

International conference

Programme  
summary

# Energy Management in Cultural Heritage

6-8 April 2011  
Dubrovnik  
Croatia



**Wednesday, 6th April 2011**

**14:00-18:00**

**Registration - Hotel Excelsior**

**19:00-21:30**

**Welcome drink - Knežev dvor/Rector's Palace**

**Welcome speeches:**

**Louisa Vinton**, UN Resident Coordinator and UNDP Resident Representative in Croatia

**Andro Vlahušić**, Mayor of the City of Dubrovnik

**Thursday, 7th April 2011**

Conference venue - Hotel Excelsior

**07:30-09:00**

**Registration - Hotel Excelsior**

**09:00-09:45**

**Conference opening session**

**Moderator: Mislav Togonal**

*Introductory and welcome remarks*

**Kori Udovički**, UN Assistant Secretary-General and UNDP Assistant Administrator and Regional Director

**Engelbert Ruoss**, Director of UNESCO Venice Office

**Zlatko Ivaniš**, Director of Environmental Protection and Energy Efficiency Fund of Croatia

**Nataša Vujec**, State Secretary, Ministry of the Economy, Labour and Entrepreneurship of Croatia

Representative of the Ministry of Economic Development of Italy

Representative of the German Government

**Jasen Mesić**, Minister, Ministry of Culture of Croatia

**09:45-11:15**

**Opening session - P1: Energy efficiency in cultural heritage - wishful thinking or reality?**

**Moderator: Mislav Togonal**

*Energy efficiency and building conservation are two important aspects of sustainability. The key lies in balancing the historical value of the building, implementing efficient energy consumption and satisfying the needs and comfort of the occupants. The implementation of energy efficiency measure within cultural heritage requires creative and advanced technological solutions, new tools, education and training, a change in behaviour of the various building occupants, adequate building management, and a multidisciplinary approach. Cooperation among key stakeholders, such as building owners, engineers, architects and conservers, is a must. The proof that energy efficiency in cultural heritage is indeed possible is seen in a number of excellent examples that will be presented at the conference.*

## Opening address:

**Vlasta Zanki** - *Energy efficiency and energy management in cultural heritage public buildings*

## Keynote speakers:

**Nicholas Heath** - *Energy efficiency and microgeneration in historic buildings in Edinburgh's UNESCO World Heritage Site*

**Joseph King** - *The role of conservation departments in the process of restoration and application of energy efficient technologies in cultural heritage buildings and old city centres*

**Livio de Santoli** - *Energy efficiency in historical building and European directives*

**Paolo Snidero** - *Financial instruments for local development and urban regeneration*

## Panel discussion

**11:15 - 11:45** **Coffee break**

**11:45-13:15** **Plenary session - P2: Introducing new technologies and scientific tools to improve energy efficiency of historical buildings and old city centres**

**Moderator: prof. Dušan Gvozdenac**

*There is no one single solution for improving energy efficiency in cultural heritage buildings. However, there are many new technologies and scientific tools that could be used, including innovative heating systems, smart energy management, the use of various renewable energy sources, building simulations to identify the risks of damage, and infrared thermography. Engineers, architects, conservers and building owners need to be aware and actively seek new technological solutions when tackling building restoration.*

**Keynote speaker: Günter Pfeifer** - *The cybernetic principle -the other method of energy efficiency*

**Alexandra Troi** - *Historic buildings and city centres - the potential impact of conservation compatible energy refurbishment on climate protection and living conditions*

**Blanda Matica** – *Case study for Veliki Tabor Croatia*

**Marino Grozdek** - *Heat pump systems with renewable energy sources*

## Panel discussion:

**Francesca Becherini, Torun Widström, Gianni Pietrobon, Michele Sbrissa, Ivanka Boras, Andrea Bondi**

**13:15 - 14:15** **Lunch**

## 14:15-15:45 Parallel sessions S1a and S2a

### Parallel session S1a: Energy management plans and energy efficiency in old city centres

#### Moderator: Engelbert Ruoss

*City management plans can provide a sustainable framework for the protection of cultural heritage and the implementation of energy efficiency measures and improved energy management. It can also improve the quality of life in historical centres, as well as provide a powerful tool for economic and social development. This session will present efficient and sustainable energy strategies for the revitalization of historical centres and their implementation.*

#### Introductory speeches:

**Anđelka Visković**, Deputy Mayor of the City of Split

**Luigi Bassetto**, Institutional Affairs Director of the City of Venice

**Ivanka Jemo** - *Energy Saving Through the Restoration Projects of Dubrovnik*

**Goran Nikšić** - *Conservation and Management of the Historic Core of Split*

**Aleksandar Bogdanović** - *Beautiful Cetinje*

**Luka Vidović** - *Increasing Energy Efficiency of Cultural Heritage Buildings within Historic Core of Split by Improving Current Management System and Implementing Revitalization Project*

**Greg Keeffe** - *Future Heritage: is Carbon neutrality possible in historic neighbourhoods?*

#### Panel discussion:

**Aitziber Egusquiza, Matteo Bertoneri, Dragica Arnautović-Aksić, Anna Paraskevopolou**

15:45 - 16:00

Coffee break

### Parallel session S2a: Energy efficiency in cultural heritage buildings: presentation of case studies

#### Moderator: prof. Tonko Ćurko

*This session will present successful cases in implementing EE technologies in cultural heritage buildings.*

#### Keynote speaker: Britta von Rettberg -

*„Viewing, understanding and applying successfully“*

**Marcello Gusso** - *Restoration of St. Claire's Former Convent in Gorizia*

**Alexandra Troi**- *Ansitz Kofler in Bolzano/Italy: Energy retrofit to near passive house standard and towards zero emission for heating and cooling*

**Igor Skelin** - *Hi-VRV III - High Energy Efficient Cooling And Heating System In Cultural Heritage Buildings*

#### Panel discussion:

**Francesca Brancaccio, Marko Križanec, Birgit Dulski, Fausto Bisi**

## 16:00-17:30 Parallel session S1b and S2b

### Parallel session S1b: Renewable energy sources and energy efficient lighting in old city centres

#### Moderator: Marko Križanec

*This session deals with the implementation of renewable energy sources in cultural heritage buildings and urban areas, as well as energy efficient lighting solutions that contribute to the visual identity of old city centers, all done in a sustainable way.*

**Francesco Simonetti** - *Tenuta dello Scompiglio, a large utilization of renewable energy sources in the heart of Tuscany*

**Gordana Lučić** - *ESCO projects in the old city centers - public lighting*

**Senka Ibrišimbegović** - *Energy efficient architectural lighting in promoting cultural heritage in Bosnia and Herzegovina*

#### Panel discussion:

**Pierluigi Fecondo, Daniela Bosia, Marko Križanec, Vladimir Kocet, Gabriele Landi, Diana Galić**

### Parallel session S2b: Energy efficiency in cultural heritage buildings: presentation of case studies in the planning phase

#### Moderator: Marino Grozdek

*This session will present case studies in the planning phase in implementing EE technologies in cultural heritage buildings.*

**Emir Kahrović** - *Reconstruction and conversion of "Tvornica duhana Zagreb" into Croatian History Museum*

**Anders Brüel** - *Energy conservation in a historic building in practice*

**Maja Popovac** - *The Captain's Tower in Bihac*

**Ana Paula da C. Esteves** - *The façades technological updating of an icon of Brazilian modernist architecture: the case of the IRB headquarters building*

**Vladimir Turina** - *The application of energy-efficient technologies-Viessmann*

**Dino Juriša** - *The application of energy-efficient technologies - Bosch*

#### Panel discussion:

**Barbara Kulmer, Viktor Kushnirenko, Siniša Cvijić, Tijana Glamočić, Walter Sedovic, Jill H. Gotthelf**

## 20:00-23:00 Energy dinner - Revelin Fortress

#### Welcome speeches:

**Alessandro Liberatori**, ICE - Italian Trade Commission

**Francesco Fiermonte**, OICE

**Hrvoje Hrabak**, Croatian Architects' Association

**GIZ representative of GIZ**

Friday, 8th April 2011

**08:00-09:00** Registration - Hotel Excelsior

**09:00-10:00** Parallel session S2c and S2d

**Parallel session S2c: Energy efficiency in cultural heritage buildings: how to improve the building envelope**

**Moderator: prof. Branimir Pavković**

*In most cases, the concept of the building envelope in cultural heritage buildings is the most important part of building conservation. This session will feature examples of implementing new technologies in respect to the building envelope without violating the historical character of cultural heritage buildings.*

**Roger Curtis** - Improving Energy Efficiency in Traditional Structures: Work by Historic Scotland

**Daryl Gambarana** - Historic Royal Palaces Insulation Project

**Aleksandar Terer** - History has a Future

**Panel discussion:**

**Alan Braun, Iva Muraj, Žarko Španiček, Željka Perković, Araceli Salto Saura, Lluís Balart**

**10:00 - 10:15** Coffee break

**Parallel session S2d: Energy efficiency in cultural heritage buildings: Prevention of moisture in historical buildings and traditional architecture**

**Moderator: Silvio Novak**

*The installation of HVAC systems and the over-sealing of cultural heritage buildings can lead to considerable condensation problems. Various solutions proved to be effective in improving the quality of life in cultural heritage buildings without compromising the historical character of the building. One can implement EE measures within traditional homes and still maintain their historical value. The same can also be converted and utilized for a different purpose (e.g., tourism) by implementing new EE technologies and simultaneously preserving the buildings' traditional values. Traditional architecture indeed provides excellent examples of good building practice that could help design future sustainable buildings.*

**Escobar González, A.** - Three different approaches for patios in urban palaces and changes in their hydrothermal performances

**Fodil Fadli** - Retrofitting Heritage Buildings in the Middle East & North Africa Integrative Passive Design Solutions in Heritage Cities

**Panel discussion:**

**Bojan Milovanović, Escobar González, Dragana Petrović, Jelica Jovanović, Mladen Divković, Zora Salopek Baletić, Sanela Klarić, Jacqui Donnelly**

**10:15-11:45**    **Plenary session S2e: Energy efficiency in cultural heritage buildings: improving heating and cooling systems**

**Moderator: Goran Čačić**

*Thermal comfort measures the level of satisfaction with the indoor climate. The main task of energy efficiency in cultural heritage buildings is to maintain adequate thermal comfort while lowering energy consumption. This session will feature examples that show improvement in energy efficiency whilst providing thermal comfort.*

**Keynote speaker: Winfried Brenne** - Energetic refurbishment of monuments in Berlin

**Bernard Franković** - Energy efficient HVAC system of the Croatian national theatre building in Rijeka

**Jan Holmberg** - Improving the energy efficiency in an 800-year-old building

**Branimir Pavković** - Improving energy efficiency of the art school in Dubrovnik

**Renato Krikšić** - KNX Standard Enables Significant Energy Savings

**Dinko Stipaničev** - LG way in energy efficiency

**Panel discussion:**

**Haris Lulić, Marino Grozdek, Magdalini Makrodimitri**

**11:45 - 12:45**    **Lunch**

**12:45-14:45**    **Plenary session S3: Legislation and education**

**Moderator: prof. Livio de Santoli**

*The standards of energy efficiency in cultural heritage buildings must be improved in order to meet the demands of sustainable development and fight climate change. Experience from some countries shows that approximately 25% of the building stock is under the conservers' protection. This session will discuss in detail the implementation of existing and the application of new standards and guidelines in cultural heritage buildings. Education plays a key role in implementing energy efficiency in cultural heritage buildings, and as such it has an essential role in sustainable development as well.*

**Keynote speakers: Wolfgang Karl Göhner** - The impact of EU-Legislation on Cultural Heritage – Observatory Function of EHLF and implementation in Member State Law

**Marie- Noël Tournoux** - Heritage and sustainable development: drawing insights (or key issues) in managing resources and energy from global to local scale

**Johannes Sima** - *Lessons Learned from the Austrian Experience of a European Problem: Energy Management at Cultural Sites*  
**Giovanni Cafiero** - *Legislative framework, role and education of Conservation departments, rules and planning experiences in Italy for historical centres and rural settlements*  
**Margareta Zidar** - *Integrated approach to energy efficiency in cultural heritage buildings*  
**Silvio Bašić** - *Architectural policy*

**Panel discussion:**

**Giovanni Cafiero, Anaïs Cloux, Sanda Zenko, Marcello Gusso, Milenko Stanković**

**14:45 - 15:00**    **Coffee break**

**15:00-16:15**    **Plenary session S4: How to finance EE project in cultural heritage buildings**

**Moderator: Davide Poletto**

*Implementing energy efficiency in cultural heritage buildings may not be as complex and financially burdening as it might seem at first glance. However, the restoration of cultural heritage buildings does generally require significant funding. The EE facet ought to be considered while preparing a building's restoration project. In this session, various models of funding EE projects in cultural heritage buildings, including budgeting, loans, ESCO models, etc., are presented. In addition, several European projects that tackled the various modes of implementing EE measures in cultural heritage buildings will also be presented.*

**Siniša Šešum** - *UNESCO Venice Office actions towards Energy Efficiency in cultural heritage*

**Mirna Sabljak** - *The financing of the cultural property protection and preservation programme*

**Jadran Antolović** - *Monument annuity – the Croatian experience*

**Andrea Baggioli** - *SPINE: SPIN-Energy Efficiency & Urban Development Planning. Case studies for energy efficiency in historical buildings*

**Panel discussion:**

**Gordana Lučić, Irena Dubravec, Ioannis Poullos, Alexandra Troi, Roberto Lollini**

**17:00-19:30**    **Conference boat excursion and reception**

**Saturday, 9th April 2011**

**10:00-11:00**    **Dubrovnik sightseeing (optional)**

## Co-organizers:



## Partners:



## Golden partner-exhibitor:



## Silver partner-exhibitor:



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