

NEWS AT SEVEN

ENERGY EFFICIENCY NEWS FROM THE CZECH REPUBLIC

volume 21

number 1 / 14

September 2014



The time of LEDs has arrived

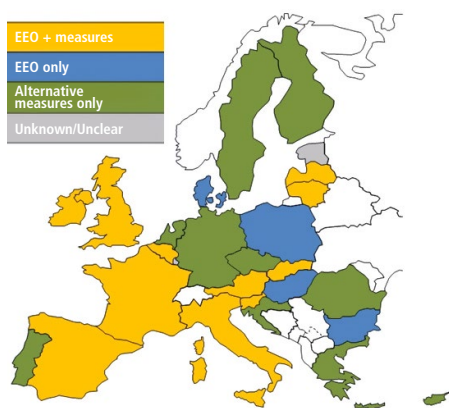
SEE PAGE 4

inside

- | | | |
|--|--|--|
| <i>2 Will an energy efficiency obligation scheme be introduced in the CR?</i> | <i>5 Advice for consumers: Indication of operating costs</i> | <i>6 New publications relating to the EPC method</i> |
| <i>2 Energy savings in buildings through low-cost measures</i> | <i>5 CombinES Comprehensive Renovation of Buildings</i> | <i>6 Outcomes of testing 50 models of washing machines</i> |
| <i>3 Energy audits at the Madrid conference</i> | <i>5 Defects in presentation of energy performance of products on the internet</i> | <i>7 Latest development in legislation governing the energy efficiency of buildings in Kazakhstan and Kyrgyzstan</i> |
| <i>3 Assessment of the implementation of energy efficiency programmes for the period 2007–2013</i> | <i>6 European Code of Conduct established quality standards for Energy Performance Contracting</i> | <i>7 Mobile application ecoGator</i> |
| <i>4 The time of LEDs has arrived</i> | | |

Will an energy efficiency obligation scheme be introduced in the CR?

The adoption of Directive No. 2012/27/EU, on energy efficiency („EED“) was a clear signal that the European Union intends to achieve the objectives of the climate and energy package in energy efficiency, i.e. to reduce the primary energy consumption in the EU by 20% compared to a reference scenario by 2020. The national indicative energy efficiency target based on final energy savings was determined for the Czech Republic pursuant to Article 3 at 47.84 PJ (13.29 TWh). In order to implement Article 7 – Energy efficiency obligation schemes, EU Member States could choose between the energy efficiency obligation schemes, an alternative scheme or a combination of the two types of measure. The aim of this text is to inform readers of the implementation of individual energy efficiency obligation schemes in individual EU Member States with an emphasis on the system selected for the Czech Republic.



Source: The Coalition for Energy Savings; Implementing the EU Energy Efficiency Directive: Analysis of Article 7 Member States reports; April 2014

The image shows the methods chosen for implementing Article 7 of this Directive in individual EU Member States. Only four EU Member States currently rely exclusively on the energy efficiency obligation scheme (EEO). 12 EU Member States are introducing the EEO system in combination with saving measures according to alternative schemes in order to implement Article 7, and 11 EU Member States have opted for alternative schemes to implement Article 7 but have not ruled out the application of the EEO at a later stage. Selecting the EEO scheme means that according to Article 7(1) of this Directive each Member State is required to establish an energy efficiency scheme to ensure that energy distributors or retailers achieve new savings equal to 1.5 % of the volume of their annual energy sales to end consumers (calculated according to a 3-year average before 1 January 2013).

The Czech Republic has opted for implementing provisions of Article 7 of the EED – Energy Efficiency Obligation Schemes relating to the national energy saving target through a set of other policy measures pursuant to paragraph 9 of this Article – an alternative scheme. This approach was proposed by the Ministry of Industry and Trade CR („MIT“) and approved by Government Decree No. 923 in December 2013. The choice of an alternative scheme means that the measures will be implemented by public authorities or entities authorised by public authorities. This means that no obligated parties will be involved in the initial stages of the implementation. As financial engineering instruments and investment subsidies provided from public funds are anticipated to account for a major part of the implemented measures, their administration will be entrusted to entities experienced in managing these mechanisms (Ministry of Industry and

Trade, Ministry of Environment, Ministry for Regional Development, and regions involved in the joint boiler replacement programme).

The MIT will process information gathered from public authorities and authorised entities and forward this data to the European Commission. The following two stages will be defined:

- Stage I: 4 years (1. 1. 2014 – 31. 12. 2017)
- Stage II: 3 years (1. 1. 2018 – 31. 12. 2020)

This two-stage plan provides ample time for improving the conditions of the alternative scheme, its establishment and implementation during Stage I, while allowing sufficient time during Stage II for potential modifications of the supportive and stimulating mechanisms introduced to meet the general target by 2020. The savings target of 47.84 PJ by 2020 is ambitious and public authorities need to strive very hard to reach this target through the implementation of an alternative scheme. The achievement of this target may be jeopardised in particular by the following circumstances:

- Funds available for the support may fall short of the originally anticipated total of approximately CZK 90 billion (for example the risk of achieving the income of CZK 27 billion from the New Green Savings Programme 2014 to 2020 from trading in allowances under the EU ETS due to the market price of allowances).
- According to Directive 2012/27/EU, additional criteria must be determined for assessing the qualification (eligibility) of investment projects for state aid. It remains to be seen whether all currently planned measures will meet this requirement.
- The planned level of support determined by subsidies for eligible costs in the new programme period of the Operating Programmes and the New Green Savings Programme may not be sufficiently motivating for applicants and this may reduce the number of submitted applications.
- Possible delay in publishing invitations to the Operating Programmes in the new programme period 2014 to 2020.

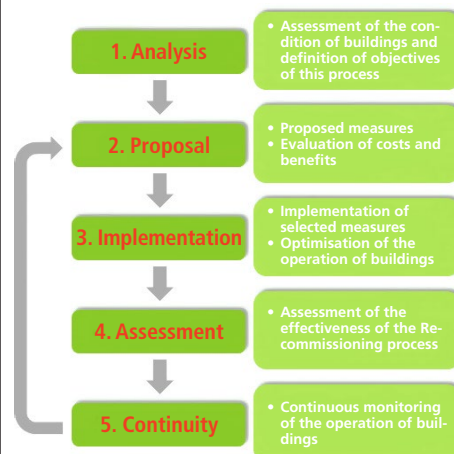
Achieving savings of 47.84 PJ by 2020 therefore may require the implementation of a compulsory scheme. This scheme would potentially be established in Stage II, i.e. from 2018.

No direct obligations for energy distributors and retailers in the CR arise from the implementation of this Directive during the first stage. The impact will be indirect as consumption by end users will decrease (especially due to thermal insulation of buildings and savings in the industry).

Miroslav Honzík, Tomáš Voříšek
miroslav.honzik@svn.cz, tomas.vorisek@svn.cz

ENERGY SAVINGS IN BUILDINGS THROUGH LOW-COST MEASURES

Approximately 40 % of all energy consumption in Europe accounts for the operation of buildings. The purpose of buildings often changes during their lifetime, yet the technology in these buildings continues to function according to the original design, which may no longer be energy efficient. The methods for addressing this issue range from small measures with a minor impact to significant changes in buildings and technologies, which are usually costly and have a long payback period. Re-commissioning is a systematic approach to seeking effective low-cost measures. This process with a short payback period is typically carried out with external assistance, considering the entire building or premises and all aspects of energy consumption.



Re-commissioning flowchart

Re-commissioning begins with an analysis of the initial situation and definition of objectives. Measures are then proposed and implemented and the achieved results are finally assessed. The continuity of this process is essential to ensure that the carried out measures may be fine-tuned or modified according to changing conditions.

Re-commissioning was developed and popularised under the European Re-Co programme. 10 project partners from 8 countries selected specific buildings and studied these in detail.

The University Centre building of the Tomáš Baťa University in Zlín was the pilot project in the Czech Republic. Although the technology operated in this relatively new building is modern, options for improving energy efficiency have been identified especially in heating and air conditioning. The university's participation in the Re-Co project facilitated the implementation of technical and organisational measures and highlighted the need for systematic optimisation of energy management in buildings.

Detailed outcomes of this pilot project, information on individual projects in other countries and outcomes of the Re-Co project are available at www.re-co.eu.

Bohuslav Málek
bohuslav.malek@svn.cz

Energy audits at the Madrid conference

Article 8 of Directive No. 2012/27/EU, on energy efficiency calls on the Member States to promote the use of energy audits and energy management. Energy audits completed in accordance with the basic principles set out by the Directive (in Annex VI) must be available to all end customers. The Member States are required to create programmes to encourage small and medium enterprises to undergo energy audits and subsequently implement the recommendations from these audits. The European Commission organised a specialised seminar on energy audits and energy management systems on 20 and 21 March in Madrid, Spain.

According to the current European legislation, large companies are required to undergo energy audits by the specified date and subsequently repeat energy audits at regular intervals (the first audit is to be completed by 5 December 2015 and then every four years). Alternatively, these companies may fulfil their obligation by implementing a certified energy management or environmental management system that includes an energy audit.

It is interesting to note that the Directive leaves the choice of qualification requirements for energy audits at the discretion of the Member States.

The main aim of this seminar was to exchange experience with practical application of both instruments in various industries of individual EU countries in connection with the new requirements of Directive No. 2012/27/EU, on energy efficiency.

Discussions arising from presentations at the seminar have shown that stakeholders are mostly disappointed with the fact that the Member States may

define the exact extent of audits and the qualification requirements for energy auditors at their own discretion. International companies and professional associations would welcome a harmonised European system.

The other frequently discussed issue was how to ensure the (required) high quality of audits and how to best encourage the implementation of audit recommendations in practice. Programmes co-financing a part of the investment costs of energy saving measures were repeatedly mentioned as successful and the current experience in the CR seems to support this finding.

It is also important to note that the ISO organisation is currently preparing a new standard in the ISO 5000x series. The new ISO 50002 will harmonise (globally) the content of energy audits. The new standard should be issued by the end of this year. Once issued, it is expected to replace the European standard EN 16247-1, which has defined the character of energy audits in the European Commu-

nities since 2012. This new ISO standard should distinguish between three different types of energy audits (according to the level of detail).

Importantly, the examination of effective energy management (through energy audits or energy management systems) will include transport in future – whether as the core or supporting function of the audited organisation. The methodology for assessing potential savings in various types of transport (transport by road, air, water, and rail) was described previously in the new European standard EN 16247-4. All presentations are available on the web pages of the organising entity – the Institute for Energy and Transport (IET) of the JRC.

<http://iet.jrc.ec.europa.eu/energyefficiency/workshop/energy-audits-and-energy-management-systems-under-energy-efficiency-directive-article-8>

Tomáš Voříšek

tomas.vorisek@svn.cz

Assessment of the implementation of energy efficiency programmes for the period 2007–2013

Energy saving projects organised in the Czech Republic during 2007–2013 will lead to the total savings of almost twenty PUs in final energy consumption in 2016. What is the share of these savings in the overall national commitment for improving the energy efficiency of our economy?

Energy Efficiency Directive, 2012/27/EU establishes a common framework of measures promoting energy efficiency in the EU with the aim of achieving the main 20% energy efficiency target by 2020 and create conditions for further improvement in future. Under Article 3 of this Directive, each Member State is required to set a national indicative energy efficiency target based on primary or final energy consumption, primary or final energy savings or energy intensity. Member States must notify these targets to the Commission in accordance with Article 24(1) and part 1 of Annex XIV. The Czech Republic has expressed its target under this article based on final energy savings of 47.84 PJ (= 13.29 TWh) by 2020, i.e. 6.8 PJ of new savings per year.

Energy efficiency programmes for the period 2007–2013 were assessed as part of the Preparation of Documentation for Energy Efficiency Action Plan, a study completed with financial assistance from the EFEKT programme (MPO) for 2013. The aim of this study was to prepare documentation for the energy efficiency action plan pursuant to the Directive on energy efficiency, 2012/27/EU. The study evaluated projects financed from EU funds, Operational Programmes of the MPO and the Ministry of Environment in particular or from sales of emission allowances (AAUs) under the Green Savings Programme.

For example, a total of 536 energy saving projects (50 projects from the 1st call, 241 projects from the 2nd call and 245 projects from the 3rd call) was analysed in detail in the Eco-energy programme organised under the Industry and Innovation Operational Programme (IIOP) alone. The following table shows aggregated annual savings in final energy consumption (FEC) in 2016 in PJs achieved through all of the above energy efficiency improvement programmes organised in the Czech Republic during the period 2007–2013.

The original national indicative energy efficiency target for 2016 according to the first Energy Efficiency Action Plan for the CR drafted pursuant to Directive No. 2006/32/EC is determined at approximately 71.43 TJ/year from the total FEC.

Achieved annual savings in the FEC expressed in PJs		
Programme type	Achieved annual savings in the FEC (PJ)	Benefit with regard to fulfilment of the commitment under Directive No. 2006/32/EC
IIOP ECO-ENERGY	8.0	11.20%
Green Savings	8.9	12.46%
EOP – priority axis 3	2.5	3.53%
Total	19.4	27.19%

The ex-ante evaluation of the above programmes has indicated that implementation of energy efficiency improvement programmes should lead to an annual energy savings of 19.42 PU. Energy savings of 19.42 PU account approximately to 27.19 % of the indicative savings target based on the first Energy Efficiency Action Plan for the Czech Republic.

These results should help to determine the potential absorption capacity of individual types of energy saving projects for fulfilling the objectives of the Directive on energy efficiency, when national Energy Efficiency Directive plans are drafted under this Directive. Member States submitted their national energy efficiency action plans by 30 April 2014 and are subsequently required to submit these plans every three years. These results may be useful to the representatives of managing authorities, programme managers and intermediary entities responsible for the implementation of energy efficiency programmes financed especially from EU funds during the new programme period 2014–2020.

Miroslav Honzík

miroslav.honzik@svn.cz



The time of LEDs has arrived

LEDs (Light Emitting Diodes) are directional lamps that can be used as a highly suitable substitute for reflector light bulbs. If you have 12V reflector light bulbs with the GU5.3/G4 socket (see the images) or reflector light bulbs for the mains voltage with the GU10 socket installed in your ceiling or furniture, you should consider replacing these with directional light diodes, the so-called LED spots. However, we recommend that you pay attention to qualitative parameters of individual LED models.

As the market currently offers a wide range of directional LED lamps, the so-called LED spots, it is highly advisable to select high-quality models. Most importantly, choosing an LED spot with a socket identical to the original reflector light bulb is essential.

The lifespan should be at least 25 thousand hours and the number of switching cycles no less than 25 thousand. Colour rendering (indicated as Ra or CRI) higher than 80 or exceeding 90 for lighting artistic displays provides outstanding quality of light. Unlike reflector light bulbs, LED spots are available in a range of colour temperatures. Pleasantly warm white tones indicated by the colour temperature between 2700 and 3200 K are the best choice. Although higher values (cool light) can be used for working environments, these types of light would not be pleasant in spaces intended for relaxation. All of these details are stated on lamp packaging.



From the left: conventional reflector light bulb and two examples of LED spots with the GU5.3 socket

Poor selection of the beam angle is the most frequently encountered problem when replacing reflector light bulbs. Wider angles (greater than 35°) are used for lighting large spaces and corridors, as narrow-angle lighting gives these spaces a gloomy appearance with a few lit areas surrounded by darkness. On the other hand, cabinets or objects are

Advice: Opt for LED spots with A+ energy class (at least with efficacy of 55 lm/W, but preferably higher) to avoid ineffective LED models.

best lit with narrow angles for more prominent lighting.

LED spots are also often suitable when replacing conventional or halogen light bulbs. When considering whether this replacement would be appropriate, it is essential to consider not only the price of the new LED spot, but also how frequently the light bulb is used. While it is worth replacing light bulbs that are used often, such as living room, bedroom or kitchen luminaires, replacement of a halogen light bulb in a pantry would not be very economical.

When replacing a bulb with an LED bulb, rules similar to those that apply to LED spots need to be considered. Opt for energy class A+, lifespan of 25 thousand hours or more, at least 25 thousand switching cycles, colour rendering 80 or more, and colour temperature between 2700 and 3200 K. In addition, a suitable type of LED bulb needs to be selected for each type of luminaire to ensure unproblematic replacement of conventional bulbs. Although many LED bulbs have the same shape as a conventional light bulb, some only emit light through the half-globe, i.e. to one side only. Installing this type of LED bulb in a matt or transparent luminaire would lead to disappointing results as the bulb does not emit light upwards. Lamps that require light emitted in all directions are best fitted with LED bulbs that light similarly to the conventional light bulb (for example with LED strips inside the bulb or other systems emitting light in all directions). On the other

hand, half-globe LED bulbs are a good choice for luminaires with light in one direction only, such as chandeliers hanging over tables, most desk luminaires, etc.

LEDs are available in an array of shapes for all imaginable applications in households. The main criterion for replacement therefore is economy and quality, rather than technological availability and de-



Examples of LED bulbs suitable as a replacement for conventional bulbs (E27), from the left: LED bulb with the typical globe and two LED bulbs with a system emitting light in all directions

sign. LED bulbs are currently an economical replacement especially in places where the light is switched on frequently. However, as the quality of LED bulbs available on the market varies greatly, it is essential to select a suitable lamp very carefully. Independent consumer tests may be helpful in this. Test results for certain LED bulbs available on the Czech and other markets are available at www.premiumlight.eu.

Advice for consumers: Indication of operating costs



Both consumers and companies select large household appliances (such as refrigerators, dishwashers, washing machines, televisions, etc.) according to a range of parameters. As these appliances tend to be costly, individual types are often compared to each other very carefully. The comparison of electricity and water consumption is easy with the well known energy labels that state all necessary information. These labels indicate not only the energy class (typically D to A+++), but also the annual electricity and water consumption. Although we usually search for appliances that save energy, we often choose less energy efficient alternatives for one simple reason – a lower purchase price. However, appliances with a lower purchase price are not always cheaper once long-term operating costs have been considered. This is why the estimated operating costs are an important parameter and this parameter can now be found on appliances offered in certain stores.

This is why the estimated operating costs are an important parameter and this parameter can now be found on appliances offered in certain stores.

The estimated annual operating costs are determined simply according to the average annual consumption stated on the energy label and the average price of electricity (or water) for households. The average prices for households are provided by the Czech Statistical Office and updated for all participating stores, twice a year. Therefore, when comparing individual appliances, you can rest assured that you are comparing operating costs calculated according to the same price. Many stores indicate operating costs over a 5 and 10-year period in addition to the annual operating costs. Customers are therefore better informed about the long-term cost of a newly purchased appliance.

The importance of operating costs is best illustrated on an example. A customer looking for a new refrigerator will probably use the appliance for the next 10 years or longer. A refrigerator with energy rating A and annual operating costs of CZK 1176 is on sale for CZK 8000, while a new energy efficient type with energy rating A+++ and annual operating costs of CZK 680 is available for CZK 11000. This means

that the energy efficient model would save almost CZK 500 a year compared to the cheaper model. The investment into an energy efficient refrigerator would repay roughly in six years and after the initial six years, the customer would be saving not only the environment, but also money. The indication of operating costs allows customers to compare the actual cost of individual appliances relatively simply and base their purchase on an informed choice.



The indication of operating costs is promoted by the European non-commercial project YAEI, which is co-financed by the European Union. Detailed information, news and a list of all partner stores and chains are available on the project web pages: www.appliance-energy-costs.eu

Michal Staša, michal.stasa@svn.cz
www.appliance-energy-costs.eu

Information leaflet: www.appliance-energy-costs.eu/download-library/appliance-energy-cost-indication-leaflet

DEFECTS IN PRESENTATION OF ENERGY PERFORMANCE OF PRODUCTS ON THE INTERNET

At the beginning of 2014, a few hundred stores from 13 EU countries were inspected with a focus on energy rating labels and energy efficiency of appliances. The outcome of this inspection is an overview of the main defects in the sales of appliances in respect of the availability of information on their energy performance.



The MarketWatch project research has shown a certain lack of fulfilment of retailers' obligations to provide information on energy efficiency to online shoppers seeking this information for refrigerators, televisions and other household appliances.

Research of 111 online retailers and 114 conventional stores in 11 countries carried out at the end of 2013 and the beginning of 2014 has found that the details declared on the energy labels were incomplete or incorrect on average in 62 percent of online products. Listing information in the incorrect order, which could be confusing to consumers, was the most frequently encountered problem.

The results for conventional stores were better, with 12 percent of products on average without any energy label. These results also show an improvement compared to similar studies from previous years. Televisions and air conditioning units were the most problematic products, mostly because retailers did not attach the compulsory labels, modified these labels or placed them incorrectly. Refrigerators, dishwashers and washing machines were mostly labelled correctly.

For further information see: www.market-watch.eu/shops/

Juraj Krivošík
juraj.krivosik@svn.cz

CombinES Comprehensive Renovation of Buildings

*In order to fully exploit the energy saving potential, a building renovation should ideally comprise both of thermal envelope measures and technology measures and energy management. To this end, SEVen, The Energy Efficiency Center, partner of the CombinES project in the Czech Republic, has prepared the first **detailed proposal on how to successfully combine these two types of measures**. The proposed "CombinES comprehensive renovation" is a special case of comprehensive renovation, where the **thermal envelope part** of the renovation is subsidized and the **technology part** of the renovation is implemented with the intervention of an energy service company (ESCO) through the Energy Performance Contracting model (EPC). Conference on comprehensive renovation will be held in November in Prague.*

The main advantage of such approach is that it allows **inter-optimizing** timing and choice of the measures when implementing both groups of measures. This leads to **optimal result bringing maximum energy savings** under the given volume of investment costs. Furthermore, if carefully prepared the interventions in the building can be made as short as possible and the least interfering with the regular operation of the building.

On the other hand, organization of comprehensive renovation is demanding and requires detailed

planning, preparation and implementation in order to achieve optimum results. Comprehensive renovation also brings additional costs for organization and coordination of both parts; however, this can be well outweighed by greater economic savings resulting from higher energy savings.

The current proposal suggests that the "CombinES Comprehensive Renovation" is implemented in two separate procurements. Such approach allows to clearly distinct the rules and principles of tender evaluation for both thermal envelope and technology measures. It also reflects the fact that the preparation and implementation of technology part and thermal envelope

part of the renovation are two very different processes. Last, but not least, two suppliers can be selected, each of them specialised in a different area of the project.

For more information and full report, please contact your local CombinES project partners to be found on the CombinES project websites: www.combines-ce.eu, which is financed by Central Europe.

On 27th of November, conference on support and development of EPC will be organized in Prague.

Vladimír Sochor a Michaela Valentová
If you would like to receive news on this topic please write to vladimir.sochor@svn.cz

European Code of Conduct established quality standards for Energy Performance Contracting

Energy Performance Contracting (EPC) is an energy service allowing the client to save energy without capital costs as the investments are being repaid directly from the saved energy costs. There is a great potential for EPC projects within the EU, but most of it is not utilised. This sounds like a paradox in the time of financial crisis when the organisations – especially in the public sector – lack the necessary capital to renovate their buildings.

After a year of negotiations with interested stakeholders, European Code of Conduct has been finalized in July 2014 to create one common European quality standard for EPC projects. Provided that a significant number of the energy service companies (ESCOs) sign the Code of Conduct and will adhere to its basic principles, the transparency and trustworthiness of EPC markets will increase. A survey among the ESCOs and financial institutions showed that major barriers towards the use of EPC method include low confidence in EPC providers, complexity of the EPC method and low demand on the client side.

The key success factor is that EPC providers understand that they will benefit from adhering to a set of rules for the EPC business, which will result in an increase in trust on the client side and thus an increase in demand for EPC projects. Code of Conduct gives also an opportunity to the governments, being major potential EPC clients, to use it as a set of minimum requirements for the EPC projects conducted on their property. For example, the key characteristics of an EPC projects is that the EPC provider guarantees a contracted level of the energy savings and if these are not achieved he has to compensate the

shortfalls in cost savings to the client. This is one of the main principles of the Code of Conduct, which helps to make it clear to the client that they should require such guarantees from the companies.

European Code of Conduct will be presented at the upcoming national workshops held in 20 participating EU countries. The Code of Conduct is available for download on the Transparens project website www.transparens.eu, where you will find also the EPC databases summarising the latest results of the survey on the European EPC markets.

Jana Szomolányiová
jana.szomolanyiova@svn.cz

Sign up for the Transparens newsletter at
jana.szomolanyiova@svn.cz, www.transparens.eu



New publications relating to the EPC method

The Association of Providers of Energy Services (APES) strives to promote the awareness of energy services and especially of the application of the EPC method (Energy Performance Contracting). In 2013, the Ministry of Industry and Trade joined the association's efforts and supported three new publications relating to the EPC method under the EFEKT programme.

Firstly, the methodology for preparing and implementing energy saving projects using the EPC method in organisations from the public sector has been updated. As the current version of the methodology reflects the latest legislative and procedural conditions for applying the EPC method, it is set to become a suitable guide for contracting entities in the public sector when preparing these types of projects.

The second publication examines the implementation of requirements under Directive No. 2012/27/EU, on energy efficiency, and Article 18 of this Directive. This article sets out the requirements and obligations relating to energy services and other obligations that should be fulfilled in this context.

Finally, the third publication proposes a system for certifying energy service providers. The establishment of this system has been recommended to EU Mem-

ber States in the Energy Efficiency Directive. The aim was to draft a system for verifying the quality of energy services provided by individual companies in the Czech Republic as the provision of these services is likely to expand and ensuring high quality of the provided services is essential. If the proposal of this system is approved, its implementation will be underway.

All three publications in Czech language may be downloaded from the APES website (www.apes.cz) and soon also from the web pages of the Ministry of Industry and Trade.

Vladimír Sochor
vladimir.sochor@svn.cz



Asociace poskytovatelů energetických služeb



OUTCOMES OF TESTING 50 MODELS OF WASHING MACHINES

Fifty models of automatic washing machines were tested under the ATLETE II project in order to check the compliance with energy efficiency requirements and the accuracy of details stated on the energy labels. Ten of the tested models were available on the Czech market.

The test results in all cases confirmed correct details of the declared energy rating and energy consumption. The total declared energy consumption was even higher on average than the actually measured energy consumption.

However, the tests have revealed a number of errors in information provided to consumers, and in the format and availability of this information. Omitting the compulsory indication of the standard programme used to measure the declared energy consumption was one of the frequently identified issues.

Comprehensive test results for individual models are available on the project website: www.atlete.eu/2/final-results.

-jk-



EKIS

Energy consulting and information centre

You can consult with us on various issues relating to energy efficiency, power engineering, building materials, heating, lighting, appliances, etc., **free of charge**. You can submit your queries online at www.svn.cz/ekis.

Latest development in legislation governing the energy efficiency of buildings in Kazakhstan and Kyrgyzstan

Energy efficiency is an increasingly significant topic not only within the European Union, but also in other regions including Central Asia. However, the key energy efficiency issues in the EU (cost optimum, nZEB, energy management, energy performance contracting) are very different from the current major issues in Central Asia.



Conference on Energy Efficiency Legislation in Bishkek, February 2014.

Increasing comfort for the general population, ensuring stable supply of electricity and heat, and saving domestic energy sources are the main motivating factors for implementing energy efficiency legislation in Kazakhstan and Kyrgyzstan. Increasing energy prices are not the key factor promoting the interest in energy efficiency in this region because reduction in energy consumption does not lead to motivating savings in energy costs for most end consumers. Both countries have strived to implement especially the EPBD Directive (Energy Performance

of Buildings Directive) and the subsequent EPBD II through laws, decrees and standards due to the specific nature of their motivation to save energy. The current level of implementation of the energy efficiency legislation shows these two countries to be the leaders in energy efficiency in their region.

Ad-hoc assistance with the aim of comparing the current status of implementation of the energy efficiency legislation in these two countries and draft recommendations for both countries was provided under the ESIB project (Energy Saving Initiative in

the Building Sector). Conclusions of this assistance were presented at an international conference on energy efficiency legislation held in the capital of Kyrgyzstan, Bishkek, and attended by representatives of ministries and universities responsible for developing energy efficiency legislation from 11 countries.

What is the current status of implementation?

Both countries have adopted energy savings acts. Energy efficiency legislation has been fully adopted in Kazakhstan and the country currently focuses on practical steps arising from the adopted legislation, especially with regard to energy audits and certificates of energy performance of buildings. In addition, ten training centres for energy auditors have been established and are managed by state administration bodies.

In Kyrgyzstan, a private entity has drafted three decrees based on the energy savings act (these are currently in the stage of approval) and six relating technical standards. The adopted standards focus on parameters of energy efficiency and the generation of certificates of energy performance of buildings.

What challenges lie ahead for Kazakhstan and Kyrgyzstan?

The recommendations that have come out of the ad-hoc assistance focus on the alignment of the newly drafted acts and decrees at the horizontal level (building act, energy act) and at the vertical level (mutual alignment of the new acts and standards). Both of these processes are long-term and continuous efforts for a period of at least five years.

Specific objectives include creating a binding methodology for energy audits, certificates of energy performance of buildings, defining responsibilities of key institutions and establishing support mechanisms for the introduction of certificates and audits in both countries.

Jiří Karásek
jiri.karasek@svn.cz

MOBILE APPLICATION ECOGATOR



Starting from August 2014, a unique application for smart phones will be available to provide consumers with information on selected appliances. Besides informing users whether a particular model is energy efficient, the application will also offer many interesting hints on using the appliance to save energy and consequently operating costs. For more information on the application and other useful advice visit www.ecogator.eu or social media: www.facebook.com/uspornespotrebice or twitter.com/uspornespotrebice.