

## XX ANNUAL CONFERENCE of the Municipal Energy Efficiency Network EcoEnergy

### ENERGY POVERTY AND AIR POLLUTION: THE TWO FACES OF A (GLOBAL) PROBLEM WITH SOLUTIONS AT THE LOCAL LEVEL

*At its anniversary conference, EcoEnergy will look for the working solutions in the area of energy efficiency in buildings: through streamlined policies and financial instruments applied with the active involvement of the local authorities*

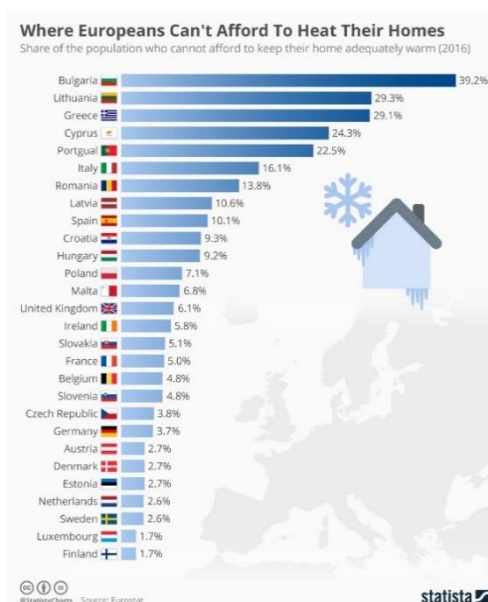
#### Context

Unfortunately, a large proportion of the European citizens are at risk of not being able to heat their homes properly, with the proportion of people in threat of energy poverty in Southern and Eastern Europe being high above the EU average. Especially in Bulgaria, energy poverty is a major issue - compared to an average of 8% for the EU and 16% for the region, the proportion of the population unable to keep their homes warm for 2016 (with all the negative impact on health and comfort) is 39,2% - the highest in EU<sup>1</sup>. The same goes for the proportion of people living in dwellings not comfortably cool in summer - 49.5%, followed by Portugal and Malta, with around 35%. The highest share of the population with arrears in their energy bills might now be in Greece (37.2%), but Bulgaria holds firmly the unenviable second place with 32.9%, followed by other countries in the region - Croatia, Hungary, Romania... All factors determining the level of energy poverty - low income, high energy prices (compared to the spending power) and poor energy efficiency in buildings - are present.

Despite the progress made in recent years<sup>2</sup> through significant public investment in energy efficiency policies and measures, and efforts to involve all stakeholders addressing the problem, the countries in the region still remain the most inefficient and energy poor in Europe. Several of the most polluted European cities are in South-eastern Europe, which, apart from transport, is due to the use of wood and coal as a source of heating – a direct result of the low purchasing power of the population and, in many cases, limited access to modern energy services.

#### Approaches to sustainable long-term policies

Despite being a topical issue in public and policy discussions, there is still no common definition of energy poverty - both at national and at European level. One of the most widely applied definitions claims that energy poor are those households that spend more than 10% of their income on energy. Unfortunately, this



<sup>1</sup> Eurostat. Inability to keep home adequately warm - EU-SILC survey. Available at [http://appsso.eurostat.ec.europa.eu/nui/show.do?lang=en&dataset=ilc\\_mdcs01](http://appsso.eurostat.ec.europa.eu/nui/show.do?lang=en&dataset=ilc_mdcs01)

<sup>2</sup> According to EUROSTAT data, in 2008 the proportion of the population unable to keep their homes warm was as high as 66,3%.

definition does not take into account whether these costs are sufficient to provide adequate thermal comfort. An additional appropriate parameter, which is undoubtedly applicable in Bulgaria, is whether, after spending on energy, the family budget remains above the poverty line. Last but not least, access to energy services is another key indicator: increased competition between different suppliers and facilitated penetration of individual RES installations have the potential to significantly change the energy poverty line. The behaviour of citizens and their "energy culture" also plays an important role in optimizing energy costs, which directly refers to the need for a systematic communication and educational campaign on the subject.

In this aspect, energy saving measures in buildings prove to be the most sustainable direction for designing policies and financial instruments combatting energy poverty: they reduce the energy demand and, respectively, household spending needed to achieve optimal thermal comfort; they make alternative heating and cooling solutions cost-effective (thus contributing again to improve the external air quality); they provide opportunities for innovative energy services. Probably most importantly, they are an incentive for increased civil participation and change of end-user behaviour. So, it comes as no surprise that EU policies are focused on energy efficiency in the building sector - both in the fight against energy poverty and in measures to improve the quality of air and the urban environment.

### Impact on external air quality

Energy efficiency in buildings is the most sustainable tool to improve the quality of air and urban environments as it minimizes the energy demand for heating, limits the amount of fuel used and improves the profitability and affordability of alternative heating sources. The reduction of particulate matter and nitric oxide pollution during the winter months is directly proportional to the reduction of the combustion of solid fuels (wood and coal) for domestic heating, which is mainly used by the poorer strata of the population in low-efficiency combustion installations. In the medium and long term, limiting the harmful effects of domestic heating depends to a large extent on the successful implementation of energy efficiency measures in buildings. However, these measures can only gain momentum through increased responsibility and citizens' participation, and through focused actions targeted to social groups affected by energy poverty. To this end, the communication and organizational activities by the local authorities is of particular importance. The national energy efficiency schemes in the building sector should also be adapted in this direction: securing the capacity and resources for local authorities, they can have a significant impact on reducing air pollution and overall improvement of the urban environment. In the long term, this would also affect the attitudes, values and behaviour of the citizens towards smart energy and environmental choices.

### National and European context

In recent years, a strong political will has been demonstrated in Bulgaria and huge public resources (€ 0.5 billion per year) have been invested in renovating the outdated residential building stock. The Energy Efficiency Program for multifamily residential buildings has proven that investment in energy efficiency is the right way to overcome energy poverty, and the most appropriate level for managing such programs is the local governance. However, although the benefits and effects are indisputable, the 100% public funding adopted on the Programme limits the opportunities for attracting private capital in the renovation process and shortens the horizon and scope of public investment. Despite the renovation, sometimes people even in renovated buildings continue to disconnect from the obsolete heating networks and turn to wood and coal heating... In order to overcome these problems, a second generation of a National Long-Term Program to promote investments in energy efficient building renovation (2016-2020) along with a National Housing Strategy, which should focus the efforts on overcoming energy poverty.

These actions are fully in line with European policies in this area, such as combating energy poverty and facilitating access to energy services and information, which are key dimensions of the European Commission's "Clean Energy for All" package (the "Winter Energy Package" of 2016). Under the Bulgarian presidency of the EU in 2018, the new revised versions of the Energy Efficiency and Energy Performance of Buildings directives are expected to be finally approved, where the topic of nearly zero-energy buildings (NZEB) and energy efficient building renovations as major tools for combating energy poverty is even stronger. Energy efficiency is also a key element of the Energy Union, where saved energy is rightfully being defined as "the cheapest, cleanest and safest source of energy." It is widely accepted as one of the most cost-effective ways to support the transition to a low-carbon economy and to create growth, employment and investment opportunities, making it the most appropriate tool to combat social and energy poverty as well.

## Barriers to overcoming energy poverty

**Social and economic poverty:** Still large portions of the population are at risk of social poverty and exclusion, which inevitably leads to low quality of life, unhealthy living conditions and inability to maintain the building stock. Many of these citizens rely on heating aids that are being used to meet the most pressing needs, and heating is most often based on wood and coal, sometimes illegally traded. This, of course, has a significant impact on the poor air quality in cities.

**Framework of the legal and public support.** The legislative framework does not yet promote long-term measures such as deep energy renovation or step-by-step refurbishment. There are no requirements and incentives to replace existing inefficient heating systems. Support is still focused on subsidizing final energy consumption, and even in the case of entirely public funding for the renovation of buildings, no change in heating systems is required - a measure that could have a strong positive effect on emissions of fine particulate matter. This approach can hardly encourage local authorities to pursue their own energy policy or diversify energy supplies on their territory.

**Access to energy services and information:** Access to modern energy services is still limited and information reaching the end-user about optimization of energy consumption is partial and insufficient. There is a strong potential for implementing low-cost and no-cost measures, but the expert advice on appropriate measures as well as the benefits of deep energy retrofit and access to finance are still insufficient. Behavioral change measures can have a strong positive effect both on optimizing energy costs and improving the external air quality.

**Financing of investments.** Grants that cover 100% of the cost of improving the energy efficiency of multifamily blocks of flats foster the expectation that energy performance improvements should be fully paid by the state and hamper the development of the emerging energy services market. It is absolutely necessary to find a sustainable financial scheme for continuing investment in renovation of the building stock. Low energy prices (inaccessible to much of the population, but still 30% lower than the regional market) make the cost of deep renewal less financially attractive and with a longer payback period.

**Capacity of the building sector.** Bulgaria suffers from a lack of appropriate training and skills in the construction sector. The whole range of construction professionals - investors, supervisors, designers, builders - need additional training to provide quality deep renovation, to optimize energy consumption of the households and to guide investments to heating systems with minimal environmental impact.

**Lack of streamlined communication:** Although the local authorities are required to conduct information campaigns on the National Energy Efficiency Program and other energy related policies, there are no methodological guidelines or financial resources devoted to such activities. In respect to the relatively high

levels of public trust, the municipalities are the most adequate level for conducting systemic information campaigns for end-users, in case they are provided with the necessary resources and capacity.

## Approach and goals of the conference

The event will bring together representatives of public authorities at central, regional and local level to discuss the effects of the EU's strategic and political approach to the process of shaping national policies in the Southeast European region, the role of multilevel governance and the incentive system to encourage local authorities to develop their own policies on citizens' access to energy services. It will also target electricity producers and distributors, energy specialists and NGOs active in climate and energy policy.

The conference is expected to develop specific recommendations to overcome barriers to combating energy poverty and air pollution. They will be targeted to concrete solutions to optimize the legislative framework, the available financial mechanisms and the measures to build professional capacity and awareness to strengthen the role of local authorities in the management of energy efficiency programs focused on the existing building stock. Among the strategic documents to be discussed are the National Housing Strategy, the National Action Plan for Energy Efficiency 2017-2020 (in conjunction with the National Plan for attracting investments in the renovation of buildings - Art.4/EED), the Strategy for Adaptation to Climate Change and the Sofia Municipality's Air Quality Management Program, positioned in the light of the EED and EPBD revisions, which are expected to be approved during the Bulgarian presidency. In a dedicated declaration, the conference will address specific recommendations to the above-mentioned strategic documents, which can be reflected in the specific implementation programs expected to be adopted in 2018.

At the EU level, the conference will outline the barriers and political limitations in the fight against energy poverty in the region, focussing on the need to support long-term policies and market measures that have a sustainable impact on healthy and comfortable living environment for European citizens at affordable prices.

### **Institutional partners and participants from Bulgaria**

Council of Ministers / Ministry of Regional Development and Public Works / Ministry of Energy / Ministry of Environment and Waters / Ministry of Labour and Social Policy / National Association of Municipalities in the Republic of Bulgaria / National Centre for Territorial Development / Agency for Sustainable Energy Development / State Commission for Energy Regulation / Sofia Municipality / energy producers and distributors / professional associations and chambers of industry / Municipal Energy Efficiency Network EcoEnergy / Centre for Energy Efficiency EnEffect.

### **Date and place of the conference:**

19-20 March 2018, Representation of the European Commission in Bulgaria

## Preliminary agenda

# REGIONAL CONFERENCE

## FIGHTING OFF ENERGY POVERTY THROUGH STREAMLINED ENERGY EFFICIENCY POLICIES IN MULTILEVEL GOVERNANCE PERSPECTIVE

An event in the official agenda of the Bulgarian Presidency of the EU

19-20 March 2018

Sofia, Representation of the European Commission in Bulgaria, 124 Rakovski Str.

19 March	EUROPEAN AND NATIONAL POLICIES TO FIGHT ENERGY POVERTY
09:30 – 10:00	Registration
	<p><b>Official guests:</b></p> <p>Representative of the European Commission</p> <p>Representative of the Covenant of Mayors Office</p> <p>Representative of the Ministry of Energy</p> <p>Representative of the Ministry of Regional Development and Public Works</p> <p>Representatives of the National Association of Municipalities in the Republic of Bulgaria</p> <p>Representatives of the Municipal Energy Efficiency Network "EcoEnergy"</p> <p>Foreign guests (including from the Balkan countries)</p>
10:00 – 10:15	<b>Opening: Tanya Hristova, Mayor of Gabrovo Municipality, Chairman of the EcoEnergy Board</b>
	<p><b>Greetings:</b></p> <p>Representative of the European Commission</p> <p>Representative of the Ministry of Energy</p> <p>Representative of the Ministry of Regional Development and Public Works</p>
	<b>KEYNOTE SPEAKERS</b>
10:15 – 10:40	<p>THE CLEAN ENERGY FOR ALL EUROPEANS PACKAGE: LIBERALISED, INCLUSIVE MARKET LEGISLATION PROTECTING VULNERABLE CONSUMERS</p> <p><b>Megan Richards, Director, Directorate-General for Energy, European Commission</b></p>
10:40 – 11:00	<p>HOW CAN THE CLEAN ENERGY FOR ALL EUROPEANS PACKAGE HELP SUPPORT NATIONAL POLICIES (CHALLENGES AND OPPORTUNITIES)</p> <p><b>Zhecho Stankov, Deputy Minister of Energy</b></p>
	<b>EUROPEAN POLICIES</b>
11:00-11:20	<p>TACKLING ENERGY POVERTY AT EU LEVEL: THE EUROPEAN ENERGY POVERTY OBSERVATORY</p> <p><b>Marco Giuli, European Policy Centre, European Energy Poverty Observatory</b></p>

11:20 – 11:40	ENERGY POVERTY IN THE EUROPEAN UNION AND IN THE MEMBER STATES Consultation of the European Energy Network <b>Mihai Ramniceanu and Irina Birlica, Romanian Energy Regulatory Authority ANRE</b>
11:40 – 12:00	ENERGY POVERTY: DEFINITIONS, SOLUTIONS AND BEST PRACTICES. THE EXPERIENCE IN GREECE <b>Alice Corovessi, INZEB (Greece)</b>
12:00 – 12:20	THE CROATIAN MULTI-APARTMENT BUILDINGS ENERGY RENOVATION PROGRAMME. IMPACT ON ENERGY POVERTY AND PUBLIC COMMUNICATION PERSPECTIVES <b>Mladen Ilijević and Božena Pastuović, Croatian Environmental Protection and Energy Efficiency Fund</b>
12:20 – 12:40	THE ROLE OF NEW MARKET PLAYERS AND INNOVATIVE ENERGY SERVICES IN COMBATING ENERGY POVERTY <b>Julian Popov, Building Performance Institute for Europe</b>
12:40 – 13:00	QUESTIONS AND ANSWERS
13:00 – 14:00	<i>L u n c h   b r e a k</i>
	<b>NATIONAL AND LOCAL POLICIES</b>
14:00 – 14:20	THE ENERGY EFFICIENCY PROGRAMS IN BUILDING SECTOR AS A RESPONSE TO THE ENERGY POVERTY CHALLENGES. THE ROLE OF LOCAL AUTHORITIES <b>Feodor Salmov, Ministry of Regional Development and Public Works</b>
14:20 – 14:30	FINANCING OF ENERGY EFFICIENT BUILDING RENOVATION IN CENTRAL AND EASTERN EUROPE: PRINCIPLES AND EXAMPLES <b>Tsveta Naniova, Bulgarian-Austrian Consulting Company</b>
14:30 – 14:45	THE BULGARIAN ENERGY EFFICIENCY AND RENEWABLE SOURCES FUND: AN INSTRUMENT TO SUPPORT THE ENERGY POLICIES AT NATIONAL AND LOCAL LEVEL <b>Dimitar Doukov, Executive Director, BEERSF</b>
14:45 – 15:00	THE COVENANT OF MAYORS AS A DRIVING FORCE FOR LOCAL ENERGY EFFICIENCY AND THE FIGHT AGAINST ENERGY POVERTY <b>Frédéric Boyer, Energy Cities / Covenant of Mayors</b>
15:00 – 17:00	ENERGY POVERTY: A REGIONAL PROBLEM WITH LOCAL LEVEL SOLUTIONS (panel discussion) <b>Facilitator:</b> <i>Zdravko Genchev, EnEffect</i> <b>Participants:</b> <i>Irina Tatu, representative of the Romanian network Energy Cities</i> <i>Mincho Benov, Habitat for Humanity – Bulgaria</i> <i>Boyan Zahariev, Open Society Institute</i> <i>Teodora Peneva, Sofia University “St. Kliment Ohridski”</i> <i>Tanya Hristova, Mayor of Gabrovo Municipality</i> <i>Ruska Boyadzhieva, Deputy Mayor of Burgas Municipality</i> <i>Boyan Kolarov, Deputy Mayor of Dobrich</i>

17:00 – 17:20	PERSPECTIVES FOR THE DEVELOPMENT OF THE REGION IN THE LIGHT OF THE EU ENERGY AND CLIMATE POLICIES. <b>Mr. Andres Jaadla, Committee of the Regions</b>
17:20 – 17:30	<b>Summary by the facilitator</b>
17:30 – 19:00	<b>Cocktail for the guests of the conference</b>

20 March	INSTRUMENTS FOR ENERGY EFFICIENCY IN SUPPORT OF THE LOCAL AUTHORITIES
	<b>EXTERNAL AIR QUALITY</b>
09:00 – 09:10	FIGHTING OFF AIR POLLUTION – A PRIORITY AT THE BULGARIAN PRESIDENCY OF THE EU <b>Julian Popov, BPIE and European Climate Foundation</b>
09:10 – 09:40	THE EXTERNAL AIR QUALITY: THE ROAD AHEAD <b>Yoana Hristova, Deputy Mayor, Sofia Municipality</b>
09:40 – 10:00	PROPOSAL FOR A NATIONAL SCHEME FOR REPLACING THE UNEFFICIENT HEATING SOURCES IN RESIDENTIAL BUILDINGS <b>Genady Kondarev, Za Zemyata</b>
10:00 – 11:30	UNITED WE STAND STRONG. POSSIBLE MEASURES AT LOCAL LEVEL, GOVERNMENT SUPPORT INVOLVEMENT OF STAKEHOLDERS <b>Expert panel discussion</b> <i>Ioana Hristova, Deputy Mayor, Sofia Municipality</i> <i>Ruska Boyadzhieva, Deputy Mayor, Municipality of Bourgas</i> <i>Milena Agopyan, Energy Agency - Plovdiv</i> <i>Ivan Velkov, Deputy Chairman of Sofia Municipal Council</i> <i>Petar Seizov, Denkstat Bulgaria</i> <i>Dr. Peter Chipev, MMA - Sofia</i>
11:30 – 11:45	<i>C o f f e e b r e a s k</i>
11:45 – 12:00	GREEN PUBLIC PROCUREMENT: SUCCESSFUL PRACTICES FROM BULGARIA <b>Todor Popov, Gabrovo Municipality</b>
12:15 – 12:30	EXAMPLES OF SUCCESSFUL PROJECTS SUPPORTED BY THE EEA FINANCIAL MECHANISM <b>Stanislav Andreev, EnEffect and Antonia Novakova, Burgas Municipality</b>
12:30 – 12:40	HIGH-TEMPERATURE GASIFICATION OF MUNICIPAL WASTE AS POSSIBILITY FOR ZERO-EMISSION AND ECONOMICALLY EFFICIENT WASTE-TO-ENERGY SOLUTION FOR MUNICIPALITIES <b>Ivan Hinovski, Bulgarian Energy and Mining Forum</b>
12:30 – 13:00	RESULTS FROM EMBUILD PROJECT: INFORMATION SYSTEM, ENERGY PLANNING INSTRUMENTS AND CONCLUSIONS FROM ENERGY EFFICIENCY ACTION PLANS ORGANIZATIONAL DEVELOPMENT OF ECOENERGY <b>Dragomir Tzanev, EnEffect</b>
13:00 – 14:00	<i>C l o s i n g o f t h e c o n f e r e n c e . L u n c h</i>