Ravne na Koroškem**  
*Miran Fužir, Petrol Energetika*
- **WILO solutions – promotional presentation**

**SESSION 2: NATURAL GAS** – parallel session

Moderator: *Dejan Koletnik*, Plinovodi

- **Operational characteristics and development of natural gas transmission system**  
*Marjan Eberlinc, Oton Gortnar, Marko Širovnik, Plinovodi*
- **Outlooks for gas pipeline systems in the light of energy transition**  
*Marko Ileršič, Dejan Koletnik, Plinovodi*
- **Billing natural gas supply in units of energy**  
*Aleš Žurga, Energy Agency Slovenia*
- **Gas balancing in transmission systems – Transition to a trading platform**  
*Vinko Nedelko, Energy Agency Slovenia*
- **Safety in domestic gas installations – a task for all concerned**  
*Aida Bučo-Smajić, DVGW office Sarajevo*
- **Instant and competitive district cooling systems**  
*Lars Munkoe, Purix, Denmark; Tomaž Vončina, SIES, Slovenia*

16.10 – 16.40

Coffee break (sponsored by WILO)

16.40 – 18.20

**SESSION 3: ENERGY EFFICIENCY AND ENVIRONMENTAL PROTECTION**

– plenary session

Moderator: *Jože Torkar*, Petrol

- **A tale on 100% efficient use of resources - The life cycle of a citrus fruit from South America to Denmark**  
*Lars Gullev, VEKS, Denmark*
- **Black carbon research with the use of ultralight airplane – Biomass smoke generated during biomass combustion to heat individual houses dominates particulate air pollution**  
*Matevž Lenarčič, Domen Grauf, Aerovizija; Griša Močnik, Aerosol*
- **Case study of increased thermal length of heat exchangers for district heating substations**  
*Jan Eric Thorsen, Oddgeir Gudmundsson, Marek Brand, Danfoss*
- **Integration of a cogeneration plant into DHP West, Novi Sad**  
*Dušan J. Macura, Aleksandra S. Lukić, Novi Sad Heating Plant*
- **District heating vs. gas boilers in the City of Novi Sad**  
*Aleksandra S. Lukić, Dušan J. Macura, Novi Sad Heating Plant*
- ***Petrol solutions – promotional presentation***

20.00 – ...

Gala dinner with live music

## Tuesday, 21 March 2017

9.00 – 10.40

### **SESSION 4: DISTRICT ENERGY POLICIES, REGULATION AND MANAGEMENT** – parallel session

Moderator: **Andrej Ljubenko**, SDDE

- **EU energy package and the role of natural gas in Slovenia's district energy systems**  
*Peter Novak, Energotech and Faculty of Technologies and Systems, Novo mesto*
- **The development of new ESCO business models within the Horizon 2020 project Moeebius**  
*Bojan Bogdanović, Radmilo Savić, Beogradske Elektrane; Ricardo Rato, Cláudia Mafra, Sustainable Innovation Centre; Petar Vasiljević, Beogradske Elektrane; Miodrag Zdravković, City of Belgrade - Secretariat for Energy*
- **DHS as obligor of energy management system**  
*Tatjana Nušić, Miloš Banjac, Petar Vasiljević, PUC Beogradske elektrane and Faculty of Mechanical Engineering, Belgrade, Serbia*
- **Implementation of Article 9 of Energy Efficiency Directive – Croatia's experience**  
*Danica Maljković, Igor Novko, Igor Balen, Željko Plantić, Energy Institute Hrvoje Požar*
- **Spatial analysis of long-term heat consumption in a local community and the role of district heating systems in heat supply – Case study for the City of Maribor**  
*Jure Čižman, Damir Staničić, Matjaž Česen, IJS CEU; Miran Rožman, Energetika Maribor*

### **SESSION 5: DISTRICT HEATING AND COOLING ELEMENTS, METERING AND CONTROL** – parallel session

Moderator: **Andrej Kitanovski**, Faculty of Mechanical Engineering, University of Ljubljana

- **Automatic hydronic balancing of district heating branches**  
*Rok Miklavžina, KP Velenje; Iztok Kunšek, Danfoss Trata*
- **Comparison of underground valve actuation solutions**  
*Andrea Sichna, Vexve Oy*
- **Taking measurements at balancing and control valves**  
*Andrej Krajnc, TA Regulator*
- **Basic pressure control methods, basic theory and basic element sizing**  
*Andrej Krajnc, TA Regulator*
- **Numerical heat loss analysis in wet insulation for heat pipes in channels at small water leakage**  
*Matjaž Perpar and Zlatko Rek, Faculty of Mechanical Engineering, University of Ljubljana*

10.40 – 11.10

Coffee and fruit break

11.10 – 12.30

**SESSION 6: ENERGY EFFICIENCY AND ENVIRONMENTAL PROTECTION**

– plenary session

Moderator: **Mihael Sekavčnik**, Faculty of Mechanical Engineering,  
University of Ljubljana

- **Exergoeconomic optimisation of district cooling system**  
*Tjaša Duh Čož, Andrej Kitanovski, Alojz Poredoš, Faculty of Mechanical Engineering, University of Ljubljana*
- **Energy supply companies in the digital break**  
*Max Hammerer, Hammerer-system-messtechnik Klagenfurt*
- **HYACINTH: HYdrogen ACceptance IN the Transition pHase, European funded project from FCH-JU**  
*Mitja Mori, Faculty of Mechanical Engineering, University of Ljubljana;  
Tadej Auer, Development Centre for Hydrogen Technologies, Ljubljana, Slovenia;  
Maria Jaen, Centro Nacional del Hidrógeno, Ciudad Real, Spain*
- **European-wide field trials for residential fuel cell micro-CHP**  
*Tadej Auer, Development Centre for Hydrogen Technologies, Ljubljana, Slovenia; Mike Small, COGEN Europe / BDR Thermea, Netherlands*
- **Opportunities for increasing economic and energy efficiencies of Romanian district heating companies**  
*Eduard Minciuc, Vladimir Tanasiev, Faculty of Power Engineering, University Politehnica of Bucharest*

12.30 – 13.00

End of the conference